AEGON NV
Form 20-F
March 22, 2019
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

-

FORM 20-F

-

(Mark One)

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR(g) OF THE

SECURITIES EXCHANGE ACT OF 1934

OR

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE

SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2018

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE

SECURITIES EXCHANGE ACT OF 1934

For the transition period from to

OR

SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE

SECURITIES EXCHANGE ACT OF 1934

Commission file number 1-10882

-

Aegon N.V.

(Exact name of Registrant as specified in its charter)

-

Not Applicable

(Translation of Registrant s name into English)

The Netherlands

(Jurisdiction of incorporation or organization)

Aegonplein 50, PO Box 85, 2501 CB The Hague, The Netherlands

(Address of principal executive offices)

J.H.P.M. van Rossum

Executive Vice President and Head of Corporate Financial Center

Aegon N.V.

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Jurgen.vanRossum@aegon.com

(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act.

Title of each class	Name of each exchange on which registered
Common shares, par value EUR 0.12 per share	New York Stock Exchange

Securities registered or to be registered pursuant to Section 12(g) of the Act.

Not applicable

(Title of Class)

Not applicable

(Title of Class)

Indicate the number of outstanding shares of each of the issuer s classes of capital or common stock as of the close of the period covered by the annual report: 2,095,648,244 common shares and 585,022,160 common shares B

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act

Yes No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities

Exchange Act of 1934. Yes No

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirement for the past 90 days. Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer or a non-accelerated filer. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act

Large accelerated filer Accelerated filer Non-accelerated filer Emerging growth company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

The term new or revised financial accounting standard refers to any update issued by the Financial Accounting Standards

Board to its Accounting Standards Codification after April 5, 2012.

Indicate by checkmark which basis of accounting the registrant has used to prepare the financial statements included in this filing

U.S. GAAP International Financial Reporting Standards as issued by the International Accounting Standards Board Other

If other has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.

Item 17 Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

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Welcome to Aegon s 2018 Annual Report on Form 20-F

To prosper, we believe companies must create long-term value for the societies in which they operate. Aegon creates value in several ways: as a provider of financial services, as well as a responsible employer and business partner. We also make significant social and economic contributions through returns to shareholders, tax and support for local communities, as well as through investments both for our own account and on behalf of our customers. Our aim is to be a responsible corporate citizen, fully aware of the impact we have on our stakeholders and on society as a whole.

This is Aegon s Annual Report on Form 20-F for the year ending December 31, 2018. It is the Company s first fully integrated report. Aegon s aim in producing this report is to provide a clear, balanced overview of the Company s operations, strategy and performance. In this report, we look at the trends and challenges our business is facing, at our strategy, at how we create and share value and at how we safeguard this value through a responsible approach to business. This report also contains the 2018 consolidated financial statements and Company financial statements for Aegon N.V. from page 98.

This document contains Aegon s Annual Report as filed on Form 20-F (also referred to in this document as Annual Report) with the United States Securities and Exchange Commission (SEC).

We have prepared this report in accordance with the International Financial Reporting Standards, as issued by the IASB, as well as the International Integrated Reporting Council (IIRC) framework and reporting standards issued by the Global Reporting Initiative (GRI). This report also conforms to relevant reporting requirements under the Dutch Corporate Governance Code and Dutch Civil Code (Part 9, Book 2).

Aegon prepares its consolidated financial statements in accordance with IFRS and with Part 9 of Book 2 of the Netherlands Civil Code for purposes of reporting with the U.S. SEC, including financial information contained in this

Annual Report on Form 20-F. Aegon s accounting policies and its use of various options under IFRS are described in note 2 to the consolidated financial statements.

Other than for SEC reporting, Aegon prepared its Annual Accounts under International Financial Reporting Standards as adopted by the European Union, including the decisions Aegon made with regard to the options available under International Financial Reporting Standards as adopted by the EU (IFRS-EU). IFRS-EU differs from IFRS in respect of certain paragraphs in IAS 39 Financial Instruments: Recognition and Measurement regarding hedge accounting for portfolio hedges of interest rate risk. Under IFRS-EU, Aegon applies fair value hedge accounting for portfolio hedges of interest rate risk (fair value macro hedges) in accordance with the EU carve out version of IAS 39. Under IFRS, hedge accounting for fair value macro hedges cannot be applied to mortgage loans and ineffectiveness arises whenever the revised estimate of the amount of cash flows in scheduled time buckets is either more or less than the original designated amount of that bucket.

This information is prepared by revising the hedge accounting impacts that are applied under the EU carve out version of IAS 39. Financial information under IFRS accordingly does not take account of the possibility that had Aegon applied IFRS as its primary accounting framework it might have applied alternative hedge strategies where those alternative hedge strategies could have qualified for IFRS compliant hedge accounting. These decisions could have resulted in different shareholders equity and net income amounts compared to those indicated in this Annual Report on Form 20-F.

A reconciliation between IFRS-EU and IFRS is included in note 2.1 to the consolidated financial statements.

If you have comments or suggestions about this report, please contact our offices in The Hague. Contact details may be found on page 436.

References

Throughout this document, Aegon N.V. is referred to as either Aegon or the Company . Along with its member companies, Aegon N.V. may be referred to as Aegon Group or the Group . For the purposes of this report, member companies shall mean, with respect to Aegon N.V., those companies consolidated in accordance with Dutch legislation relating to consolidated accounts.

References to NYSE and SEC relate to the New York Stock Exchange and the US Securities and Exchange Commission respectively. Aegon uses EUR and euro when referring to the lawful currency of European Monetary Union member states; USD and US dollar when referring to the lawful currency of the United States and GBP , UK pound and pound sterling when referring to the lawful currency of the United Kingdom.

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2018 was another year of positive change at Aegon. We have continued to improve our service to millions of customers, continued to simplify and modernize our organization and capitalized on new growth opportunities.

These initiatives stem from a clear purpose and culture fundamentals which define why we exist and will continue to exist, and grow, long into the future. Our purpose is clear, to help people achieve a lifetime of financial security. That requires smart planning, promoting healthy lifestyles and offering the right solutions at every stage of our customers lives. We are clear in the responsibility we have for our customers. We have put forward a robust approach to securing the financial security of our customers retirement and promoting healthy aging in our society.

Serving customers

Our services have never been more necessary than it is today. According to the World Health Organization, over 2 billion people will be over 60 years of age by 2050 almost a quarter of the world s population. This demographic change poses far-reaching challenges for society, governments, business and Aegon. One of the key shifts will be who provides that financial security during retirement. The responsibility is shifting fast from governments and employers to individuals. Though many people are neither equipped with the knowledge nor the resources to protect their financial futures. It is our responsibility to help customers make the right choices.

But it does not end there. There is a clear relationship between well-being and the environment we live in. Toward the end

of 2018, Aegon was entrusted to manage and administer more than EUR 800 billion of investments on behalf of our customers. We are doing so, fully integrating environmental, social and governance factors into our investment analysis. Further to that, we are actively engaging with companies in our investment portfolio to improve their sustainability performance.

Our annual retirement research shows that there is a clear connection between wealth and health. We have therefore taken our commitment one step further, supporting people to achieve prosperity and health through all stages of their lives. We are a vocal participant in debates about the retirement challenge and share our knowledge and expertise with the governments and international organizations we work with. Meeting the dynamic needs of our customers and society, responding to new competition, technological and regulatory change, shapes our DNA. We strive to be future fit: by acting as one in an agile manner, being accountable, and above all, being customer centric. This has led to considerable strategic, operational and financial changes across our company, enabling us to enhance our products and services to meet the evolving needs of our almost 29 million customers worldwide.

There is more work to be done. Our Net Promoter Score (NPS), a measure that captures all aspects of our relationship with our customers, showed a decrease in 2018 compared with

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5 2018 at a glance **Letter from our CEO**

a strong increase the year before. The result only strengthens our commitment to continue to enrich the quality, solutions and support we provide to customers.

Financial results and new medium-term targets

Financially, 2018 was challenging. Markets significantly declined toward the end of the year and this directly influenced the value of our customers investments, which impacted results of our own administration and services businesses. Even so, we further strengthened our capital position. We raised our full year dividend per share based on our strong capital position and the confidence that we can continue the sustainable growth of capital generation. We have achieved two out of three financial targets for the period 2016-2018: realizing cost savings of EUR 355 million and returning EUR 2.1 billion of capital to shareholders. We made significant progress on our third target, a return on equity of 10%. We have focused on increasing capital generation across our units, providing sustainable and diversified remittances to the Group. This gives us the capacity to invest a significant portion back into existing businesses and to drive future growth. In addition, steps to significantly reduce our leverage ratio in recent years have lowered funding expenses and increased our financial flexibility.

We have announced new financial targets for the period 2019-2021. Building on the successes of the previous three-year period, our focus remains on strong capital generation and providing shareholders with attractive returns. Our targets are underpinned by an active portfolio management of our various businesses, which can be grouped into three distinct strategic categories. These strategic categories are differentiated from each other based on the maturity of our businesses. This will allow us to unlock the full potential of our large customer base and market positions while leveraging our capabilities and propositions where they are most beneficial. The first category Manage for Value includes mature, at-scale businesses, which are important sources of capital and earnings for many years to come. We carefully manage their financial and operational risks to ensure that the important cash flows we generate from these businesses are optimized. In the Drive for growth category, we have grouped businesses which are at scale and have strong market positions with attractive, profitable long-term growth potential. This is where the vast majority of our investments will be directed. Propositions in this category are mostly digital or platform-based, with an emphasis on fee income and protection coverage, while focusing on broader and longer relationships with our customers and advisors. Finally, we distinguish our Scale-up for the future businesses with meaningful market opportunity, which help drive innovation. These businesses bring new platforms, new technology and new business models, which can be leveraged across the company.

Simplification and growth

We continue to simplify our portfolio of businesses and lay the foundations for sustained growth in the years ahead.

Specific steps in 2018 included rationalizing our geographical footprint, entering partnership agreements, upgrading our technology and the consolidation of our administration systems. Actions like these have allowed us to remove expenses from our operations, while at the same time freeing up resources to focus on further improving customer experience and reduce time-to-market. We finalized the sale of the Irish operation and divested our businesses in the Czech Republic and Slovakia. Rationalization helps to create the space to focus on higher-growth markets and business lines. In July, for instance, we expanded our successful partnership with Banco Santander in Spain. The new agreement gives Aegon access to an additional potential client base of four million customers. In September, Aegon

the Netherlands acquired Robidus, consistent with our strategic objective to expand our position in income protection and grow our fee-based businesses.

In the US, Transamerica entered into an agreement with Tata Consultancy Services to administer the company s US insurance and annuity business lines. Involving over 10 million policies, this transaction offers those customers a unique and enhanced digital platform. Transamerica will see a significant reduction in expenses, and an acceleration in growth through faster product development and state-of-the-art technology. The growth opportunities in the US are in three core areas: integrated solutions to customers in the workplace market, new innovative and fairly priced products for individuals and the level of advice and guidance we offer to our customers. Offering a full suite of products gives us a distinctive competitive advantage. Supporting future growth through modernization and the emphasis on serving the customer has also been a feature of changes elsewhere. In the UK, we strengthened our existing partnership with Atos by signing a 15-year contract to service and administer existing business. This will further improve customer service for around 1.4 million people. In the Netherlands, we are consolidating the administration of pension products into the systems of our subsidiary TKP.

On behalf of Aegon s Management Board, I would like to express my sincere thanks to everyone who has contributed to our success as a company over the last 12 months. In particular, I want to acknowledge and say thank you to our customers, for the trust they continue to place in us; our shareholders, for their support and confidence; and finally, our team of over 26,000 colleagues whose dedication to serving our customers is second to none.

Alex Wynaendts

Chief Executive Officer and Chairman of the Executive Board of Aegon N.V.

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Main events of 2018

2018 was an important year for Aegon. We expanded distribution, strengthened our capital position and signed new service partnerships on policy administration in the US and UK.

First quarter

Transamerica transfers the administration of its insurance and annuity businesses to Tata Consultancy Services (TCS).

Transamerica launches a new USD 100 million US affordable housing fund. The fund is the first of its kind and will finance home loans across 13 states.

Aegon introduces its new Goed met Geld or Mastering Money financial awarer program in the Netherlands.

Second quarter

Aegon Asset Management sets up a new EUR 120 million innovation fund in the Netherlands. The fund will invest in around 85 small and medium-sized Dutch companies.

Aegon completes the sale of Aegon Ireland for EUR 195 million to Athora Holding.
William Connelly becomes Chairman of Aegon s Supervisory Board. He takes over from Rob Routs, who announced his retirement as Chairman in 2017.

Shareholders approve the reappointment of Supervisory Board members Corien Wortmann and Robert Dineen for another four years. Both joined the Board in 2014.

Aegon decides to exclude investments in tobacco. The Company will sell or run off approximately EUR 500 million in current tobacco investments.

Aegon s Center for Longevity and Retirement releases its latest report, calling for a new social contract for pensions and retirement.

Aegon is among investors pledging USD 350 million to support the Dementia Discovery Fund, dedicated to finding new treatments for the disease.

Third quarter

Aegon announces plans to expand its partnership with Spain s Banco Santander. The plans give Aegon access to another four million potential customers in Spain.

Aegon buys Robidus, a leading income protection services provider. The acquisition will strengthen Aegon s existing income protection services for Dutch employers.

Aegon agrees to divest the last of its US life reinsurance business to SCOR Global Life.

Aegon agrees to sell its businesses in the Czech Republic and Slovakia to NN Group. The sale closed in January 2019.

Aegon US subsidiaries reach a settlement with the SEC over concerns relating to certain investment models.

Fourth quarter

Transamerica announces it has settled a US class action suit challenging rate adjustments on universal life insurance policies.

Aegon UK signs a new 15-year contract with Atos. The digital services provider will take over the administration of policies belonging to around 1.4 million customers.

CEO Alex Wynaendts tells a conference in Munich that the Netherlands waited too long before bringing in an individualized pension system.

Aegon decides to exclude investments in oil sands because of concerns over environmental damage. The decision was announced publicly in February 2019.

Aegon generates an additional USD 1 billion in capital following the merger of its Arizona-based variable annuities captive with Transamerica Life Insurance Co.

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Performance highlights 2018

For full definitions of non-financial data used in these charts, see page 412.

1 Figures are based on a new definition of adjusted shareholders equity based on IFRS as adopted by the EU, which will no longer be adjusted for defined benefit pension plans. This new definition was introduced in the second half of 2018 and brings Aegon more in line with peers and rating agencies. Prior figures have been recalculated according to the new definition (refer to page 107 for details).
2 Normalized capital generation after Holding expenses, excluding market impacts and one-off items.

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8 Who we are and what we do **Aegon today**

Aegon today

Global presence

Main brands

Aegon

Australia, China, Hong Kong, Hungary, Indonesia, Japan, Netherlands, Poland, Romania, Spain, Thailand, Turkey, UK

Transamerica

Bermuda, Hong Kong, Singapore, US

Aegon Asset Management

Germany, Hong Kong, Hungary, Japan, Netherlands, Spain, UK, US

Joint ventures and associates

Brazil, China, France, Hong Kong, India, Indonesia, Japan, Malaysia, Mexico, Netherlands, Philippines, Portugal, Singapore, Spain, Thailand, Vietnam

The Aegon brand operates as Aegon Insights in Australia, China, Indonesia, Japan, Thailand and Hong Kong.

The Transamerica brand operates as Transamerica Life Bermuda in Hong Kong, Singapore and Bermuda.

Aegon Asset Management operates under the Aegon brand in the US, the Netherlands, Hungary, Spain, Germany, Hong Kong and Japan, under the Kames Capital brand in the UK and under TKP Investments in the Netherlands.

We also operate under several other brands, including: Knab, TKP, Robidus and Nedasco (Netherlands); World Financial Group (US, Canada); Origen Financial Services (UK); Futuready (Indonesia); Transamerica Ventures and Blue Square Re (global).

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Aegon can trace its roots back to the first half of the 19th century. Nearly 175 years later, we have businesses in more than 20 countries, serving 28.5 million customers worldwide, and with EUR 316 billion in assets under management.

Where our customers are

(total number of customers by location, in millions, end-2018)

Where our employees work

(by reporting segment, end-2018)

Where our earnings come from

(underlying earnings before tax, in EUR million)

How we invest

(assets under management by asset class[2], end-2018)

[1] Total number includes Holding and others (not shown in chart).
[2] Figures relate to Aegon Asset Management only.

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Our businesses

Aegon is an international financial services group. We provide life insurance, pensions and asset management. Our main operations are in the US, the Netherlands and the UK. We also have significant businesses in Southern and Eastern Europe, Asia and Latin America.

Our purpose

As a company, our purpose is to help people achieve a lifetime of financial security. This purpose is particularly relevant in today s world as people live longer, healthier lives, new technologies are transforming the way we work, and it is clear that, in many countries, state and company pensions are no longer enough to maintain living standards.

Our products and services

Aegon s businesses offer a range of financial products and services to help customers throughout their working lives and into retirement. These include life insurance, accident & health cover, pensions and retirement plans, annuities, savings products and investments. In some countries, we also offer mortgages, home and car insurance. We insure customers lives, protect their families and help them save for education and retirement. We help them buy new homes, and manage their long-term investments. When they retire, we provide a stable income. We also help our customers meet care costs a growing concern in many parts of the world and ensure, that when they are gone, their families future is secure. In retirement particularly, we see a connection between health and long-term financial security.

Our markets

We have four main reporting segments: Americas, Europe1, Asia and Asset Management. Of these, the Americas is by far the largest, accounting for nearly 60% of our annual earnings. Our holding company, Aegon N.V., is headquartered in The Hague, the Netherlands. Aegon Asset Management manages assets on behalf of third parties and Aegon s own businesses, covering all major asset classes, including fixed income, equity and real estate. We also have Transamerica Ventures our corporate venture capital firm, which invests in innovative, new technology companies. Our businesses operate locally through two main brands: Aegon (mainly in Europe and Asia) and Transamerica (mainly in the US).

In many countries, we have joint ventures; these give us access to local markets and expertise. In Spain and Portugal, for example, we offer products through Banco Santander s more than 3,000 bank branches. We also have significant joint ventures in China, India, Japan, France, the Netherlands, Brazil and Mexico.

For further details on our businesses, see our Business Overview on pages 336-368.

With businesses across the Americas, Europe and Asia, we have the advantages of a global group. We can share talent, knowledge, processes and technologies. We are also more efficient with our capital: alone, our businesses would not be able to diversify risk, and as a result would need to hold significantly more capital. Size can also be

important in the investment industry our global presence is the basis for our growing asset management business.

Distribution

In many markets, to distribute our products, we work with intermediaries. These include brokers, agents, banks, employee benefit consultants and independent financial advisors. This multi-channel approach allows us to reach more customers. Increasingly, our products and services are sold direct to customers and companies, including via online platforms. We now have nearly 7.7 million digitally connected customers. Aegon also owns distribution businesses; these include Origen Financial Services in the UK and World Financial Group, which operates in the US and Canada.

Regulation

We operate in a highly regulated industry. Over the past decade, regulation has become increasingly complex. Much of this new regulation was influenced by the 2008-2009 financial crisis. Since the crisis, regulators have emphasized the need for more effective consumer protection. As a result, we have seen tighter controls on product design, distribution and reporting. The biggest change was the introduction of new capital rules in 2016 under Solvency II; an insurer s Solvency II ratio has now become an important measure of its financial strength.

At the same time, we have seen new rules on data privacy both in Europe with the EU s General Data Protection Regulation (GDPR) and with new cyber security legislation in New York and California. Meanwhile, PSD2 (the new EU Payment Services Directive) will bring in more open banking, allowing consumers to share their personal financial data electronically. We are also seeing further efforts to open up Europe s financial services market, via MiFID II, as well as changes in financial reporting rules with IFRS 17 on accounting for insurance contracts (due for

[1] Europe includes Aegon s operations in the Netherlands, UK, Central and Eastern Europe, Spain and Portugal.

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11 Who we are and what we do **Our businesses**

	Americas	Europe	Asia	Asset Management
Locations	US, Canada, Brazil, Mexico	Netherlands, UK, Hungary, Poland, Turkey, Romania, Spain, Portugal	Singapore, Hong Kong, Japan, China, India, Indonesia, Malaysia, Thailand, Vietnam, Philippines, Australia and Bermuda[1,2].	US, UK, Netherlands, Hungary, Spain, Germany, France, China, Hong Kong, Japan
Products and services	Life insurance Accident & health insurance Individual investment accounts Annuities Retirement plan services Stable value solutions Retail and institutional investment management solutions	Life insurance Accident & health insurance Savings Individual investment accounts Annuities Retirement plan services Group pensions Property & casualty insurance Mortgage loans Retail and institutional investment management solutions Bank accounts	Life insurance Accident & health insurance Annuities Marketing and distribution services	Retail and institutional investment management solutions
Distribution	Brokers (e.g. independent financial advisors, broker-dealers, bank arm) Independent agents (including owned or closely affiliated)	Brokers (e.g. independent financial advisors) Agents Employee benefit consultants	Brokers (e.g. independent financial advisors, bank arm) (Independent) agents Bancassurance	Aegon affiliated companies Direct B2B (non-affiliated) Banks, other financial institutions

	Employee benefit consultants Bancassurance Self service/online, call/advice centers	Bancassurance Self service/online, call/ advice centers	Self service/online, call/advice centers	and (their) investment platforms (non-affiliated)
Joint ventures and associates	Aegon Mongeral, Brazil (50%) Akaan Aegon, Mexico (50%)[3]	Santander, Spain & Portugal (51%) Liberbank, Spain (50%) Amvest, the Netherlands (50%)	Aegon Sony Life, Japan (50%) Aegon THTF, China (50%) Aegon Life, India (49%) GoBear, various locations (50%)	La Banque Postale Asset Management, France (25%) Aegon Industrial Fund Management Company, China (49%)

1 Bermuda relates to Transamerica Life Bermuda.
2 Asia includes locations of our joint venture GoBear. Financial results of GoBear are reported under Holding and other activities.
3 Akaan Aegon operates under the brand name Akaan Transamerica.

introduction in 2022). Changes in regulation can have a profound effect not only on the way we manage our business, but also on our profitability and the products and services we offer.

Sources of revenues and earnings

Most of our revenues come from three sources: premiums from customers, investment income, and fees and commissions. Our earnings come from fees, spreads, and technical profits.

- Earnings from spreads come from the difference between investment income earned and interest credited to customers.
- Technical earnings derive mainly from the difference between risk premiums received from, and claims paid to, customers.
- Earnings from fees come from charges to customers relating to deposits and assets under management, or from services provided by Aegon (net of fees paid by the Company to third-party asset managers or service providers).

In recent years, we have concentrated more on fee-based business, and less on spread-based business. This is mainly in response to low interest rates and increased capital requirements. This shift makes the source of our earnings more balanced and diverse, and makes our capital base more predictable and less at risk from fluctuations in world financial markets. There is no material seasonality to our sales or income,

though we usually experience an increase in mortality claims in the first quarter (which is winter in our main markets).

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(in EUR million)

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Our business model

Aegon s basic business model has four steps: product development and pricing, distribution, investments and payment of claims and benefits. This model drives value creation for our customers, employees, business partners and investors, as well as for the wider community.

Product development and pricing

We begin with customers. We assess their needs, and develop products and services that meet those needs. Next we estimate and price the risk involved for us as a financial services provider.

Distribution

Our products and services are then branded, marketed and sold. We offer products and services via intermediaries, like brokers, banks or financial advisors. We also sell directly to our customers.

Investments

In exchange for products and services, customers pay fees or premiums. On certain pension products, savings and investments, customers make deposits. By investing this money, we make returns for our customers.

Claims and benefits

From premiums, deposits and investment returns, we pay customer claims and benefits, cover our expenses, and make profits for our shareholders.

Customers also make regular withdrawals from pensions and savings products.

Ownership

Aegon N.V. shares are listed in both Amsterdam (Euronext) and New York (NYSE). More than three-quarters of our shareholders are located in our three main markets: the US, the Netherlands and UK. Shareholders meet at least once a year at our offices in The Hague. Aegon s largest shareholder is Vereniging Aegon, an association whose purpose is to protect the long-term interests of both Aegon and its stakeholders. Vereniging Aegon currently holds 32.64% of voting rights in the Company. However, in the absence of a Special Cause, Vereniging Aegon may only cast one vote for every 40 common shares B it holds. For more details, see page 43.

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Value creation

Long-term value creation

Our business creates value for our stakeholders and society. Because of the nature of this business, value created is often financial, but it may also be social, economic or environmental:

Through our products and services, we offer customers protection. We pay claims and benefits, provide returns on savings and investments, and help build long-term financial security.

For our employees, we offer training in new skills and opportunities for career development. We pay salaries and other social benefits, and provide a safe, fulfilling environment in which to work.

For our business partners, we pay fees to brokers, financial advisors and other intermediaries1. We also invest in our joint ventures and partnerships. We pay reinsurers and suppliers for their goods and services.

Our investors receive returns on their investments through regular dividends, share buy-backs and interest payments; they may also gain financially if our share price increases.

For the wider community, we pay fair taxes and provide employment. We also support local communities through donations and volunteering. We take a responsible approach to investments, and contribute to society s current debate on retirement, pensions and healthy aging.

Social and economic role of financial services

Our businesses make a significant social and economic contribution. Insurance, in particular, strengthens social stability by protecting people, property and assets. Financial companies are also significant long-term investors in the economy, funding public and private sectors, creating new jobs and driving business growth. More broadly, financial services allow individuals and businesses to take risks, as well as plan and invest for the future.

Our value creation model

To operate our businesses, we need resources. We need customers; we need investments; we need a workforce and business partners. These resources may be financial , human or intellectual . The chart on page 14 shows our value chain: how our business uses these resources (or capitals) to create long-term value for our stakeholders and the wider community.

[1] In markets where we no longer pay commissions because of local regulations, we enable customer payments for financial advice to brokers and other intermediaries through the sale of our products and services.

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Our value chain

[1] This figure relates to financial capital, but has been used as a proxy for social capital (creating a healthier environment).

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Explanatory note:

This chart is based on the International Integrated Reporting Council s IR framework. Each capital represents a store of value, which companies use and transform through their business activities. In this process, value may be created or depleted. For the purposes of this value chain, we have chosen the capitals most relevant to our business (financial, human and intellectual, and social and relationship). In the chart, the process is shown from the perspective of Aegon s business. Both natural and manufactured capital are also part of the IR framework.

Neither, however, is directly relevant to Aegon s core businesses (as a services company, we do not use natural or manufactured products in our business, though of course we may affect the value of both through our investments). For more information on the IR framework, see www.integratedreporting.org.

Definitions:

Financial capital represents the funds to which Aegon has access. This includes debt and equity finance. **Human and intellectual capital** refers to individual knowledge, skills and capacities in Aegon s workforce, as well as the company s institutional knowledge, processes and expertise. **Social and relationship capital** covers relationships both within and outside the company. These include relationships with customers, employees, suppliers and other business partners.

See page 422 for details of Aegon s calculation for direct and indirect economic value generated, as well as economic value retained.

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Stakeholder engagement

Our stakeholders

As an international business, we have many stakeholders. Their relationship with Aegon depends not only on the nature of each stakeholder s organization and activities, but also the value created by that relationship (both for the stakeholder and for Aegon). Aegon defines its stakeholders as any individual or organization affected, or likely to be affected, by its business or that may, in turn, affect the environment in which the Company operates .

Aegon recognizes five main stakeholder groups:

- Customers (individual customers, group and corporate clients)
- Employees (full-time and part-time employees, tied agents, trade unions and other employee representative groups)
- Business partners (distributors, joint venture partners, reinsurers and suppliers of goods and services)
- Investors (shareholders and bondholders)
- Wider community (governments, regulators, charities, tax authorities, community groups and other non-governmental organizations, academic and public institutions).

Aegon s relationships with its stakeholders are based on mutual benefit. Through these relationships, we earn our social license to operate implicit consent from employees, stakeholders and the general public to continue our business[1].

Stakeholder group	Stakeholders provide Aegon with:	Aegon provides stakeholders with:
Customers	Fees, premiums and deposits	Protection and long-term financial security
Employees	Time, resources, skills and knowledge	Salaries and benefits, training, career development, safe and productive working environment
Business partners	Distribution, reinsurance, goods and services	Financial support, payment of fees, expertise and a reliable, professional relationship
Investors	Cash through investment in bonds and shares	Attractive long-term returns for their investments

Wider community	Public services, infrastructure, access to labor and markets, regulatory framework	Payment of taxes, community investment, expertise on aging and retirement, responsible approach to investments

Dilemmas

We recognize that, in creating value for one stakeholder group, we may deplete value for another. In recent years, for example, we have seen significant investments in new technologies in the financial services industry. This investment has improved efficiency, reducing costs for financial companies and strengthening customer service. However, it has also led to job losses, particularly in areas of the industry with clearly-defined processes that can be easily automated. Recent research from PwC estimated just over 30% of insurance jobs, for example, will disappear by the 2030s because of automation[2]. Our asset management business faces similar dilemmas: Aegon s recent decision no longer to invest in tobacco, for example, may reduce investment opportunities, but may also bring wider health and social benefits.

Engagement

Aegon engages with stakeholders to understand these dilemmas. Engagement allows us to take different stakeholder views into account when making our decisions. We engage with stakeholders regularly through polls and surveys, conferences, perception studies, workshops and face-to-face meetings.

We also organize panels with our customers and employees. We use their feedback to improve our products and services, to make sure we are aware of risks and opportunities for our business and can continue to deliver long-term value. Engagement takes place at both local and Group level.

Where appropriate, we also embed this process in our policies and procedures. Our Pricing & Product Development Policy, for example, includes the principle of reasonable distribution of value; this ensures fair returns from our products to customers, intermediaries and shareholders.

We also engage regularly with the companies we invest in. These engagements focus on environmental, social and governance issues. In recent years, we have been particularly active, in this area, on climate change (see page 20). To support this approach, we are signatories to a number of international agreements, including the Global Coalition on Aging and the UN Principles for both Sustainable Insurance and Responsible Investment. For more information, see our Responsible Investment Report, available online.

[1] Companies may lose this license if they do not create sufficient value for the societies in which they operate (or destroy value through, for example, damage to the natural environment or financial wrongdoing)

[2] Source: *Will robots really steal our jobs?* PwC, February 2018

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Our operating environment

We operate in a complex environment. We are affected by a host of social and economic factors from financial market performance and new regulation through to changing demographics and the increasing use of digital technology in our homes and offices.

At the same time, customers are demanding more from financial services. Aging means people are spending longer in retirement; older populations also bring more health issues. People need financial products that will not only help them save, but also manage their savings in retirement and ensure they can meet healthcare costs. Currently, only around 25% of people believe they are saving enough for retirement[1].

With products like life insurance and pensions, trust is important. People need to know that, when the time comes, their insurer or pensions provider will pay out their claims and benefits. Trust in financial companies has improved in recent years, but it is still lower than trust in, for example, healthcare providers or technology companies. Even so, people are more likely to trust their friends or peers than companies or institutions. The fact is, profits or a recognizable brand name are no longer enough. To win trust, businesses must act responsibly, build relationships through regular contact with customers, and play their part in tackling social issues like climate change, poverty or health and well-being.

Our business is also changing. We used to be essentially a manufacturer of financial products. Now, we are a provider of financial services. More of our business is fee-based. We are less reliant on income from financial market spreads. In some cases, our businesses also offer products from other providers. Thanks to technology, we know far more about our customers; with access to data, we are putting more emphasis on prevention. If we can use technology to help our customers lead healthier lives, this benefits them and may reduce claims and costs for us as their insurer.

Business and economic conditions

In the past two years, market conditions have generally been favorable, though there are now significant tensions in the global economy. We have seen economic growth in both the US and the Netherlands, as well as in emerging markets like China and India. The Dutch housing market has been booming. In the US, economic growth has been boosted by tax cuts. In the last quarter of 2018 however, stock markets saw substantial declines. Low interest rates continue to act as a drag on earnings and revenue. And growth in the UK has slowed, in part because of concerns over the country s planned withdrawal from the E

[1] Source: Aegon Retirement Readiness Survey 2018.
[2] See page 75 for more details on our preparations for the UK s withdrawal from the European Union.

Aegon also faces difficult market conditions in Turkey: political uncertainty, higher inflation and a substantial drop in the value of the Turkish lira. Growth could be slowed by disputes over trade. Meanwhile, a strong US dollar may weaken growth in emerging markets, as could worsening credit risk in China.

Our material topics

We conduct a regular assessment of our operating environment. This assessment allows us to identify our most material topics those most likely to affect Aegon (its operations, profits or reputation) or its stakeholders (their financial or personal well-being, their businesses, employment etc.). Results from this assessment are incorporated directly into Aegon s annual strategy, business planning and reporting processes; they help identify emerging risks and opportunities, ensuring that we are able, where necessary, to adjust our strategy or risk management approach to take account of economic, social and environmental developments (for more details, see page 93). Our latest assessment covered 16 different social, financial, environmental, technological and regulatory topics. Of these topics, we identified five as most material (topics which were rated by both management and external stakeholders as having most impact on the Company s ability to create value over the short, medium and long term): reputation & trust, cyber & information security, new technologies & digital transformation, low interest rates and changing consumer behavior.

Blockchain and the protection gap

Blockchain has the potential to revolutionize the financial services industry; we are part of a reinsurance initiative looking at blockchain, known as B3i.

If successful, this initiative will make processing reinsurance transactions much quicker and much more efficient. It should also increase trust. With blockchain, once data is verified and stored, it cannot be changed. B3i began initial testing in October 2017. Alongside Aegon, other leading insurers are also involved, including Allianz, Swiss Re, Zurich Financial, SCOR and Munich Re. Blockchain could have far-reaching benefits arguably, its main benefit is in bringing down the cost of insurance. Reducing that cost would benefit insurers, but it should also make insurance more affordable and help close the current protection gap widest in developing countries, where many people cannot afford private insurance and governments lack the resources to offer state cover.

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Materiality matrix

Note on methodology:

To conduct our materiality exercise, we first identified the main economic, social, environmental and governance topics affecting Aegon s operating environment, based on internal discussions and a thorough media review. We then surveyed both senior management and a cross-section of stakeholders[1] to determine which of these topics were most material for the Company. Results were fed into Aegon s annual strategy cycle, beginning in January 2018. This exercise is a central part of Aegon s approach to stakeholder engagement (see pages 93 and 411 for further

information on our materiality exercise). For the December 2017 assessment, we introduced a number of new topics to reflect changes in our operating environment; these new topics included: reputation & trust, cyber security & information security, big data & analytics, attracting and retaining talented employees, changing consumer behavior, partnerships, non-traditional competitors and de-globalization. For results of our December 2016 assessment, see our 2017 Annual Review, available online. In the chart above, arrows indicate movement in topics from the previous assessment; no arrows are included for new topics.

[1] Stakeholders responding to the survey included: customers, employees and regulators in our three main markets (US, Netherlands and UK), representatives of Aegon s European Works Council, financial advisors /brokers, bancassurance and joint venture partners, reinsurers, suppliers, financial analysts, institutional investors, peers, rating agencies, NGOs, and academics. Members of Aegon s Management and Supervisory Boards also took part in the survey.

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For each material topic, we have mapped out below the main risks and opportunities (for both Aegon and its stakeholders)[1]:

Topic: Reputation and trust

Customers want to be with companies they know and trust. For companies, that means providing reliable products and services but it also means acting as a responsible corporate citizen.

Degree of influence or control: We can build trust through our business practices, culture and values. But we are also affected by levels of public trust in the wider financial sector.

Risks and opportunities	Short-term	Long-term
For our business: trust in our brand helps us attract new customers and retain existing ones. It also helps bring in new talent, and opens up business opportunities. In short, without trust, we cannot grow our business. Losing this trust would severely weaken our financial performance and undermine long-term growth of our business.	Short-term loss of trust would affect sales, reputation and profitability.	Longer-term loss of trust in brand leads to impaired business and financial performance.
For our stakeholders: trust secures our license to operate to provide financial security for our customers, employment, and returns for investors. Correspondingly, any significant loss of trust would directly affect our stakeholders through lower returns for investors, for example, or fewer opportunities for our business partners.		Increased trust opens up new market opportunities, with higher sales and customer retention.

Topic: Cyber and information security

With more transactions online, data protection is becoming increasingly important. Regulators are also tightening up data privacy requirements.

Degree of influence or control: Like other companies, we have a direct and immediate responsibility to protect customer data, and ensure our systems are safe and secure at all times.

Risks and opportunities	Short-term	Long-term
For our business: we are spending more on data security. We realize that any breach would mean a loss of trust and potentially a loss of business. Data breaches may also open us up to possible fines from regulators, particularly with the introduction in May 2018 of the EU s General Data Protection Regulation (GDPR). They may also compromise our ability to sell direct to customers, or pay out claims. **For our stakeholders:** for customers, breaches in security may cause personal loss (both financial and emotional). There may also be consequences for relations with suppliers and intermediaries. For investors, any loss of business or reputation could result in lower returns. PSD2 will increase consumers control	Potential loss of business following breach or fines from regulators.	Loss of business and revenues over time; lower profits; opportunity to build greater trust by demonstrating effective data security.

over financial data, but also their responsibility for this data.

Topic: New technologies and digital transformation

The financial sector has adopted new digital technologies in everything from customer service to risk and claims management.

Degree of influence or control: We have direct control over the technology we use and invest in, but we also need to respond to changes in customer behavior as a result of an increased use of technology, particularly in areas like healthcare, travel and financial services.

Risks and opportunities	Short-term	Long-term
For our business: with technology, we can be more efficient, speed up internal processes and save costs. Digital technologies also allow us to get closer to our customers. We have more access to data, which means we understand our customers needs better (see below). We are also investing in automation to improve customer service and protect our customers data. Introducing technology, however, requires investment, both in systems and in new skills. Technology also lowers barriers to competition, particularly from providers currently outside the financial sector.	More access to data on performance and customer preferences; increased efficiency and cost savings.	Increased investment in systems and new skills within workforce; need to retrain employees for new roles as a result of automation; improved and faster
For our stakeholders: there are clear benefits for our stakeholders quicker, more reliable service for both customers and intermediaries. Reducing costs could also mean better returns for our investors. However, increased use of technology has already brought significant job losses, particularly in areas like administration and claims management.		customer service, which could lead to increased retention.

[1] For more information on our approach to risk management, see page 90.

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Topic: Low interest rates

In Europe, interest rates remain at historical lows, though in the US rates have been increasing since late 2016.

Degree of influence or control: We have no direct control over interest rates. Benchmark rates are the responsibility of central banks and governments. Longer-term rates, meanwhile, are determined by financial markets (though we do have control over the guarantees we provide to our customers).

Risks and opportunities	Short-term	Long-term
For our business: low interest rates mean lower returns on our investments. That has a negative effect on both earnings and revenues, though this may be offset by higher equity markets. In some cases, returns may not be enough for us to meet guarantees we have on long-term products or to price these products attractively. With low interest rates, however, we have an opportunity to refinance our corporate debt at a lower rate. Over time, low interest rates make it less profitable to offer certain products like annuities, which rely heavily on income from interest rate spreads. **For our stakeholders:** low interest rates also mean lower returns for our customers, especially those with savings products. Some will switch to products less reliant on interest rate returns. Reduced earnings may also mean lower returns for our shareholders.	Negative effect on earnings and revenues, lower returns on investments; opportunity to refinance corporate debt at a lower rate.	Over time, spread business likely to become less attractive.

Topic: Changing consumer behavior

Customers are increasingly digital. They want quick, reliable service, more frequent interaction and simple, easy-to-understand products and services.

Degree of influence or control: We cannot influence customer behavior directly. Our responsibility is to respond to changes in customer needs, in terms of products, distribution and levels of customer service.

Risks and opportunities	Short-term	Long-term
For our business: changes in customer behavior are opening up new markets for us. These markets will provide future growth for our business. At the same time, we need to adapt quickly and change our own culture and way of working, which brings risks: if we do not adapt quickly enough, we will lose business to competitors. **For our stakeholders:** in any organization, culture change is not easy. It makes new demands of employees and management. But change also brings opportunities for development. Adapting successfully should benefit customers (through better products and services). It will also benefit investors through improved earnings and higher returns.	Opens up new markets and forms of distribution and partnership, as well as new products and services.	Need for additional investment in new technologies and new skills.

Climate change

Climate does not rank highly in our materiality assessment[1]. However, we carry out a regular review of climate risk. This is partly in response to stakeholder expectations partly because we recognize the potential impact of climate change on both our business and on the communities in which we operate.

Our review showed only minor direct risks to Aegon s businesses; our principal risk is reputational. The assessment covers several areas: these include regulatory, strategic, underwriting and investment risk. All risks are assessed for both impact and likelihood. There are nine risks in all. Most were rated either unlikely or extremely unlikely , including those with the highest

potential impact on our business. One risk was categorized as likely negative media coverage of our investments (this, according to our assessment, would have a moderate impact on our business).

We have measures in place to counter climate risk. These include monitoring of new regulations, business continuity plans and regular analysis of investments.

Our review is overseen by our Climate Working Group (CWG); the CWG s work is based on recommendations from the Task Force on Climate-Related Financial Disclosures (TCFD), published in 2017.

[1] Social and environmental impacts of business activities and investments is also included in Aegon s materiality assessment. In the latest assessment, this topic ranked relatively low in importance both to management and our stakeholders. For more information about investment risk related to climate, see the Aegon Responsible Investment Report, available online. For details of our materiality assessment, see page 18.

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Our strategy

Driven by our purpose, we believe everybody deserves a secure future. Our strategy is about building life-time relationships with customers, to create financial security and well-being throughout their lives. Our strategy helps us address material topics important to our customers, employees, investors and other stakeholders.

Our vision

For us, creating this secure future means smarter, long-term financial planning. It means the right financial products and services at every stage of life. It also means healthier lifestyles, redefining what we want from retirement, and it means building a cleaner, healthier environment. In each of these areas, we believe Aegon has a positive contribution to make: in helping people achieve financial security; in speaking out on retirement and healthy aging; in using our influence as an investor on environmental issues, and in supporting the UN s sustainable development agenda. To implement this responsible business strategy, we are also changing the way we do business. Over recent years, we have built a strong foundation restructuring our businesses, and investing more in new technologies and growth markets. As a result, we are more efficient and more focused on sustainable growth and the value we can create over the long term, for both our customers and the wider community. To support the implementation of our strategy, we have set ourselves financial targets for the period 2019-2021 and have selected six non-financial indicators; these will be used to assess progress against specific aspects of our strategy.

For individuals: financial security and well-being

This goes to our purpose as a company. In many countries, we know people can no longer rely on state or company pensions and benefits. They need to take more personal responsibility for their finances. To help them, we are investing in new digital technologies. For our customers, this means instant access to their finances, so they can track their savings and investments. And we are putting more into financial education; to take personal responsibility, people need information and knowledge. In the Netherlands, for example, we have the Goed met Geld or Mastering Money program. By the end of 2018, more than 100,000 people had completed the program s basic financial awareness test.

At the same time, we are investing in new business models models, which make use of these new technologies. In the UK, for example, we have created Aegon Retirement Choices (ARC). With ARC, customers and their financial advisors can manage individual pensions, assets and savings through a single, easy-

to-access platform. We are simplifying our products, expanding distribution and stepping up workplace marketing offering pensions and other products through employers. Aegon now has 11 million workplace customers in our three main markets: the US, UK and the Netherlands. We want to serve customers throughout their working lives and into retirement. We realize that customers need us most at crucial points in their lives: when they buy a home, have children, or prepare for retirement, for example. We also want to increase interaction with customers we are in an industry where, traditionally, there is very little direct contact. More frequent interaction helps us improve customer service. We believe it will also strengthen trust in our brand, and flow through eventually into higher sales.

See page 39 for more information on how our approach to financial security and well-being contributes to these UN Sustainable Development Goals.

For society: secure retirement and healthy aging

We know the world is getting older. People are spending much longer in retirement. In 1950, you might expect to have lived another 13 years after retirement. Now, that figure is more than 20 years[1]. For many people in the US, Europe and Asia, outliving your savings has become a real possibility. At the same time, the cost of long-term care is rising. Aging is driving real change in our business it is putting pressure on state and company pensions; in response, it is clear people will need to take more personal responsibility for saving for their retirement.

[1] Source: UN World Population Prospects, 2017 (life expectancy at age 65 was estimated at 13.47 years in 1950-1955 and at 20.91 years in 2020-2025).

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For decades, retirement systems in many countries relied on an implicit social contract between government, employers and individuals. Recently, this social contract has started to fall apart.

In 2018, the Aegon Center for Longevity and Retirement called for a new deal - one that would give people the resources they need to save and invest for retirement, but also ensure the more vulnerable in society are not left behind. The Center s recommendations included sustainable social security benefits to provide a financial safety net for pensioners, automatic pension plans that make it easier to save, and affordable healthcare to promote healthy aging. The proposals would also mean a step-up in financial education to make sure people have the right knowledge to make investment decisions and an important role for companies in offering their employees proper workplace savings plans, skills training and healthcare. The Center s recommendations were published in May 2018. Since then, they have formed the basis of Aegon s position on pension reform and retirement.

Our aim is to become a thought leader on retirement and healthy aging. We invest in research through the Aegon Center for Longevity and Retirement (ACLR), and its sister organizations in the US and Brazil. We have also built a network of partnerships to push for change and reform in the way we manage retirement, healthcare and aging. As part of this network, we work with the Global Coalition on Aging, the American Association of Retired Persons (AARP), the VU University Alzheimer Centre and the MIT AgeLab.

We also have supplemental health and long-term care businesses in the US. In the UK and the Netherlands, we invest in care homes for the elderly. In 2018, we supported a new Dementia Discovery Fund and stopped investments in tobacco; smoking is a leading cause of many of the chronic illnesses pushing up healthcare costs.

Today, we are more likely to see retirement as a new, potentially exciting phase of our lives. However, we are still not saving enough for our pensions our own research shows that nearly half of people believe that, because of the economic and social consequences of aging, future generations will be worse off than their own. With this work, we want to change attitudes to retirement, health and aging and encourage more people to save and invest for the long term.

See page 39 for more information on how our approach to secure retirement and healthy aging contributes to these UN Sustainable Development Goals.

For the environment: clean energy and sustainable real estate

As an investor, we have an important role to play in supporting new low-carbon technologies, and improving the carbon footprint of our real estate investments, so we contribute to a cleaner, healthier environment.

Climate change has been a focus of our investment strategy since 2014. We have built consideration for climate change into our daily investment decisions. We have stopped investing in many coal-mining companies. In February 2019, we also stopped investment in companies involved in oil sands[1]; prior to the decision, we had approximately EUR 500 million in these investments. Aegon has also signed up to the Dutch national climate agreement, which looks to reduce the Netherlands overall carbon emissions. Where possible, we use our influence as an investor to persuade companies to reduce their impact on the environment. We engage with them on issues like scenario planning, disclosure and water management to increase our understanding of climate-related risk.

At the same time, we are investing in clean energy. At the end of 2018, our investments in this area were worth more than EUR 570 million, mainly in wind power and solar energy tax credits. Alongside renewables, we also invest in green bonds, smart energy storage and smart grids. We encourage greater energy efficiency through our real estate investments for example, we are renovating properties in our Amvest fund in the Netherlands. We want to achieve an average B label for energy efficiency; currently, more than half of these properties are rated E or F (A is the highest). To Dutch customers,

[1] Aegon excludes investment in:
- companies deriving 30% or more of their total production from oil sands.
- pipeline companies involved in the transportation of oil sands.

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we offer green mortgages. We have also built consideration for climate into our Responsible Investment and Sustainable Procurement policies.

See page 39 for more information on how our approach to clean energy and sustainable real estate contributes to these UN Sustainable Development Goals.

Building a strong foundation for our business (2016-2018)

To pursue our strategy, we need to have a business that is fit for purpose. Over the past several years, we have been through significant restructuring and simplification. We have sold businesses, and invested more in areas we believe will bring us growth. We have also reduced costs, redesigned products, tightened internal controls and strengthened our capital position. We have had to adapt our products to new circumstances volatile stock markets and low interest rates, particularly in Europe. Most of this restructuring is now behind us; we are already seeing the results in lower costs and better returns for our shareholders.

Optimizing our portfolio of businesses

Since 2016, we have sold several businesses. These businesses included our US BOLI-COLI[1] and life reinsurance operations, as well as UMG, our distribution company in the Netherlands. We have also sold annuities books in both the US and UK and have exited Ireland, the Czech Republic and Slovakia[2].

These divestments have allowed us to invest elsewhere in businesses we believe will bring future growth. Generally, these businesses are digital or platform-based; they use less capital, provide earnings from fees, have shorter pay-back periods and offer us an opportunity to sell more products and services to existing customers. In the UK, for example, we now have the country s leading investment platform, with GBP 120 billion in assets under administration. In the Netherlands, we have been expanding our banking services, including Knab, our online bank. We have also invested in distribution for example, we have expanded our partnership with Banco Santander in Spain and Portugal.

As a result of these changes, approximately two-thirds of our earnings now come from newer, growth businesses. We expect this to increase in the coming years. The rest comes from other

businesses, like our Dutch life insurance operations, which tend to be lower growth, but which still generate cash and earnings for the Group.

Increasing efficiency

We have also worked hard to improve our efficiency. This increases profitability, and helps us deliver quicker, more reliable customer service. We have cut back costs and put in place extensive hedging programs to reduce risk. In the

US and the Netherlands, we have been simplifying our back-office systems, introducing new, more efficient IT platforms. We estimate that automating internal processes will bring significant savings. Using artificial intelligence also helps reduce fraud. At the same time, we have been investing in digitalization encouraging more customer self-service and adding mobile apps. In both the US and UK, we have transferred policy administration, improving customer service and speeding up product development. With more services transferred to external providers, we have strengthened our global procurement department; this will help bring down costs and ensure effective controls over these services.

Improving product pricing and control environment

We have controls embedded in our processes and systems; this is to ensure we have strong and adequate risk and management control important if we are to retain trust, particularly among customers and investors. In 2018, we settled two cases in the US; one linked to concerns over investment models, the other to rate adjustments on life insurance policies.

To ensure we have effective controls, we have a Control Excellence program. As part of this program, we have recently strengthened IT controls and checks on fraud. We have also tightened controls on financial reporting and revalidated many of our actuarial models. Our goal is to have management controls across the Group that are both predictable and consistently applied.

In some areas, we have also reviewed product pricing and design. We increased rates in our long-term care and universal life businesses, for example and repriced variable annuities in the US and Japan. We have also introduced a stricter approach to pricing; this includes targets for returns and pay-back requirements. Our approach should mean better margins and avoid unprofitable sales, which weighed on our performance in the past.

Maintaining a strong capital position

A strong capital position is an important part of Aegon s strategy. It protects our business against fluctuations in world financial markets and ensures that, in turn, the Company continues to pay customers claims and benefits as expected. As a Group, we have a strong capital position. At the end of 2018, our Solvency II ratio a measure of our capital strength stood at 211%, above our 150%-200% target range.

[1] Business and Company-Owned Life Insurance.
[2] Sale of Aegon s businesses in the Czech Republic and Slovakia closed in January 2019.
[3] Estimate only. Solvency II ratios are subject to review by regulators.

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Our main businesses are all well within, or above, their own target ranges. Aegon s stronger capital position is the result of both improved capital generation from our businesses and continued investment in less capital-intensive products and businesses. Meeting our capital targets also increases flexibility to return capital to our investors.

Over the past three years, to support our strategy, we have made significant changes at our businesses:

Americas

In the US, we introduced a five-point plan: to sell off non-core businesses, overhaul our products and distribution, save on expenses, reduce our geographical footprint and improve management of existing policies. As part of this plan, we transferred some of our policy administration to Tata Consultancy Services (TCS). In time, this is expected to save us USD 100 million a year. With this partnership, 2,000 employees moved to TCS. We also sold our pay-out annuities and BOLI-COLI businesses, as well as the last of our US life reinsurance activities. We simplified our organization in the US, closing offices in three main locations: Los Angeles (CA), Folsom (CA) and West Chester (OH) and exited distribution channels like direct TV and direct mail that were no longer core. We simplified our product portfolio by eliminating 20 products. This will allow us to devote more resources to customer service.

Europe

In the Netherlands, Aegon is concentrating on pensions, income protection and mortgages. In recent years, we have seen a sharp decline in premium income from defined benefits pensions and individual life insurance. In difficult financial conditions, there is also increased pressure on capital. In response, Aegon has taken steps to reduce risk, and sold UMG, its distribution business in the Netherlands. We also injected more capital into our Dutch operations and, since the end of 2015, have cut costs by EUR 79 million. At the same time, we have invested more in fee-based products and products that require less capital. We have also been expanding our banking business. Aegon Bank already has over 600,000 customers. Knab, our online bank, has branched out from simple current accounts; it now offers a range of financial products, including mortgages, savings, insurance, business accounts and investments. Overall, banking now makes up around 20% of our underlying earnings from the Netherlands.

In the UK, we have repositioned our business. In 2016, we sold our annuities book, and made two important acquisitions: Cofunds and BlackRock s UK workplace pension business. Over the past year, we have been busy switching assets from these acquisitions onto our UK investment platform. Most of these migrations are now complete, though we expect a final tranche in early 2019 with the inclusion of business from UK building

society Nationwide. We also announced the transfer of some policy administration. Atos will take over administration of policies belonging to around 1.4 million UK customers not currently on our investment platform. Over time, the new contract will save us GBP 30 million a year, and bring down our costs per policy by around 40%. We expect partnership to be effective as of mid-2019. In making these changes, Aegon in the UK has moved from providing insurance to pensions and long-term savings. And, in doing so, we have digitized our business, focused on key products for our customers, and sharply reduced our credit and longevity risk. Currently, Aegon has more than 20% of the UK s retail-advised platform market

In Southern and Eastern Europe, we sold our businesses in the Czech Republic and Slovakia. We also withdrew from the mortgage and home savings markets in Hungary. At the same time, we expanded our distribution agreement with Banco Santander. With this expansion, we will have access to 14 million customers across Spain and Portugal.

Asia

We regard Asia as a long-term growth market. There, we have been concentrating on high-net-worth customers through Transamerica Life Bermuda. We are also putting more emphasis on digital, and have taken steps to reduce costs and improve capital management. In India, Aegon Life is now direct only. In China, 95% of our policies are issued digitally. Our joint venture GoBear has 15 million users across Asia for its comparison website. In Japan, we have been less successful. We recently repriced our products. We are currently reviewing our business there with our joint venture partner Sony Life.

Asset Management

Over the past several years, Aegon s asset management operations have been growing steadily. Since 2010, our earnings from asset management have more than trebled[2]. We have used our traditional strength in fixed income to expand. We have seen positive net inflows from third-party clients in each of the past seven years; that has more than offset outflows from Aegon businesses (as units have shifted to more fee business, they have brought down risk, changed mandates and reduced their reliance on investment returns). Aegon Asset Management s recent growth is built partly on our partnerships in France, with La Banque Postale Asset Management (LBPAM) and in China with Industrial Fund Management Company (IFMC). These partnerships give us access to strong distribution. LBPAM has access to the French Post Office s more than 17,000 branches across France. Internally, we have restructured Aegon Asset Management. We have created a single organizational structure, and combined our European sales teams to improve efficiency and decision-making.

[1] Source: Fundscape.
[2] Underlying earnings before tax (2010: EUR 46 million; 2018: EUR 151 million).

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Sustainable growth (beyond 2018)

Having built a solid foundation for our business, our focus now is on sustainable growth in all senses of the word. Almost half the capital we currently generate goes back into our business. In the next few years, we will:

- Expand our customer base; this will be done through new products and services, new forms of distribution or new business models. We also would like our customers to buy more products so, as they progress through their careers, they move from a workplace pension, for example, to insurance, protection and investment products. Our aim is to build lasting, life-long relationships with our customers.
- Increase efficiency; we will do this by simplifying our processes and corporate structures[1], transferring administration and investing in new digital technologies. We expect this will help us expand our customer base, and ensure customers we already have stay with us for longer. Investing in automation, meanwhile, will speed up customer service and further help us protect our customers data.
- Capitalize on the advantages of being a global group; this means: we are able to diversify risk and sources of income; we can also attract and retain talent, share innovations and technology and build a strong, global asset management business.
- Invest more in growth businesses; we have grouped our businesses into three categories: Manage for Value these are businesses that are already at scale Drive for Growth , where we have leading market positions, and Scale-up for the Future , where we believe there are significant opportunities (see charts below). Our Scale-up for the Future businesses include, for example, mutual funds in US, our joint ventures in Asia, and our growing banking and services business in the Netherlands.

Across our main businesses, we have strategies to put this approach into practice:

Americas

In the US, we will modernize our processes and systems. Our partnership with TCS means we can concentrate on faster product development, improving customer service and expanding our use of technology. We will build a single platform for workplace sales, covering pension administration, life and health, and managed financial advice. We already have six million workplace customers in the US at more than 40,000 companies. Digital technology and our mobile-first approach will help us get closer to customers and drive sales of additional products. We are the only US provider with a top-ten position in workplace-sold pension administration, voluntary employee benefits and long-term care[2]. We are focusing on wealth and health a particularly important issue in the US. Americans spend over USD 10,000 a year on healthcare, more than double the OECD average[3].

[1] To simplify our corporate structure, we will merge two of our US life insurance companies (Transamerica Advisors Life Insurance Co. and Transamerica Life Insurance Co.). At the same time, in the Netherlands, we will merge TKP

Investments with Aegon Asset Management.
[2] Source: Plansponsor and LIMRA, full year 2016. Note: rankings refer to workplace market only.
[3] Sources: Organization for Economic Cooperation and Development (OECD): Spending on health latest trends (June 2018).

Capital allocated by strategic category

(IFRS, 2018, in %)

Normalized capital generation

(cumulative over three years, in EUR billion)

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Europe

In the Netherlands, we will focus on income and living . We want to consolidate our leading position in pensions, and move more workplace customers into individual pensions and investments. We also want to grow our mortgage and income protection services. In banking, we will continue to look for growth, particularly through Knab, our online-only bank, and by selling more investments through independent financial advisors. We will also aim for profitable growth in our property & casualty and accident & health activities and shift more to fee businesses. At the same time, our aim is to scale up distribution in part by working through external partners. We will also look to play an active role in the consolidation of the Dutch insurance market.

In the UK, we will tap into the growing investment platform market. We expect this market to expand by approximately 17% each year through to at least 2022[1]. With much of our administration now handled outside the Company, our goal is to attract new customers, and use our scale to bring down costs. We will also look to sell more protection products, and investments alongside platform administration services.

In the rest of Europe, we will bring our businesses closer together. By sharing knowledge and expertise, we can reduce costs and improve customer service. In Hungary, we will look to protect our market position by investing more in IT. In Poland, we will focus on pensions our insurance business has been shrinking. In Turkey, we are looking for growth despite difficult market conditions. In Spain and Portugal, we will pursue growth, particularly through our partnership with Banco Santander.

Asia

In Asia, we want to continue our recent growth. Over the next several years, we will focus on three important markets: China, India and Indonesia. Key to our strategy is reaching beyond high-net-worth customers, and to increase sales to the region s burgeoning middle classes.

Asset Management

In asset management, we will look to build on recent progress. We want to grow our third-party business, particularly through fixed income and alternative investments (like mortgages and real estate equity). We will also deepen our partnerships in France and China, extend our responsible investment approach and refocus our sales in Europe and Asia.

Allocation of resources

Our priority is organic growth in other words, growing existing businesses from our own resources. Any acquisitions are likely to be bolt-on to add scale to our current businesses or give us access to new customers. We have much less capital committed to run-off businesses than previously; this also frees resources for investment elsewhere and reduces the drag effect on our return on equity. We plan to increase returns to investors. Aegon has increased dividends for shareholders in each of the past seven years. Meanwhile, through retained earnings, we expect to reduce our gross financial leverage ratio to the lower end of our current 26%-30% target range. In 2018, we redeemed more than EUR 1 billion in debt and capital instruments; at the same time, we issued EUR 643 million in new debt at a

lower rate. This results in lower debt service charges as well as increased financial flexibility for the Group as a whole.

[1] Source: Fundscape, five-year platform projections, January 2017. NMG Advisers, Platforum. Total assets under administration in the UK are expected to exceed GBP 1 trillion by 2022.

Total revenue-generating investments

(in EUR billion)

Expected growth in UK investment platform market

2008 **2021** (AuA in GBP billions)

Source: see footnote 1 on this page

AuA: Assets under Administration

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Culture and values

To implement our strategy successfully, we need the right corporate culture. We want to build a flexible organization one that has the customer at the center of its decision-making.

In 2016, Aegon introduced Future Fit. This program sets out four themes. For each theme, we have defined specific behaviors:

Theme	Acting as one	Customer centricity	Agility	Accountability
Behaviors	Building on each other s skills and knowledge Realizing we are stronger together No more working in silos Collaborating across boundaries and businesses	Putting the customer at the heart of Company decision-making Strong focus on people and outcomes Combining digital with the human touch	Accepting the idea of constant change Willing to learn, experiment and, on occasions, fail Seeking feedback from others	Owning both the problem and the solution Valuing new initiatives Recognizing and rewarding success Being honest about mistakes

By adopting these behaviors, our aim is to create a company that is fit for the future one that meets customers expectations, is right for our digitally-connected, data-driven world, and can adapt quickly to changing market conditions; this is important if we are to compete with smaller companies that face less regulation and are able to deliver services more quickly. Future Fit behaviors have been incorporated into performance appraisals, training and remuneration. They also form part of Aegon s leadership development programs. In the Netherlands, Future Fit has been written into our collective labor agreement with trade unions.

Implementation of Future Fit is the responsibility of local businesses. We monitor performance through regular employee surveys. Our latest survey, carried out in November 2018, showed slightly lower scores for Acting as one (74% compared with 75% the year before), Agility (62% compared with 64%) and Customer centricity (72% compared with 74%). Accountability, however, rose to 70%, up from 68%.

As a next step, we will be including Future Fit behaviors in our recruitment. This is important: first, to ensure we recruit the right people for our business and strategy; second, to build a culture focused on long-term value creation.

Future Fit complements our core values. These values form part of Aegon s Code of Conduct, which applies to all employees worldwide. They are also built into our approach to recruitment and performance appraisal. We require our employees to behave in a way that is consistent with the highest ethical standards to ensure we remain a trusted partner for our customers. Aegon s Code of Conduct sets out rules and guidelines in different areas, including legal and regulatory compliance, insider dealing, discrimination in the workplace, money laundering, corruption and bribery, protection of personal data and fair treatment of customers and other stakeholders. In addition, Aegon has a 24-hour Global Ethics Line; this allows employees and other stakeholders to report suspected violations of the Code in confidence.

For more information on Aegon s Code of Conduct, see page 69.

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Results, performance and targets

In 2018, we faced difficult market conditions; share prices declined sharply toward the end of the year. This affected the value of customer investments, and reduced income from our administration and services businesses. Our earnings were also affected by a series of one-off charges.

During the year, we paid more to investors combined, our dividends and interest payments increased by over 19%. Our employee engagement score at 65 was unchanged from

the previous year. In relation to customers, our Net Promoter Score (NPS) overall showed a decrease; Aegon businesses ranking in the top half of their markets was down at 41%.

Financial results

In EUR million	2018	2017	% change	Performance
Underlying earnings before tax	2,074	2,140	(3%)	During the year, we had expense savings across our businesses and higher earnings from Spain & Portugal, the Netherlands and UK. This was offset, however, by the effect of the sale of UMG, our Dutch distribution business, as well as worse-than-expected claims experience and lower earnings from retirement plans in the US.
Net income	711	2,469	(71%)	Net income decreased mainly as a result of one-off charges; these related to four items: Settlement of a class action lawsuit with US universal life policyholders Changes to our mortality and lapse assumptions in the Netherlands Book losses from the sale of Aegon Ireland and our US life reinsurance business

				By comparison, our 2017 net income was boosted by a one-off tax credit.
				Fair value items also showed losses in 2018 the result mainly of lower stock markets and underperformance in our alternative investments. For further details on 2018 results, refer to Results 2018 worldwide starting from page 106.
Gross deposits	121,700	125,776	(3%)	
				Gross deposits were affected by decreases in our UK platform and asset management businesses. During the year, these more than offset strong inflows into our Dutch mortgage funds.
New life sales	820	896	(9%)	
				In the US, we had lower sales of term and indexed universal life insurance; sales to high-net-worth customers in Asia were also down.
Return on equity [1]	10.2%	9.3%	+0.9 pp	
				Return on equity (RoE) improved, thanks in part to the effect of recent US tax reforms but fell short of our 2018 target. We also changed our definition of shareholders equity which affected calculation of our RoE (see page 107 for details). Based on the previous calculation, RoE for 2018 would have been 9.3% (compared with 8.4% in 2017).
Solvency II	211%	201%	+10 pp	
				Aegon s capital position remained strong well above our Solvency II target range of 150%-200%; our Solvency II ratio increased during the year, despite unfavorable market conditions; this was due mainly to further capital generation during the year and management action to increase capital efficiency. Solvency ratios in our three main units the US, Netherlands and UK all remained within or above their target zones.

[1] This is calculated using shareholder s equity based on IFRS as adopted by the EU.

pp percentage points

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Non-financial performance

Aegon has six global non-financial indicators; these indicators are tied directly to specific aspects of our strategy; they also help us address material topics and measure progress toward our objectives as both an employer and a provider of financial services.

Metric	2018	2017	% change	Aspect of strategy supported by indicator
Benchmarked Net Promoter Score (% of Aegon businesses ranked in top half against peers)[1]	41%	45%	(4 pp)	Customer centricity
Number of customers	28.5 million	28.1 million	1.3%	Growth/customer centricity
Number of new customers	3.8 million	NM	NA	Growth/customer centricity
Number of customers with two or more products (% of total number of customers)	5.2 million (18%)	NM	NA	Lifecyle approach
Number of digitally connected customers (% of total number of customers)	7.7 million (27%)	7.0 million (25%)	9.9%	Digitization/customer centricity
Employee engagement score	65	65	Unchanged	Customer centricity (winning outside starts inside)

[1] NPS figures cover Aegon businesses in the US, the Netherlands and UK. Results are weighted by number of customers. See also note to chart on page 30.

NA not available
NM not measured
pp percentage points

For more information on these indicators, please refer to pages 30 (Customers) and 32 (Employees).

Financial targets and performance

2016-2018

To support our strategy, we had a series of financial targets for 2016-2018 (see table below). These targets addressed return

on equity, expense savings and returns to shareholders. For both expenses and returns to shareholders, we met our targets; for return on equity, we saw an improvement over the three-year period, but failed to meet our 2018 target.

Metric	Target	Performance	Realized
Return on equity [2]	10%	9.3%[1]	
Expense savings (run rate, annualized)	EUR 350 million	EUR 355 million	
Capital returns to shareholders (cumulative, 2016-2018)	EUR 2.1 billion	EUR 2.1 billion	

[1] Using the changed definition, return on equity for 2018 is 10.2%. See page 28 for details.

[2] This is calculated using shareholder s equity based on IFRS as adopted by the EU.
Please note that we decided to discontinue our annual sales growth target before the end of the target period. This was because we felt the metric did not properly reflect Aegon s underlying strategy.

2019-2021

Aegon has now introduced new three-year financial targets, covering the period 2019-2021. These targets focus on sustainable growth, capital generation and ensuring attractive returns for the Company s shareholders.

Metric	Target
Normalized capital generation after holding expenses (cumulative, 2019-2021)	EUR 4.1 billion
Dividend pay-out ratio (% of normalized capital generation)	45%-55%
Return on equity (annual target)	>10%

The current capital framework and related Group target range remain unchanged for the years 2019-2021.

Metric	Target	Current performance (end 2018)
Solvency II ratio	150-200%	211%
Holding excess cash	EUR 1.0 billion EUR 1.5 billion	EUR 1.3 billion
Gross financial leverage ratio	26%-30%	29.2%

Over the period, our aim is to maintain a capitalization required for a minimum AA- financial strength rating (for our current ratings, see page 80).

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Value created and shared with our stakeholders

In the following pages, we detail the value created in 2018 by Aegon and shared with its main stakeholder groups: customers, employees, business partners, investors and the wider community. Given the nature of our business, much of this value is financial, but we also create social, economic and environmental benefits.

Customers

Claims and benefits

To our customers, we provide significant financial benefits. These include pensions, payment of insurance claims and returns on their savings and investments. For our customers, this money may represent a source of income, or provide resources needed to meet healthcare costs or repair a damaged home. In 2018, total claims, benefits and plan withdrawals increased to EUR 53.6 billion, up from just over EUR 48 billion the year before[1]. Alongside these financial benefits, we also manage investments for our customers. At the end of 2018, we were managing and administering more than EUR 800 billion on behalf of Aegon customers.

Customer loyalty

Our goal is to create a positive customer experience; this means high-quality financial products and excellent customer service. We measure our performance in this area through the Net Promoter Score (NPS). In our measurement, we include only individual customers. NPS assesses customer loyalty rather than satisfaction in other words, the likelihood that customers will recommend Aegon to their friends, colleagues and family[2]. NPS is embedded in our sales and marketing processes; we also use the measure to help determine executive pay.

Where possible, we benchmark NPS scores against peers. In our main markets, our ambition is to be the most recommended financial services provider. Our businesses saw a significant increase in NPS in 2017 the result primarily of efforts to speed up our processes and improve customer service,

as well as our strong brand in the US. In 2018, however, our NPS scores decreased. According to our latest surveys, 41% of our businesses in the US, the Netherlands and UK rank in the top half of their respective markets, down from 45% in 2017. Businesses ranking in the bottom quartile increased sharply to 54% (see all NPS results by quartile on page 408). Scores for our US retirement business were lower this more than offset a higher ranking for our Dutch mortgages business. In several markets, our NPS scores improved, but we failed to match improvements by competitors. In response to these results, we will look to increase contact with customers, establish a more emotional connection and provide an effective, personalized customer service.

In addition to NPS, we use a number of other measurements to assess value created for customers and progress with our strategy. These include our total number of customers and new customers as well as the percentage of customers who are digitally connected and those with two or more Aegon products.

By the end of 2018, we had 28.5 million[3] customers, an increase of 1.3% from the previous year. During the year, we added just under 3.8 million new customers. Customers with two or more Aegon products totaled 5.2 million, approximately 18% of our customer base.

Some 7.7 million of our customers were digitally connected just over 27% of our customer base. These customers have online access to accounts, products and services. For customers, the benefit is generally convenience and ease of use; we can also provide tailored information directly to connected customers.

[1] Please note that customer claims, benefits and plan withdrawals is separate from policyholder claims and benefits (included in our income statement). For more information, see pages 171 (Note 2.29 to the financial statements) and 219 (Note 12).

[2] For definition of NPS, see page 413.

[3] Our 2017 figure for total customers has been restated. For more details, please see page 408.

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We also measure customer complaints. In 2018, complaints increased by almost 20%. Complaints were lower in both the US and the Netherlands, but this was offset by increases in the UK and in Hungary; the increase in the UK was due mainly to the inclusion for the first time of complaints from Cofunds. Complaints relating to digital privacy also rose significantly, following the introduction of the EU s General Data Protection Regulation (GDPR); these complaints, however, accounted for less than 0.8% of total customer complaints.

Responsible products and investments

Among our products and services, we offer specific financial products for vulnerable groups and socially-responsible investment funds (SRI). In several countries, we sell products for customers on low incomes for example: our My Family micro-insurance product in Brazil and low-cost life insurance in Romania. We also provide support to those facing chronic

illness. In China, our critical illness coverage offers protection against both diabetes and cancer; we also have products that help customers suffering from cervical and breast cancer. In addition to our products, we also support a number of financial education programs in many countries, people are taking more personal responsibility for their finances. In the Netherlands, for example, we pay for budget coaches to help customers in financial difficulty. In the US, we work closely with the National Foundation for Credit Counseling. We also offer lessons, online seminars and clinics for members of the public.

For our customers in the UK, the Netherlands and Hungary, we have SRI funds. At the end of 2018, these funds had EUR 3.4 billion under management, almost 80% more than they had five years before thanks primarily to growing demand among retail investors for a more ethical approach to investment.

Benchmarked NPS performance vs. peers[1]

(% of Aegon businesses in top half vs. peers)

Increase in SRI funds under management[2]

(2013-2018, in EUR billion)

1 Chart shows NPS performance benchmarked against peers for all Aegon businesses in the Netherlands and UK, plus our retirement, life insurance and mutual funds businesses in the US. Results from Knab, our online bank in the Netherlands, have also been incorporated. Figures show percentage of businesses in top two quartiles, weighted by customer numbers. Figures for 2017 and 2016 have been restated; this is to reflect changes in weighting and to exclude results from Hungary (which had been included in previous years).

2

In addition to our funds in the UK, Netherlands and Hungary, we also have separate sustainability funds in China. At the end of 2018, these funds had another EUR 0.7 billion under management.

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Employees

Salaries and benefits

In our approach to salaries and benefits, we strike a balance. It is important that we control expenses. At the same time, we need to pay fair, competitive salaries if we are to attract and retain talented staff. Aegon s approach in this area is set out in our Global Remuneration Framework. This contains several important principles, including pay for performance . Pay is tied directly to regular performance appraisals. To assess performance, we use both financial and non-financial metrics (the precise combination depends on an individual s position and seniority). We have provisions ensuring that incentives and variable pay do not compromise integrity (in the case, for example, of internal audit employees) and do not encourage excessive risk-taking. In 2018, we paid out EUR 2.1 billion in salaries and benefits for our employees. Of this total, salaries accounted for almost 60%. The remainder comprises mainly benefits and other personnel costs.

Employee engagement

To implement our strategy effectively, we need a committed and engaged workforce. We measure employee engagement annually. Our latest survey was carried out in November 2018. It showed an overall engagement score of 65, unchanged from the previous year. 89% of Aegon employees completed the survey. We benchmark our score against both the finance and professional services sectors; this benchmark compares scores for individual questions, however; there is no benchmark for our overall engagement score.

As well as engagement, our survey also helps us monitor progress in more specific areas; these include work-life balance, opportunities for career development, management performance, workplace diversity, pay, training and development. In 2018, we saw improvements in constructive feedback , learning from mistakes and work-life balance ; these were offset, however, by a lower score in vision communications ; recommending Aegon as a financial services provider also scored lower in the survey. As part of our response to these results, we are putting a specific focus on leadership and development.

We also use the survey to track progress with our Future Fit program (for details, see page 27). Survey results are communicated to all levels of the business, and broken down by unit and individual team, so that effective action plans can be put in place to address areas of weakness. In addition to our employee survey, we also measure turnover. Our goal is to keep turnover to a sustainable level. In 2018, turnover increased to 33%, up from 25% the previous year; this was due mainly to an increase in involuntary departures following recent reorganizations.

Employee engagement scores

(2016 - 2018)

Employee welfare and development

Our aim is to create a safe and inclusive working environment. We offer benefits, including flexible working, regular health checks, parental leave and company retirement plans. We also provide paid time-off for employees who wish to volunteer on local community projects. We work to keep absenteeism to a minimum. Most of our businesses have health programs; these include fitness programs and screening for serious illnesses like cancer and heart disease, as well as programs to reduce workplace stress. In 2018, our absentee rate was unchanged at 2.4%. The number of work-related accidents and illnesses fell slightly to 163, down from 167 in 2017.

We also offer extensive training and career development. Our programs include online courses, seminars and lectures. We provide specialist training in areas including products and sales, new regulations, risk management and cyber security. We also offer leadership training and awareness programs in diversity and health and safety. All employees have access to our global Learning Catalog. We also have a Digital Academy, which offers a three-year course to data and business analysts across the Company. In 2018, we spent a total of EUR 12.5 million on training and development (equivalent to nearly EUR 470 for each employee).

Diversity and inclusion

We believe diversity leads to better decision-making; it also brings us closer to the communities we serve. Diversity and non-discrimination are built into our Code of Conduct. In the Netherlands, our latest collective labor agreement stipulates equal pay for men and women performing the same functions. In 2018, we conducted a study into equal pay; this found, in general, no difference in pay between men and women doing the same work[1]. In the UK, we also report our gender pay gap each year. Like other financial companies, we have fewer women in leadership positions; this results in a significant gender pay gap. In 2017, this gap stood at just over 27% compared with a sector average of 30%[2].

[1] Study carried out by Dutch data company AnalitiQs. The study took into account employees age, work experience, length of service and background.

[2] Median for the UK financial and insurance sector (source: UK Parliament, *The Gender Pay Gap,* November 2018). Aegon s report into its UK gender pay gap is available online at aegon.co.uk. The current report covers the year to April 5th, 2018. Figures for the year to April 2019 will be included in the next report.

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We have initiatives to support gender diversity. In the Netherlands, for example, we are signatories to the Talent to the Top program, which works to increase the number of women in senior management. In the US, we have a dedicated diversity team. At the end of 2018, women made up 33% of Aegon s senior management, an improvement of 5 percentage points from 28% in 2017. In addition, two of our seven Supervisory Board members are women, as are three of our ten Management Board members. We want to increase the proportion of women on both Boards, over time, to at least 30% in line with Dutch government objectives[1]

Diversity, of course, goes beyond gender. Our aim is to create a productive and open working environment, in which all employees are valued for their contribution and able to realize their full potential. We have mentoring programs; we support Company-wide groups like Aegon Proud and Young Aegon. We are also members of outside organizations, like Women in Financial Services and Workplace Pride. In the latest US Corporate Equality Index, we were ranked as one of the best places to work for LGBT employees.

[1] For further information, see page 57 (Report of the Supervisory Board Diversity) and the diversity section of our Corporate Governance Statement, available online.

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Business partners

Our partners

We work with a number of different business partners. These partners help us develop, market and distribute our products and services. In many countries, we operate through joint ventures, particularly where this gives us immediate access to a large customer base. To distribute our products and services, we work through brokers and other financial intermediaries (including banks, agents, independent financial advisors etc.). In the US and UK, we have also signed partnerships to transfer much of our policy administration.

When working with outside providers, our goal is to create long-term relations that benefit Aegon and allow our partners to develop and grow their businesses. We regularly assess the companies we work with against minimum social and environmental standards. These standards are set out in our Sustainable Procurement and Outsourcing Risk policies.

Payments to business partners

Distribution

We pay commissions to brokers and other financial intermediaries in return for selling Aegon products and services. In 2018, these commissions totaled EUR 2.4 billion. Over the past five years, commissions have declined by almost 26%. This is partly a result of lower sales, but also the introduction of new, digital technologies (which have made it easier to sell directly to customers) and recent regulations in the Netherlands and the UK (which restrict payment of commissions to intermediaries[1]). Though the nature of our relationship has changed, intermediaries remain a valuable sales channel. We provide training to our distributors, so they understand our policies and are able to provide the right advice to our customers.

Payments to business partners

(2016-2018, in EUR billion)

Suppliers

As a financial services company, we buy goods and services including IT support, office equipment and management consultancy. We also buy utilities (electricity, water etc.). That said, we do not have a particularly complex supply chain we do not need to source raw materials or deliver physical goods to customers. In 2018, we spent EUR 1.5 billion on our suppliers, up from EUR 1.4 billion in 2017. We have a Sustainable Procurement Policy, which sets out environmental, social and governance standards for our suppliers. As part of our approach, we require some of our suppliers to sign a Supplier Sustainability Declaration; at the end of 2018, these declarations covered 25% of our total procurement spend. In 2018, we also signed partnerships in both the US and UK to transfer a large part of our policy administration to outside providers (see pages 6 and 24). In both cases, we will pay regular fees for this service; we expect these contracts, over time, to deliver more than EUR 120 million a year in cost savings.

Reinsurance

We work with a number of reinsurers; they help us offset risk and ensure we are able to meet our financial commitments, even in extreme scenarios. In 2018, we paid EUR 2.7 billion in premiums to our reinsurers, and received EUR 3.7 billion in claims (this compares with EUR 3.4 billion and EUR 4.3 billion in 2017, respectively).

[1] Instead of commissions, brokers and intermediaries now generally receive fees, paid by customers.

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Investors

Payments to investors

Shareholders receive regular dividends. An interim dividend is paid following half-year results. Final dividends must then be approved by Aegon s General Meeting of Shareholders in May before payment. Shareholders can opt for payment in cash or stock. Just under half our shareholders are based in the US, another 20% in the Netherlands and 10% in the UK. In 2018, we paid a total of EUR 861 million to Aegon investors. Of this, EUR 570 million was in dividends to shareholders; the remaining EUR 291 million was paid to Aegon bondholders. Unlike shareholders, bondholders receive regular coupons or interest payments on their investments. These payments are determined at the moment the bond is issued.

Dividend policy

Payment of dividends depends ultimately on the Company s capital position and cash flow. Before deciding on dividends, management will also assess future prospects for financial performance. Our goal, over time, is to deliver sustainable dividend growth for our shareholders. In recent years, we have been able to do this thanks to an improvement in our earnings and a stronger capital position. Since 2012, we have increased dividends every year by either one or two cents equivalent to a 38% increase over six years. Currently, our dividend yield an important indicator for insurance stocks is around 6%, slightly above the European sector average.

Stock performance

Shareholders may also derive (or lose) value from the performance of our shares. In 2018, Aegon s stock price fell by 23.3%, which we believe was largely a reflection of wider concerns over economic growth, trade tensions and the effect of persistently low interest rates, as well as concerns about Aegon s US long-term care portfolio. Most of the losses were concentrated in the last two months of the year. Other European insurance sector stocks also lost ground during 2018, though not as much as Aegon. The Stoxx Europe 600 Insurance index ended the year down 10%. Our total shareholder return for the year came to -19% (this measure takes into account payment of dividends as well as share price performance).

Regular communications

We keep financial markets fully informed of our strategy and performance. We have a dedicated Investor Relations team. In 2018, we organized 642 face-to-face meetings with investors in the Americas, Europe and Asia. We hold a regular Analyst and Investor Conference; the most recent was held in New York in December 2018. Our executives also speak regularly at insurance industry events. In 2018, we started publishing our financial results every six months, rather than quarterly. This was to encourage investors to take a longer-term perspective on our financial performance.

Dividends to Aegon shareholders

(2012-2018, in EUR per share)

Aegon stock price performance

(Jan-Dec 2018) Aegon stock price vs. Stoxx Europe 600 Insurance

[1] Note that the final dividend for 2018 is subject to approval by Aegon s General Meeting of Shareholders, scheduled for May 17, 2019.

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Wider community

Job creation

In 2018, Aegon reduced its total workforce by a net 1,775 employees. A total of 5,666 employees left the Company most in the US, Netherlands and the UK; 3,891 joined Aegon during the year. Departures were mainly the result of business restructuring. Around 2,000 employees were also transferred to Tata Consultancy Services as part of our recent contract in the US. Where possible, we limit compulsory redundancies. In Europe and Asia, we work closely with trade unions and other employee representative groups. We provide training, advice and support to those leaving the Company.

Responsible investment

We take a responsible approach to investments. As part of this approach, we integrate ESG (environmental, social and governance) factors into our daily investment decisions. We do this for our own investments; we also advise customers to take a similar approach, though in most cases the final decision as to how and where to invest remains with our clients. Integrating ESG helps minimize investment risk both for Aegon and its customers. Our ESG investment standards are based, for the most part, on international agreements (these include the UN Declaration of Human Rights, the core standards of the International Labor Organization, and the UN Arms Trade Treaty).

To oversee our approach, we have a Responsible Investment Strategy Committee. We also have a formal Responsible Investment Policy; we provide mandatory ESG training for portfolio managers, and have built responsible investment into both our risk management framework and into our investment mandates.

We engage with the companies we invest in when they fall short of our ESG standards or show poor overall ESG performance. In 2018, we engaged with 360 companies. We have been especially active on climate change in support of our corporate strategy. Over the past year, we engaged on a number of issues, including climate risk and reporting, and corporate governance. When engaging, our aim is to improve companies business practice, and reduce investment risk for ourselves and our customers.

We prefer to engage, though we do exclude some investments, where there are international agreements in place, or a clear social or environmental case to do so. Currently, we exclude a total of 136 companies involved in tobacco, coal mining, oil and tar sands, or controversial weapons, such as cluster bombs and anti-personnel mines[1]. In the Netherlands, we exclude investments in palm oil. We also refuse to invest in countries that are subject to sanctions, or where there is evidence of systematic human rights abuses. We publish a full list of exclusions on our website. For more details on our approach, see our Responsible Investment Report, also available online.

Impact investment

Alongside ESG integration, we also make impact investments ; these are investments that deliver both a minimum financial return and a specific social or environmental benefit. Examples include affordable housing, care homes, and

renewable energy. We also invest in green bonds and in international development banks that work to reduce poverty in developing countries. At the end of 2018, our impact investments totaled EUR 8.4 billion. Nearly 60% of this amount is invested in affordable housing in the US. Impact investments are an important part of our strategy particularly in supporting the switch to cleaner, low-carbon technologies and promoting health and well-being.

[1] Our exclusion list was last updated in October 2018. The list comprises 14 companies involved in controversial weapons, 48 in thermal coal mining, 11 in oil sands and a further 63 in tobacco. We also exclude investment in 15 countries.

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Primarily social impact	Amount invested	Impact
Affordable housing	EUR 4.9 billion	Financing for affordable housing for families on low incomes in the US[1], UK and the Netherlands
Care homes for the elderly	EUR 324 million	Financing for care homes and assisted living facilities for the elderly in the Netherlands and UK
International development banks	EUR 1.8 billion	Investments in multi-lateral development banks, working to reduce poverty and create jobs in emerging economies
Student loans and sports facilities	EUR 208 million	Support for the US Federal Family Education Loan Program; this program helps children from low and middle-income families into university
Micro-finance	EUR 74 million	Provides loans and savings accounts for more than three million people without access to traditional financial services

Primarily environmental impact	Amount invested	Impact
Renewable energy	EUR 573 million	Investment in clean energy in the US, UK and the Netherlands (including solar energy tax credits and wind power), reducing impact of energy use on the environment
Green bonds	EUR 253 million	Investment in green bonds; proceeds are invested in climate- related projects, encouraging sustainable energy use
Green residential mortgage-backed securities (RMBS)	EUR 152 million	Investment in mortgages to finance more energy-efficient homes

[1] In the US, these investments are made through the government s Low-Income Housing Tax Credit program, which encourages private sector investment in affordable housing for low-income families.

In addition to the above, Aegon has also investments in sustainable timber. At the end of 2018, these totaled EUR 7.9 million. These investments are currently in run-off.

Please note that amounts above include some investments made on behalf of Aegon clients and other third parties.

Retirement research and expertise

We provide extensive research into aging and retirement. Most of this is done through our Aegon Center for Longevity and Retirement (ACLR) and its partners: the Transamerica Institute in the US and the Instituto de Longevidade Mongeral Aegon in Brazil. The ACLR publishes an annual Retirement Readiness Survey, covering 15

countries around the world. The ACLR s 2018 report called for a new social contract on pensions and retirement (see page 22). Through our research, we want to raise awareness of aging issues among both public and policymakers. We also use our research to drive improvements in customer service and product development.

In addition to our own centers, we work closely with other partners. These include the Stanford Center on Longevity, the American Association of Retired Persons (AARP), the Leyden Academy for Vitality and Aging, and the Global Coalition on Aging an alliance of businesses working on aging and retirement. We are also working on health issues these are, of course, closely related to aging. We have our own Transamerica Center for Health Studies. In the US, through our business activities, we emphasize the importance of wealth and health . In 2018, we organized our global Hackathon focusing on the connection between financial security and well-being with events in Mumbai, Budapest and Dallas. We also support research into chronic illnesses like cancer, heart disease and Alzheimer s.

Responsible tax

We are firmly committed to making a valuable economic and social contribution to the communities in which we operate, both through our own tax payments and through collection and

payments of third party taxes. We seek to pay fair taxes , which for us means paying the right amount of tax in the right places.

It is our policy to allocate profits where value is created through our commercial business activities. For us, tax follows business, which means that our decisions are taken for business reasons and not for tax advantages. We will not, for example, set up artificial tax structures or base business in countries simply to reduce the amount of tax we pay.

Following discussion with stakeholders, we published our Global Tax Policy online. This Policy outlines Aegon s approach to responsible tax, which seeks to align the long-term interests of all our stakeholders, including customers, employees, business partners, investors, and wider society. We also hold regular meetings with NGOs to discuss Aegon s tax strategy and policy.

In our relationship with tax authorities we strive to work together in a constructive and transparent manner. Our Horizontal Monitoring agreement with the Dutch tax authorities shows our commitment to this principle. This includes public discussion and disclosure of policies and principles, as well as the overall governance and oversight of our tax position.

Disclosures are provided in our financial statements and cover tax payments in our main markets. We provide country-by-country tax reporting in a transparent and accurate manner to the tax authorities. We are currently assessing the value that public disclosure of this information might have for our business and our stakeholders.

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We also provide details of our total tax contribution company-wide and by region in the charts below. Taxes borne are a cost of business and affect our financial results. Taxes collected are not a direct cost of business but are collected on behalf of government from others. The reported numbers are on cash payment or accrual basis.

Aegon s tax function maintains an adequate staff of qualified and trained tax professionals to provide timely and high-quality tax support to our commercial decision-makers. In this regard, proper governance and procedures are in place to ensure that:

1. the tax team understands and is engaged in the tax effects of day-to-day business operations and involved in all significant business developments, investments and transactions.
2. the tax consequences are considered as part of every major business decision.
3. Aegon s tax control framework is constantly evolving to a higher maturity level.

Aegon s tax function reports regularly to the Executive and Management Boards on day-to-day operations and the status and effectiveness of the function. At least once a year, the tax function reports to the Supervisory Board s Audit Committee.

Community investment

We support local communities through donations and volunteer work. This brings us closer to our customers and gives our employees an opportunity to share their knowledge and expertise. In 2018, we donated a total of EUR 9.3 million. Most went to our three focus areas: health, welfare and literacy. Where possible, we align our community investment with our purpose as a company. In the Netherlands, we re part of a From Debt to Opportunity project; this project is working with 7,000 in-debt families across the country.

Through our businesses, we support more than 500 local charities and good causes. Among the largest recipients in 2018 were United Way and Habitat for Humanity in the US, the VUMC Alzheimer Center in the Netherlands, and Sick Kids Friends Foundation and the Teenage Cancer Trust in the UK. We have a Charitable Donations Policy, setting out our approach to community investment. In the US, our donations are channeled through the Transamerica Foundation. This Foundation donates at least 5% of its assets each year. In the UK, donation decisions are taken by our employee Charity Committee. We also encourage our employees to volunteer; 97% of our staff worldwide can now claim paid time-off to work on local community projects. Volunteering is built into our Charitable Donations Policy. In 2018, Aegon employees volunteered just over 14,000 hours equivalent of EUR 0.7 million, based on average salaries.

Taxes borne by Aegon, 2018

(in EUR million)

Taxes collected on behalf of others, 2018

(in EUR million)

[1] Includes state and withholding tax

[2] Related to company s own personnel (including social security tax)

[3] Includes dividends, interest, royalties and others

[4] Policyholders (including social security tax)

For a breakdown of corporate income tax by country/region please see page 410. Some numbers may not add due to rounding.

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Aegon s contribution to UN Sustainable Development Goals (SDGs)

We have a responsibility to support the UN SDGs where we can, both as an investor and a provider of financial services. We recognize that sustainable development is in the long-term interests of business and the global economy, and that genuine

sustainable development will not be possible without cooperation between private and public sectors. We focus on SDGs most relevant to our business. Within these SDGs, we have selected specific goals and targets[1] linked to our strategy. This is where we believe we can make a significant contribution to the international development agenda.

Strategic pillar	Relevant SDG	Relevant SDG targets	Aegon s contribution to the relevant target
For individuals: financial security and well-being.		**1.2:** By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions, according to national definitions.	Products for low-income customers, including micro-insurance in Brazil Investments in international development banks that work for poverty reduction and job creation in developing countries Investment in micro-finance institutions to provide loans and savings to people without access to traditional financial services Working with customers in financial difficulty budget coaches in the Netherlands /cooperation with National Foundation for Credit Counseling in the US Strengthening financial literacy through local initiatives and programs
For society: secure retirement		**3.4:** By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment, and	Supplemental health insurance for customers on low incomes

and healthy aging.	promote mental health and well-being.	Cover for customers facing chronic illnesses, including diabetes and cancer Investment in care homes for the elderly in UK and Netherlands Support for research into chronic illnesses, including cancer, heart disease and Alzheimer s Investment in Dementia Discovery Fund, dedicated to finding treatments for the condition Exclusion of tobacco from investment to help address health concerns over smoking
	8.10: Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all.	Support for economic growth and job creation through our businesses and investments Providing a long-term source of employment for communities in which we operate Inclusion of minimum labor standards in Aegon responsible investment and procurement policies
For the environment: clean energy and sustainable real estate.	**7.2:** By 2030, increase substantially the share of renewable energy in the global energy mix. **7.3:** By 2030, double the global rate of improvement in energy efficiency. **7.a:** By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil fuel technology, and promote investment in energy infrastructure and clean energy technology.	Significant investments in renewable energy primarily wind and solar power Investments in green bonds and green residential mortgage-backed securities Working for greater energy efficiency in Amvest s real estate fund in the Netherlands Launch of new mortgage feature in the Netherlands, allowing customers to finance energy efficiency improvements to their homes

13.2: Integrate climate change measures into national policies, strategies and planning.	Support for Dutch national climate agreement, working to reduce carbon emissions Exclusion of oil sands extraction and transportation from investment Exclusion of thermal coal production from investment

In addition to the goals and targets above, we also work directly with other organizations to support the SDGs. As well as the UN Principles for both Sustainable Insurance and Responsible Investment (UNPSI, UNPRI), we are members of the CDP (formerly the Carbon Disclosure Project) and the Extractives Industry Transparency Initiative (EITI), which works for greater transparency in reporting financial flows

within the global energy and minerals sector. Aegon also signed the Paris Pledge for Action, launched at the Paris climate change conference in 2015.

Further details of our support for the UN SDGs may be found on page 425.

[1] The UN Sustainable Development Goals were formally adopted in September 2015. There are 17 SDGs in total, covering hunger, poverty, health, the environment, housing etc. For each SDG, there is a series of specific goals, targets and indicators. For more information, see https://www.un.org/sustainabledevelopment/sustainable-development-goals/

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During 2018, Aegon s Supervisory Board focused on how senior management continued to execute its strategy and transform the company. Aegon is now well positioned for growth from a capital, control, management, people and technology perspective. This gives us confidence for the future.

I was honored to be appointed Chair of Aegon s Supervisory Board in May 2018. Our Board consists of people from a diverse range of backgrounds, nationalities and specialisms, with an equally diverse range of perspectives. What we share, is a common desire to support management in meeting its objectives.

A key objective has been the significant transformation Aegon has undergone in recent years, both in terms of what it does and where it does it. In particular, we are impressed by Aegon s embrace of new digital technology, and its new capital allocation model. Now that Aegon s transformation is largely complete, the Supervisory Board looks forward to shifting its focus to supporting the company s growth agenda.

Beyond the horizon

From regulatory requirements to customer demands, the financial services landscape has never changed so fast and

as fundamentally as over the last decade. This process of change is only likely to accelerate in the years to come. For this reason, when it comes to strategy, our role as a Supervisory Board is to look beyond the here and now and to focus on what lies beyond the horizon. What will, for instance, the industry look like a decade from now? What are the opportunities and risks? Above all, how can Aegon ensure that it first and foremost continues to grow as a responsible business dedicated to its purpose of helping people achieve a lifetime of financial security? By posing these questions we are able to assess how future-focused and prepared the company is, which in turn supports long-term thinking and long-term value creation, as set out in this report.

How we engage with Aegon s long-term strategy is crucial to this task. Indeed, while regular meetings with senior management are critical to what we do, Supervisory Board visits to Aegon s various

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business units can prove every bit as illuminating, offering a shop floor rather than purely a board room perspective. For instance, such visits are an opportunity to witness how Aegon is embracing the latest digital technologies and data analytics, as well as talking to the people leading these initiatives from the ground up.

Public trust

No business operates in a vacuum and the Supervisory Board is both very aware of and attuned to discussions and debates regarding the role of financial services in society. The relationship between financial institutions and the public should, of course, be a positive one. Yet while the industry plays an important and laudable role providing people with financial security and helping businesses and economies to grow, it has yet to fully regain trust following the financial crisis, nor redress the apathy many still feel towards it.

The Supervisory Board is working with the Management Board to examine how Aegon can be part of the solution. Moreover, it is impressed with how Aegon s purpose continues to not only provide the basis for putting customers first in all that it does, but also the inspiration to raise awareness about financial matters such as the need to start saving early, and the consequences of moving away from traditional pension systems. Simple changes that can have hugely positive effects on millions of people s lives.

Aegon also takes its responsibility to assist policy makers to deliver the right legislation that keeps pace with changes in society and continues to meet customers needs. The company can only do so because of the dedication and expertise of its people. I would, therefore, like to say a big thank you to Aegon staff across all businesses and regions.

I would like also to express my gratitude to my Supervisory Board colleagues for their contribution and support in 2018. I invite you all to look at the Report of the Supervisory Board, starting from page 51, for a comprehensive overview of our activities during 2018. We look forward to working with the Management Board in the year ahead to help them meet their targets and achieve Aegon s purpose.

William Connelly

Supervisory Board Chairman

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Corporate governance

Aegon is incorporated and based in the Netherlands. As a company established and listed in the Netherlands, Aegon must comply with Dutch law and is subject to the Dutch Corporate Governance Code.

Aegon is governed by three corporate bodies:

- General Meeting of Shareholders
- Supervisory Board
- Executive Board

Aegon also has a Management Board. This works in unison with the Executive Board, and helps to oversee operational issues and the implementation of Aegon s strategy. Aegon s corporate governance structure is the responsibility of both the Supervisory Board and the Executive Board. Any substantive change to this structure is submitted to the General Meeting of Shareholders for discussion.

The shareholders

Listing and shareholder base

Aegon s common shares are listed on Euronext Amsterdam and the New York Stock Exchange. Aegon has institutional and retail shareholders around the world. More than three-quarters of shareholders are located in Aegon s three main markets, the Netherlands, United States and the United Kingdom. Aegon s largest shareholder is Vereniging Aegon, a Dutch association with a special purpose to protect the broader interests of the Company and its stakeholders.

General Meeting of Shareholders

A General Meeting of Shareholders is held at least once a year and, if deemed necessary, the Supervisory or Executive Board of the Company is able to convene an Extraordinary General Meeting of Shareholders. The main function of the General Meeting of Shareholders is to decide on matters such as the adoption of annual accounts, the approval of dividend payments and (re)appointments to the Supervisory Board and Executive Board of Aegon.

Convocation

General Meetings of Shareholders are convened by public notice at least 42 days before the meeting. The convocation states the time and location of the meeting, the record date, the agenda items, and the procedures for admittance to the meeting and representation at the meeting by means of a written proxy. Those shareholders who alone or jointly represent at least 1% of Aegon s issued capital or a block of shares worth at least EUR 100 million may request items be added to the agenda of a General Meeting of Shareholders. In accordance with Aegon s Articles of Association, such a request will be granted if it is received in writing at least 60 days before the meeting, and if there are no important interests of the Company that dictate otherwise.

Record date

The record date is used to determine shareholders entitlements with regard to their participation and voting rights. In accordance with Dutch law, the record date is 28 days before the day of the General Meeting of Shareholders.

Attendance

Every shareholder is entitled to attend the General Meeting to speak and vote, either in person or by proxy granted in writing. This includes proxies submitted electronically. All shareholders wishing to take part must provide proof of their identity and shareholding, and must notify the Company ahead of time of their intention to attend the meeting. Aegon also solicits proxies from New York registry shareholders in line with common practice in the United States.

Voting at the General Meeting

At the General Meeting, each common share carries one vote. In the absence of a Special Cause, Vereniging Aegon casts one vote for every 40 common shares B it holds.

Supervisory Board

Aegon s Supervisory Board oversees the management of the Executive Board, in addition to the Company s business and corporate strategy. The Supervisory Board must take into account the interests of all Aegon stakeholders. The Supervisory Board operates according to the principles of collective responsibility and accountability.

Composition of the Supervisory Board

Members of the Supervisory Board are appointed by the General Meeting of Shareholders, following nomination by the Supervisory Board itself. Aegon aims to ensure that the composition of the Company s Supervisory Board is in line with Aegon s diversity policy for the Supervisory Board, Executive Board and Management Board and is as such well-balanced in terms of professional background, geography, gender and other relevant aspects of the diversity policy. A profile, which is published on aegon.com, has been established that outlines the required qualifications of its members. Supervisory Board members are appointed for a four-year term, and may then be reappointed for another four-year period. Subsequently, the Supervisory Board member can be reappointed again for a period of two years, and then extended by two years at the most. Supervisory Board members are no longer eligible for (re)appointment after reaching the age of 70, unless the Supervisory Board decides to make an exception. Remuneration of the Supervisory Board members is determined

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by the General Meeting of Shareholders. In 2018, no transactions were concluded between the Company and any of the Supervisory Board members. Furthermore, the Company did not provide loans or issue guarantees to any members of the Supervisory Board. At present, Aegon s Supervisory Board consists of seven members, all of whom qualify as independent in accordance with the Dutch Corporate Governance Code.

Committees

The Supervisory Board also oversees the activities of its committees. These committees are composed exclusively of Supervisory Board members and deal with specific issues related to Aegon s financial accounts, risk management, executive remuneration and appointments. These committees are the:

- Audit Committee;
- Risk Committee;
- Remuneration Committee; and
- Nomination and Governance Committee.

Executive Board

Aegon s Executive Board is charged with the overall management of the Company and is therefore responsible for achieving Aegon s aims and developing the strategy and its associated risk profile, in addition to overseeing any relevant sustainability issues and the development of the Company s earnings. Each member has duties related to his or her specific area of expertise.

Aegon s Articles of Association determine that for certain decisions the Executive Board must seek prior approval from the Supervisory Board and/or the approval of the General Meeting of Shareholders. In addition, the Supervisory Board may also subject other Executive Board decisions to its prior approval.

Composition of the Executive Board

Aegon s Executive Board consists of Alexander R. Wynaendts, who is Chief Executive Officer (CEO) and Chairman of the Executive Board, and Matthew J. Rider, who is Chief Financial Officer (CFO), and member of the Executive Board.

The number of Executive Board members and their terms of employment are determined by the Company s Supervisory Board. Executive Board members are appointed by the General Meeting of Shareholders for a four-year term, following nomination by the Supervisory Board.

The members of the Executive Board have an engagement agreement with the Company rather than an employment contract. The Company s Remuneration Policy for the Executive Board limits exit arrangements to a maximum of one year of the fixed component of the salary.

In 2018, no transactions were concluded between the Company and either member of the Executive Board. Furthermore, the Company did not provide any loans to or issue guarantees in favor of either of the members of the Executive Board.

Management Board

Aegon s Executive Board is assisted in its work by the Company s Management Board, which has ten members, including the members of the Executive Board. Aegon s Management Board is composed of Alex Wynaendts, Matthew J. Rider, Mark Bloom, Adrian Grace, Allegra van Hövell-Patrizi, Marco Keim, Onno van Klinken, Carla Mahieu, Mark Mullin and Sarah Russell.

Aegon s Management Board works in unison with the Executive Board, and helps oversee operational issues and the implementation of Aegon s strategy. Members are drawn from Aegon s business units and from Aegon s global functions. The members have both regional and global responsibilities. This ensures that Aegon is managed as an integrated international business. While the Executive Board is Aegon s sole statutory executive body, the Management Board provides vital support and expertise in pursuit of the Company s strategic objectives.

In the relation between the Management Board and the Supervisory Board, the CEO shall be the first contact for the Supervisory Board and its Chairman. In addition thereto, and in connection with how the contacts between the Supervisory Board and the Management Board committee have been given shape, the members of the Management Board will act in accordance with the provisions provided therefore in the Management Board Charter, the Executive Board Charter and the Supervisory Board Charter.

Capital, significant shareholders and exercise of control

As a publicly-listed company, Aegon is required to provide the following detailed information regarding any structures or measures that may hinder or prevent a third party from acquiring the Company or exercising effective control over it.

The capital of the Company

Aegon has an authorized capital of EUR 1,080 million, divided into 6 billion common shares and 3 billion common shares B, each with a nominal value of EUR 0.12. As of December, 31 2018, a total of 2,095,648,244 common shares and 585,022,160 common shares B had been issued.

Depository receipts for Aegon shares are not issued with the Company s cooperation.

Each common share carries one vote. There are no restrictions on the exercise of voting rights by holders of common shares.

All common shares B are held by Vereniging Aegon, the Company s largest shareholder. The nominal value of the common shares B is equal to the nominal value of a common share. This means that common shares B also carry one vote per share. However, the voting rights attached to common shares B are subject to restrictions as laid down in the Voting Rights Agreement, under which Vereniging Aegon may cast

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one vote for every 40 common shares B it holds in the absence of a Special Cause.

The financial rights attached to a common share B are one-fortieth (1/40th) of the financial rights attached to a common share. The rights attached to the shares of both classes are otherwise identical. For the purpose of the issuance of shares, reduction of issued capital, the sale and transfer of common shares B or otherwise, the value or the price of a common share B is determined as one-fortieth (1/40th) of the value of a common share. For such purposes, no account is taken of the difference between common shares and common shares B in terms of the proportion between financial rights and voting rights.

Significant shareholdings

On December 31, 2018, Vereniging Aegon, Aegon s largest shareholder, held a total of 279,236,609 common shares and 571,165,680 common shares B.

Under the terms of the 1983 Merger Agreement as amended in May 2013, Vereniging Aegon has the option to acquire additional common shares B. Vereniging Aegon may exercise its call option to keep or restore its total stake to 32.6% of the voting rights, irrespective of the circumstances that caused the total shareholding to be or become lower than 32.6%.

During 2018, one transaction was concluded between Aegon N.V. and Vereniging Aegon under or in connection with the 1983 Merger Agreement. All requirements determined by Best Practice 2.7.5 of the Dutch Corporate Governance Code were complied with in the execution of these transactions.

On May 18, 2018, Vereniging Aegon exercised its options rights to purchase in aggregate 1,489,200 common shares B at fair value (1/40th of the market value of a common share in the capital of the Company at the time of issuance) to mitigate dilution caused by Aegon s issuance of shares on May 18, 2018 in connection with the Long Term Incentive Plans for senior management.

To Aegon s knowledge based on the filings made with the Dutch Autoriteit Financiële Markten, Dodge & Cox International Stock Fund, BlackRock, Inc. and Franklin Resources, Inc. hold a capital or voting interest in Aegon of 3% or more.

Based on its last filing with the Dutch Autoriteit Financiële Markten as at June 20, 2018, Dodge & Cox International Stock Fund stated to hold 131,792,024 common shares, which represent 4.9% of the issued capital and votes as at December 31, 2018. On February 14, 2019, Dodge & Cox s filing with the US Securities and Exchange Commission (SEC) shows that Dodge & Cox holds 237,992,105 common shares, representing 8.9% of the issued and outstanding capital as at December 31, 2018, and has voting rights for 232,925,689 shares, representing 8.7% of the votes as at December 31, 2018.

Based on its filing with the Dutch Autoriteit Financiële Markten as at March 27, 2018, BlackRock, Inc. stated to hold 112,661,670 shares, representing 4.2% of the issued capital as at December 31, 2018 and 131,979,873 voting rights, representing 4.9% of the votes as at December 31, 2018. On February 4, 2019, BlackRock, Inc. s filing with the US Securities and Exchange Commission (SEC) shows that BlackRock holds 122,040,092 common shares, representing

4.6% of the issued capital as at December 31, 2018, and has voting rights for 106,522,921 shares, representing 4.0% of the votes as at December 31, 2018.

Based on its filing with the Dutch Autoriteit Financiële Markten as at June 10, 2015, Franklin Resources, Inc. (FRI) stated to hold 81,510,408 shares, representing 3.0% of the issued capital and of the votes as of December 31, 2018. On January 25, 2019, the filing of Franklin Resources, Inc. (FRI), a US based investment management firm, with the SEC shows that FRI holds 61,141,668 common shares and voting rights, representing 2.3% of the issued and outstanding capital, as at December 31, 2018.

Special control rights

As a matter of Dutch corporate law, the common shares and the common shares B offer equal full voting rights, as they have equal nominal value (EUR 0.12). The Voting Rights Agreement entered into between Vereniging Aegon and Aegon provides that under normal circumstances, i.e. except in the event of a Special Cause, Vereniging Aegon is not allowed to exercise more votes than is proportionate to the financial rights represented by its shares. This means that in the absence of a Special Cause, Vereniging Aegon may cast one vote for every common share it holds and one vote only for every 40 common shares B it holds. In the event of a Special Cause, Vereniging Aegon may cast one vote for every common share and one vote for every common share B.

A Special Cause may include:

- The acquisition by a third party of an interest in Aegon N.V. amounting to 15% or more;
- A tender offer for Aegon N.V. shares; or
- A proposed business combination by any person or group of persons, whether acting individually or as a group, other than in a transaction approved by the Company s Executive and Supervisory Boards.

If Vereniging Aegon, acting at its sole discretion, determines that a Special Cause has arisen, it must notify the General Meeting of Shareholders. In this event, Vereniging Aegon retains full voting rights on its common shares B for a period limited to six months. Vereniging Aegon would, for that limited period, command 32.6% of the votes at a General Meeting of Shareholders.

Issue and repurchase of shares

New shares may be issued up to the maximum of the Company s authorized capital, following a resolution adopted by the General Meeting of Shareholders. Shares may

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also be issued following a resolution of the Executive Board, subject to approval by the Supervisory Board, providing, and to the extent that, the Board has been authorized to do so by the General Meeting of Shareholders. A resolution authorizing the Executive Board to issue new shares is usually presented at Aegon s Annual General Meeting of Shareholders.

Aegon is entitled to acquire its own fully paid-up shares, providing it acts within existing statutory restrictions. Shareholders usually authorize the Executive Board to purchase the Company s shares under terms and conditions determined by the General Meeting.

Transfer of shares

There are no restrictions on the transfer of common shares. Common shares B can only be transferred with the prior approval of Aegon s Supervisory Board.

Aegon has no knowledge of any agreement between shareholders that might restrict the transfer of shares or the voting rights pertaining to them.

Significant agreements and potential change of control

Aegon is not party to any significant agreements that would take effect, alter or terminate as a result of a change of control following a public offer for the outstanding shares of the Company, other than those customary in financial markets (for example, financial arrangements, loans and joint venture agreements).

Share plan

Senior executives at Aegon companies and some other employees are entitled to variable compensation of which part is granted in the form of shares. For further details, please see the remuneration report on page 59 and note 53 of the notes to Aegon s consolidated financial statements of this Annual Report. Under the terms of existing share plans the vesting of granted rights is predefined. The shares shall vest as soon as possible in accordance with payroll requirements of the relevant subsidiary after the adoption of the Company s Annual Report at the Annual General Meetings of Shareholders in the year of vesting of these shares.

Appointing, suspending or dismissing Board members

The General Meeting of Shareholders appoints members of both the Supervisory and Executive Boards, following nominations by the Supervisory Board. These nominations are binding providing at least two candidates are nominated. The General Meeting of Shareholders may cancel the binding nature of these nominations with a majority of two-thirds of votes cast, representing at least one half of Aegon s issued capital. The General Meeting may, in addition, bring forward a resolution to appoint someone not nominated by the Supervisory Board. Such a resolution also requires a two-thirds majority of votes cast, representing at least one half of Aegon s issued capital.

Members of Aegon s Supervisory and Executive Boards may be suspended or dismissed by the General Meeting of Shareholders with a two-thirds majority of votes cast, representing at least one half of Aegon s issued capital, unless

the suspension or dismissal has first been proposed by the Company s Supervisory Board. A member of the Executive Board may also be suspended by the Supervisory Board, although the General Meeting of Shareholders has the power to annul this suspension.

Amending the Articles of Association

The General Meeting of Shareholders may, with an absolute majority of votes cast, pass a resolution to amend Aegon s Articles of Association or to dissolve the Company, in accordance with a proposal made by the Executive Board and approved by the Supervisory Board.

Dutch Corporate Governance Code

As a company based in the Netherlands, Aegon adheres to the Dutch Corporate Governance Code. The version of the code applicable to the financial year 2018 is the version that came into force on January 1, 2017. Aegon endorses the Code and strongly supports its principles for sound and responsible corporate governance and long-term value creation. Aegon regards the Code as an effective means to help ensure that the interests of all stakeholders are duly represented and taken into account. It is the responsibility of both the Supervisory Board and the Executive Board to oversee Aegon s overall corporate governance structure.

In general, Aegon applies the best practice provisions set out in the Code. There is one best practice provision with which Aegon does not fully apply. In this case, Aegon adheres, as much as is possible, to the spirit of the Code.

Best Practice 4.3.3

The Dutch Corporate Governance Code recommends that the General Meeting of Shareholders may cancel the binding nature of nominations for appointments of members of the Executive Board and Supervisory Board with an absolute majority of votes and a limited quorum.

Aegon s position on Best Practice 4.3.3

Aegon s Articles of Association provide for a larger majority and a higher quorum than those advocated by the Code. Given that the Company has no specific anti-takeover measures, the current system is deemed appropriate within the context of the 1983 Merger Agreement under which Aegon was formed. However, to mitigate any possible negative effects stemming from this, the Supervisory Board has decided that, in the absence of any hostile action, it will only make nominations for the appointment of members to the Executive and Supervisory Boards that are non-binding in nature.

Corporate Governance Statement

For an extensive review of Aegon s compliance with the Dutch Corporate Governance Code, please refer to the Corporate Governance Statement on Aegon s corporate website.

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Differences between Dutch and US company laws

Dutch company law is different from US law in the following respects: Aegon, like most large Dutch public companies, has a two-tier governance system comprising an Executive Board and a Supervisory Board. The Executive Board is the executive body. Its members are not Aegon employees and have an engagement agreement with the Company. Members of the Executive Board are appointed and dismissed by the General Meeting of Shareholders, as inside directors are in the United States. The Remuneration Policy as regards the members of the Executive Board is adopted by the General Meeting of Shareholders. The number of the Executive Board members and the terms of their engagement are determined by the Supervisory Board within the scope of the adopted Remuneration Policy.

The Supervisory Board performs supervisory and advisory functions only, and its members are outsiders that are not employed by the Company. The Supervisory Board has the duty to supervise the performance of the Executive Board, the Company s general course of affairs and the business connected with it. The Supervisory Board also assists the Executive Board by giving advice. Other powers of the Supervisory Board include the prior approval of certain important resolutions of the Executive Board. Members of the Supervisory Board are appointed for a four-year term and may be dismissed by the General Meeting of Shareholders. The remuneration of Supervisory Board members is fixed by the General Meeting of Shareholders. Resolutions entailing a significant change in the identity or character of the Company or its business require the approval of the General Meeting of Shareholders.

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Composition of our Boards

Members of the

Executive Board

Alexander R. Wynaendts (1960, Dutch)

CEO and Chairman of the Executive and Management Boards of Aegon N.V.

Alex Wynaendts began his career in 1984 with ABN AMRO Bank, working in Amsterdam and London in the Dutch bank s capital markets, asset management, corporate finance and private banking operations. In 1997, Mr. Wynaendts joined Aegon as Senior Vice President for Group Business Development.

He was appointed as a member of Aegon s Executive Board in 2003, overseeing the Company s international growth strategy. In April 2007, Mr. Wynaendts was named Aegon s Chief Operating Officer. A year later, he became CEO and Chairman of Aegon s Executive Board and Management Board. His current term of office ends in 2019.

Mr. Wynaendts has been an Independent Director of the Board of Air France-KLM S.A. since May 2016 and the Chairman of the Supervisory Board of Puissance B.V. (not listed) since May 2017.

Matthew J. Rider (1963, American)

CFO and member of the Executive and Management Boards of Aegon N.V.

Matt Rider began his career at Banner Life Insurance Company and held various management positions at Transamerica, Merrill Lynch Insurance Group and ING before joining Aegon. From 2010 to 2013, he was Chief Administration Officer and a member of the Management Board at ING Insurance,

based in the Netherlands. In this role he was responsible for all of ING s insurance and asset management operations, and specifically for Finance and Risk Management. Mr. Rider joined Aegon on January 1, 2017 and was appointed as CFO and member of the Executive Board of Aegon at the Annual General Meeting of Shareholders of Aegon N.V. of

May 19, 2017.

Members of the Management Board

Alexander R. Wynaendts: see above

Matthew J. Rider: see above

Mark Bloom (1964, American)

Global Chief Technology Officer and member of the Management Board of Aegon N.V.

Mark Bloom has over 30 years experience in information technology. He joined Aegon from Citi in February 2016, where he served as Global Head of Consumer Digital and Operations Technology, responsible for digital, data and operations technology solutions and innovations. Prior

to that, he held a number of technology leadership positions in financial services and the aerospace industry. As Global Chief Technology Officer at Aegon, Mr. Bloom is responsible for leading the Company s technology and innovation activities, including leveraging technology to drive efficiency and enhancing the customer experience. Mr. Bloom was appointed as a member of Aegon s Management Board in August 2016.

Adrian Grace (1963, British)

CEO of Aegon UK and member of the Management Board of Aegon N.V.

Adrian Grace held various roles at GE capital, Sage Group Inc., before joining Barclays Bank as Chief Executive of the Insurance Business in 2004, and HBOS as Managing Director of Commercial Businesses in 2007. He joined Aegon

UK in 2009, and was appointed CEO of Aegon UK in 2011 and as a member of the Management Board of Aegon in 2012. Mr. Grace is a non-executive Director at Clydesdale Bank and a member of the Financial Conduct Authority practitioners panel. He was member of the Board of Scottish Financial Enterprise until June 2013.

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Allegra van Hövell-Patrizi (1974, Italian and Belgian)

Chief Risk Officer of Aegon N.V. and member of the Management Board of Aegon N.V.

Allegra van Hövell-Patrizi began her career in 1996 at McKinsey & Company, specializing in financial institutions. After several years as a partner there, she joined F&C Asset Management in 2007 as a member of the Management Committee. In 2009, she joined Prudential plc where she was part of the CEO Office

and then later became Group Risk Director, and a member of the Group Executive Risk Committee, as well as the PUSL Board (within the Prudential plc Group). Ms. van Hövell-Patrizi joined Aegon at the end of 2015. She was appointed Chief Risk Officer of Aegon N.V. and a member of Aegon s Management Board in January 2016. Ms. van Hövell-Patrizi is a member of the Supervisory Board of LeasePlan (not listed) since 2018.

Marco Keim (1962, Dutch)

Head of Aegon Continental Europe and member of the Management Board of Aegon N.V.

Marco Keim began his career with accountancy firm Coopers & Lybrand/Van Dien, before moving to the aircraft manufacturer Fokker Aircraft and NS Reizigers, part of the Dutch railway company, NS Group. In 1999, he joined Swiss Life

in the Netherlands as a Member of the Board, and was appointed CEO three years later. Mr. Keim was appointed CEO of Aegon the Netherlands and member of Aegon s Management Board in June 2008, and Head of Aegon Continental Europe in January 2017. Mr. Keim is a member of the Supervisory Board of Eneco Holding N.V..

Onno van Klinken (1969, Dutch)

General Counsel and member of the Management Board of Aegon N.V.

Onno van Klinken has over 25 years experience providing legal advice to a range of companies and leading Executive Board offices. Mr. Van Klinken started his career at Allen & Overy, and previously worked for Aegon between 2002 and 2006. He then served as Corporate Secretary for Royal Numico, before it was acquired by Groupe Danone. His next position was as General Counsel for the Dutch global mail and express

group TNT, where he served from 2008 until the legal demerger of the group in 2011. This was followed by General Counsel positions at D.E. Master Blenders 1753 and Corio N.V.. Mr. Van Klinken rejoined Aegon in 2014 as General Counsel responsible for Group Legal, Regulatory Compliance, the Executive Board Office, and Government and Policy Affairs. Mr. Van Klinken has been a member of Aegon s Management Board since August 2016. Mr. Van Klinken was appointed member of the Board of Stichting Continuïteit SBM Offshore in December 2016.

Carla Mahieu (1959, Dutch)

Global Head Human Resources and member of the Management Board of Aegon N.V.

Carla Mahieu started her career in 1984 at Royal Dutch Shell, where she held various management positions within Human Resources, Communications and Corporate Strategy. Following several years as a consultant during which time she worked for Spencer Stuart, among other companies Ms. Mahieu was

appointed Senior Vice President Corporate Human Resource Management at Royal Philips Electronics in 2003. Ms. Mahieu joined Aegon in 2010 as Global Head Human Resources, and has been a member of Aegon s Management Board since August 2016. Ms. Mahieu has been a member of the Supervisory Board of the Royal BAM Group since 2011, and the Supervisory Board of VodafoneZiggo Group B.V. since 2017.

Mark Mullin (1963, American)

CEO of Aegon Americas and member of the Management Board of Aegon N.V.

Mark Mullin has spent more than 20 years with Aegon in various management positions in both the United States and Europe. Mr. Mullin served as President and CEO of one of Aegon s US subsidiaries, Diversified Investment Advisors, and as head of the Company s US annuity and mutual fund businesses.

He was named President of Aegon Americas in 2009, and became President and CEO of Aegon Americas and a member of Aegon s Management Board in 2010. Mr. Mullin was appointed Chairman of the Board of Directors of the American Council of Life Insurers for the period October 2017-October 2018 and remains a member of the Board of Directors and Executive Committee through October 2019.

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Sarah Russell (1962, Australian)

CEO of Aegon Asset Management and member of the Management Board of Aegon N.V.

Sarah Russell has over 25 years experience in international finance and asset management.Ms. Russell began her career at Toronto Dominion in Melbourne before joining ABN AMRO in 1994. She moved to the Netherlands in 2000, where she held a number of various roles, leading to her appointment as CEO of ABN AMRO s asset management operations. Ms. Russell joined Aegon Asset Management as CEO in 2010, and has been

a member of Aegon s Management Board since August 2016. Ms. Russell has been a non-executive director of Nordea Bank Abp and its predecessors since 2010, holds a Supervisory Board member position at the Nederlandse Investeringsinstelling, and is Vice Chairman of the Supervisory Board of La Banque Postale Asset Management. Ms. Russell is also a Board member of the American Chamber of Commerce, the Netherlands since May 2017.

Members of the Supervisory Board

Robert J. Routs (1946, Dutch)

Chairman of the Supervisory Board until May 18, 2018

Chairman of the Nomination and Governance Committee until May 18, 2018

Member of the Remuneration Committee until May 18, 2018

Robert J. Routs is a former Executive Director for Downstream at the energy company Royal Dutch Shell. He was appointed to Aegon s Supervisory Board in April 2008 and became Chairman in April 2010. Mr. Routs was re-appointed as a member of the Supervisory Board during the 2016 Annual General Meeting of Shareholders. Following a ten year tenure, Mr. Routs retired as per May 18, 2018.

William L. Connelly (1958, French)

Chairman of the Supervisory Board

Chairman of the Nomination and Governance Committee

Member of the Remuneration Committee

William L. Connelly is a former member of the Management Board of ING Bank, where he was responsible for ING s corporate, financial institutions and financial markets activities. He started his career at Chase Manhattan Bank, fulfilling senior roles in commercial and investment banking in France, the Netherlands, Spain, the United Kingdom and the United States. He was appointed to Aegon s Supervisory Board in 2017 and became Chairman in May 2018 and his current term ends in 2021. He is also chairman of the Supervisory Board Nomination and Governance Committee and member of the Supervisory Board Remuneration Committee. Mr. Connelly is also an independent director at the Board of Directors of Société Générale.

Robert W. Dineen (1949, American)

Member of the Remuneration Committee

Member of the Risk Committee

Robert W. Dineen was Vice Chairman of Lincoln Financial Network (LFN) and a member of the Senior Management Committee of Lincoln Financial Group (LFG), before retiring in 2013. Before joining Lincoln Financial Group, Mr. Dineen was Senior Vice President and head of Merrill Lynch s Managed Asset Group. He was appointed to Aegon s Supervisory Board in May 2014, and

his current term ends in 2022. He is a member of the Supervisory Board Remuneration Committee and the Supervisory Board Risk Committee.

Mr. Dineen was the non-executive Chairman of the Board of Aretec Inc (not listed, US-based) and was a member of Lincoln New York Life Company Board.

Mark A. Ellman (1957, American)

Member of the Audit Committee

Member of the Risk Committee

Mark A. Ellman is a former Vice Chairman Global Origination of Bank of America/Merrill Lynch. Before joining Bank of Amercia/ Merrill Lynch, he held various roles in the US insurance industry. These mostly entailed working in corporate finance at large US financial institutions, where he was engaged in M&A advice and transactions, together with equity and debt raisings for insurance companies. He was a founding partner of Barrett Ellman Stoddard Capital Partners. Mr. Ellman was appointed to Aegon s Supervisory Board in 2017, and his current term ends in 2021. He is a member of the Supervisory Board Audit Committee and the Supervisory Board Risk Committee.

Mr. Ellman was a non-executive director of Aegon USA from 2012 to 2017.

Ben J. Noteboom (1958, Dutch)

Chairman of the Remuneration Committee

Member of the Risk Committee

Ben J. Noteboom worked for Randstad Holding N.V. from 1993 until 2014, where he was appointed member of the Executive Committee in 2001 and became CEO in 2003. Before joining Randstad, Mr. Noteboom worked for Dow Chemical in several international management functions between 1984 and 1993. He started his career in 1982 at Zurel as management assistant. He was appointed to Aegon s Supervisory Board in May 2015, and his current term ends in 2019. He is Chairman of the Supervisory Board Remuneration Committee and a member of the Supervisory Board Risk Committee.

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Mr. Noteboom is also a member of the Supervisory Board of Royal Ahold Delhaize N.V., Wolters Kluwer N.V. and Chairman of the Supervisory Board of Royal Vopak N.V. In addition, Mr. Noteboom is a member of the Board of Directors of VUmc Cancer Center Amsterdam and the Chairman of Stichting Prioriteit Ordina Groep.

Ben van der Veer (1951, Dutch)

Chairman of the Audit Committee

Member of the Nomination and Governance Committee

Ben van der Veer is former Chairman of the Board of Management of KPMG N.V. Mr. Van der Veer retired from KPMG on September 30, 2008, and was appointed to Aegon s Supervisory Board in October 2008. Mr. Van der Veer was re-appointed as a member of the Supervisory Board during the 2016 Annual General Meeting of Shareholders, and his third and final term ends in 2020. He is Chairman of the Supervisory Board Audit Committee and a member of the Supervisory Board Nomination and Governance Committee.

Mr. Van der Veer is a non-executive member of the Board of Directors of RELX PLC. He is also a member of the Supervisory Board of Royal FrieslandCampina N.V. (not listed), and member of the Supervisory Board of Royal Vopak N.V. since April 2018. Mr Van der Veer was a former member of the Supervisory Board of Royal Imtech N.V., TomTom N.V., and Siemens Nederland N.V. (not listed).

Dirk P.M. Verbeek (1950, Dutch)

Member of the Risk Committee until May 18, 2018

Member of the Nomination and Governance Committee until May 18, 2018

Dirk P.M. Verbeek is a former Executive Board member and former vice president Emeritus of Aon Group. Mr Verbeek is a member of the Advisory Council of OVG Real Estate (not listed). Mr. Verbeek was appointed to Aegon s Supervisory Board in 2008. He was a member of the Supervisory Board Risk Committee and the Supervisory Board Nomination and Governance Committee. Mr. Verbeek retired from the Supervisory Board as per May 18, 2018.

Corien M. Wortmann-Kool (1959, Dutch)

Vice Chairman of the Supervisory Board

Member of the Audit Committee

Member of the Nomination and Governance Committee

Corien M. Wortmann-Kool is Chairman of the Board of Stichting Pensioenfonds ABP, the Dutch public sector collective pension fund. Ms. Wortmann-Kool is a former Member of the European Parliament and Vice President on Financial, Economic and Environmental affairs for the EPP Group (European People s Party). She was appointed to

Aegon s Supervisory Board in May 2014, and her current term ends in 2022. She is Vice Chairman of the Supervisory Board, and a member of the Supervisory Board Audit Committee and the Supervisory Board Nomination and Governance Committee.

Ms. Wortmann-Kool is also a member of the Supervisory Board of Het Kadaster (not listed), member of the Advisory Council of the Centraal Bureau voor de Statistiek, Chairman of the Board of Trustees of Save the Children Netherlands and member of De Autoriteit Financiële Markten Capital Markets Advisory Committee. She was a member of the Supervisory Board of Mercedes-Benz Netherlands (not listed) until 2014, vice president of the European People s Party until March 2018 and member of the Advisory Council of the Centraal Bureau voor de Statistiek until June 2018.

Dona D. Young (1954, American)

Member of the Audit Committee

Chairman of the Risk Committee

Member of the Nomination and Governance Committee

Dona D. Young is an executive/board consultant and retired Chairman, President and Chief Executive Officer of The Phoenix Companies, which was an insurance and asset management company at the time of her tenure. She was appointed to Aegon s Supervisory Board in 2013, and her current term will end in 2021.

She is Chairman of the Supervisory Board Risk Committee, member of the Supervisory Board Audit Committee and member of the Supervisory Board Nomination and Governance Committee.

Ms. Young is member and Lead Director of the Board of Directors of Foot Locker, Inc. Furthermore, Ms. Young is Chair of the Audit Committee of the Board of Trustees of Save the Children US (not listed), and member of the Board of Save the Children International and Save the Children Association.

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51 How we safeguard long-term value creation **Report of the Supervisory Board**

Report of the Supervisory Board

The Supervisory Board is entrusted with supervising and advising the Executive Board on management of the Company, and overseeing Aegon s strategy and the general course of its businesses.

Oversight and advice

The Supervisory Board is a separate independent corporate body, consisting of seven members on December 31, 2018. The Supervisory Board is charged with the supervision of the Executive Board, of the general course of affairs and strategy of the Company, and of its businesses. In performing their duties, members of the Supervisory Board are guided by the interests of Aegon and the Company s stakeholders.

The duties of the Supervisory Board with regard to the activities of members of the Executive Board are published in the Supervisory Board Charter, which is published on Aegon s corporate website, aegon.com. The Supervisory Board makes recommendations to the General Meeting of Shareholders concerning all appointments and reappointments to, and dismissals from, both the Executive Board and the Supervisory Board.

In addition, the Supervisory Board determines the remuneration of individual members of the Executive Board in line with the Remuneration Policy adopted at the Company s General Meeting of Shareholders. Overall accountability for Aegon s remuneration governance also resides with the Supervisory Board, which is advised by its Remuneration Committee. This includes the responsibility for designing, approving and maintaining the Aegon Group Global Remuneration Framework, including the remuneration policies for the Executive Board and Heads of Group Control functions.

Corporate governance

Details of Aegon s corporate governance structure and a summary of how the Company complies with the Dutch Corporate Governance Code can be found on pages 42-46 of this Annual Report and in the Corporate Governance Statement published on aegon.com.

Composition of the Supervisory Board and Executive Board

Supervisory Board

The composition of the Board is discussed regularly in Board meetings and in particular by the Nomination and Governance Committee. An overview of the composition of the Supervisory Board in 2018 can be found on pages 49-50. All members of the Supervisory Board are considered independent under the terms of best practice provisions 2.1.7, 2.1.8 and 2.1.9 of the Dutch Corporate Governance Code.

There were a number of changes to the Supervisory Board in 2018. Following a ten-year term, Rob Routs stepped down as Chairman and member of the Board at the Annual General Meeting of Shareholders on May 18, 2018. In

addition, Dirk Verbeek stepped down after 10 years service at the Annual General Meeting of Shareholders on May 18, 2018. The Board benefitted from Mr. Routs and Mr. Verbeek s knowledge and contributions. The Supervisory Board elected William Connelly as its new Chairman following the Annual General Meeting of May 18, 2018.

On May 18, 2018, shareholders approved the reappointment of Corien Wortmann-Kool and Robert Dineen for an additional four-year term. The Supervisory Board is in the process of selecting new candidates for appointment, and will propose any such candidate(s) in due course for approval to the Company s shareholders.

In compliance with the Dutch Corporate Governance Code, members of the Supervisory Board are appointed by shareholders for a term of four years. The option exists to reappoint members for one additional four-year term. A Supervisory Board member can then subsequently be reappointed again for a period of two years, which reappointment may be extended by at most two years. For a reappointment after an eight-year period, reasons will be provided in the report of the Supervisory Board. The retirement schedule and other information about members of the Supervisory Board are available on aegon.com.

Executive Board

The Executive Board consists of Alexander R. Wynaendts, Chief Executive Officer (CEO) and Chairman of the Executive Board, and Matthew J. Rider, Chief Financial Officer (CFO).

Members of the Executive Board are appointed by shareholders for a term of four years, with the option of reappointment for additional four-year terms. The appointment schedule and other information about members of the Executive Board are available on aegon.com.

Board meetings

Attendance

In 2018, the Supervisory Board had seven regular (face-to-face) meetings: four related to the quarterly results; one to the annual report; and two to strategy (including the budget and Medium Term Plan). Supervisory Board Committee meetings were usually held the day before the meetings of the full Supervisory Board. All regular board meetings were attended by all Board

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members. All committee meetings were attended by all committee members. An overview of Supervisory Board members attendance by meeting is provided in the table below.

Name	Regular SB meetings	Audit Committee	Risk Committee	Remuneration Committee	Nomination & Governance Committee	Combined Audit & Risk Committee
Rob Routs [1]	3/3	-	-	3/3	3/3	-
Bill Connelly [1]	7/7	4/4	-	6/6	5/5	-
Bob Dineen [1]	7/7	4/4	4/4	3/3	-	1/1
Mark Ellman	7/7	6/6	4/4	-	-	1/1
Ben Noteboom	7/7	-	4/4	6/6	-	1/1
Ben van der Veer	7/7	6/6	-	-	8/8	1/1
Dirk Verbeek [1]	3/3	-	2/2	-	3/3	-
Corien Wortmann	7/7	6/6	-	-	8/8	1/1
Dona Young [1]	7/7	6/6	4/4	-	5/5	1/1

[1] Where a Supervisory Board member retired from the SB, stepped down from a Committee or was appointed throughout the year, only meetings during his/her tenure are taken into account.

Members of the Executive Board and Management Board attended the Supervisory Board meetings held in 2018 when relevant with regard to the meeting agenda. At the request of the Supervisory Board, other Company executives also attended the meetings to provide reports and updates on specific topics. Representatives from Aegon s external auditor PwC attended the March 2018 Supervisory Board meeting on Aegon s 2017 Annual Report. PwC also attended all 2018 Audit Committee meetings except for the October deep dive meeting in Edinburgh, the UK, focused on Aegon UK and the combined Supervisory Board Audit and Risk Committee in December. Regular Board meetings were preceded or followed by meetings attended only by the members of the Supervisory Board and the CEO. Furthermore, the Supervisory Board held meetings without the presence of Executive Board or Management Board members.

Highlights and activities

Key topics discussed during the 2018 Supervisory Board meetings were Aegon s quarterly results and semi-annual and annual reporting, Aegon s strategy, the main business risks, IT, regulatory developments, acquisitions and divestments and human resources items.

Quarterly results were discussed on the basis of feedback from the Audit Committee. The full-year results reported in this Annual Report were discussed in the March 2019 meeting in the presence of the external auditor PwC. At the Supervisory Board meeting in December 2018, the budget for 2019 was approved and the Medium Term Plan was

discussed.

The Supervisory Board regularly discussed the long-term value creation strategy with the Executive Board and the Management

Board, and closely monitored its execution, the risks involved in its execution, and any opportunities to further enhance the strategy where necessary. Every year during the Supervisory Board strategy meeting, the strategy is discussed as part of the annual strategy process. Plans and projects were discussed during executive sessions and in regular meetings, together with the strategic focus for all operating segments. Furthermore, digitization and the cultural transformation of the business were additional important strategic priorities that were discussed during the Supervisory Board meetings.

Acquisitions and divestments were regularly discussed in the context of the execution of the strategy. The Supervisory Board supports the active management of the business portfolio with add-on acquisitions, the sale of underperforming businesses and the disposals of entities no longer consistent with Aegon s strategy. During the year, the Board discussed various M&A transactions, including but not limited to the acquisition of Robidus in the Netherlands, the divestment of the businesses in Czech Republic, Slovakia and Ireland and the divestment of the last block of US life reinsurance business to SCOR

Global Life.

In recognition of the importance of succession planning and talent management, the Board received updates from Aegon s Global Head Human Resources on progress made towards achieving the objectives of Aegon s talent agenda: continuing to attract new staff with a wide range of different skills and experience; identifying sufficiently qualified succession candidates; and strengthening the talent pipeline for future succession. The Board also received and discussed the results of the annual global employee survey.

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In 2018, Supervisory Board discussions included the following topics:

- Strategy, including Aegon s long-term value creation, its responsible business strategy and business reviews;
- Acquisitions, divestments and the strategic direction of Aegon s businesses, including the organizational transformation throughout the business, such as the strategic partnership to outsource administration of the majority of Transamerica s insurance and annuity business, and the decision made by Aegon UK to extend the partnership with Atos for administration services.
- Executive Board and senior management succession planning;
- Executive remuneration, including the risks of the remuneration framework;
- Corporate Governance;
- Composition of the Supervisory Board, including the Board s effectiveness;
- Human resources, including talent development, results of the global employee survey, cultural change and the risks of cultural behavior within the Company;
- Annual and quarterly results, dividends and the Company s Medium Term Plan, including the 2019 budget, capital and funding plan;
- Capital generation and Solvency II capital position, including regulatory capital reports and actions following the changes in the US Capital Framework for Variable Annuities resulting in the merger of two US legal entities;
- Enterprise risk management, cybersecurity and information security risks, and the risks related to the execution of the strategy within the Company;
- Investor relations, including shareholder listing, market analysis and roadshow feedback;
- Legal, regulatory and compliance issues, including Aegon s engagement with regulators, and the settlement with the SEC and the settlement in relation to the universal life litigation in the US;
- Highlighted topics by Supervisory Board Committees;
- Regulatory changes at both a regional and global level;
- Tax policy and tax developments; and
- Technology, including the technology strategy, technological developments and innovations, and how they can be used to enhance customer centricity.

Results and budget

In February 2018, the Supervisory Board convened to discuss the fourth quarter 2017 results. In March 2018, the Supervisory Board reviewed and adopted Aegon s 2017 Annual Report, the Consolidated Financial Statements of Aegon N.V., the Financial Statements of Aegon N.V., and the Annual Review of 2017. In May, August and November, the Supervisory Board reviewed Aegon s first, second and third quarter 2018 results respectively.

In December 2018, the Supervisory Board and Management Board reviewed the Company s Medium Term Plan, including the budget and capital plan for 2019. The Boards took note

of the uncertainties and challenges in the coming years as described in the Plan. These included, among others: increased regulatory requirements, low interest rates, market volatility, digital developments, and the changing distribution landscape. The Board discussed Aegon s free cash flow and capital projections, together with the continued focus on cost efficiency. The Plan provides for a continuation of investments in digital capabilities to increase customer connectivity. The Supervisory Board supported the Plan and approved the budget for 2019. The Board also approved the 2019 funding plan and authorized the Executive Board to execute on the funding plan in

2019.

Legal, compliance and regulatory affairs

In 2018, the Supervisory Board and the Audit Committee discussed a number of compliance, regulatory and legal topics relating to the Americas, Europe, Asia, and Asset Management with management, the Global Head of Group Legal & Regulatory Compliance and the Global Head of Operational and Conduct Risk Management. In particular, the Board discussed the consequences and actions resulting from being designated as a Global Systematically Important Insurer (G-SII) and the settlement with the US Securities and Exchange Commission (SEC) with regards to the operation and implementation of asset management quantitative models by Aegon s US asset management operations, and related disclosures. The Board furthermore discussed the settlement that resolved litigation challenging certain monthly deduction rate adjustments on universal life insurance policies in the United States. An overview of the topics discussed in the field of Risk Management can be found in the Audit Committee and Risk Committee sections below.

The Chairs of the Supervisory Board, Audit Committee and Risk Committee visited the group supervisor (Dutch Central Bank, DNB) in the first half of 2018 for their annual meeting.

Educational sessions

The Board and its Committees received updates and presentations on topics including developments in acquisitions and divestments, corporate governance and regulatory compliance, roles and responsibilities of the Board and the management and remuneration regulations for the insurance sector, responsible business and information technology. In addition to these updates and presentations from the Company, the members of the Supervisory Board gathered general information on industry developments by participating in networks, reading independent reports and sharing knowledge with other Board members within and outside Aegon. The Board visited local offices and employees in Asia, the UK and the US and was furthermore in particular informed on the strategic direction of Aegon s activities in Europe, Asia and Asset Management and on the transformation processes within the Company. In addition, the Board was updated on the developments around the General Data Protection Regulation and on the Asset and Liability Management within the Company. The Audit Committee furthermore held a meeting dedicated to Aegon UK developments.

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Board review

The Supervisory Board undertakes a Board review on an annual basis, and an external assessment takes place at least once every three years. At the end of 2017, a self-assessment was undertaken by the Board and the results of this self-assessment were discussed at the beginning of 2018. Over 2018, an external assessment of the Supervisory Board will be conducted. The results of this assessment and the priorities and follow-up will be discussed in the beginning of 2019. In the assessment each member of the Board will be interviewed on the basis of a completed questionnaire. The Board review assesses the collective performance and effectiveness of the Board and its Committees, and the performance of the Chairman and the individual members of the Board. In doing so, it addresses the composition, competencies, expertise and profile of the Board, the meeting processes and procedures, the mutual interaction, dynamics and communication in the Board, and the Board s key areas of supervision. The questionnaire further addresses events from which lessons can be learned, and reviews the mutual interaction between the Supervisory Board and the Executive Board and Management Board. With regard to this mutual interaction, the 2018 Supervisory Board review also includes input from the Management Board. In 2018, the Supervisory Board acted on the priorities and follow-ups that were listed following the self-assessment over 2017.

The performance of the members of the Executive and Management Board was discussed regularly during 2018. The Supervisory Board reviewed the performance of individual members of the Executive and Management Board over the preceding calendar year in February 2018. In addition, the Supervisory Board discussed the cooperation and communication between the Supervisory Board and Management Board in 2018.

Supervisory Board Committees

The Supervisory Board has four Committees that discuss specific issues in depth and prepare items about which the full Board makes decisions. The Committees report verbally about their discussions, and they are discussed in full at Supervisory Board meetings. Supervisory Board members receive all minutes of the Committee meetings. These meetings are open to all members of the Board, regardless of membership of the Committees. All Committee reports were prepared by the respective Committees and approved by the Supervisory Board. These reports provide an overview of the responsibilities and activities of the Committees.

The four Committees are the:

- Audit Committee;
- Risk Committee;
- Nomination and Governance Committee; and
- Remuneration Committee.

The Risk Committee is responsible for supervising the activities of, and advising the Supervisory Board s Audit Committee with respect to, the Company s enterprise risk management framework and internal control systems. The Audit Committee primarily relies on the Risk Committee for these topics, as stated in the Dutch Corporate Governance Code.

The Audit Committee

Composition

On December 31, 2018, the composition of the Audit Committee was as follows:

Ben van der Veer (chair);
Mark A. Ellman;
Corien M. Wortmann-Kool; and
Dona D. Young.

The members of the Audit Committee meet all relevant independence and experience requirements of financial administration and accounting for listed companies.

The Committee confirmed that all of its members qualified as independent according to Rule 10A-3 of the SEC, and it also confirmed that the Chairman of the Audit Committee, Ben van der Veer, qualified as a financial expert according to the Sarbanes Oxley Act in the United States and his competence in accounting and auditing according to the Audit Committee Decree 2016 (Besluit instelling auditcommissie), section 2(3).

Role and responsibilities

As Aegon has both an Audit Committee and a Risk Committee, the risk management responsibilities stated in the Dutch Corporate Governance Code are assigned to the Risk Committee. With regard to the oversight of the operation of the risk management framework and risk control systems, including supervising the enforcement of relevant legislation and regulations, the Audit Committee operates in close coordination with the Risk Committee as established by the Board. Certain Board members participate in both committees and a combined meeting of the Audit and Risk Committees is scheduled on an annual basis.

The main role and responsibilities of the Audit Committee are to assist and advise the Supervisory Board in fulfilling its oversight responsibilities regarding:

The integrity of the consolidated interim and full-year financial statements and financial reporting processes;
Internal control systems and the effectiveness of the internal audit process; and
The performance of the external auditors and the effectiveness of the external audit process, including monitoring the independence and objectivity of PwC.

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The Audit Committee reports to the Supervisory Board on its activities, identifying any matters about which it considers action or improvements are needed, and making recommendations as to the steps to be taken. For more information about the functioning of the Audit Committee, please see the Audit Committee Charter on aegon.com.

Committee meetings

In 2018, the Audit Committee held seven meetings, one of which was a combined meeting with the Risk Committee of the Supervisory Board in December 2018. As part of regular deep-dive sessions, a separate meeting took place in October in the UK dedicated to Aegon s business in the UK. Topics for discussion included the developments within Aegon UK in general, the capital generation, operational management including outsourcing and the digital solutions and integration initiatives within Aegon UK. Audit Committee meetings were attended by the members of the Audit Committee, Aegon s Chief Financial Officer, the Head of Corporate Financial Center, the Chief Risk Officer, the Chief Internal Auditor, and partners of PwC, Aegon s external auditor.

Members of Aegon s Group Risk, Group Legal & Regulatory Compliance, Investor Relations, Tax, Actuarial and Business departments regularly attended Audit Committee meetings. Aside from the Audit Committee meetings, additional sessions were held with internal and external auditors without members of the Executive Board or senior management present.

Financial Reporting

In discharging their responsibilities with regards to the 2018 interim and full year financial statements, the Audit Committee:

- Reviewed and discussed the management letter and follow up actions with PwC, Internal Audit, the Executive and the Management Board;
- Discussed PwC s quarterly reports leading to a review opinion on the interim financial statements;
- Received presentations on various topics by local business unit managers and chief financial officers; and
- Reviewed and discussed areas of significant judgments in the preparation of the financial statements, including, in particular: Solvency II, investment valuation and impairments, economic and actuarial assumption setting, and model validations.

The Audit Committee was satisfied with the explanations provided by PwC, Internal Audit and Executive and Management Board, and conclusions reached. Recurring items on the Audit Committee agenda in 2018 were Solvency II developments, controls, capital and liquidity, legal and compliance updates, and preparations for IFRS 9 and IFRS 17. Other items included the capital and funding plans and the performance review of the internal audit function.

Risk management and internal controls

With respect to their oversight of internal controls (provided they did not pertain to the work and responsibilities of the Risk Committee) the Audit Committee:

- Reviewed and approved the internal and external audit plans for 2018 and monitored execution, including progress in respect of recommendations made;
- Discussed quarterly updates on the activities of the internal audit function, together with details of progress on internal audits with the internal auditor. Areas of focus in 2018 included the Internal Audit strategy, audit planning process, Internal Audit charter, quality assurance reviews, issue tracking and resolution, control environment, Information Security, Solvency II, third party management and outsourcing, performance management and integrity;
- Contributed to the appointment process of the new Global Head of Internal Audit;
- Reviewed the internal control framework, among others with respect to the Sarbanes Oxley Act; and
- Discussed the internal control statement with the Executive Board.

In addition, the Committee reviewed quarterly legal and compliance updates.

External audit effectiveness

The Audit Committee discussed and approved the external auditor s engagement letter for 2018 and contributed to the appointment process of the new lead partner(s). Aegon has well-established policies on audit effectiveness and independence of auditors that set out, among other things:

- The review and evaluation of the external auditor and the lead partner of the external audit team on at least an annual basis;
- Non-audit services performed by the external auditor;
- Rotations of the external auditor and lead partner; and
- Discussions about planning and staffing of the external audit activities.

For more information about the policies relating to the effectiveness and independence of the external auditor, please see Annex A, B and C of the Audit Committee Charter on aegon.com.

The Risk Committee

Composition

On December 31, 2018, the composition of the Risk Committee was as follows:

- Dona D. Young (chair);
- Robert W. Dineen;
- Mark A. Ellman; and
- Ben J. Noteboom.

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Role and responsibilities

The main role and responsibilities of the Risk Committee are to assist and advise the Supervisory Board in fulfilling its oversight responsibilities regarding the effectiveness of the design, operation and appropriateness of both the Enterprise Risk Management (ERM) framework and the internal control systems of the Company and the subsidiaries and affiliates that comprise the Aegon Group. This includes:

- Risk strategy, risk tolerance and risk governance;
- Product development and pricing;
- Risk assessment;
- Risk responses and internal control effectiveness;
- Risk monitoring; and
- Risk reporting.

Furthermore, the Risk Committee regularly reviews risk exposures as they relate to capital, earnings and compliance with risk policies. The Company s risk management is an important topic for the Supervisory Board.

For more information about the functioning of the Risk

Committee, please see the Risk Committee Charter on aegon.com.

Committee meetings

The Risk Committee works closely together with the Audit Committee and has an annual combined meeting, which in 2018 was held in December. This combined meeting focused on the Group integrated risk reporting, the preparations for IFRS 9 and IFRS 17, the evaluation of internal controls, cyber security and information security.

The Risk Committee convened five times in 2018, including the combined meeting with the Audit Committee. The Company s Chief Executive Officer and Chief Risk Officer attend all the Committee meetings. The Chief Financial Officer had a standing invitation to attend the Committee meetings, and also attended one of the meetings in 2018. Other Management Board members and senior managers attended the meetings when relevant for the discussion.

Risk management and Internal controls

Recurring items on the Risk Committee agenda in 2018 were risk exposure information, risk policy compliance monitoring, and risks associated with large modernization and change programs in the company. The Risk Committee assessed the effectiveness of the design and operation of the ERM framework and internal control systems in 2018 by:

- Discussing the quarterly risk dashboard, including all material group level risks, with the Executive Board members and relevant senior managers. The material group level risks consisted of financial, actuarial and operational risks, including cybersecurity and information security risks and controls;
- Assessing a quarterly modernization dashboard that outlined risks with regards to the execution of the strategic change programs in each region, and how those risks were monitored and mitigated;

Discussing in-depth regional programs, referred to as Control Excellence , focused on internal controls and operational risk management with the relevant CROs;
Reviewing the Group Risk appetite, which consists of the risk strategy and risk limits and tolerances; and
Reviewing the risk governance structure and risk competencies, including the skills necessary for the risk function.

The Risk Committee also discussed several regulatory topics on a regular basis, including the DNB Focus report and the consequences and actions following the designation of Aegon as a G-SII in November 2015. The Risk Committee furthermore spent time on the Group ORSA report, the strategic human resources program Future Fit and on risks and approaches in dealing with third party relations of the Company. In addition, the Risk Committee dedicated time to wider developments in the geopolitical environment, including risks associated with Brexit and financial markets in 2018, and to an educational session on Asset and Liability Management within the Company.

The Nomination and Governance Committee

Composition

On December 31, 2018, the composition of the Nomination and Governance Committee was as follows:

William L. Connelly (chair);
Ben van der Veer;
Corien M. Wortmann-Kool; and
Dona D. Young.

Role and responsibilities

The main role and responsibilities of the Nomination and Governance Committee are to assist and advise the Supervisory Board in fulfilling its responsibilities in the areas of Human Resources Management and Corporate Governance. This includes:

Board member and senior management succession planning;
Drawing up selection criteria and procedures for Board members, together with supervising the selection criteria and procedures for senior management;
Advising on and proposing nominations, appointments and reappointments;
Reviewing and updating the Supervisory Board profile and charters for the Supervisory Board and its committees;
Periodically assessing the functioning of individual members of the Supervisory Board and the Executive Board;
Overseeing the corporate governance structure of the Company, compliance with the Dutch Corporate Governance Code and any other applicable corporate governance legislation and regulations; and
Assessing and advising on the responsible business strategy as part of the corporate strategy, and overseeing the execution of the responsible business strategy.

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Committee meetings

Aegon s Nomination and Governance Committee held eight meetings in 2018. In addition to the committee members, these meetings were attended in whole or in part by the CEO, the Global Head Human Resources and the General Counsel.

Further to the activities mentioned below, the Nomination and Governance Committee discussed the Company s responsible business strategy. The Nomination and Governance Committee also reviewed the important outside board positions of the members of the Management and Supervisory Board, and discussed specific appointments to important outside board positions where applicable.

Supervisory Board related activities

The Nomination and Governance Committee discussed the composition of the Supervisory Board and its Committees and governance topics. The profile of Supervisory Board members, as well as their capabilities in terms of working collectively with other members of the Supervisory Board, were debated by the Committee. Furthermore, the existing and impending vacancies in the Supervisory Board were discussed and a search process for fulfilling those vacancies was ongoing. A Supervisory Board competency overview is published on aegon.com.

Executive Board related activities

During 2018, the Nomination and Governance Committee reviewed the composition of the Executive Board. Considering the appointment schedule of the Executive Board, the Nomination and Governance Committee evaluated Mr. Wynaendts career at Aegon and his functioning as CEO of the Company, and advised the Supervisory Board to nominate Mr. Wynaendts for reappointment to the shareholder. The Nomination and Governance Committee furthermore reviewed the composition of the Management Board, together with the functioning and effectiveness of the Board members, both individually and as a team. Acknowledging the importance of good succession planning, the Committee discussed with the CEO and Aegon s Global Head Human Resources the extent to which sufficient internal candidates are available to fill positions at Executive Board, Management Board and senior management level both in the event of emergency and when positions open up in the future. The CEO also discussed changes in the global senior management team with the Nomination and Governance Committee during the year. The Committee was kept appraised of developments in employee engagement, talent management and international mobility. As in previous years, the Supervisory Board noted that Aegon continued to make progress in order to ensure proper succession planning is in place. The Supervisory Board was also informed about the annual Global Employee Survey, which was conducted at the end of 2018. The Supervisory Board discussed the outcome of this survey in detail in the first quarter of 2019.

Diversity

Enhancing diversity in the Executive, Management and Supervisory Board is an important issue for Aegon. Selection and appointment is based on expertise, skills and relevant experience, and the Supervisory Board takes diversity into account with a view to achieving its aim of having a balanced Supervisory, Executive and Management Board composition. In 2017, the Supervisory Board adopted a diversity policy for the Executive, Management and

Supervisory Board.

The Supervisory Board is aware that the current composition of the Executive and Supervisory Board does not meet the balanced composition requirement under Dutch law with regard to gender diversity (at least 30% of the positions should be filled by women and at least 30% by men). Following the appointment of Corien Wortmann-Kool to the Supervisory Board in 2014, the gap in terms of the balanced composition was reduced, and the Supervisory Board currently has two female Board members. When identifying candidates for open positions in the Executive, Management and Supervisory Board, the Board actively searches for female candidates. It also instructs external search firms to present female candidates. While this has had a positive effect, the requirement has not yet been fully met. More information on diversity within the Board is available in the Supervisory Board Composition and Competency Overview as published on aegon.com.

The Remuneration Committee

Composition

On December 31, 2018, the composition of the Remuneration Committee was as follows:

- Ben J. Noteboom (chair);
- William L. Connelly; and
- Robert W. Dineen.

Role and responsibilities

The main role and responsibilities of the Remuneration Committee are to advise the Supervisory Board and prepare decisions to be taken by the Board. The Committee is designated to safeguard sound remuneration policies and practices within the Company by overseeing the development and execution of these policies and practices. In order to ensure that the remuneration policies and practices take all types of risks properly into account, in addition to liquidity and capital levels, the Remuneration Committee assesses in particular the remuneration governance processes, procedures and methodologies adopted. Furthermore, the Committee ensures that the overall remuneration policy is consistent with the longer-term strategy of the Company and the longer-term interest of its shareholders, investors and other stakeholders. This includes:

- Reviewing the Aegon Group Global Remuneration Framework and making recommendations on the remuneration policies;
- Preparing recommendations regarding variable compensation both at the beginning and at the end of the performance year;

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- Overseeing the remuneration of the Executive Board and Heads of Group Control functions; and
- Preparing the information provided to shareholders on remuneration policies and practices, including the Remuneration Report.

Committee meetings

The Remuneration Committee had six meetings in 2018. In addition to the committee members, these meetings were attended in whole or in part by the CEO, the Global Head Human Resources and the General Counsel.

In 2018, the Remuneration Committee oversaw the further application, implementation and approval of Aegon s Group Global Remuneration Framework and the various policies and procedures related to it, including the Remuneration Policy for Identified Staff. This included:

- Setting the 2018 performance indicators and targets for remuneration purposes;
- Preparing the 2019 performance indicators for remuneration purposes;
- Allocating variable compensation related to 2017;
- Overseeing the scenario analysis of payout levels under the Executive Board Remuneration Policy; and
- Reviewing and/or approving the ex-ante assessments and ex-post assessments, any exemption requests under the remuneration policies, and changes to the list of Identified Staff.

In addition, the Remuneration Committee discussed possible developments with regards to regulations pertaining to remuneration.

Annual Accounts

This Annual Report includes the Annual Accounts for 2018, which were prepared by the Executive Board and discussed by both the Audit Committee and the Supervisory Board. The Annual Accounts are signed by the members of the Executive Board and the Supervisory Board, and will be placed on the agenda of the 2019 Annual General Meeting of Shareholders for adoption. The Supervisory Board recommends that shareholders adopt the annual accounts.

Acknowledgement

The members of the Supervisory Board are very grateful for the work undertaken by Executive and Management Boards in pursuit of Aegon s purpose of helping people achieve a lifetime of financial security.

We would like to thank Aegon s employees for all they do to serve Aegon s millions of customers, and furthermore we would like to express our thanks to Aegon s business partners and loyal customers for their continued confidence in the Company.

Finally, the Board wishes to thank all those who invest in Aegon for their continued trust and confidence.

The Hague, the Netherlands, March 21, 2019.

William L. Connelly

Chairman of the Supervisory Board of Aegon N.V.

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Remuneration report

The Aegon Group Global Remuneration Principles provide the foundation for remuneration policies and practices throughout Aegon. They are applied regionally and/or locally.

Global Remuneration Principles

The key pillars of the Aegon Group Global Remuneration Principles are as follows:

- Aegon remuneration is employee-oriented by: fostering a sense of value and appreciation in each individual employee; promoting the short- and long-term interests and well-being of all Aegon staff via fair compensation, pension and/or other benefits; supporting employees career development; and supporting the (international) mobility of its staff;
- Aegon remuneration is performance-related by: establishing a clear link between pay and performance by aligning objectives and target setting with performance evaluation and remuneration; reflecting individual as well as collective performance in line with Aegon s long-term interests; enhancing the transparency and simplicity of Aegon Group remuneration, consistent with the principle of pay for performance; and avoiding any pay for non-performance;
- Aegon remuneration is fairness-driven by: promoting fairness and consistency in Aegon s remuneration policies and practices, with remuneration packages that are well-balanced across the different echelons within Aegon and its business units; avoiding any discrimination in Aegon s remuneration structures, including, among others, discrimination based on nationality, race, gender, religion, sexual orientation, and/or cultural beliefs; creating global alignment in the total compensation of all Identified Staff; and aiming at controlled market competitive remuneration, by providing total compensation packages in line with an appropriately established peer group at a regional unit, country and/or functional level;
- Aegon remuneration is risk-prudent by: aligning business objectives with risk management requirements in the target setting practices throughout the Aegon Group; giving an incentive to appropriate risk-taking behavior while discouraging the taking of excessive risks; and protecting the risk alignment effects embedded in the remuneration arrangements of individual staff against any personal strategies or insurance to counter them.

These key pillars are set out in the Aegon Group Global Remuneration Framework (GRF). The GRF applies to all Aegon employees. It contains the guiding principles for remuneration and therefore supports the consistent setting of sound and effective remuneration policies throughout the Company. The GRF has been designed in accordance with relevant rules, guidelines and interpretations, for instance the Decree on Sound Remuneration Policy (Regeling beheerst beloningsbeleid (Rbb) Wft 2014) from the DNB, and the 2015 Act on the Remuneration

Policy of Financial Undertakings (Wet beloningsbeleid financiële ondernemingen, Wbfo 2015 stb 2015, 45).

Aegon s remuneration policies are derived from the GRF, among which is the Executive Board Remuneration Policy. These policies define specific terms and conditions for the employment of various employee groups. All steps in the remuneration process are governed by the GRF and its underlying policies. Staff from Human Resources, Risk Management, Compliance and Audit are involved in all steps of the process.

In 2018, there was one remuneration regulation change that affected Aegon. As per December 8, 2017, the Rbb has been withdrawn for insurers. However, as this announcement was made shortly before the start of the performance year, Aegon decided not change any of its remuneration policies or processes related to this performance year and continued to apply Rbb on a voluntary basis in 2018. For this reason, Aegon s 2018 remuneration practices and processes did not change materially compared to 2017.

The Wbfo 2015 has a provision that makes it possible to offer employees up to a maximum variable compensation opportunity that is equal to the European CRD IV compensation ratio (i.e. 100% of fixed compensation). This provision was specifically created for corporate office employees of companies based in the Netherlands, which employed at least 75% of their employees abroad. In 2018, Aegon met this criterion and offered selected senior corporate office employees a variable compensation opportunity up to this maximum.

In line with another Wbfo 2015 provision, Aegon has obtained shareholder approval at the Annual General Meeting of Shareholders of May 20, 2016 to offer a maximum variable compensation opportunity up to 200% of fixed compensation to selected senior employees outside Europe in positions that, based on local market practice, could receive variable compensation that exceeds 100% of fixed compensation. Within this mandate, Aegon offered selected senior employees outside Europe such an opportunity in 2018. The Company s capital was not adversely impacted by the maximum variable compensation that could be paid out.

In 2018 Aegon paid out EUR 207 million in variable compensation and 21 employees received EUR 1 million or more in total annual compensation (i.e. the sum of fixed and variable compensation paid/vested in 2018). These employees worked for

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Aegon s Corporate Center, Aegon Americas, Aegon UK and Aegon Asset Management.

Role of Risk Management and Compliance

Variable compensation may have an impact on risk-taking behaviors and, as such, may undermine effective risk management. The opportunity to receive high variable compensation can lead to excessive risk taking, which can have a material impact on the company s financial soundness. To avoid such undesired effects, both the Risk Management and Compliance functions are involved in the design and execution of remuneration policies and practices.

The GRF includes separate remuneration policies for three specific groups of employees. This is in recognition of the fact that these employees roles and responsibilities require specific risk mitigating measures and governance processes. These remuneration policies are for: (i) the Executive Board; (ii) material risk takers (Identified Staff); and (iii) Control Staff. Given the rationale for having a separate policy for material risk takers and the risk mitigating measures that are applied to the remuneration of these individuals, Risk Management is involved in deciding which positions are deemed Identified Staff . Furthermore, where exceptions to the policies are requested to reflect local practices or regulations, Risk Management and Compliance are involved in order to ensure such exceptions do not undermine effective risk management and that sufficient mitigating measures are undertaken.

In addition, the Risk Management and Compliance functions, together with the Human Resources and Finance functions, are responsible for the execution of the various measures that ensure the GRF and associated practices are aligned with the defined risk tolerances and behaviors. The risk mitigating measures are aimed at various moments in the variable compensation process: when the targets are set, before a variable compensation award is allocated, before deferred parts of the award are paid and after pay-out of the award (when relevant).

Aegon endeavors to seek an appropriate balance of ex-ante and ex-post assessments to ensure effectiveness in both the short- and long-term risk taking behavior of employees.

General compensation practices

Aegon has a pay philosophy based on total compensation. This means that the aim is for total remuneration for experienced and competent employees to be consistent with those in the markets in which Aegon operates and competes for employees. Total compensation typically consists of fixed compensation and where in line with local market practices variable compensation. Market survey information from reputable sources is used to provide information on competitive compensation levels and practices.

Variable compensation, if any, is capped at an appropriate level as a percentage of fixed compensation. Variable compensation for senior management is usually paid out in cash and shares over multiple years, and is subject to further conditions being fulfilled. Additional holding periods may apply to shares after they have vested, restricting their sale for a further one to three years. Variable compensation already paid out may also be retrieved under certain circumstances (Claw-back).

In the following sections more detailed information is provided on the compensation practice for the Supervisory Board and the Executive Board.

Supervisory Board Remuneration Policy 2018

Aegon s Supervisory Board Remuneration Policy is aimed at ensuring fair compensation, and protecting the independence of the Board s members. Terms and conditions for members of the Supervisory Board are part of Aegon s broader Remuneration Policy, and are the responsibility of the Supervisory Board.

Members of the Supervisory Board are entitled to the following:

- A base fee for membership of the Supervisory Board. No separate attendance fees are paid to members for attendance at the regular Supervisory Board meetings;
- An attendance fee for each extra Board meeting attended, be it in person or by video and/or telephone conference;
- A committee fee for members on each of the Supervisory Board s Committees;
- An attendance fee for each Committee meeting attended, be it in person or through video and/or telephone conference; and
- An additional fee for attending meetings that require intercontinental travel between the Supervisory Board member s home location and the meeting location.

Each of these fees is a fixed amount. Members of Aegon s Supervisory Board do not receive any performance or equity-related compensation, and do not accrue pension rights with the Company. These measures are designed to ensure the independence of Supervisory Board members and to strengthen the overall effectiveness of Aegon s corporate governance.

Under the current policy, as approved by shareholders at the Annual General Meeting on May 15, 2013, members of the Supervisory Board are entitled to the following payments:

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Base fee for membership of the Supervisory Board	EUR/year
Chairman	80,000
Vice-Chairman	50,000
Member	40,000

Fee for membership of a Supervisory Board committee	EUR/year
Chairman of the Audit Committee	13,000
Member of the Audit Committee	8,000
Chairman of other committees	10,000
Member of other committees	5,000

Attendance fees	EUR
Extra Supervisory Board meeting	3,000
Audit Committee	3,000
Other committees	2,000

Information on members of the Supervisory Board and the composition of Aegon s four committees Audit, Nomination and Governance, Remuneration and Risk can be found on pages 54-58.

Details on the remuneration of the Supervisory Board over the course of 2018 can be found in the Supervisory Board Remuneration Report 2018 on page 306.

Future changes

Absent unforeseen circumstances, the General Meeting will be asked to approve an amendment to Remuneration Policy for members of Supervisory Board in May 2019. This amendment contains a proposal to change some of the fees to which the members can be entitled.

Executive Board Remuneration Policy 2018

The following section describes how the Company applies the principles of good governance relating to the remuneration of its Directors. It was prepared by the Remuneration Committee of Aegon N.V. in accordance with the Dutch Corporate Governance Code, and was approved by Aegon N.V. s Supervisory Board.

The Executive Board Remuneration Policy that has been applied in 2018 was adopted at the General Meeting of Shareholders on May 12, 2011. This policy has been subject to annual reviews by the Supervisory Board.

Annual Remuneration Policy review

The Supervisory Board has the overall responsibility for the company s Remuneration Policies, including the Executive Board Remuneration Policy. The Supervisory Board established the Remuneration Committee from among its members. This committee has to ensure that the remuneration policies are consistent with the longer-term strategy of the company and the longer-term interest of its shareholders, investors and other stakeholders, as well as the public at large. For this purpose,

the Remuneration Committee reviews the Executive Board Remuneration Policy each year and may recommend policy changes to the Supervisory Board. When these recommendations are supported by the Supervisory Board, the policy changes are proposed to the General Meeting of Shareholders for adoption.

Future changes

Compensation for individuals in the financial sector, in particular for those who could materially influence the risk profile of the organization such as the Executive Board members, continue to be a focus of political and regulatory attention. Aegon will ensure compliance if and when new remuneration regulations come into force.

Aegon took note of the implementation of the Shareholder Rights Directive in the Netherlands per 2019. This will likely require Aegon to amend the current Executive Board Remuneration Policy in the near future.

Total compensation

Total compensation for Executive Board members is defined in the Executive Board Remuneration Policy as a combination of fixed compensation, variable compensation, pension and other benefits.

In line with this policy, the Supervisory Board has determined a maximum total compensation level for each Executive Board member, reflecting the specific roles, responsibilities, qualifications, experience and expertise of the individual. In addition to that, the Remuneration Committee conducts regular scenario analyses to determine the long-term effect of the level and structure of compensation granted to each Executive Board member and reports their findings to the Supervisory Board.

Each year, the Remuneration Committee reviews these total compensation levels of the Executive Board members

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to ensure they remain competitive and provide proper and risk-based incentives.

In order for the Remuneration Committee to assess the competitiveness, they gather benchmark data on compensation levels at comparable companies, in accordance with the applicable rules and regulations. These comparable companies form a peer group and have been selected by the following criteria:

- Industry (preferably life insurance);
- Size (companies with similar number of employees, assets, revenue and market capitalization);
- Geographic scope (preferably the majority of revenues generated outside of the country of origin); and
- Location (companies based in Europe).

Based on these criteria the current peer group consists of the following 14 companies: Allianz, Aviva, Axa, CNP Assurances, Generali, Legal & General, Mapfre, Münchener Rückversicherung, NN Group, Old Mutual, Prudential plc., Standard Life, Swiss Re and Zurich Financial Services.

In addition, a reference group is used in order to monitor alignment with the general industry in the Netherlands. This is comprised of the 12 leading companies listed on Euronext Amsterdam, excluding financial services providers.

The Remuneration Committee and the Supervisory Board regularly review the composition of the two groups in order to ensure that they continue to provide a reliable and suitable basis for comparison. The last change to these two groups as a result of this review was in 2015.

Based on the results of the annual competitiveness review and discussions with the Executive Board members regarding their remuneration level and structure, the Remuneration Committee may recommend changes to the compensation levels of the Executive Board members. These recommendations are subsequently discussed by the Supervisory Board, which can approve, revise or reject them.

The Supervisory Board, based on the Remuneration Committee review, discussed and approved the 2018 total compensation for the Executive Board.

Fixed compensation

The fixed compensation for the Executive Board members is paid in monthly installments.

Variable compensation

Aegon believes that variable compensation strengthens the commitment of Executive Board members to the Company s objectives, business strategy, risk tolerance and long-term performance. The variable compensation award

is based on annual performance against a number of individual and Group performance indicators

- These performance indicators are a mix of financial and non-financial indicators with a one-year performance horizon.

- The result of an individual performance indicator must exceed a predefined threshold level, before this indicator contributes to the overall performance result. When an indicator result is below this threshold, the contribution of this indicator to the overall performance result is zero (i.e. a circuit breaker).
- In case the performance of an indicator exceeds the target, the contribution of this indicators is capped once it reaches a predefined maximum level. This means that strongly exceeding performance on one specific indicator can only contribute up to a certain level to the overall performance result (i.e. a contribution cap).
- These indicators are regularly evaluated by experts in the company s Finance, Risk Management, Business Control, Audit, Human Resources and Compliance departments to ensure alignment with the company s objectives, business strategy, risk tolerance and long-term performance remains strong.

At the start of the performance year, the Remuneration Committee drafts a recommendation on which performance indicators apply to each Executive Board member, as well as what the threshold, target and maximum levels are per indicator. This recommendation is subsequently reviewed by the Company s Risk Management team (i.e. the ex-ante risk assessment) before it is send to the Supervisory Board. The Supervisory Board can approve, revise or reject the recommendation, taking the results of the risk assessment into account.

Once the Supervisory Board has approved the performance indicators for each Executive Board member, the Executive Board members are granted their conditional variable compensation award for that performance year. This conditional award is equal to their at target variable compensation level, which consists of 50% cash and 50% Aegon shares.

After the completion of the performance year, the Remuneration Committee prepares a recommendation for the allocation of a variable compensation award to each Executive Board member. This recommendation is based on the results on each of the applicable performance indicators, related threshold, target and maximum levels and another ex-ante risk assessment by the Company s Risk Management team. This risk assessment looks into whether there are reasons for a downward adjustment of the intended variable compensation award. For this purpose, quantitative and qualitative measures at group, regional unit and individual level are taken into account, such as:

- Breaches of laws and regulations;
- Breaches of internal risk policies (including compliance);
- Significant deficiencies or material weaknesses relating to the Sarbanes-Oxley Act; and
- Reputation damage due to risk events.

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Based on this risk-assessment, the Remuneration Committee can include a proposal to adjust an intended variable compensation in their recommendation. This adjustment can only be downwards. The Remuneration Committee sends its recommendation and the ex-ante risk assessment to the Supervisory Board, which based on its informed judgement can approve, revise or reject the recommendation. This Supervisory Board decision includes validating that, when taken together, the results of the performance indicators represent a fair reflection of the overall performance of the Executive Board member over the performance year.

In line with the applicable rules and regulations, the allocated variable compensation award is split into equal parts of cash and Aegon shares, of which 40% is paid out (or vests) in the year following the performance year, and 60% is deferred to later years. This deferred portion remains conditional until it vests.

The deferred parts vest in equal tranches over a three-year period. After an ex-post risk assessment, which may lower the vesting parts, these individual parts are paid 50% in cash and 50% in shares. The shares are restricted for a further period of three years (with the exception of shares withheld to cover for the payment of any applicable taxes, social security premiums

and possible other deductions by the government due for which the company holds a withholding obligation in connection with the vesting of the shares).

The variable compensation payout can be illustrated by the following example and the table below. For every 1,000 in variable compensation that is allocated following the performance year, 400 is paid out/vested in the year following that performance year (N in the following table). This part will be paid 50% in cash (=200) and 50% in shares vesting immediately (=200/Aegon share price at grant = number of allocated shares). The remaining 600 is deferred and vests according to a pre-defined schedule.

For the calculation of the conditionally granted and allocated shares, the company applies the share price at grant. This grant price is equal to the volume weighted average price on the Euronext Amsterdam stock exchange for the period December 15 to January 15.

Information on the expenses recognized for variable compensation and the status of awards are provided in note 53 of this report.

Ex-post risk assessment

After the completion of the performance year, the Remuneration Committee also prepares a recommendation on whether there are reasons for a downward adjustment of deferred variable compensation, before it is paid or vests. This recommendation is based on the ex-post risk assessment by the Company s Risk Management team, which takes into account significant and exceptional circumstances which were not (sufficiently) reflected in the initial performance assessment and/or the ex-ante risk assessment related the deferred variable compensation award in scope.

Implementation of this authority is on the basis of criteria such as:

- The outcome of a re-assessment of the performance against the original financial performance indicators;
- A significant downturn in the Company s financial performance;
- Evidence of misbehavior or serious error by the participant;
- A significant failure in risk management; and
- Significant changes in the Company s economic or regulatory capital base.

The Remuneration Committee sends its recommendation and the ex-post risk assessment to the Supervisory Board. The Supervisory Board can approve, revise or reject the recommendation. When this recommendation includes

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a proposal to adjust unvested deferred variable compensation, this adjustment can only be downwards.

Claw-back provision

Aegon s Supervisory Board is obliged to claim back variable compensation that has already been paid out or vested where required based on the regulations that apply from time to time, if variable compensation is based on incorrect data (including non-achievement of performance indicators in hindsight), or in the event of material financial restatements or individual gross misconduct.

Pension arrangements

The Executive Board members are offered pension arrangements and retirement benefits. These benefits are in line with the Executive Board Remuneration Policy. Details on the pension contributions to the Executive Board over the course of 2018 can be found in note 53 on page 305.

The arrangements with Mr. Wynaendts include retirement provisions that allow benefits to be taken at the end of the term. These retirement arrangements stem from pre Executive Board membership. The arrangement with Mr. Rider is similar to the arrangements for other staff in the Netherlands and consists of a so-called career average defined benefits plan up to EUR 105,075 (2018 threshold) base salary and a defined contribution plan for the amount above EUR 105,075. Details are not disclosed due to the individual nature of such arrangement.

Other benefits

Other benefits include non-monetary benefits (e.g. company car), social security contributions by the employer, and tax expenses borne by the Group.

Aegon does not grant Executive Board members personal loans, guarantees or other such arrangements, unless in the normal course of business and on terms applicable to all employees, and only with the approval of the Company s Supervisory Board.

Terms of Engagement Agreement

Members of the Executive Board are appointed for four years, and may then be re-appointed for successive mandates also for a period of four years.

Both Executive Board members have an Engagement Agreement with Aegon N.V., rather than an employment contract.

Members of the Executive Board may terminate their engagement agreement with a notice period of three months. The Company may terminate the board agreement by giving six months notice if it wishes to terminate the agreement of Mr. Wynaendts, and by giving three months notice if it wishes to terminate the agreement of Mr. Rider.

The arrangements with the current Executive Board members contain provisions for severance payments in the event that their agreement is terminated as a result of a merger or takeover. These arrangements do not exceed one year s fixed remuneration. The Supervisory Board has taken appropriate steps to ensure the arrangements of Executive Board members are in line with the Executive Board Remuneration Policy.

Executive Board Remuneration Report 2018

At the end of December 2018, Aegon s Executive Board had two members:

- Alexander R. Wynaendts, Chief Executive Officer and Chairman of the Executive Board. Mr. Wynaendts was appointed as a member of the Executive Board in 2003 for four years. He was re-appointed in 2007, 2011 and most recently in 2015. In 2019 the General Meeting of Shareholders will be asked to re-appoint Mr. Wynaendts for four years.
- Matthew J. Rider, Chief Financial Officer and member of the Executive Board, was appointed as a member of the Executive Board for four years at the Annual General Meeting of Shareholders on May 19, 2017. Mr. Rider s current term ends at the General Meeting of Shareholders 2021.

Fixed compensation

Mr. Wynaendts fixed compensation increased with 2% in 2018 to EUR 1,294,867. The annual fixed compensation of Mr. Rider increased with 2% to EUR 918,000.

Conditional variable compensation 2018

In 2018, Mr. Wynaendts and Mr. Rider both had an (at target) conditional variable compensation level of 80% of their annual fixed compensation, which was split into equal parts of cash and shares. However, their actual variable compensation award depended on their results on the performance indicators and related target levels, which had been approved by the Supervisory Board at the start of 2018. As a result they would receive:

- 50% of their annual fixed compensation if the results of the performance indicators reached the threshold level. This would result in the allocation of EUR 323,717 and 59,892 shares for Mr. Wynaendts and EUR 229,500 and 42,460 shares for Mr. Rider;
- 80% of their annual fixed compensation if the results of the performance indicator met their target levels. This would result in the allocation of EUR 517,947 and 95,827 shares for Mr. Wynaendts and EUR 367,200 and 67,937 shares for Mr. Rider;
- Up to 100% of their annual fixed compensation if the results of the performance indicators exceeded their target levels. This would result in an allocation up to EUR 647,434 and 119,784 shares for Mr. Wynaendts and up to EUR 459,000 and 84,921 shares for Mr. Rider;
- If at an aggregated level the threshold target was not reached, no variable compensation related to 2018 would be made available.

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In 2018, the actual variable compensation awards of Mr. Wynaendts and Mr. Rider were based on the 2018 performance of the following individual and Group performance indicators:

Objectives	Performance indicator	Maximum % of variable compensation	
		Mr. Wynaendts	Mr. Rider
Group financial IFRS based	Group underlying earnings after tax and return on equity	15.0%	15.0%
Group financial risk adjusted based	Group market consistent value of new business, normalized capital generation and pre-tax return on economic required capital	17.5%	17.5%
Group non financial business indicators	Group new business strain, customer engagement, employee engagement, control environment and digitally connected customers	32.5%	32.5%
Personal objectives	Individual basket of strategic and personal objectives related to Aegon s strategy	35.0%	35.0%

Provisional allocation variable compensation 2018

Subject to the adoption of the annual accounts at the General Meeting of Shareholders on May 17, 2019, the variable compensation award for Executive Board members will be allocated in cash and shares, based on results of the performance indicators listed above.

The results of the financial and non-financial Group performance indicators led to a performance score of 54.8% (out of a maximum of 65%) for Mr. Wynaendts and 54.8% (out of 65%) for Mr. Rider. The results of their individual (strategic) performance indicators was 27.3% (out of 35%) and 28.0% (out of 35%) for Mr. Wynaendts and Mr. Rider respectively.

As a result, Mr. Wynaendts has been awarded EUR 1,062,438 in conditional variable compensation for the 2018 performance year and Mr. Rider EUR 759,645.

Of this award 20% will be paid in upfront cash and 20% in upfront shares. For Mr. Wynaendts this will be EUR 212,490 in cash and 39,314 shares, where for Mr. Rider this will be EUR 151,931 in cash and 28,110 shares.

The remaining 60% of the 2018 variable compensation will be deferred, vesting in equal tranches over a three-year period. Each of these tranches will be split equally in cash and shares (for Mr. Wynaendts EUR 318,729 and 58,968

shares in total, and for Mr. Rider EUR 227,892 and 42,162 shares in total).

Once the upfront and deferred shares have vested, they will remain subject to a three-year retention period.

Impact of ex-ante and ex-post assessment on attribution of variable compensation

In line with the Aegon Group Global Remuneration Framework, it was agreed to adjust Mr Wynaendts 2014 variable compensation award downwards by 3,388 shares and EUR 22,832 to reflect the outcome of a regulatory matter relating to the company. No other circumstances have been identified to lower payout of the deferred payment from prior performance years that vest in 2018 (the so called ex-post assessment) or to lower the payout of the upfront payment of the 2017 performance year variable compensation that vests in 2018 (the so called ex-ante assessment).

Pay ratio

The Remuneration Committee has considered the ratio of the average employee pay expense (excluding CEO expense) versus the expense of the CEO pay elements based on costs recognized under IFRS. For 2018 this ratio was 42.2 (2017: 41.7; 2016: 41.9). The Remuneration Committee took note that certain factors may have influenced this ratio, such as the significant difference in the geographical footprint of the Company s employee population, and the way the Company was affected by restructuring and other organizational changes in 2018 (e.g. major acquisitions or divestments).

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Non-financial policies, procedures and outcomes

As a company, Aegon is committed to doing business responsibly. We have internal policies, procedures and frameworks setting out how decisions should be made in areas such as procurement, investment, tax, product development, remuneration and information security. We also have a Code of Conduct, which applies to all Aegon employees worldwide; this Code of Conduct contains basic principles governing our workplace, social responsibility and business conduct. The aim of these policies and procedures is to protect stakeholders by ensuring we are aware in our decision-making of all relevant financial and non-financial factors. We monitor implementation and take remedial action where necessary to ensure full compliance. We have a dedicated Non-Financial Risk Committee, meeting monthly. The Committee s members are drawn from Aegon s Legal, Compliance and Risk departments, among others.

The table below shows how various ESG risks are incorporated into Aegon s decision-making processes, as well as the measurement of outcomes, policies and metrics:

Area	Policy or guideline	Indicators (used to monitor compliance and/or outcomes)	Performance 2018
Business conduct and ethics	**Code of Conduct** Applies to all employees worldwide Covers topics such as data protection, environmental responsibility, human rights and money laundering Also contains provisions for reporting suspected illegal and unethical behavior Training on the Code is obligatory for all employees	Total number of incidents of fraud involving employees, intermediaries and third parties	Incidents of possible fraud involving employees, intermediaries and third parties rose sharply to 3,652 in 2018; this was due mainly to a sharp increase in attempted identity theft in the US; in response, we have organized extensive training and deployed new fraud detection software; as a result, very few attempts at fraud have been successful.
	In addition to the Code of Conduct, Aegon has separate global policies	Significant fines to address cases of	Significant fines amounted to EUR 84.8 million; most of this

	addressing prevention of financial crime (fraud, money laundering, economic sanctions, bribery and corruption). Aegon also has a Global Ethics Line, allowing employees and those outside the Company to report suspected infringements of the Code of Conduct in complete confidence.	mis-selling	amount was related to our settlement with the SEC over the use of investment models in the US; during the year, there were two other significant fines, both in the US a civil penalty relating to market conduct and a fine connected with the sale of an out-of-state hospital indemnity product.
		Percentage of employees completing training on Code of Conduct.	97% of employees completed mandatory Code of Conduct training (down from 99% the previous year).
		Completion of internal risk assessment (SIRA, or Systematic Integrity Risk Assessment), and action items to address any gaps in performance.	Group action items identified under SIRA in 2017 were completed in 2018.
		Policy attestation for bribery and corruption risk (Conflict of Interest and Gift & Entertainment policies).	88% compliance with Aegon bribery and corruption policies; this figure reflects business units compliance with specific requirements within our Conflict of Interest and Gift & Entertainment policies; where there is not full compliance, this does not indicate a breach of the policy, but areas where units have requested time to further strengthen internal governance.
Community investment	**Policy for Charitable Donations** Covers Aegon s objectives with regard to community investment, including priority areas, selection criteria, governance and approval Also details Aegon s contribution to humanitarian aid	Total donations to charities and other good causes Donations as % of net income Value of employee volunteering hours granted	In 2018, we donated a total of EUR 10.1 million, up from EUR 8.9 million the previous year. Cash donations rose to EUR 9.3 million; value of volunteering was lower, however, at EUR 0.7 million. Community investment represented 1.4% of net income, up from 0.4% in 2017; the increase was due mainly to the substantial decline in net income in 2018.
Data protection	**Global Information Security Policy** Sets out Company s approach to cyber threats and data protection Applies to all Aegon businesses Supported by mandatory training in data and cyber security	Percentage compliance with terms of Aegon s Global Information Security Policy Total customer complaints related to data privacy breaches	80% compliance with Company s Global Information Security Policy (up from 73% the previous year); most examples of non-compliance were not significant and took place in smaller operating units. Customer complaints relating to data privacy totaled 636 (up from 198); this increase is the result of

heightened awareness of privacy rights following the introduction of the EU s General Data Privacy Regulation (GDPR)

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Area	Policy or guideline	**Indicators** (used to monitor compliance and/or outcomes)	Performance 2018
Diversity and inclusion	**Statement on Diversity and Non-Discrimination** Applies to all Aegon businesses worldwide Diversity also included in the Code of Conduct Diversity targets in place for Aegon s Supervisory, Executive and Management Boards	Total number of women in workforce Percentage of women in senior management and at Supervisory, Executive or Management Board level	In 2018, women made up 49% of Aegon s workforce; women, meanwhile, accounted for 33% of the Company s senior management, up from 28%. For details of our Supervisory, Executive and Management Board members, see pages 47-50.
Environment	**Environmental Policy** Emphasizes importance of minimizing damage to the environment through the Company s use of energy and other resources[2] Commits Aegon, where possible, to using renewable or sustainable sources of energy	Total CO_2 emissions from business operations	Gross CO_2 emissions totaled 56,458 metric tons, down 5.1% compared with 2017. The decrease was due to lower energy consumption. Per employee, however, emissions were 15% higher at 3.1 metric tons because of a reduction during the year in Aegon s workforce.
		Business travel by air, consumption of gas and electricity	Business travel amounted to 92 million km (up 14.1%). Electricity consumption was 7.5% lower at 79.7 GWH; gas consumption, however, rose 16.3% to 2.1 million m^3.
		Consumption of renewable energy (as % of overall energy use)	Use of renewable energy decreased to 24% (down from 26%).
Human rights	**Human Rights Policy** Based on the UN Declaration of Human Rights, core standards of the International Labor Organization and the principles of the UN Global Compact	Results of Aegon s global human rights risk assessment (this assessment is conducted internally, based on external sources[3]; Aegon s countries of operation are	Our 2018 assessment identified four Aegon countries where the operating environment presents a meaningful human rights risk: China, Indonesia, India and Turkey. These risks relate essentially to local political factors. In the US, the

	Commits Aegon to upholding international human rights standards at all businesses where the Company has sufficient management control and, where possible, to ensure partners live up to the same standards Consideration for human rights is built into Aegon s Sustainable Procurement and Responsible Investment policies. Other policies cover aspects of human rights; these include the Company s Conflict of Interest, employee screening, anti-money laundering, anti-fraud and Gift & Entertainment policies. Aegon UK also issues a modern slavery statement (in line with the UK government s 2015 Modern Slavery Act).	assessed for civil and political rights, corruption, human development, health coverage, business environment, illicit economy, gender equality, working conditions, Rule of Law and internet inclusion.	Netherlands and UK, Aegon faces little or no significant human rights risk. In Southern and Eastern Europe, the environment is potentially more difficult, particularly with regard to corruption. In the Americas, risk is concentrated in Brazil and Mexico; again, this relates mainly to corruption. For those countries with highest risk, Aegon has recommended preventative or remedial measures for local management[4]. These focus on issues where there is greatest risk and where Aegon has most influence (corruption, corporate governance, discrimination in the workplace, working conditions, freedom of association and collective bargaining). The aim, with these measures, is to ensure Aegon s overall human rights risk remains low.
Investment	**Responsible Investment Policy** Covers all major asset classes Sets out minimum social and environmental standards for Aegon s investments	Total investments delivering social and environmental benefits (impact investments)	Our impact investments totaled EUR 8.4 billion; most of this was invested in affordable housing, renewable energy, and international development banks.
	Under the policy, Aegon also excludes investment in some areas, including controversial weapons, tobacco, oil sands and certain coal mining companies. Aegon s approach in this area is overseen by a Responsible Investment Strategy Committee, supported by a technical committee, which manages all operational aspects. Aegon also has an extensive program of shareholder engagement, focused on ESG issues.	Number and type of companies excluded from investment Number of companies engaged as part of Aegon s approach to responsible investment	Aegon excludes 136 companies from investment; these exclusions relate primarily to controversial weapons, coal, oil and tar sands and tobacco. In 2018, we engaged with 360 companies as part of our responsible investment approach; these engagements covered a range of environmental, social and governance issues.
Occupational health and safety	**Global Health & Safety Statement** Commits Aegon to upholding high health and safety standards in its	Number of work-related injuries and illnesses	Our number of work-related injuries and illnesses totaled 163, down from 167 the previous year.

	offices Aim is to limit work-related injuries and illnesses (including stress) to an absolute minimum	Absentee rate	Our absentee rate was unchanged at 2.4%.
Procurement	**Sustainable Procurement Policy** Sets out business conduct, social and environmental standards for suppliers of goods and other services Aegon assesses suppliers against these standards, and requires leading suppliers to sign a Supplier Sustainability Declaration.	Percentage spend on goods and services covered by a Supplier Sustainability Declaration.	In 2018, 25% of our spend on goods and services was covered by a Supplier Sustainability Declaration.

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Area	Policy or guideline	**Indicators** (used to monitor compliance and/or outcomes)	**Performance 2018**
Product development	**Pricing and Product Development Policy** Sets out market conduct principles, aimed at ensuring fair treatment of customers and reasonable distribution of returns between customers, intermediaries and shareholders	Percentage compliance with terms of Pricing and Product Development Policy	90% compliance with requirements of Pricing & Product Development Policy (down from 95% the previous year), due to increased policy granularity
Remuneration	**Global Remuneration Framework** Details Company s approach to pay, based on principle of pay for performance Variable pay for Aegon executives and other senior management is based on both financial and non-financial performance metrics (including employee engagement and customer loyalty scores)	Percentage of compliance with requirements of the Global Remuneration Framework	92% compliance with requirements of the Global Remuneration Framework
Tax	**Global Tax Policy** Based on principles of fair taxes tax follows business (tax is paid at the right amount in the right places, and that decisions are taken for business reasons, not for potential tax advantages).	Total taxes borne by Aegon (US, Netherlands, UK and Asia and Others) Taxes collected on behalf of others	EUR 620 million paid by Aegon in tax (up from EUR 444 million in 2017); another EUR 2.16 billion in taxes collected on behalf of others, down from EUR 2.22 billion (decrease was due to lower wage and insurance premium taxes).

[1] Includes any fines in excess of EUR 100,000.

[2] Aegon no longer collects data on water consumption. As an office-based company, our water use is not material.

[3] Aegon s assessment is derived essentially from the UN Declaration of Human Rights. The assessment uses external data from (among others) Freedom House, Transparency International, UN Development Program and World Health Organization.

[4] These measures include effective access to Aegon s Global Ethics Line, raising employees awareness of human rights risk, ensuring basic healthcare and financial services for employees, suggesting alternative employee representation where there is no independent trade union, ensuring neutrality at times of regime change and

enforcing a zero tolerance approach to corruption and discrimination in the workplace.

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Code of Conduct

Aegon s Code of Conduct embodies the company s values and helps ensure that all employees act ethically and responsibly.

It prescribes a mandatory set of conditions for how Aegon employees should conduct business, comply with all applicable laws and regulations, and exercise sound judgment in reaching ethical business decisions in the long-term interests of our stakeholders.

Aegon s Code of Conduct applies to all directors, officers (regardless of the contractual basis of their employment) and employees of all Aegon companies around the world, including associate companies, joint ventures and other co-operative ventures.

Every Aegon employee has to certify that they have read and understood the Code of Conduct, and agree to abide by it. Employees are also required to follow a mandatory e-learning to help embed the principles of the Code in the way they work.

Reporting misconduct

Employees are often the first people to witness any wrongdoing within the company. It is important that such incidents are quickly identified and resolved to prevent or reduce any adverse

effects, such as financial loss and reputational harm. Aegon is committed to create and maintain an open and supportive culture in which employees feel safe to raise concerns or report suspected or actual violations. Employees are encouraged to use the available reporting channels to report concerns of poor practice, inappropriate, unethical or illegal behaviour.

It is also possible for employees to report violations outside the normal reporting channels if they wish to remain anonymous, or to elevate the matter to higher levels within the organization. Aegon has contracted an independent third party to provide an anonymous and confidential method to report potential misconduct. Reports can be submitted online or via toll-free telephone lines in all of the countries in which Aegon conducts business (24 hours a day, seven days a week). All reports are investigated and results are reported to the Audit Committee of the Supervisory Board. As part of an open and supportive culture Aegon will protect employees against any form of retaliation who, in good faith and with due care, report concerns of poor practice, inappropriate, unethical or illegal behaviour. Employees who believe they have experienced retaliation are encouraged to immediately bring the issue to the attention of the Group Compliance Officer.

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Regulation and supervision

Individual regulated Aegon companies are each subject to prudential supervision in their respective home countries. (Re)insurance companies and Aegon Bank, as well as a number of the investment undertakings in the Group, are required to maintain a minimum solvency margin based on local requirements. In addition, some parts of the Group are subject to prudential requirements on a (sub)-consolidated basis, including capital and reporting requirements. Such additional requirements lead, in certain circumstances, to duplicative requirements, such as the simultaneous application of consolidated banking requirements and Solvency II group solvency requirements. Eligible capital to cover solvency requirements includes shareholders equity, perpetual capital securities, and dated subordinated debt.

Solvency II

Introduction

The Solvency II framework imposes prudential requirements at group level as well as on the individual EU insurance and reinsurance companies in the Aegon Group. Insurance supervision is exercised by local supervisors on the individual insurance and reinsurance companies in the Aegon Group, and by the group supervisor at group level. The Dutch Central Bank (DNB) is Aegon s Solvency II group supervisor. Solvency II, which came into effect in EU member states on January 1, 2016, introduced economic, risk-based capital requirements for insurance and reinsurance companies in all EU member states, as well as for groups with insurance and/or reinsurance activities in the EU. The Solvency II approach to prudential supervision can be described as a total balance sheet-approach, and takes material risks to which insurance companies are exposed into account in addition to the correlation between these risks.

The Solvency II framework is structured along three pillars. Pillar 1 comprises quantitative requirements (including technical provisions, valuation of assets and liabilities, solvency requirements and own fund requirements). Pillar 2 requirements include governance and risk management requirements, and requirements for effective supervision (the supervisory review process). Pillar 3 consists of disclosure and supervisory reporting requirements. These three pillars should not only be considered in isolation, but also in terms of how they interact with one another. More complex risks, for instance, require a stronger risk management and governance structure, and a more complex governance structure could lead to higher capital requirements.

In addition to these requirements, which apply to individual EU insurers and reinsurers, the Solvency II framework is complemented by requirements that apply at group level (group supervision). This means that a number of requirements from the Solvency II framework that apply to the individual EU insurance and reinsurance undertakings apply, with necessary

modifications, at group level. The core focus of EU insurance supervision is, however, on the supervision of individual EU insurance and reinsurance undertakings.

Pillar 1

Solvency II requires EU insurance and reinsurance companies to determine technical provisions at a value that corresponds with the present exit value of their insurance and reinsurance obligations towards policyholders and other beneficiaries of insurance and reinsurance contracts. The calculation of the technical provisions should be based on market consistent information to the extent to which that information is available. The value of the technical provisions is equal to the sum of a best estimate and a risk margin. The discount rate at which technical provisions are calculated is an important element in order to determine the technical provisions. This and other parameters to determine the technical provisions may have an important effect on the amount and volatility of the own funds that insurance and reinsurance undertakings are required to maintain. The Solvency II framework contains several measures (in particular the volatility adjustment and matching adjustment) that should reduce volatility of the technical provisions and own funds, in particular for insurance and reinsurance products with long-term guarantees.

Insurers and reinsurers are required to hold eligible own funds in addition to the assets held to cover the technical provisions in order to ensure that they are able to meet their obligations over the next 12 months with a probability of at least 99.5% (insurance or reinsurance company s balance sheet ability to withstand a 1-in-200-year event). The buffer that insurance and reinsurance companies are required to hold is the Solvency Capital Requirement (SCR). Insurance and reinsurance companies are allowed to: (a) use a standard formula to calculate their SCR (the rules for which are set out in detail in the Solvency II rules and guidelines); (b) use an internal model (for which the approval of the supervisory authorities is required); or (c) use a partial internal model (PIM) (which is a combination of the standard formula and an internal model, and requires approval of the supervisory authorities). An internal model is developed by the insurance or reinsurance company in question, and should better reflect the actual risk profile of the insurance or reinsurance company than the standard formula. Aegon (as a group) uses a PIM.

In addition to the SCR, insurance and reinsurance companies should also calculate a Minimum Capital Requirement (MCR). This represents a lower level of financial security than the SCR, below which the level of eligible own funds held by the insurance or reinsurance company is not allowed to drop. An irreparable breach of the MCR would lead to the withdrawal of an insurance or reinsurance company s license.

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Insurance and reinsurance companies are required to hold eligible own funds against the SCR and MCR. Own funds capital is divided into three tiers in accordance with the quality of the own funds. The lower tiers of own funds (tiers 2 and 3) represent a limited part of the eligible own funds, as excess lower tier capital is disregarded for purposes of calculating SCR. Furthermore, the SCR may consist of limited amounts of off-balance sheet own funds (ancillary own funds such as letters of credits or guarantees). The MCR must be covered entirely by on-balance sheet items (basic own funds).

Pillar 2

Under Pillar 2, insurance and reinsurance companies are required to set up and maintain an adequate and effective system of governance, which includes an appropriate internal organization (such as policies and procedures), a risk governance system and an effective assessment of the risk and solvency position of the Company (including a prospective assessment of risks), through the Own Risk and Solvency Assessment (ORSA) process. In general, Solvency II requires insurance and reinsurance companies to maintain an effective system of governance that is proportionate to the nature, scale and complexity of the insurance or reinsurance company. A number of risks that insurance or reinsurance companies face can only be addressed through proper governance structures, rather than quantitative requirements. Management of the insurance or reinsurance company is ultimately responsible for the maintenance of an effective governance system.

Insurance and reinsurance companies are required to have an adequate and transparent organizational structure, with a clear allocation and appropriate segregation of responsibilities. The system of governance should be subject to regular internal review. Solvency II requires insurance and reinsurance companies to have written policies in a number of areas (such as risk management, internal control, internal audit and outsourcing (where appropriate)). A number of key functions are required to be part of the system of governance (compliance, risk management, the actuarial function and internal audit). The persons responsible for these functions are required to be fit and proper.

The Pillar 2 requirements include specific requirements relating to the risk management system. This should cover at least the following areas: underwriting and reserving, asset-liability matching, investments (in particular derivatives and similar commitments), liquidity and concentration risk management, operational risk management, reinsurance and other risk mitigating techniques. Risk management relating to Solvency II is discussed in further detail in the section Risk management on page 90. As part of the risk management system, insurance and reinsurance undertakings are required to undertake an ORSA, which includes the overall solvency needs of the undertaking, taking into account the risk profile, risk tolerance limits and business strategy, the ongoing compliance with Solvency II capital requirements and rules regarding technical provisions, and the

extent to which the risk profile of the undertaking deviates from the assumptions underlying the calculation of the SCR. Solvency II Pillar 2 requirements also include detailed requirements with respect to outsourcing, including intra group outsourcing.

The Supervisory Review Process (SRP), which is part of Pillar 2, allows supervisory authorities to supervise the ongoing compliance of insurance and reinsurance undertakings with Solvency II requirements. Possible enforcement measures include: the imposition of capital add-ons (for instance in the event that the risk profile of the undertaking deviates from the SCR calculation or if there are weaknesses in the system of governance); the requirement to submit

and execute a recovery plan (in the event of a (potential) breach of the SCR or a short-term financing plan (in the event of a (threatening) breach of the MCR); and ultimately, the revocation of an insurance or reinsurance license (a measure that relates to EU-licensed insurance or reinsurance undertakings, and not to the Group as a whole, which does not have a license).

Pillar 3

Solvency II has introduced new and more detailed reporting and disclosure requirements than formerly prescribed under the Solvency I framework. These requirements include non-public supervisory reporting on a regular (usually tri-annual) basis through regular supervisory reports (RSR), complemented by detailed quantitative reporting templates (QRTs) reported on a quarterly basis, which contain detailed financial data. In addition, it is a requirement to publish a Solvency and Financial Condition Report (SFCR) on an annual basis.

Group supervision

Solvency II not only imposes regulatory requirements on individual EU insurance and reinsurance undertakings; many of the requirements that apply to the individual insurance and reinsurance undertakings apply, with the necessary modifications, at group level. These requirements include group solvency requirements, group reporting and disclosure requirements, and requirements regarding the system of governance, risk management and internal control framework at group level. The group requirements do not include an MCR. Solvency II does however require groups to maintain eligible own funds, at least equal to a floor, as further defined in the Solvency II rules (the absolute floor of the group solvency), which can be considered to be an MCR at group level. Although entities that are not subject to solo supervision under Solvency II (such as entities in other financial sectors, non-financial entities, and regulated and non-regulated entities in third countries) are not directly subject to Solvency II requirements, these entities may be affected indirectly by the Solvency II group requirements. Entities in other financial sectors are, in most cases, taken into account in the group solvency calculation, applying the capital requirements of that specific financial sector (such as Basel III requirements for banks and certain investment firms) and using the Deduction and Aggregation method for inclusion of these

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entities in the group calculation (as opposed to the Accounting Consolidation method, which is the default method under Solvency II).

However, subject to certain conditions, entities in other financial sectors may be included in accordance with the accounting consolidation method. In particular, this may be the case when the group supervisor is satisfied as to the level of integrated management and internal control regarding these entities. Furthermore, the DNB may require groups to deduct any participation from the own funds eligible for the Group Solvency ratio. As required by the DNB, Aegon deducts its participation in Aegon Bank N.V. from Aegon s group solvency. However, Aegon Bank N.V. is subject to Basel III requirements (as implemented in Europe in the EU Capital Requirements Directive (CRD IV) and EU Capital Requirements Regulation (CRR) on a solo-basis and on consolidated basis, whereby consolidation takes place at the level of Aegon Bank N.V.. The prudential requirements (including CRD IV and CRR) are described in more detail on page 73.

As referred to in the Capital and liquidity management section, Aegon uses a combination of the two aggregation methods defined within the Solvency II framework to calculate the Group Solvency ratio, the Accounting Consolidation method and the Deduction and Aggregation method. Aegon applies the Accounting Consolidation method as the default method.

However, for insurance entities domiciled outside the EEA for which provisional or full equivalence applies, such as the United States, Aegon uses the Deduction and Aggregation method, with local regulatory requirements to translate these into the Group Solvency position. US insurance and reinsurance entities are included in Aegon s group solvency calculation in accordance with local US (RBC) requirements. US insurance and reinsurance entities are included in Aegon s group solvency calculation in accordance with local U.S. Risk-Based Capital (RBC) requirements. Until June 30, 2017, Aegon used 250% of the local Company Action Level (CAL) RBC as the SCR equivalent. Aegon received approval from the DNB to apply a revised methodology, as of July 1, 2017, that includes lowering the conversion factor from 250% to 150% RBC, and reducing the contribution to own funds by 100% of the local Company Action Level RBC requirement to reflect transferability restrictions. This methodology is subject to annual review, and the change enhances comparability with European peers. The RBC and CAL, as well as the allocation of restricted Tier 1 and Tier 2 capital instruments between the accounting consolidation and deduction and aggregation part of the Group are described in more detail in the Capital and Liquidity section of this Annual Report.

Solvency II group supervision is exercised by a combination of the supervisory authorities of the local insurance and reinsurance entities and the group supervisor. An important role in the cooperation between the supervisory authorities in the context of group supervision is played by the college of supervisors, in which the local and group supervisors are represented. This college is chaired by the group supervisor.

Recent developments Solvency II

On November 9, 2018, the European Commission published a proposal for public consultation for the amendment of the Solvency II Delegated Regulation. This draft proposal is the preliminary result of the 2018 review of the Solvency II Framework. The consultation period ended on December 7, 2018. On March 8, 2019, the European Commission adopted the formal text for the amendment of the Solvency II Delegated Regulation in respect of the 2018 review of the Solvency II Framework. The amendments are expected to enter into force after the scrutiny period

of three months, that is available to the European Parliament and the European Council has ended, and the amendments have been approved accordingly by the European Parliament and Council. Aegon is investigating the impact, if any, of these upcoming amendments.

The proposals include amendments to the Solvency II standard formula calculations, such as in the counterparty default risk sub module, which might specifically impact the treatment of guarantees of Dutch mortgages under the standard formula. The changes included in the proposal may impact the Solvency II Standard Formula calculations. Furthermore, amongst others, the proposal contains amendments related to tiering requirements for subordinated liabilities as part of own funds and LAC DT. Currently it is not yet clear when the amendments will enter into force but Aegon is monitoring the finalization of the legislative process closely. These changes are also expected to impact the Standard Formula scope of the Partial Internal Model.

In addition to the review of the 2018 review of the Solvency II Delegated Regulation, a review of the Solvency II Directive has been foreseen, referred to as the 2020 review. This includes a review, as foreseen in the directive by the end of 2020, on the impact of the so-called long-term guarantees package, in particular the functioning and stability of European insurance markets, the extent to which insurance and reinsurance undertakings continue to operate as long-term investors, and the availability and pricing of long-term insurance products. In this context, the European Commission has requested EIOPA to provide by the end of 2019, the European Commission with information on insurance liabilities (including illiquid liabilities), information on asset management of insurers and information on long-term guarantee measures and information on the market valuation of insurance liabilities.

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Furthermore, the context of the Solvency II 2020 review, EIOPA has recently launched a public call for advice on the application of disclosure and reporting requirements under Solvency II.

In addition, on February 10, 2019, the European Commission has requested EIOPA to provide, in the context of the 2020 review, by June 30, 2020, technical advice in the following areas: long-term guarantees (LTG) measures and measures on equity risk;
Specific methods, assumptions and standard parameters used when calculating the Solvency Capital Requirement standard formula;
Rules and supervisory authorities practices on the calculation of the Minimum Capital Requirement;
The supervision of insurance and reinsurance undertakings in a group, and
Other items related to the supervision of insurance and reinsurance undertakings.

The information provided by EIOPA to the European Commission as described above, is expected to be taken into account in the Solvency II 2020 review. No EC legislative proposals have been published so far in that context.

Furthermore, EIOPA recently (end of 2018) launched consultations on the integration of sustainability risks and factors in Solvency and the Insurance Distribution Directive. At the beginning of 2019 EIOPA has launched for input for a call for evidence by the European Commission to EIOPA on integration of sustainability risks in Solvency II.

In addition, as of January 1, 2019, amendments to the Solvency II framework entered into force, relating to Solvency II standard formula treatment of standardised, transparent and simple (STS) securitisations. Aegon will take these amended provisions into account as of first quarter 2019 (confidential) supervisory reporting and future Solvency II public disclosures.

Financial conglomerate supervision

Since October 2009, Aegon has been subject to supplemental group supervision by the DNB in accordance with the requirements of the EU s Financial Conglomerate Directive. Supplemental group supervision pursuant to the Financial Conglomerate Directive includes supplementary capital adequacy requirements for financial conglomerates and supplementary supervision on risk concentrations and intra-group transactions in the financial conglomerate. Due to the introduction of the Solvency II group supervisory requirements which include similar, and to a large extent overlapping, requirements to those covered by Financial Conglomerates Directive the relevance of supplemental group supervision pursuant to the Financial Conglomerates Directive has become significantly less.

Globally systemically important insurer (G-SII)

On November 3, 2015, Aegon was first designated by the Financial Stability Board (FSB) as a Global Systemically Important Insurer (G-SII), based on an assessment methodology developed by the International Association of Insurance Supervisors (IAIS). The FSB reviews the G-SII designation annually. However, the FSB, in consultation with the IAIS and national authorities, has decided not to publish a new list of G-SIIs for 2017 and for 2018 and that the measures will continue to apply to the G-SIIs that were on the 2016 list. Consequently, Aegon continues to be designated at the time of publication of this annual report. As a result of the G-SII designation, Aegon is subject to an additional layer of direct supervision at group level. Aegon has put a specific G-SII governance structure in place to ensure the G-SII requirements are met. Within 12 months of a G-SII designation, G-SIIs were required to develop a

liquidity risk management plan, a systemic risk management plan, and an ex ante recovery plan. In accordance with these requirements, Aegon submitted plans to DNB, and to the G-SII crisis management group (CMG) that was established for Aegon and is updating these plans on an annual basis. The CMG is required to: enter into a cross-border cooperation agreement; develop a resolution plan based on a resolution strategy (within 18 months); and undertake a resolvability assessment (within 24 months).

International Capital Standards and G-SII

In 2013, the IAIS announced its plan to develop a risk-based global insurance capital standard (ICS). This was in response to the request by the Financial Stability Board (FSB) that the IAIS produce a work plan to create a comprehensive group wide supervisory and regulatory framework for Internationally Active Insurance Groups (including G-SIIs) and as such, if and when adopted, might shape or influence the future regulatory framework for insurance groups such as Aegon.

In 2017, for financial year 2016, G-SIIs have calculated and reported a Basic Capital Requirement (BCR) and Higher Loss Absorbing Capacity (HLAC) on a confidential basis pursuant to IAIS guidelines. On November 2, 2017, the IAIS has announced its members have reached an agreement on a unified path to convergence on the development of International Capital Standards (ICS) for Internationally Active Insurance Groups (IAIGs). Aegon will qualify as such. After an extended field testing period of ICS version 1.0, that ended in 2017, the IAIS will proceed with the development of ICS version 2.0 informed by field tests in 2018 and 2019. The implementation of ICS version 2.0 will be conducted in two phases a five-year monitoring phase, where all IAIGs will submit mandatory reference ICS, followed by an implementation phase where the ICS is envisaged to become a required capital standard. Following the announcement by IAIS members from the United States of development of an aggregation-based group capital calculation, the IAIS has further agreed to collect data during the monitoring period to assess whether the aggregation approach can be considered as outcome-equivalent for implementation of ICS in the US.

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IAIS holistic framework for systemic risk in the insurance sector

Recently, the International Association of Insurance Supervisors (IAIS) has held a public consultation in which it proposes a holistic framework to assess and mitigate systemic risk in the insurance sector The IAIS is of the view that the implementation of the holistic framework should remove the need for an (annual) G-SII identification by the FSB and national authorities. The global monitoring exercise, including data collection, assessment and consideration of any insurer demonstrating a significant level and/or a trend of increasing potential (global) systemic impact from its distress or failure, will continue to be overseen by the IAIS and reported to the FSB.

If and when this framework would be adopted, an enhanced set of policy measures and supervisory powers of intervention would be applied in a proportionate manner to a broader set of insurers by integrating these measures into the holistic framework. According to the IAIS, a final decision on the need for an (annual) G-SII identification should, however, depend on an assessment of the consistent application of the holistic framework by supervisors and the effectiveness of the IAIS global monitoring exercise. In November 2022, based on the initial years of implementation of the holistic framework, it is recommended that the FSB reviews the need to either discontinue or re-establish an annual identification of G-SIIs. According to the IAIS, between 2020, when the holistic framework is implemented, and 2022, when the review takes place, it is recommended to suspend the annual identification of G-SIIs.

EIOPA activities on systemic risk in the insurance sector

During the last few years, EIOPA has published a series of reports on systemic risk in the insurance sector. Thus far, these report have not led to concrete regulatory changes, but might have an impact on the further development of the regulatory framework for insurance companies in Europe, in particular the Solvency II framework and potentially the development of specific regulatory tools, aimed at systemic risk in the insurance sector, as well as EU wide regulatory initiatives respect of recovery and resolution of insurance and reinsurance companies, which is currently still developed at national level by EU member states. International Capital Standards (ICS).

US EU Covered Agreement

On January 13, 2017, the European Commission and the US Department of the Treasury announced the signing of the US-EU Covered Agreement on insurance and reinsurance measures. The Covered Agreement covers three areas of prudential insurance oversight: reinsurance, group supervision and exchange of information between supervisors. The impact of this agreement (or any changes made to the regulatory frameworks in the US or the EU as a result of this agreement) on Aegon is expected to be limited. Currently, insurance group supervision is only exercised at the level of Aegon N.V.,

pursuant to Solvency II, and the Covered Agreement increases the likelihood that this will continue to be the case. Also the impact of the agreed measures in the other areas covered in the agreement is expected to be limited.

Recovery and resolution

Dutch Act on Recovery & Resolution for Insurers

On January 1 2019, the Dutch Act on Recovery & Resolution for Insurers (R&R Act) came into force in the Netherlands, replacing the previously applicable intervention regime for insurance companies in the Netherlands faced with financial difficulties.

The R&R Act has introduced a revised regulatory framework for recovery and resolution of Dutch insurance and reinsurance companies and provides for a range of measures to be taken by these companies and the Dutch Central Bank ex ante, in order for these insurance and reinsurance companies to be prepared for recovery in circumstances where it no longer meets the required solvency requirements and for orderly resolution, in circumstances where it is failing or is likely to fail.

The R&R Act introduces a requirement for Dutch insurance companies and reinsurance companies, such as the Dutch insurance and reinsurance subsidiaries in the Aegon Group, to draw up and maintain an *ex ante* recovery plan, that should allow these entities, when faced with financial problems, to take measures to recover their solvency ratio and continue to operate in going concern. In addition, the Dutch Central Bank, in its capacity as national resolution authority in *gone concern* circumstances (as opposed to its role as supervisory authority in *going concern)* is required to draw up and maintain a resolution plan, which should provide for the orderly resolution of the Dutch insurance and reinsurance entities in the group, or the group, to avoid unnecessary damage to policyholders and beneficiaries and to provide an alternative to ordinary bankruptcy proceedings.

The R&R Act allows DNB to require a Dutch insurance or reinsurance company or a group in certain circumstances, to remove, ex ante, impediments to effective resolution of a Dutch insurance or reinsurance undertaking, such as the revision of financing arrangements, the reduction of exposures, the transfer of assets, the termination or limitation of business activities, or the prohibition to start certain business activities, change the legal or operational structure of the group, or securing certain critical business lines.

The R&R Act allows DNB to intervene in situations where a Dutch insurer or reinsurer, where it is failing or is likely to fail, as defined in the R&R Act. The powers under the R&R Act may also extend to the level of the Group and to entities, other than in insurance or reinsurance entities in the Netherlands, that are part of the group, such as Aegon N.V.. The powers include the transfer of the undertaking to a third party, the transfer to a bridge institution and the transfer of certain specific assets and/or liabilities. In addition, a bail-in tool

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is introduced, that allows for the write-off or conversion of rights of creditors, including policyholders and beneficiaries, while respecting the principle that they should not be worse off through resolution, including the application of the bail-in tool, than they would in ordinary insolvency proceedings.

Bank Recovery and Resolution Directive

Furthermore, to parts of the Aegon Group, in particular Aegon Bank N.V., the framework of the EU Directive on the recovery and resolution of credit institutions and investments firms (the Bank Recovery and Resolution Directive) is applicable. The Bank Recovery and Resolution Directive also contains provisions that, in certain specific circumstances, where both Aegon Bank N.V. and Aegon N.V. fail or are likely to fail, could be applied to mixed financial holding companies such as Aegon N.V., including the right of bail-in of creditors.

Intervention by the Dutch Minister of Finance

Lastly, under Part 6 of the Dutch Financial Supervision Act, the Dutch Minister of Finance may intervene immediately, when the stability of the financial system is threatened by the situation of a financial institution, in which case legal or statutory provisions, applicable to the financial institution, might be surpassed. The intervention measures available to the Minister of Finance, include in particular the right to expropriate assets of the financial institution, as well as securities and/or other financial instruments issued by or with the cooperation of the financial instruments. The exercise of this power may significantly impact the rights of the owners or holders of these assets, securities and/or financial instruments.

IBOR transistion

The future of IBORs (Interbank Offered Rates) such as Euribor, Eonia and LIBOR has been a major topic on the global agenda since the G20 asked the Financial Stability Board (FSB) to undertake a fundamental review of leading interest rate benchmarks in 2013. The FSB proposed new standards to reform interest rate benchmarks and the use of transaction-based input data instead of non-transactionalvpanel input data. In the EU this is adopted in the new Benchmark Regulations (BMR) which stipulates that from January 2020 only BMR

Aegon is evaluating the impact of IBOR transitions on the business model and operating model of our reporting units. Furthermore, Aegon is in the process of designing an IBOR transition plan including project solutions and actions, timelines and ownership to ensure timely preparation and implementation.

Brexit

compliant benchmarks may be used within the EU.	The dynamics of Brexit are complex given its multifaceted nature, and its position within the wider geopolitical context. Hence, any description of the current and forward-looking status of Brexit will to a certain extent be outdated as soon as it has been documented. To date the UK Government has not succeeded in passing the negotiated Brexit deal with the European Union through parliament and it is still not clear if a deal will be approved. Aegon is prepared for all scenarios, including a so-called hard Brexit . In this scenario the UK becomes a third country and leaves the internal market of the EU on March 30, 2019 at 00:00h (CET). The main consequences of a hard Brexit have been identified and contingency plans are in place. These plans are updated on a continuous basis. Focus areas for Aegon have been derivatives, data transfer and cross border policies.
Aegon recognizes that IBOR transitions potentially have implications for all reporting units, including our insurance, asset management and banking activities. Despite current uncertainties on how the transition from IBORs to alternative benchmarks will be managed, it is widely acknowledged that IBOR benchmarks impact financial products and contracts, including derivatives, corporate bonds, structured debt products, deposits and mortgages and other financial instruments like (re-)insurance, guarantees and funding.	

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Capital and liquidity management

Guiding principles

The management of capital and liquidity is of vital importance for the Aegon Group, for its customers, investors in Aegon securities and for Aegon s other stakeholders. In line with its risk tolerance, the goal of Aegon s capital and liquidity management is to promote strong and stable capital adequacy levels for its businesses, in addition to maintaining adequate liquidity to ensure that the Company is able to meet its obligations.

Aegon follows a number of guiding principles in terms of capital and liquidity management:

- Promoting strong capital adequacy in Aegon s businesses and operating units;
- Managing and allocating capital efficiently in support of the strategy and in line with its risk tolerance;
- Maintaining an efficient capital structure, with an emphasis on optimizing Aegon s cost of capital;
- Maintaining adequate liquidity in the operating units and at the holding to ensure that the Company is able to meet its obligations by enforcing stringent liquidity risk policies; and
- Maintaining continued access to international capital markets on competitive terms.

Aegon believes that the combination of these guiding principles strengthen the Company s ability to withstand adverse market conditions, enhances its financial flexibility, and serves both the short-term and the long-term interests of the Company, its customers and other stakeholders.

The management and monitoring of capital and liquidity is firmly embedded in Aegon s ERM framework, and is in line with Aegon s risk tolerance. Aegon s risk tolerance focuses on capital generation, solvency and liquidity, risk balance and responsible business with effective controls. Its core aim is to assist management in carrying out Aegon s strategy within the Group s capital and liquidity resources.

Management of capital

The Company s overall capital management strategy is based on adequate solvency capital, capital quality and the use of leverage.

Capital adequacy

Aegon s goal for both its operating units and for the Aegon Group as a whole is to maintain a strong financial position and to be able to sustain losses resulting from adverse business and market conditions. The capitalization of Aegon and its operating units is managed in accordance with the most stringent of local regulatory requirements, rating agency requirements and self-imposed criteria.

Regulatory capital requirements

For EU-domiciled insurance and reinsurance entities, the Solvency II regulatory framework determines the regulatory

capital requirements. In Aegon s Non-EEA (European Economic Arena) regions, (re)insurance entities domiciled in third-countries deemed (provisionally) equivalent (US Life insurance entities, Bermuda, Japan, Mexico and Brazil), the capital requirement is based on local capital requirements.

On November 9, 2018, the European Commission (EC) has published a proposal, for public consultation, for the amendment of the Solvency II Delegated Regulation in respect of the 2018 review of the Solvency II Framework that was carried out by the EC. The EC has published a formal proposal on March 8, 2019. Aegon is investigating the impact, if any, of these upcoming amendments.

Please note that numbers and ratios related to Solvency II as disclosed in this section represent Aegon s estimates and are subject to supervisory review. At December 31, 2018, Aegon has applied a loss absorbing capacity of deferred taxes (LAC-DT) factor in the Netherlands of 75% unchanged from 2017, while the corporate tax rate was lowered to reflect the upcoming tax rate changes in 2020 and 2021. The LAC-DT factor will be recalibrated on a quarterly basis using the agreed methodology. In 2018 the Dynamic Volatility Adjustment (VA) model has been updated for Aegon the Netherlands, to align with the guidance from the European Insurance and Occupational Pensions Authority (EIOPA). The Solvency II capital ratios of the Group and Aegon the Netherlands do not include any contingent liability potentially arising from unit-linked products sold, issued or advised on by Aegon in the Netherlands in the past, as the potential liability cannot be reliably quantified at this point.

On November 9, 2018, the European Commission has published a proposal, for public consultation, for the amendment of the Solvency II Delegated Regulation. This draft proposal is the preliminary result of the 2018 review of the Solvency II framework. The consultation period ended on December 7, 2018. On March 8, 2019 the European Commission has adopted the formal text for the amendment of the Solvency II Delegated Regulation in respect of the 2018 review of the Solvency II Framework. The amendments are expected to enter into force, after the scrutiny period of three months, that is available to the European Parliament and the European Council has ended, and the amendments have been approved accordingly by the European Parliament and Council. Aegon is investigating the impact, if any, of these upcoming amendments. The proposals include amendments to the Solvency II standard formula calculations, such as in the counterparty default risk sub module, which might specifically impact the treatment of guarantees of Dutch mortgages under the standard formula. These changes also impact the Standard Formula scope of the Partial Internal Model. Furthermore, amongst others, the proposal contains amendments related to tiering requirements for subordinated liabilities, as part of Own Funds and LAC DT. Currently it is not

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yet clear when the amendments will enter into force but is monitoring the finalization of the legislative process closely.

Furthermore, EIOPA has recently launched (end of 2018) consultations on the integration of sustainability risks and factors in the Solvency and the Insurance Distribution Directive. During 2019 more consultations on sustainability are expected.

In addition, as per January 1, 2019, amendments to the Solvency II framework entered into force, relating to Solvency II standard formula treatment of standardized, transparent and simple (STS) securitizations. Aegon will take these amended provisions into account as of first quarter 2019 (confidential) supervisory reporting and future Solvency II public disclosures.

Adequate capitalization

To calculate its Group Solvency Ratio, Aegon applies a combination of the Group consolidation methods available under Solvency II: the Accounting Consolidation (AC) and Deduction & Aggregation (D&A) based methods. Solvency II capital requirements are mainly used for the EEA-based insurance and reinsurance entities, applying the Accounting Consolidation method. Local requirements are used for insurance and reinsurance entities in (provisionally) equivalent third-country jurisdictions. Aegon Bank is excluded from the Group Solvency ratio, as required by the Group Solvency II supervisor, the DNB.

As at December 31, 2018, Aegon s estimated capital position was:

	December 31, 2018 [1,2,3]	December 31, 2017 [2,3]
Group own funds	17,602	15,628
Group SCR	8,349	7,774
Group Solvency II ratio	211%	201%

1 The Solvency II ratios are estimates and subject to supervisory review.
2 The Solvency II ratios are based on Aegon s partial internal model.
3 Aegon Bank is not included in the Group Solvency II ratio.

Aegon Group Own Funds amounted to EUR 17,602 million on December 31, 2018 (2017: EUR 15,628 million). The increase of EUR 1,974 million in Own Funds since December 31, 2017, is mostly driven by normalized capital generation by Aegon s operating units and favorable one-time items. These one-items include the sale of Aegon Ireland, introduction of unit matching in Aegon UK, and the merger of the captive US insurance entity named Firebird into Transamerica Life Insurance Company (TLIC). The increase was partly offset by the negative impact from new business strain, the impact of the dividend paid and the impact from framework, model and assumption changes (including the decrease in Ultimate Forward Rate (UFR) (from 4.2% to 4.05%) following revision of the UFR

methodology by the European Insurance and Ocupational Pension Authority (EIOPA).

Aegon Group Partial Internal Model (PIM) Solvency Capital Requirement (SCR) amounted to EUR 8,349 million on December 31, 2018 (2017: EUR 7,774 million). The SCR increase by EUR 575 million is mainly due to various large offsetting actions. The SCR increased mainly due to negative market movements, SCR for new business and one-time items (mainly US Tax Reform and the impact of tax changes in the Netherlands). These were largely offset by SCR release following the sale of Aegon Ireland and the merger of Firebird into TLIC.

As a result of the above changes in Own Funds and PIM SCR, the Group Solvency II ratio improved by 10% to 211% in 2018. The capitalization levels of the most relevant country units are as follows:

	Capitalization December 31, 2018 [1,2]	Capitalization December 31, 2017 [2]
Aegon USA (Life entities) (RBC CAL)	465%	472%
Aegon the Netherlands (Solvency II ratio)	181%	199%
Aegon United Kingdom (Solvency II ratio)	184%	176%

1 The Solvency II ratios are estimates, are not final until filed with the regulator and are subject to supervisory review.

2 Refer to section Internal capital management framework for Aegon s capitalization target ranges.

Aegon Americas

In the United States, regulation of the insurance business is principally undertaken at the state level. State insurance regulators and the National Association of Insurance Commissioners have adopted RBC requirements for insurance companies. RBC calculations measure the ratio of a company s statutory capital, which is measured on a prudent regulatory accounting basis, to a minimum capital amount determined by the risk-based capital formula. The RBC formula measures exposures to investment risk, insurance risk, market

risk, and general business risk. The formula, as used for calculating the solvency ratio, applies a covariance diversification offset to determine the appropriate Risk-Based Capital. Life reinsurance is treated as life insurance. The most pertinent RBC measure is the CAL risk-based capital requirement. This is the regulatory intervention level at which a company has to submit a plan to its state regulators. The domiciliary state regulator has the authority to require additional capital depending on the type, volume and nature of the business

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being conducted. The domiciliary state regulator also has the ability to require corrective actions if a company is deemed by the commissioner to pose a Hazardous Financial Condition. The CAL is set at 200% of the Authorized Control Level (ACL), the level at which regulators are permitted to seize control of the Company. At the end of 2018, the combined risk-based capital ratio of Aegon s life insurance subsidiaries in the United States was estimated to be 465% (2017: 472%) of the CAL risk-based capital requirement. As of January 1, 2016, under the Solvency II requirements, the activities of Aegon Americas life insurance and reinsurance companies have been consolidated into the Aegon Group Solvency II figures through Deduction & Aggregation using available and required capital as per the local capital regimes. US insurance and reinsurance entities are included in Aegon s group solvency calculation in accordance with local US (RBC) requirements of the top regulated entity. Aegon uses 150% of the local RBC Company Action Level as the SCR equivalent for including the US life insurance and reinsurance entities into the Group solvency calculation. The US conversion methodology is subject to annual review and approval by DNB. The non-regulated US entities and the US holding companies are included in the Aegon Group Solvency II results through application of the Accounting Consolidation method under Solvency II, using Solvency II valuation and capital requirement calculations for these entities. The contribution of the Aegon Americas entities to the Group Solvency II position on December 31, 2018, is estimated to be 210% (2017: 199%). This ratio includes the US Life insurance and reinsurance entities as well as non-regulated US entities and US holding companies. The Americas ratio does not include a diversification benefit between the US life companies and there is no diversification benefit between US and other group entities.

Aegon the Netherlands

Aegon the Netherlands uses a PIM to calculate the solvency position of its insurance activities under Solvency II. The calculation includes the use of the volatility adjustment (VA), but does not include the use of any transitional measures. In 2018, the Dynamic VA model has been updated for Aegon the Netherlands to align with the guidance from the European Insurance and Occupational Pensions Authority (EIOPA) and the updated Dynamic VA model uses an asset-only model approach to quantify required capital for spread risk. The initial internal model of Aegon the Netherlands was approved on November 26, 2015, by the supervisor, DNB, as part of the Internal Model Application Process. The combined Solvency II position of the activities of Aegon the Netherlands, including Aegon Bank, on December 31, 2018, is estimated to be 181% (2017: 199%). This decrease is mainly driven by one-time items, including the lowering

of the UFR by 15 basis points to 4.05%, impact of tax changes in the Netherlands and changes to the assumptions regarding mortgages, mortality rates and lapses for individual life policies. This negative impact is partly offset by favorable market impacts mainly due to decreased interest rates combined with an increase of the EIOPA VA, and narrowed mortgage spread. The solvency position of the banking activities is calculated using the CRR/CRD IV framework. As at December 31, 2018, the factor of LAC DT is set at 75%, unchanged from 2017, while the corporate tax rate was lowered to reflect the upcoming tax rate changes in 2020 and 2021. The upcoming decrease from the corporate tax rate in The Netherlands resulted in a change in LAC DT (Loss absorbing capacity of deferred taxes) and a change in deferred tax position. The Solvency II capital ratio of the Group and Aegon the Netherlands does not include any contingent liability potentially arising from unit-linked products sold, issued or advised on by Aegon in the Netherlands in the past, as the potential liability cannot be reliably quantified at this point.

Aegon UK

Aegon UK uses a PIM to calculate the solvency position of its insurance activities under Solvency II. The calculation includes the use of both the matching adjustment and volatility adjustment (for the with-profits fund). The initial internal model of Aegon UK was approved on December 14, 2015, by the PRA as part of the Internal Model Application Process. The combined Solvency II position of the activities of Aegon in the UK on December 31, 2018, is estimated to be 184% (2017: 176%). This increase mainly reflects the positive expense assumption update due to the improved price agreement with Atos, and the positive impact of management actions, which was dominated by the replacements of gilts held in the shareholder fund with a combination of interest and inflation swaps. Other management actions include the restructure of existing BlackRock and Baillie Gifford External Fund Links (EFLs) and the impact of trades to sell excess credit. This is partly offset by new business strain and the completion of the Part VII transfer of BlackRock.

Sensitivities

Aegon calculates sensitivities of its Solvency II ratios as part of its risk management framework. The following table provides an overview of the shocks to parameters used to assess the sensitivities, and their estimated impact on the Solvency II ratio as at December 31, 2018.

Aegon is mainly exposed to movements in equity, interest rates, credit spreads and defaults/migrations, and longevity.

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	Scenario	Group		US		NL		UK	
		December 31, 2018	December 31, 2017	December 31, 2018	December 31, 2017	December 31, 2018	December 31, 2017	December 31, 2018	December 31, 2017
Equity markets	(20%)	n.a.	(5%)	n.a.	(10%)	n.a.	(5%)	n.a.	12%
Equity markets	20%	n.a.	10%	n.a.	17%	n.a.	5%	n.a.	(10%)
Equity markets	(25%)	(11%)	n.a.	(23%)	n.a.	(5%)	n.a	(2%)	n.a.
Equity markets	25%	15%	n.a.	34%	n.a.	2%	n.a	(7%)	n.a.
Interest rates	-100bps	n.a.	(16%)	n.a.	(21%)	n.a.	(11%)	n.a.	(16%)
Interest rates	+100bps	n.a.	12%	n.a.	12%	n.a.	8%	n.a.	12%
Interest rates	-50bps	(6%)	n.a.	(14%)	n.a.	(1%)	n.a	(4%)	n.a.
Interest rates	+50bps	3%	n.a.	(0%)	n.a.	3%	n.a	2%	n.a.
Credit spreads [1]	+100bps	n.a.	(2%)	n.a.	-	n.a.	(2%)	n.a.	13%
Credit spreads [1]	-50bps	(5%)	n.a.	(4%)	n.a.	(7%)	n.a.	(10%)	n.a.
Credit spreads [1]	+50bps	5%	n.a.	2%	n.a.	7%	n.a.	8%	n.a.
US credit defaults [2]	~+200bps	(19%)	(23%)	(35%)	(53%)	n.a.	n.a	n.a.	n.a.
Ultimate Forward Rate	-50bps	n.a.	(4%)	n.a.	n.a.	n.a.	(12%)	n.a.	n.a.
Ultimate Forward Rate	-15bps	(1%)	n.a.	n.a.	n.a.	(3%)	n.a.	n.a.	n.a.
Longevity shock	+5%	(6%)	(10%)	(4%)	(9%)	(9%)	(12%)	(3%)	(3%)

[1] Non-government bonds credit spreads.

[2] Additional defaults for 1 year including rating migration of structured products.

[3] Note 1: Equity markets +/- 25%, Interest rate +/-50% and UFR -15bps sensitivities were introduced in 2018 and therefore they are not available (n.a.) on December 31,2017. These new sensitivities are introduced as these are more relevant than the previous sensitivities, refer to note 2.

[4] Note 2: Equity markets +/- 20%, Interest rate +/-100% and UFR -50bps sensitivities are not available (n.a.) in 2018 as these are replaced by new more relevant sensitivities introduced in 2018, refer to note 1.

The Group is exposed to the risk of a fall in equity markets driven by adverse impacts on the solvency ratio in US, NL and UK. An increase in equity market values has a positive impact on the ratio for all CUs with the exception of UK. UK Own Funds do increase but the SCR also increases significantly resulting in a decrease in UK solvency ratio. The non-linearity in SCR is owing to the equity hedges (put options) held in the General Account which are not symmetric between an equity up and down shock. Furthermore upward equity sensitivity for US is high as reserves set up in the equity decline in the fourth quarter of 2018 would be expected to be released.

The Group is exposed to a decrease in interest rates. The sensitivity towards lower interest rates is mainly caused by higher SCRs in NL and UK and lower Own Funds in the US due to additional reserves. The asymmetry in the interest

rate movements arises from the set-up of required capital on the Fixed Annuity business in the US which increases in an upward interest rate sensitivity, but which is subject to a floor and therefore insensitive to a downward interest rate sensitivity. The amount of interest rate risk capital changes under the scenarios based on the extent of asset liability mismatches under different interest rate levels. In rising interest rate scenarios bonds backing the annuity liabilities may need to be sold at their lower market values in order to fund higher

anticipated annuity withdrawals. This reduces the cash flow available to fund the remaining policyholder contracts.

Credit spread sensitivities at Group level are driven by movements in Aegon NL and the EIOPA VA. NL is exposed to a reduction in spreads since this leads to an increase to the liabilities (via the lower VA) which are only partly offset by gains on the fixed income assets resulting in a net loss on Qwn Funds due to the spread duration mismatch. In the US, we have included the impact of credit spreads on the pension plan. Spread widening results in gains from the rise in the discount rate being greater than the loss on plan assets.

Lower mortality rates increase the longevity exposed liabilities. The higher liability values decrease Own Funds in US and NL, as longevity is only partially hedged, and increase the SCR.

Rating agency ratings

Aegon s objective is to maintain a very strong financial strength rating in its main operating units, and this plays an important role in determining the Company s overall capital management strategy. Aegon maintains strong financial strength ratings from leading international rating agencies for its main operating units, and a strong credit rating for Aegon N.V..

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Agency

December 31, 2018	Aegon N.V.	Aegon USA	Aegon The Netherlands	Aegon UK
S&P Global				
Financial strength	-	AA-	AA-	A+
Long-term issuer	A-	-	-	-
Senior debt	A-	-	-	-
Subordinated debt	BBB	-	-	-
Commercial paper	A-2	-	-	-
Moody s Investors Service				
Financial strength	-	A1	-	-
Long-term issuer	A3	-	-	-
Senior debt	A3	-	-	-
Subordinated debt	Baa1	-	-	-
Commercial paper	P-2	-	-	-
Fitch Ratings				
Financial strength	-	A+	-	A+
Long-term issuer	A-	-	-	-
Senior debt	BBB+	-	-	-
Subordinated debt	BBB-	-	-	-
Commercial paper	F2	-	-	-
A.M. Best				
Financial strength	-	A+	-	-

Internal capital management framework

In managing the capital adequacy of the Group and its operating units, Aegon s capital management framework is built on, among other things, managing capitalizations towards target

capital management zones. Under Aegon s capital management framework, the most relevant target capitalization zones are as follows:

	Capitalization target range [1]	
Aegon Group	150%	200% Solvency II Capital Ratio
Aegon USA (Life entities)	350%	450% RBC Company Action Level
Aegon the Netherlands	150%	190% Solvency II Capital Ratio
Aegon United Kingdom	145%	185% Solvency II Capital Ratio

[1] Capitalization target ranges follow the revised capital management policy as of the second quarter of 2017

The frequent monitoring of actual and forecast capitalization levels of both the Aegon Group and of its underlying businesses is an important element in Aegon s capital framework in order to actively steer and manage towards maintaining adequate capitalization levels. Aegon s capital framework is based on several capital management zones in which escalating management actions are called for in a timely manner to ensure

that there is always adequate capitalization of both the Aegon Group and its operating units.

The capital management zones and the management interventions connected to these zones are set consistently throughout the Group, as illustrated in the following table.

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Aegon Group		Capitalization management zones[1]	US Life entities		The Netherlands		United Kingdom		Capitalization management actions
>200% SCR		Opportunity	>450% RBC		>190% SCR		>185% SCR		Accelerate capital redeployment and/or additional dividends.
150% SCR	200%	Target	350% RBC	450%	150%	190% SCR	145%	185% SCR	Execute capital deployment and remittances according to capital plan.
120% SCR	150%	Retention	300% RBC	350%	130%	150% SCR	130%	145% SCR	Re-assess capital plan and risk positions.
100% SCR	120%	Recovery	100% RBC	300%	100%	130% SCR	100%	130% SCR	Re-assess capital plan and risk positions. Reduce or suspend remittances.
<100% SCR		Regulatory plan	<100% RBC		<100% SCR		<100% SCR		Suspension of dividends. Regulatory plan required.

[1] Capitalization management zones follow the revised capital management policy as of the second quarter of 2017.

Aegon the Netherlands has started a process to review its capitalization zones as a result of a change in credit sensitivities and increased 1-in-10 year combined sensitivities for the Netherlands. The higher capital sensitivities arise from the adoption of a new dynamic VA model which has been adopted to align with the guidance from the European Insurance and Occupational Pensions Authority (EIOPA).

Minimum solvency requirements

Insurance laws and regulations in local regulatory jurisdictions often contain minimum regulatory capital requirements. For insurance companies in the European Union, Solvency II formally

defines a lower capital requirement: the Minimum Capital Requirement (MCR). An irreparable breach of the MCR would lead to a withdrawal of the insurance license. Similarly, for the US insurance entities, the withdrawal of the insurance license is triggered by a breach of the 100% Authorized Control Level (ACL), which is set at 50% of the

CAL.

With the introduction of Solvency II for EEA countries, Aegon views these minimum regulatory capital requirements as the level at which regulators will formally require management to provide regulatory recovery plans. This is set at 100% CAL for US insurance entities, and 100% SCR for insurance companies in the European Union.

The minimum regulatory capital requirements, as viewed by Aegon for its main operating units and the capitalization levels as at December 31, 2018, are included in the following table:

Capital requirements	Minimum capital requirement	Actual capitalization	Excess over minimum capital requirement
Aegon USA (Life entities) [1]	100% Company Action Level (NAIC RBC CAL)	465% of combined CAL	EUR 6.9 bln
Aegon the Netherlands [1,2]	100% Solvency II SCR	181% Solvency II SCR	EUR 3.1 bln
Aegon United Kingdom [1]	100% Solvency II SCR	184% Solvency II SCR	EUR 1.2 bln

[1] Please note, this reflects Aegon s estimated Capitalization levels.
[2] Including Aegon Bank.

The capitalization level and shareholders equity of the operating units can be impacted by various factors (e.g. general economic conditions, capital markets risks, underwriting risk factors, changes in government regulations, legal and arbitrational proceedings). To mitigate the impact of such factors on the ability of operating units to transfer funds, the operating units hold additional capital in excess of the levels of the minimum regulatory solvency requirements.

In practice and for upstreaming purposes Aegon manages the capitalization of its operating units towards the capitalization target ranges as identified in Aegon s capital framework.

These ranges are both in excess of the minimum regulatory requirements contained in the applicable regulations, and in excess of the minimum requirements stated in the table above.

Improving risk-return profile

Aegon continues to take measures to improve its risk-return profile. These measures include de-emphasizing the selling of various spread based products and the strategic growth in fee-based businesses. In 2016, Aegon divested its annuity business in the UK, and reinvested part of the proceeds for the acquisition of Cofunds and BlackRock s DC business in the UK. In 2017, Aegon continued its commitment to optimize its portfolio by divesting UMG in the Netherlands and completing the sale of the majority of its US run-off businesses. In 2018, Aegon divested its business in Ireland and the remaining US run-off business, acquired the income protection service provider Robidus in The Netherlands and expanded its business in the Netherlands and Spain.

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Extensive asset-liability management and hedging programs are also in place. Examples of these programs include hedging the interest rate and equity risk stemming from guarantees in the Netherlands, hedging of interest rate risk and equity risk in Aegon UK, and hedging the capital position in the Americas against adverse equity and interest rate movements. In addition, Aegon is actively involved in hedging longevity risk in the Netherlands and has an active global reinsurance program in order to optimize the risk-return profile of other insurance risks. Aegon strictly monitors the risk-return profile of new business written, withdrawing products that do not meet the required hurdle rates for all stakeholders including the policyholders and shareholders.

G-SII designation and International Capital Standards

For more information about Aegon s G-SII designation, the impact thereof and the status of development of the International Capital Standards, please refer to section Regulation and supervision .

Capital quality

Capital quality is a reflection of Aegon s stability and ability to absorb future financial losses.

Solvency II distinguishes between basic Own Funds and ancillary Own Funds. Aegon s total Own Funds are comprised of Tier 1, Tier 2 and Tier 3 basic Own Funds. Aegon does not currently have ancillary Own Funds. Tier 1 basic Own Funds are divided into unrestricted Tier 1 items and restricted Tier 1 items. The latter category contains Own Fund items subject to the restrictions of article 82 (3) of the Solvency II Delegated Regulation, which includes grandfathered Tier 1 Own Fund items. Based on agreements with its supervisory authorities, Aegon applies a fungibilty and transferability restriction with respect to charitable trusts within Aegon Americas, and a restriction equal to the Own Funds of Aegon Bank. These restrictions, applied to Aegon s basic own funds, result in Aegon s available Own Funds.

Available Own Funds

Unrestricted Tier 1 capital consists of Aegon s share capital, share premium and the reconciliation reserve. The reconciliation reserve includes deductions to account for foreseeable dividends that have been approved by the Board but that have yet to be distributed to Aegon s shareholders, and restrictions related to Aegon s with-profits fund in the UK for which the excess of Own Funds over its capital requirement is ring-fenced for the policyholder, and therefore unavailable to Aegon s shareholders.

Restricted Tier 1 capital consists of Aegon s junior perpetual capital securities and perpetual cumulative subordinated bonds, both of which are grandfathered. Restricted Tier 1 capital is subject to tiering restrictions.

Aegon s Tier 2 capital consists of Solvency II compliant subordinated liabilities that were issued during 2018 and grandfathered dated subordinated notes. Tier 2 capital is subject to tiering restrictions.

The grandfathered restricted Tier 1 and Tier 2 capital instruments are grandfathered to count as capital under Solvency II for up to 10 years as of January 1, 2016. All call dates are listed in note 33 Other equity instruments and note 34 Subordinated borrowings to Aegon s consolidated financial statements.

Aegon s Tier 3 capital under the Solvency II framework consists of Aegon s deferred tax asset position under Solvency II.

Eligible Own Funds

Under Solvency II regulation, restrictions apply to the eligibility of Tier 2 and Tier 3 capital, as well as the eligibility of restricted Tier 1 capital. The total of Tier 2 and Tier 3 capital may not exceed 50% of the SCR while the eligibility of Tier 3 capital is limited to 15% of SCR. Restricted Tier 1 capital may not exceed 20% of Tier 1 Own Funds. As a result, it is possible that part of the Own Funds overflows to another tier or that is not considered eligible in determining the Group Solvency ratio.

When applying the eligibility restrictions, Aegon determines its tiering limits based on:

- EEA entities representing the part of the Group covered by the Accounting Consolidation based method, for which tiering limits are based on the SCR of the consolidated part of the Group, i.e. the consolidated group SCR; and
- Non-EEA entities representing the part of the Group covered by the Deduction & Aggregation method. If a prudential regime of an equivalent or provisionally equivalent third-country applies, such as the regulatory regimes in the United States, Aegon does not initially categorize these Own Funds into tiers or define tiers that are significantly different from those established under the Solvency II Directive. The Own Funds brought in by the Deduction & Aggregation method are then allocated to tiers according to the principles laid out in Articles 87 to 99 of the Solvency II Directive for each individual third-country insurance undertaking.

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The table below shows the composition of Aegon s available and eligible Own Funds, taking into consideration tiering restrictions.

	December 31, 2018		December 31, 2017	
	Available own funds	Eligible own funds	Available own funds	Eligible own funds
Unrestricted Tier 1	12,204	12,204	10,428	10,428
Restricted Tier 1	3,406	2,888	3,540	2,451
Tier 2	1,487	2,005	1,213	2,302
Tier 3	505	505	448	448
Total Tiers	**17,602**	**17,602**	**15,628**	**15,628**

As a result of applying the restrictions to the available Own Funds, there was an overflow from Restricted Tier 1 Own Funds of EUR 518 to Tier 2 in the eligible Own Funds as of December 31, 2018.

Aegon s use of leverage

Aegon uses leverage in order to lower the cost of capital that supports businesses in the Aegon Group, thereby contributing to a more effective use of capital and realizing capital efficiencies. In managing the use of financial and non-financial leverage throughout the Group, Aegon has implemented a Leverage Use Framework that is part of Aegon s broader Enterprise Risk Management framework.

Leverage metrics

In line with the guiding principles of its capital and liquidity management, Aegon N.V. monitors and manages several leverage metrics:

- Gross financial leverage ratio;
- Fixed charge coverage; and
- Various rating agency leverage metrics.

Aegon s gross financial leverage ratio is calculated by dividing total financial leverage by total capitalization. Aegon defines total financial leverage as debt or debt-like funding issued for general corporate purposes and for capitalizing Aegon s business units. Total financial leverage includes hybrid instruments, subordinated and senior debt. Aegon s total capitalization consists of the following components:

- Shareholders equity, excluding revaluation reserves, cash flow hedge reserves, based on IFRS as adopted by the EU;
- Non-controlling interests and share options not yet exercised; and
- Total financial leverage.

Aegon s fixed charge coverage is a measure of the Company s ability to service its financial leverage. It is calculated as the sum of underlying earnings before tax and interest expenses on financial leverage divided by interest payments on financial leverage. The fixed charge coverage includes the impact of interest rate hedging.

For further information, please refer to note 46 Capital Management and Solvency in the consolidated financial statements.

Operational leverage

Although operational leverage is not considered part of Aegon s total capitalization, it is an important source of liquidity and funding. Operational leverage relates primarily to financing Aegon s mortgage portfolios through securitizations, warehouse facilities, covered bonds, and the funding of US Regulation XXX and Guideline AXXX redundant reserves.

Aegon enters into reinsurance agreements for risk and capital management purposes with several affiliated captive insurance companies (captives). All captives are fully consolidated for IFRS reporting and for Solvency II based on local valuations under equivalence.

The captives are utilized for a number of purposes that may include:

- Financing term life insurance (subject to Regulation XXX reserves) and universal life insurance with secondary guarantees (subject to Regulation AXXX reserves) to support lower-risk statutory reserves at a lower cost for policyholders and shareholders;
- Managing and segregating risks; and
- Monetizing embedded value.

All external financing provided to captives to support statutory reserves is disclosed in note 39 Borrowings to the consolidated financial statements to the extent to which it has been funded. Letters of Credit (LOCs) issued by third parties provided to captives to provide collateral to affiliated insurers are disclosed in note 48 Commitments and contingencies to the consolidated financial statements. These LOCs have been provided by third parties for the benefit of the affiliated company whose liabilities are reinsured.

Funding and back-up facilities

The majority of Aegon s financial leverage is issued by Aegon N.V., the parent company. A limited number of other Aegon companies have also issued debt securities, but for the most part these securities are guaranteed by Aegon N.V.

Aegon N.V. has regular access to international capital markets under a USD 6 billion debt issuance program. Access to the capital market in the United States is made possible by a separate shelf registration.

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Aegon also has access to domestic and international money markets through its EUR 2.5 billion commercial paper programs. As at December 31, 2018, Aegon had EUR 82 million outstanding under these programs (2017: EUR 72 million).

To support its commercial paper programs and need for LOCs, and to enhance its liquidity position, Aegon maintains backup credit and LOC facilities with international lenders. The Company s principal arrangements comprise a EUR 2 billion syndicated revolving credit facility and a LOC facility of USD 2.6 billion. In 2018, the company refinanced its syndicated revolving credit facility. The new facility matures in 2023. The LOC facility matures in 2021. In addition, Aegon also maintains various shorter-dated bilateral backup liquidity facilities, and committed and uncommitted LOC facilities.

Liquidity management

Liquidity management is a fundamental building block of Aegon s overall financial planning and capital allocation processes. The Company s liquidity risk policy sets guidelines for its operating companies and the holding in order to achieve a prudent liquidity profile and to meet cash demands under extreme conditions.

Liquidity is coordinated centrally and managed both at Aegon N.V. and at the operating unit level. Aegon maintains a liquidity policy that requires all business units to project and assess their sources and uses of liquidity over a two-year period under normal and severe business and market scenarios. This policy ensures that liquidity is measured and managed consistently across the Company, and that liquidity stress management plans are in place.

Sources and uses of liquidity

Liquidity in Aegon s subsidiaries

Aegon s operating units are primarily engaged in the life insurance and pensions business, which is a long-term activity with relatively illiquid liabilities and generally matching assets. Liquidity consists of liquid assets held in investment portfolios, in addition to inflows generated by premium payments and customer deposits. These are used primarily to purchase investments, as well as to fund benefit payments to policyholders, policy surrenders, operating expenses, and, if the subsidiary s capital position allows, to pay dividends to the holding.

After investments have been made in new business to generate organic growth, capital generated by Aegon s operating units is available for distribution to the holding company, while maintaining a capital and liquidity position in the operating units in line with Aegon s capital management and liquidity risk policies. In addition, the ability of Aegon s insurance subsidiaries to transfer funds to the holding company is also constrained by the requirement for these subsidiaries to remain adequately capitalized at the levels set by local insurance regulations, and as administered by local insurance regulatory authorities.

Aegon N.V.

The main sources and uses of liquidity at the holding company Aegon N.V. are dividends from operating units, movements in debt, net expenses (including interest), funding operations, capital returns to shareholders, and the

balance of acquisitions and divestitures. In addition, contingent internal and external liquidity programs are maintained to provide additional safeguards against extreme unexpected liquidity stresses.

Aegon uses cash flows from its operating units to pay for holding expenses, including funding costs. The remaining cash flow is available to execute the Company s strategy and to fund dividends on its shares. Aegon aims to pay out a sustainable dividend to enable equity investors to share in its performance.

When determining whether to declare or propose a dividend, Aegon s Executive Board balances prudence with offering an attractive return to shareholders. This is particularly important during adverse economic and/or financial market conditions. Furthermore, Aegon s operating subsidiaries are subject to local insurance regulations that could restrict dividends to be paid to the holding company. There is no requirement or assurance that Aegon will declare and pay any dividends.

Aegon s holding excess cash

The ability of the holding company to meet its cash obligations depends on the amount of liquid assets on its balance sheet and on the ability of the operating units to pay dividends to the holding company. In order to ensure the holding company s ability to fulfil its cash obligations and maintain sufficient management flexibility to allocate capital and liquidity support for Aegon s operating units and external dividend stability, it is the Company s policy that the holding excess cash position, including Aegon s centrally managed (unregulated) holding companies, is managed to a target range of EUR 1.0 to 1.5 billion.

As at December 31, 2018, Aegon held a balance of EUR 1.3 billion in excess cash in the holding, compared with EUR 1.4 billion on December 31, 2017. The decrease of EUR 0.1 billion reflects the net impact of dividends from subsidiaries and capital injections in subsidiaries, divestments, acquisitions, the issuance and redemptions of capital instruments and senior unsecured notes, holding expenses and capital returns to shareholders. During 2018 Aegon exercised the right to redeem the USD 525 million 8% non-cumulative subordinated notes (grandfathered Tier 2) and the EUR 200 million 6% perpetual capital securities (grandfathered Restricted Tier 1), which was pre-financed by the issuance of USD 800 million Tier 2 subordinated debt securities, first callable on April 11, 2028, and maturing on April 11, 2048. Additionally, the 1-year EUR 500 million senior unsecured notes that were issued in 2017, were redeemed.

An amount of EUR 97 million was paid for the acquisition of the protection income service provider Robidus

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in The Netherlands. The payments in 2018 were offset by proceeds from the sale of Aegon Ireland of EUR 196 million and dividends from Aegon Americas (EUR 906 million), Aegon NL (EUR 200 million), and Aegon UK (EUR 113 million). Dividends from other units were largely offset by capital injections, amounting to a net of EUR 14 million.

During 2018, payments related to the 2017 final dividend and 2018 interim dividend and the corresponding share buybacks amounted to EUR 577 million and holding and funding expenses amounted to EUR 333 million.

Aegon s liquidity is invested in accordance with the Company s internal risk management policies. Aegon believes that its working capital, backed by its external funding programs and facilities, is ample for the Company s present requirements.

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Asset liability management

Aegon specializes in writing long-term life insurance business with key markets in the US, Europe and Asia. Its product suite includes savings and annuity products that feature a guaranteed level of benefit. Aegon also issues mortgage loans in The Netherlands that are initiated using long-term insurance funds. Products are priced using a market-consistent framework, and comprehensive asset-liability management (ALM) programs are implemented to ensure that the assets backing policyholder benefits are invested prudently over the long term.

A range of ALM techniques are used across the Group. These range in terms of sophistication and complexity from cash-flow matching (for traditional fixed annuities) to duration matching (for the universal life family) to derivative-based semi-static and dynamic hedges (to match variable annuities).

The Enterprise Risk Management (ERM) framework includes a number of risk policies that govern ALM strategies, such as the Investment and Counterparty Risk Policy (ICRP), the Interest Rate Risk Policy (IRRP) and the Currency Risk Policy (CRP). The ICRP governs the management of investment risks associated with credit, equity, property and alternative asset classes, in addition to option markets and implied volatility risk. The other policies govern interest rate and currency risk, including the risk associated with interest rate options and swaptions.

As well as product-level ALM programs, subsidiary businesses are required by the ICRP to maintain overarching ALM strategies that set the direction and limits for the various individual product-level programs. Significant or complex ALM strategies are approved at group level, and all programs are subject to group risk oversight.

Together with the ICRP, IRRP and CRP, which guide ALM strategy, a number of other ERM policies govern concentration risk, liquidity risk, use of derivatives and securities lending and repos. As Aegon uses derivatives extensively, collateral calls can be significant depending on market circumstances. Liquidity is managed at legal entity level in the first instance, and the large US and Dutch units may use external market solutions to match projected liquidity requirements with funding.

The introduction of Dodd-Frank and the European Market Infrastructure Regulation (EMIR) derivative regulations led to Aegon transitioning a significant proportion of formerly over-the-counter positions to clearing houses in recent years. Collateral and margin requirements increased, introducing the potential for liquidity strain, which has to be carefully managed. Market volatility can cause collateral requirements to increase rapidly, which means that it is important to have sufficient high quality collateral available at all times. Regular liquidity stress testing is used to monitor required liquidity and ensure that sufficient funding is available.

Americas

The investment choices of Aegon USA s companies are subject to regulation dependent upon the laws of the applicable state in which each such company is domiciled. Each state prescribes the nature, quality and percentage of various types of investments that may be made by the companies. Such laws generally permit investments in government bonds, corporate debt, preferred and common stock, real estate and mortgage loans, while limiting

investment in other classes of investments.

A range of ALM strategies are used at the product-group level. For traditional general account insurance, the ALM strategy is to select high-quality investment assets that are matched to the corresponding liability. This strategy takes currency, yield and maturity characteristics into consideration. Asset quality and diversification are also taken into account, together with policyholders reasonable expectations with regard to the sharing of excess interest.

Transamerica also writes a significant volume of variable annuity business, which is managed using sophisticated dynamic hedging techniques. Clearly-defined hedge strategies cover first order delta and rho , together with higher order programs covering gamma and vega sensitivities. The Distributed Earning Macro Program is an overlay hedge that provides additional protection for distributable earnings against a sharp fall in equity markets.

Aegon USA also uses various liquidity management techniques, including a contingent liquidity management facility, to ensure sufficient access to funding for collateral calls in the event of rapidly rising interest rates. Regular stress testing is used to monitor and manage liquidity risk.

Europe

The Netherlands

Aegon the Netherlands uses fixed income instruments to match its long-term liabilities. These include high-quality sovereign and corporate bonds, together with a sizeable portfolio of Dutch residential mortgages. Cash flow matching is used to manage the asset portfolio, and a derivative-based dynamic hedge program in addition to the cash flow matching. The hedge program is rebalanced on a daily basis in order to both offset embedded guarantee sensitivities, and protect against volatility in best estimate economic cost of these guarantees.

Derivatives are central to Aegon s hedging strategy, and the derivatives market has been subject to a large number of changes in recent years. These include the introduction of the EMIR in Europe. Furthermore, counterparty risks associated with derivative contracts are mitigated by collateral, and the introduction of central clearing has increased collateral requirements and reduced counterparty risk over recent years.

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United Kingdom

Having disposed of the majority of its annuity portfolio, the primary role of ALM at Aegon UK is to protect Solvency II own funds. This is achieved by using options and equity and interest rate swaps to guard against fluctuations in best estimate liabilities. This year a new Solvency II unit matching program was introduced to reduce residual basis risk associated with unit-linked liabilities. Programs are also in place to match assets with the liabilities of the remaining annuity book and the staff pension scheme.

The UK with-profits business is written in the policyholder-owned fund (otherwise called the with-profits fund). The funds with the highest guaranteed rates have been closed to premiums since 1999, and all funds have been closed to new business with investment guarantees since October 2002 (except for a small increase in regular payments). The fund contains free assets that have not yet been fully distributed to individual policyholders. Free assets help meet the cost of guarantees and provide a buffer to protect the fund from the impact of adverse events. The free assets are partly invested in equity put options and interest rate swaps and swaptions. Aegon UK has an exposure

only once these assets have been exhausted. The risk of exposure has been assessed by Aegon UK as remote, based on applying the risk-based capital approach required for Solvency II reporting in the UK. As the fund is closed for new business, the free assets are gradually being distributed to the with-profit policyholders through the applicable bonus system.

Central & Eastern Europe and Spain & Portugal

Aegon has a range of ALM programs in place across life and non-life businesses in the Central & Eastern Europe region and in Spain and Portugal. Across the CEE units, ALM focuses on asset-liability matching in terms of duration and liquidity. In Spain & Portugal, insurance liabilities are predominately long-term life benefits, and the focus of ALM is to minimize interest rate risk by duration matching.

Asia

Aegon and Sony Life jointly established a reinsurance company, SA Reinsurance Ltd. (SARe). SARe uses a sophisticated dynamic hedge program to manage guarantee risk included in variable annuity products associated with equity markets and interest rates.

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Reinsurance ceded

Aegon uses reinsurance to manage and diversify risk, limit volatility, improve capital positions, limit maximum losses, and sometimes to enter into strategic partnerships and gain access to reinsurer technology. While the objectives and use can vary by region due to local market considerations and product offerings, the use is coordinated and monitored globally.

In order to minimize its exposure to reinsurer defaults, Aegon regularly monitors the creditworthiness of its reinsurers, and where appropriate, arranges additional protection through letters of credit, trust agreements and overcollateralization. For certain agreements, funds are withheld for investment rather than relying on the reinsurer to meet investment expectations. Default exposure is further reduced by the use of multiple reinsurers within certain reinsurance agreements. Aegon has experienced no material reinsurance recoverability problems in recent years.

External reinsurance counterparties are in general major global reinsurers (approximately 60% of reinsurance premium) with more local reinsurers ensuring a balance between regional and global considerations. The key way in which reinsurance is used and the role that it plays by region is as follows:

Corporate Center and Blue Square Re

Global coordination takes place through Aegon Corporate Center working closely with local business units. The Global Reinsurance Use Committee (GRUC) is a global body that shares and discusses updates and matters of interest among local and global reinsurance managers. The GRUC also oversees Aegon s Reinsurance Use Policy and facilitates approval of transactions if counterparties are not pre-approved. Reports are shared with the Global Risk and Capital Committee and Group Management Board as appropriate.

Blue Square Re is a global reinsurer 100% owned by Aegon N.V. that specializes in internal reinsurance and related consideration, and offers product and underwriting expertise to Aegon units and partners. In accepting risks from Aegon units, Blue Square Re may at times retrocede risk to external reinsurers, thereby realizing economies of scale and diversification.

Americas

Aegon Americas manages its life insurance exposure through various types of agreements with reinsurers. It relies heavily on quota-share and excess-of-loss reinsurance arrangements. The primary purpose of these agreements is to diversify Aegon Americas overall risk and limit the maximum loss on risks that exceed policy retention levels. Maximum retention levels vary by product, method of underwriting, and the nature of the risk being reinsured.

Europe

The Netherlands

Aegon the Netherlands reinsures part of its insurance exposure with third-party reinsurers under traditional indemnity and excess of loss contracts. Reinsurance helps Aegon manage, mitigate and diversify its insurance risks, and thereby limit the maximum loss it may incur. Since January 1, 2014, Aegon the Netherlands has reinsured its term life assurance through a quota-sharing contract. For non-life, Aegon the Netherlands only reinsures its property, general and motor third-party liability business. For property insurance, motor third-party liability insurance, and general third-party liability, excess of loss contracts are in place.

United Kingdom

Aegon UK uses reinsurance to both manage risk and maximize financial value through returns achieved and efficient capital management. The degree to which reinsurance is used across the product lines varies, depending largely on the appropriateness and value of reinsurance available in the market. The protection business is significantly reinsured. A reinsurance panel is in place to provide reinsurance, predominantly on a quota share basis, across the range of benefits. A facultative reinsurance panel is also used to assist the placement of very large cases.

Central & Eastern Europe

Aegon CEE uses reinsurance for its life and non-life businesses in order to mitigate insurance risk. The majority of treaties in force for Aegon s operations in Central & Eastern Europe are non-proportional excess of loss programs except for the life reinsurance treaties which are made on a surplus and quota-share basis (including various riders). The most significant reinsurance programs currently in force are property catastrophe excess of loss treaty and excess of loss treaties for other risks.

Spain & Portugal

Aegon Spain has a one Aegon reinsurance management policy. This means that both its joint ventures in Spain & Portugal and own business are treated as a whole, with similar economic conditions and a similar panel of reinsurers, while individual profit shares without losses are carried forward by each entity belonging to Aegon Spain. The main contract for mortality and morbidity provides proportional reinsurance protection for both its individual risk and group risk policies. Aegon Spain thereby seeks to optimize the cost of reinsurance coverage, including through profit sharing, while achieving prudential diversification of its insurance risk by limiting the maximum possible losses on risks that exceed retention levels. Household insurance contracts for the Aegon Santander joint ventures follow the same principles, with maximum retention levels varying both by product and by the nature of the risk being reinsured. Natural catastrophe reinsurance programs are also in place to provide cover for high impact low frequency events.

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Asia

China: Aegon THTF

Aegon THTF shares its morbidity and mortality risk with international and national reinsurers. The mortality risk of individual products is shared through a surplus reinsurance structure. Aegon THTF reviews the reinsurance structure regularly, adjusting it based on claims experience and its risk acceptance capability.

India: Aegon Life

Reinsurance arrangements are regulated by the Insurance Regulatory and Development Authority of India. Aegon Life reinsures the mortality and morbidity risks of the policies it sells.

Japan: Aegon Sony Life and SARe

Aegon Sony Life reinsures 100% of its guarantees on variable annuities with SARe. In addition, Aegon Sony Life maintains a Surplus Relief reinsurance contract on a local statutory basis only. Surplus Relief provides relief from acquisition cost recovery risk.

Hong Kong and Singapore:

Transamerica Life Bermuda (TLB)

TLB uses third-party mortality reinsurance for its universal life and traditional policies. Mortality reinsurance takes the form of yearly-renewable term, excess-of-retention or quota-share arrangements. This is typically arranged through a pool of reinsurers. In October 2016, TLB entered into a reinsurance treaty to provide further protection for the local solvency position in Singapore.

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Risk management

General

As an insurance group, Aegon manages risk for the benefit of its customers and other stakeholders. As a result, the Company is exposed to a range of underwriting, operational and financial risks. Aegon s risk management and internal control systems are designed to ensure that these risks are managed effectively and efficiently in a way that is aligned with the Company s strategy.

For Aegon, risk management involves:

- Understanding risks that the Company faces;
- Maintaining a company-wide framework through which the risk-return trade-off associated with these risks can be assessed;
- Maintaining risk tolerances and supporting policies to limit exposure to a particular risk or combination of risks; and
- Monitoring risk exposures and actively maintaining oversight of the Company s overall risk and solvency positions.

By setting certain predefined tolerances and adhering to policies that limit the overall risk to which the Company is exposed, Aegon is able to accept risk with the knowledge of potential returns and losses.

This section provides a description of Aegon s risk management. Risks and risk management are also referred to in various other sections of Aegon s Annual Report, as they are relevant throughout the Company, for its various activities and its financial results. Relevant sections are: Our operating environment on page 17; Note 4 on Financial Risks in the Notes to the consolidated financial statements on page 175; and Risk factors on page 369.

Enterprise Risk Management (ERM) framework

Aegon s ERM framework is designed and applied to identify and manage potential risks that may affect Aegon. This means identifying and managing individual and aggregate risks within Aegon s risk tolerance in order to provide reasonable assurance regarding the achievement of Aegon s objectives. The ERM framework covers the ERM components as identified by the Organizations of the Treadway Commission (COSO). The ERM framework applies to all of Aegon s businesses for which it has operational control. Aegon s businesses are required to either adopt the Group level ERM framework directly, or tailor it to local needs while meeting the requirements of the Group level ERM framework.

Risk strategy, risk appetite statement and risk tolerances

The formulation of the risk strategy starts with the principle that taking a risk should be based on serving a customer s need. In terms of Aegon s purpose statement, risk taking should be instrumental to helping people achieve a lifetime of financial security. The competence with which Aegon is able to manage

the risk is assessed and Aegon s risk preferences are formulated, taking into account Aegon s risk capacity. The risk preferences eventually lead to a targeted risk profile that reflects the risks Aegon wants to keep on the balance sheet, and the risks Aegon would like to avoid.

Aegon s risk appetite statement and risk tolerances are established in order to assist management in carrying out Aegon s strategy using the resources available to Aegon. Aegon s risk appetite statement is linked to Aegon s strategy and purpose as expressed in the mission statement: helping people achieve a lifetime of financial security. Aegon s risk appetite statement is to:

Fulfill our promises towards our customers and other stakeholders by delivering sustainable growing long-term free capital generation, with strong resilience in solvency and liquidity, healthy balance in exposures, and by running a responsible business with effective controls.

Following from the risk appetite statement, risk tolerances are defined on:

1) Capital generation, to ensure free capital generation remains sufficiently in line with projections;

2) Solvency and liquidity, to ensure that Aegon remains solvent and liquid even under adverse scenarios;

3) Risk balance, to ensure a healthy balance of risk exposures that supports delivering on targets for capital generation and return on capital;

4) Responsible business with effective controls, which acknowledges an acceptable level of operational risk and stresses a low tolerance for (lack of) actions which could lead to material adverse risk events that result in breaking promises or not meeting reasonable expectations of customers, legal breaches or reputational damage.

The tolerances are further developed into measures, limits and thresholds that have to be complied with to remain within the tolerances.

Risk identification and risk assessment

Aegon has identified a risk universe that captures all known material risks to which the Company is exposed. In order to assess all risks, a consistent methodology for measuring risks is required. Aegon s methodology for this is documented in a manual and maintained up-to-date. The risk metrics are embedded in Aegon s key reports and are used for decision making.

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Risk response

Aegon distinguishes the following risk responses:

- When the risk exposure is within the set risk tolerance, management can accept the risk; and
- When an exposure exceeds the risk tolerance of management or if cost-benefit analysis supports further actions, management can decide to control, transfer or avoid the risk.

Risk monitoring and reporting

Risks are monitored regularly and reported on at least a quarterly basis. The impact of key financial, underwriting and operational risk drivers on earnings and capital is shown in the quarterly risk dashboard for the various risk types both separately as well as on an aggregate basis.

Risk exposures are compared with the limits as defined by Aegon s risk tolerance statements. Reporting also includes risk policy compliance and incident and compliance reporting. Finally, the main risks derived from Aegon s strategy and the day-to-day business are discussed, as well as forward looking points for attention. If necessary, mitigating actions are taken and documented.

Risk control

A system of effective controls is required to mitigate the risks identified. In Aegon s ERM framework risk control includes risk governance, risk policies, internal control framework, model validation, risk embedding, risk culture and compliance.

Risk universe and risk appetite

The risk factors described in this Annual Report (see risk factors in the additional information section) generally have an impact on financial markets (e.g. interest rates and share prices), underwriting assumptions (e.g. longevity and policyholder behavior) or result in operational risk events (e.g. fraud and business disruption). Aegon s risk universe is structured to reflect the type of risk events to which the Company is exposed. The identified risk categories are financial risk, underwriting risk and operational risk. Specific risk types are identified within these risk categories. The risk universe captures all known material risks to which Aegon is exposed. These risks, internal or external, may affect the Company s operations, earnings, share price, value of its investments, or the sale of certain products and services. In the context of Aegon s risk strategy, a risk appetite is set for the three identified risk categories (see table below).

Risk category	Description	Appetite
Underwriting	The risk of incurring losses when actual experience deviates from Aegon s best estimate assumptions on mortality, longevity,	Medium to high Underwriting risk is Aegon s core business and meets customer needs.

	morbidity, policyholder behavior, P&C claims and expenses used to price products and establish technical provisions.		
Financial	The risk of incurring financial losses due to movements in financial markets and the market value of balance sheet items. Elements of financial risk are credit risk, investment risk, interest rate risk and currency risk.	Low to medium	Accepted where it meets customer needs and the risk return profile is acceptable.
Operational	Operational risk results from operational failures or external events, such as processing errors, legal and compliance issues, natural or man-made disasters, and cybercrime.	Low	Accepted to serve customer needs, but mitigated as much as possible.

Most significant risks

The most significant risks Aegon faces in terms of exposures and required capital are:

- Financial markets risks (particularly related to credit, equity and interest rates), and
- Underwriting risk (particularly related to longevity and policyholder behavior).

Description of risk types

Financial risk

Credit risk

Credit risk is the risk of economic loss due to the deterioration in the financial condition of counterparties, either through fair value losses on traded securities or through defaults on traded securities, loans and mortgages. Having a well-diversified investment portfolio means that Aegon can accept credit spread risk to earn a liquidity premium on assets that match liabilities. The focus is on high quality securities with low expected defaults because Aegon has a low appetite for default risk.

Equity market risk and other investment risks

Aegon runs the risk that the market value of its investments changes. Investment risk affects Aegon s direct investments in the general account, indirect investments on the account of policyholders and agreements where Aegon relies on counterparties, such as reinsurance and derivative counterparties. Aegon has a low preference for investments in equity securities via the general account. Equity investments generate an equity risk premium over the long run, but in combination with a high capital charge result in a relatively low return on capital. Aegon has experience and expertise in managing complex investment guarantees, and leverages this capability by providing customers access to a range of investment strategies and guaranteed benefits.

Interest rate risk

Aegon is exposed to interest rates as both its assets and liabilities are sensitive to movements in long- and short-term interest rates, as well as to changes in the volatility of interest rates. Aegon accepts interest rate risk in order to meet customer needs. However, as no spread is earned on this interest rate risk, Aegon prefers to mitigate the risk to the extent possible.

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Currency exchange rate risk

As an international company, Aegon is exposed to different currencies, and therefore to movements in currency exchange rates. Foreign currency exposure exists primarily when policies are denominated in currencies other than the issuer s functional currency. Currency risk in the investment portfolios backing insurance and investment liabilities is managed using asset liability matching principles. Assets allocated to equity are held in local currencies to the extent shareholders equity is required to satisfy regulatory and self-imposed capital requirements. Currency exchange rate fluctuations therefore affect the level of shareholders equity as a result of converting local currencies into euro, the Group s reporting currency. The Company holds its capital base in various currencies in amounts that correspond to the book value of individual business units.

Liquidity risk

Aegon needs to maintain sufficient liquidity to meet short term cash demands not only under normal conditions, but also in the event of a crisis. To that end, Aegon has put a strong liquidity management strategy in place. The Company considers extreme liquidity stress scenarios, including the possibility of prolonged frozen capital markets, an immediate and permanent rise in interest rates, and policyholders withdrawing liabilities at the earliest conceivable date. In addition, the Company has liquidity stress planning in place.

Underwriting risk

Underwriting risk relates to the products sold by Aegon s insurance entities, and represents the risk of incurring losses when actual experience deviates from Aegon s best estimate assumptions on mortality, morbidity, policyholder behavior, P&C claims and expenses. Aegon has a preference to selectively grow underwriting risk, but this must work hand-in-hand with a strong underwriting process. Aegon s earnings depend, to a significant degree, on the extent to which claims experience is consistent with assumptions used to price products and establish technical liabilities. Changes in, among other things, morbidity, mortality, longevity trends and policyholder behavior may have a considerable impact on the Company s income. Assumptions used to price products and establish technical liabilities are reviewed on a regular basis. Please refer to note 3 Critical accounting estimates and judgment in applying accounting policies to the consolidated financial statement for further information.

Operational risk

Like other companies, Aegon faces operational risk resulting from operational failures or external events, such as processing errors, inaccuracies in used models, acts from personnel, non-compliance to laws and regulations, and natural or man-made disasters including climate change. In addition, major programs or organizational transformations may also increase potential for operational risks. Aegon s systems and processes are designed to support complex products and transactions, and to avoid such issues as system failures, business disruption, financial

crime and breaches of information security. Aegon monitors and analyses these risks on a regular basis, and where necessary revises contingency plans to deal with them. Aegon s operational risk universe distinguishes eight risk types: Business risk; Legal, regulatory, conduct and compliance risks; Tax risk; Financial crime risk; Processing risk; Systems and business disruption risk; People risk; and Facility risk. These level 1 risk types are split out into more

granular level 2 risk types. The operational risk universe also covers social and environmental risks. Please refer to the chapter non-financial policies, procedures and outcomes for an overview of how various social and environmental issues are incorporated in decision making processes and policies throughout the company.

Cyber risk

Cyber security has been recognized by Aegon as an important operational risk. Aegon s digital security controls and cyber threat management program, as defined within the Company s global information security program, are intended to establish security controls that safeguard data, technology and operations, as well as activities outsourced to third parties. Aegon recognizes the need to commit significant resources to protect and continually strengthen its existing security control environment and preventative tooling as new cyber threats and exposures emerge. Evaluations and scenario testing of security controls including detection and response capabilities are performed by both internal and external experts, and identified vulnerabilities are tracked and monitored by management. This program is overseen by Aegon s Global Chief Information Security Officer, who has a direct reporting line to the Global Chief Technology Officer, who is a member of the Management Board, in conjunction with local business unit management and information security officers. Moreover, periodic updates are provided to Aegon s Supervisory Board. Aegon takes cybercrime very seriously, and is committed to enhancing its existing systems over time in order to provide additional protections to its systems and information.

Conduct Risk

Both industry-wide and within Aegon, cultural and behavioral elements of risks increasingly play a role within overall risk frameworks. Relevant in this context are, among others, the European Insurance Distribution Directive (IDD) and the General Data Protection Regulation (GDPR). Conduct risk refers to the risks inherent in behaviors, business and staff integrity and business culture, including, but not limited to, meeting the standards of Aegon s Market Conduct Principles.

Emerging risk process and materiality assessment

In addition to the management of described risk types, Aegon performs an emerging risk process and a materiality assessment. These processes are meant to ensure ongoing appropriateness of the risk universe, to ensure completeness of Aegon s risk assessment and to provide input for ongoing strategy development.

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The emerging risk process is performed on an annual basis. Aegon defines an emerging risk as follows:

A newly developing or changing risk, which is perceived to have a potential significant impact on Aegon s financial strength, competitive position or reputation. Emerging Risk may not be fully understood yet or factored into terms and conditions, pricing, reserving or capital setting.

The aim of the process is to enhance Aegon s ERM framework by ensuring that the most significant emerging risks are identified on a timely and an ongoing basis, thus limiting the possible impact on the business. The process consists of risk identification and analysis. In the risk identification phase inputs are collected from a number of sources, including a contest among all employees, interviews with experts and the use of external sources. Intermediate decisions to perform a risk analysis can be taken in case a material emerging risk is identified in the timeframe between the annually structured process through regular risk identification and monitoring. Topics that have been analysed relate to for instance economic and financial market developments, regulatory developments, innovations and developments impacting underwriting risks.

In addition, every year Aegon performs a materiality exercise with the aim to incorporate the results into Aegon s strategy and reporting processes. The exercise involves both stakeholders and Aegon s senior management. Material topics are those likely to have the most impact, over the next few years, on Aegon s business, profits, reputation, and its ability to continue creating long-term value for stakeholders. For the identified material topics it is determined to which degree Aegon can influence and control these topics, what the risks and opportunities are and the actions taken in anticipation or response to the topic. For the material topics identified for 2018, the relevant risks are:

1. A loss of trust from customers impacting sales, reputation and profitability.
2. Fines from regulators and loss of trust and business following from cyber security breaches.
3. Tougher competition from peers and new distributors following from new technologies and digital transformation, increasing investment needs, and job losses in certain areas as a result of further automation.
4. Lower investment returns due to low interest rates.
5. A loss of business if Aegon does not adapt quickly enough to changing customer behavior.

The mentioned risks fall in the risk categories investment risks, mismatch risk, underwriting risks (including longevity and policyholder behaviour) and operational risks (including business risks and strategic risks). For more information to the materiality exercise refer to the section: Our operating environment on page 17.

Risk governance framework

Aegon s risk management is based on clear, well-defined risk governance. The goals of risk governance are to:

Define roles and responsibilities, and risk reporting procedures for decision makers;
Institute a proper system of checks and balances;
Provide a consistent framework for managing risk in line with the targeted risk profile; and
Facilitate risk diversification.

Governance structure

Aegon s risk management framework is represented across all levels of the organization. This ensures a coherent and integrated approach to risk management throughout the Company. Similarly, Aegon has a comprehensive range of company-wide risk policies that detail specific operating guidelines and limits. These policies include legal, regulatory and internally set requirements, and are designed to keep overall risk-specific exposures to a manageable level. Any breach of policy limits or warning levels triggers remedial action or heightened monitoring. Further risk policies may be developed at a local level to cover situations specific to particular regions or business units.

Aegon s risk management governance structure has four basic layers:

- The Supervisory Board and the Supervisory Board Risk Committee (SBRC);
- The Executive Board and the Management Board;
- The Group Risk & Capital Committee (GRCC) and its sub-committees; and
- The Regional Risk & Capital Committees.

The SBRC reports to the Supervisory Board on topics related to the ERM framework and the internal control system. The formal responsibility regarding the effectiveness and design, operation and appropriateness of the ERM and internal control system rests, however, with the Audit Committee of the Supervisory Board. The Audit Committee works closely together with the SBRC with regard to the oversight of and reports on the effectiveness of the ERM framework and the risk control systems of the Company. The Audit Committee relies on the findings of the SBRC. The SBRC is responsible for overseeing Aegon s ERM framework, including risk governance and measures taken to ensure risk management is properly integrated into the Company s broader strategy.

For a description of the main roles and responsibilities of the SBRC see the section on the Risk Committee on page 94 of the Report of the Supervisory Board in this Annual Report.

It is the responsibility of the Executive Board and the Group s Chief Risk Officer (CRO) to inform the Supervisory Board of any risk that directly threatens the solvency, liquidity or operations of the Company.

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Aegon s Executive Board has overall responsibility for risk management. The Executive Board adopts the risk strategy, risk governance, risk tolerance and material changes in risk methodology and risk policies. The Group s CRO has a standing invitation to attend Executive Board meetings and a direct reporting line to the Supervisory Board to discuss ERM and related matters, and is a member of the Management Board.

The Management Board oversees a broad range of strategic and operational issues. While the Executive Board remains Aegon s statutory executive body, the Management Board provides vital support and expertise in safeguarding Aegon s strategic goals. The Management Board discusses and sponsors ERM, in particular the risk strategy, risk governance, risk tolerance and the introduction of new risk policies.

The Executive Board and Management Board are supported by the GRCC. The GRCC is Aegon s most senior risk committee. It is responsible for managing Aegon s balance sheet at the global level, and is in charge of risk oversight, risk monitoring and risk management related decisions on behalf of the Executive Board in line with its charter. The GRCC ensures risk-taking is within Aegon s risk tolerances; that the capital position is adequate to support financial strength, credit rating objectives and regulatory requirements, and that capital is properly allocated. The GRCC informs the Executive Board about any identified (near) breaches of overall tolerance levels which threaten the risk balance, as well as any potential threats to the Company s solvency, liquidity or operations.

The GRCC has three sub-committees: the ERM framework, Accounting and Actuarial Committee (ERMAAC), the Non-Financial Risk Committee (NFRC) and the Model Validation Committee (MVC).

The purpose of the ERMAAC is to assist the GRCC, Executive Board and Management Board with financial risk framework setting and maintenance across all group-level balance sheet bases, including policies, standards, guidelines, methodologies and assumptions.

The purpose of the NFRC is to assist the GRCC, Executive Board and Management Board with non-financial risk framework setting and maintenance, including policies, standards, guidelines and methodologies and to act as formal discussion and exchange of information platform on matters of concern regarding non-financial risk management.

The MVC is responsible for approving all model validation reports across Aegon. This is an independent committee that reports into the GRCC and Executive Board to provide information on model integrity and recommendations for further strengthening of models.

Each of Aegon s regions has a Risk & Capital Committee (RCC). The responsibilities and prerogatives of the RCCs are aligned with

the GRCC and further set out in their respective charters, which are tailored to local circumstances.

In addition to the four basic layers described above, Aegon has an established group-wide risk function. It is the mission of the Risk Management function to ensure the continuity of the Company through safeguarding the value of existing business, protecting Aegon s balance sheet and reputation, and through supporting the creation of sustainable value for all stakeholders.

In general, the objective of the Risk Management function is to support the Executive Board, Management Board, Supervisory Board, and regional and business unit boards in ensuring that the Company reviews, assesses, understands and manages its risk profile. Through oversight, the Risk Management function ensures the group-wide risk profile is managed in line with Aegon s risk tolerances, and stakeholder expectations are managed under both normal business conditions and adverse conditions caused by unforeseen negative events.

The following roles are important in order to realize the objective of the Risk Management function:

- Advising on risk-related matters including risk tolerance, risk governance, risk methodology and risk policies;
- Supporting and facilitating the development, incorporation, maintenance and embedding of the ERM framework and sound practices; and
- Monitoring and challenging the implementation and effectiveness of ERM practices.

In the context of these roles, the following responsibilities can be distinguished:

Advising on risk-related matters

- Bringing businesses together to facilitate information exchange, sharing best practices and working together on relevant case studies and external standards in order to develop, adopt and maintain relevant standards of practice throughout Aegon; and
- Optimizing the use of capital and growth within risk/return and consumer conduct criteria.

Supporting and facilitating

- Developing and maintaining the global ERM framework for identifying, measuring and managing all material risks the Company is exposed to as defined in Aegon s risk universe and protecting Aegon s reputation;
- Developing and maintaining Aegon s risk methodology as described in the Aegon Market Consistent Reporting Manual (AMCRM);
- Supporting the businesses with implementing the ERM framework, risk methodology and standards of practice where needed;

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Supporting the Management Board in ensuring the effective operation of the ERM framework and related processes, providing subject matter expertise to businesses as appropriate and facilitating information exchange on good risk practices;

Identifying and analyzing emerging risks, being input for ongoing risk strategy development and to ensure that Aegon s risk universe remains up to date;

Designing the Solvency II PIM, including the validation thereof. Model validation ensures independent review of methodology, assumptions, data, testing, production, reporting and use of the Solvency II PIM;

Analyzing Solvency II PIM outputs and performance and reporting results to the Boards and relevant (Supervisory) Committees;

Providing subject matter expertise from the Centers of Excellence of the global Risk Management function to business areas through review of key initiatives, transactions, programs, projects, assumptions, methodologies and results across all important paradigms;

Providing assurance on the integrity of models and cash flows through model validations and maintenance of model validation policies and standards; and

Promoting a strong risk management culture across Aegon, including review of performance targets and remuneration in line with the Aegon Group Global Remuneration Framework.

Challenging and monitoring

Monitoring the ERM framework and overseeing compliance with group-wide risk governance requirements, risk strategy and risk tolerances, risk policies and risk methodology, which are applicable to all businesses for which Aegon has operational control;

Ensuring appropriate risk management information is prepared for use by the GRCC, the Management Board, the Executive Board and Supervisory Board;

Overseeing material risk, balance sheet and business decisions taken throughout Aegon in line with established risk governance arrangements;

Monitoring and reporting on risk exposures and advising the Boards and (Supervisory) Committees on risk management related matters, including in relation to strategic affairs such as corporate strategy, mergers and acquisitions and major projects and investments;

Monitoring that the internal model is and remains appropriate to the Company s risk profile and informing the Management Board and the Supervisory Board about the on-going performance, suggesting improvements;

Monitoring risk exposures and risk policy compliance, including review of the Own Risk and Solvency Assessment (ORSA) and Recovery Plan defined triggers and early warning indicators;
Acting as independent business partner with focus on talent development, control excellence, customer conduct, capital allocation and by providing management focused risk tools or fostering debates and proactively challenging on key business developments that may create significant exposure for example through hedging and investment remits;
Providing subject matter expertise and overseeing critical business initiatives to strengthen risk management activities, to improve the risk profile and to resolve risk events and control issues noted;
Embedding robust oversight and risk management culture and processes; and
Protecting group capital for all stakeholders.

Aegon s Group and business unit s risk management staff structure is fully integrated. Business unit CROs have either a direct reporting line to the Group CRO or one of the regional CROs that reports directly to the Group CRO.

Internal control system

Aegon has developed an internal control system that serves to facilitate its compliance with applicable laws, regulations and administrative processes, and the effectiveness and efficiency of operations with regard to its objectives, in addition to the availability and reliability of financial and non-financial information. The overall internal control system ensures appropriate control activities for key processes and the documentation and reporting of administrative and accounting information. The internal control system is embedded through policies and frameworks such as the ERM framework, the Model Validation Framework and the Operational Risk Management (ORM) Framework, and is considered wider than the Internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO, 2013), on which criteria for the internal control system are based.

The internal control system has been developed in accordance with regulations that Aegon must comply with (i.e. Sarbanes-Oxley Act and Solvency II). Aegon s control activities should assure an adequate level of internal control over Aegon s objectives and in particular compliance, operational and financial reporting objectives including the production of IFRS and Solvency II numbers. The objective is to provide assurance regarding the reliability, accuracy, completeness, timeliness and quality of internal and external (regulatory) reporting, the safeguarding of assets, and compliance with internal and external requirements. A key element of Aegon s internal control system is to facilitate action planning and embed continuous improvement regarding the internal control environment throughout the organization.

In 2018, risk management and internal control topics were discussed by the relevant management committees and bodies, including the Management Board, the Executive Board, the Risk Committee and the Audit Committee of the Supervisory

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Board, and the Supervisory Board, according to their roles and responsibilities as outlined in the respective frameworks and charters. No material weaknesses was observed, and no significant changes or major improvements were made or planned to the risk management and internal control systems following from material weaknesses.

Lines of defense

Aegon s risk management structure is organized along three lines of defense to ensure conscious risk-return decisions, and to limit the magnitude of potential losses within defined levels of certainty. The objective of this structure is to avoid surprises due to the materialization of unidentified risks, or from

losses that exceed predefined risk tolerance levels and related limit structures.

The Company s first line of defense, the business and support functions, has direct responsibility for managing and taking risk in accordance with defined risk strategy, risk tolerances and risk policies. The second line of defense includes the risk management function. The risk management function facilitates and oversees the effectiveness and integrity of ERM across the Company. The third line of defense the audit function provide independent assurance on the effectiveness and integrity of the internal control, risk management and governance functions.

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Controls and procedures

Disclosure controls and procedures

At the end of the period covered by this Annual Report, Aegon s management carried out an evaluation, under the supervision and with the participation of its Chief Executive Officer (CEO) and Chief Financial Officer (CFO), of the effectiveness of the design and operation of Aegon s disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934). Based on this evaluation, Aegon s CEO and CFO concluded that, as of December 31, 2018, the disclosure controls and procedures were effective. There have been no material changes in the Company s internal controls or in other factors that could significantly affect internal controls over financial reporting subsequent to the end of the period covered by this Annual Report.

Due to the listing of Aegon shares on the New York Stock Exchange, Aegon is required to comply with the US Securities and Exchange Commission regulations adopted pursuant to Section 404 of the Sarbanes-Oxley Act, or SOX 404. These regulations require that Aegon s CEO (the Chairman of the Executive Board) and CFO report on and certify the effectiveness of Aegon s internal controls over financial reporting on an annual basis. Furthermore, external auditors are required to provide an opinion on the effectiveness of Aegon s internal controls over financial reporting. The SOX 404 statement by the Executive Board is stated below, followed by the report of the external auditor.

Management s Annual Report on internal control over financial reporting

The directors and management of Aegon are responsible for establishing and maintaining adequate internal control over financial reporting. Aegon s internal control over financial reporting is a process designed under the supervision of Aegon s principal executive and financial officers to provide reasonable assurance regarding the reliability of financial reporting and the preparation of its published financial statements. Internal control over financial reporting includes policies and procedures that:

- Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company;
- Provide reasonable assurance that transactions are recorded as necessary to permit the preparation of financial statements in accordance with generally accepted accounting principles;
- Provide reasonable assurance that receipts and expenditures are made only in accordance with the authorizations of management and directors of the Company; and
- Provide reasonable assurance that unauthorized acquisition, use or disposition of company assets that could have a material effect on Aegon s financial statements would be prevented or detected in a timely manner.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with policies or procedures may deteriorate.

Management assessed the effectiveness of Aegon s internal control over financial reporting as of December 31, 2018.

In making its assessment management used the criteria established in Internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO, 2013 framework).

Based on the assessment, management concluded that, in all material aspects, the internal control over financial reporting was effective as of December 31, 2018. They have reviewed the results of its work with the Audit Committee of the Supervisory Board.

The effectiveness of internal control over financial reporting as of December 31, 2018, was audited by PricewaterhouseCoopers Accountants N.V., an independent registered public accounting firm, as stated in their report included on the following page.

Management s assessment of going concern

The directors and management of Aegon have adopted a going concern basis, in preparing the consolidated financial statements, on the reasonable assumption that the Company is, and will be, able to continue its normal course of business in the foreseeable future.

Relevant facts and circumstances relating to the consolidated financial position on December 31, 2018, were assessed in order to reach the going concern assumption. The main areas assessed are financial performance, capital adequacy, financial flexibility, liquidity and access to capital markets, together with the factors likely to affect Aegon s future development, performance and financial position. Commentary on these is set out in the Capital and liquidity management , Risk management , Results of operations and Business Overview sections in this Annual Report. Takin into account the financial performance of the Company, its continued ability to access capital markets, the fact that its solvency and leverage ratios are well within target range, and the level of excess cash in the holding, management concluded that the going concern assumption is appropriate.

The Hague, the Netherlands, March 21, 2019

The Executive Board of Aegon N.V.

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Selected financial data

The financial results in this Annual Report are based on Aegon s consolidated financial statements, which have been prepared in accordance with International Financial Reporting Standards as issued by the IASB.

Application of the accounting policies in the preparation of the financial statements requires management to apply judgment involving assumptions and estimates concerning future results or other developments, including the likelihood, timing or amount of future transactions or events. There can be no assurance that actual results will not differ materially from those estimates. Accounting policies that are critical to the presentation of the financial statements and that require

complex estimates or significant judgment are described in the notes to the financial statements.

A summary of historical financial data is provided in the table below. It is important to read this summary in conjunction with the consolidated financial statements and related notes (see pages 140-307) of this Annual Report.

Selected consolidated income statement information					
In EUR million (except per share amount)	**2018**	2017	2016	2015	2014
Amounts based upon IFRS					
Premium income	19,316	22,826	23,453	22,925	19,864
Investment income	7,035	7,338	7,788	8,525	8,148
Total revenues [1]	28,914	32,973	33,655	33,902	30,157
Income/(loss) before tax	751	2,534	610	(514)	916
Net income/(loss)	711	2,469	438	(431)	766
Earnings per common share					
Basic	0.29	1.14	0.15	(0.27)	0.29
Diluted	0.29	1.14	0.15	(0.27)	0.29
Earnings per common share B					
Basic	0.01	0.03	-	(0.01)	0.01
Diluted	0.01	0.03	-	(0.01)	0.01

[1] Excluded from the income statements prepared in accordance with IFRS are receipts related to investment-type annuity products and investment contracts.

Selected consolidated balance sheet information					
In million EUR	**2018**	2017	2016	2015	2014
Amounts based upon IFRS					
Total assets	392,633	395,923	425,425	415,415	424,112
Insurance and investment contracts	330,552	324,362	344,844	343,558	321,384
Borrowings including subordinated and trust pass-through securities	13,583	14,532	14,076	13,361	15,049
Shareholders equity	19,225	20,288	20,520	22,441	23,847

Number of common shares					
In thousands	**2018**	2017	2016	2015	2014
Balance at January 1	2,095,648	2,074,549	2,147,037	2,145,948	2,131,459
Share issuance	-	-	-	-	-
Stock dividends	-	21,099	10,629	1,089	14,489
Shares withdrawn	-	-	(83,117)	-	-
Balance at end of period	**2,095,648**	**2,095,648**	**2,074,549**	**2,147,037**	**2,145,948**

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Number of common shares B					
In thousands	**2018**	2017	2016	2015	2014
Balance at January 1	585,022	585,022	585,022	581,326	579,005
Share issuance	-	-	-	3,696	2,320
Balance at end of period	**585,022**	**585,022**	**585,022**	**585,022**	**581,326**

Dividends

Aegon declared interim and final dividends on common shares for the years 2013 through 2017 in the amounts set forth in the following table. The 2018 interim dividend amounted to EUR 0.14 per common share and EUR 0.0035 per common share B. The interim dividend was paid in cash or stock at the election of the shareholder. The interim dividend was payable as of September 21, 2018. At the General Meeting of Shareholders on May 17, 2019, the Supervisory Board will, absent unforeseen circumstances, propose a final dividend of EUR 0.15 per common share (at each shareholders option

in cash or in stock), which will bring the total dividend for 2018 to EUR 0.29. With respect to the Common Shares B, each which has financial rights attached to it of 1/40th of a Common Share, the proposed final dividend will be EUR 0.00375. After taking the interim-dividend 2018 of EUR per Common Share B into account, this will result in a total 2018 dividend of EUR 0.00725 per Common Share B. Dividends in US dollars are calculated based on the foreign exchange reference rate (WM/ Reuters closing spot exchange rate fixed at 5.00 pm Central European Summer Time (CEST)) on the US-ex dividend day.

	EUR per common share [1]			USD per common share [1]		
Year	Interim	Final	Total	Interim	Final	Total
2014	0.11	0.12	0.23	0.15	0.13	0.28
2015	0.12	0.13	0.25	0.13	0.15	0.28
2016	0.13	0.13	0.26	0.15	0.15	0.29
2017	0.13	0.14	0.27	0.15	0.16	0.32
2018	0.14	0.15 [2]	0.29	0.16		

[1] Paid at each shareholders option in cash or in stock.

[2] Proposed.

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Results of operations

This Annual Report includes the non-IFRS financial measure: underlying earnings before tax. The reconciliation of this measure to the most comparable IFRS measure is presented in the table below in addition to note 5 Segment information of the consolidated financial statements. This non-IFRS measure is calculated by consolidating on a proportionate basis the revenues and expenses of Aegon s joint ventures in China, Japan, Mexico, the Netherlands, Portugal and Spain and Aegon s associates in Brazil, India, Mexico, the Netherlands and United Kingdom.

The table also includes the non-IFRS financial measure: net underlying earnings. This is the after-tax equivalent of underlying earnings before tax. The reconciliation of net underlying earnings to the most comparable IFRS measure is presented in the table below. Aegon believes that these non-IFRS measures provides meaningful supplemental information about the underlying operating results of Aegon s businesses, including insight into the financial measures that senior management uses in managing the businesses.

Aegon s senior management is compensated based in part on Aegon s results against targets using the non-IFRS measures presented in this report. While many other insurers in Aegon s peer group present substantially similar non-IFRS measures, the non-IFRS measures presented in this document may nevertheless differ from the non-IFRS measures presented by other insurers. There is no standardized meaning to these measures under IFRS or any other recognized set of accounting standards and readers are cautioned to consider carefully the different ways in which Aegon and its peers present similar information before making a comparison. Aegon believes the non-IFRS measures present within this report, when read together with Aegon s reported IFRS financial statements, provide meaningful supplemental information for the investing public. This enables them to evaluate Aegon s businesses after eliminating the impact of current IFRS accounting policies for financial instruments and insurance contracts, which embed a number of accounting policy alternatives that companies may select in presenting their results (as companies may use different local generally accepted accounting principles (GAAPs)), and this may make the comparability difficult between time periods.

Change in measurement of performance measure[1]

Aegon has changed the measurement of underlying earnings before tax for its real estate investments portfolio held by Aegon the Netherlands. Previously, direct returns on these investments were reported as part of underlying earnings before tax and the fair value movements were reported as part of Fair value items. From January 1, 2018, fair value items include the over-or underperformance for the real estate investments of Aegon the Netherlands, for which management s best estimate is included in underlying earnings before tax. In addition, Aegon the Netherlands started to record its management s best estimate investment return on consumer loan investments (net of expected impairments) in underlying earnings before tax, where previously the gross returns were recorded in underlying earnings before tax and the impairments in the impairment line. All other alternative investments are reported similarly with management s best estimate investment return being included in underlying earnings before tax and the over- or underperformance in Fair value items.

For segment reporting purposes, the impact of this change in measurement on full year 2017 was an increase in Aegon Group consolidated underlying earnings before tax of EUR 37 million and a decrease in fair value items of EUR 61 million and a decrease in impairment charges of EUR 24 million. There is no impact on net income in any of the reporting periods. Comparative numbers have been restated in Aegon s segment reporting note, enabling a like for like comparison. The presentation of the items in the IFRS income statement remains unchanged and continue to be part of the line Investment income .

[1] Aegon has changed the measurement of underlying earnings before tax for its real estate investments portfolio held by Aegon the Netherlands. Comparative numbers have been restated accordingly. For further details please refer to page 206.

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104 Financial information **Results of operations** **Worldwide**

Results 2018 worldwide

Underlying earnings geographically			
Amounts in EUR millions	**2018**	2017 [1]	%
Net underlying earnings	**1,754**	**1,571**	*12*
Tax on underlying earnings	320	568	*(44)*
Underlying earnings before tax geographically			
Americas	1,216	1,381	*(12)*
The Netherlands	615	557	*10*
United Kingdom	128	116	*10*
Central & Eastern Europe	72	67	*8*
Spain & Portugal	24	4	*n.m.*
Europe	839	744	*13*
Asia	55	49	*12*
Asset Management	151	136	*12*
Holding and other activities	(188)	(170)	*(10)*
Underlying earnings before tax	**2,074**	**2,140**	***(3)***
Fair value items	(291)	81	*n.m.*
Gains/(losses) on investments	(77)	413	*n.m.*
Net impairments	(19)	(15)	*(24)*
Other income/(charges)	(875)	(68)	*n.m.*
Run-off businesses	(14)	30	*n.m.*
Income before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	**798**	**2,579**	*(69)*
Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	47	44	*6*
Income tax	(87)	(110)	*21*
Of which Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	(47)	(44)	*(6)*
Net income/(loss)	**711**	**2,469**	***(71)***
Commissions and expenses	6,673	6,309	*6*
of which operating expenses	3,786	3,878	*(2)*

[1] Aegon has changed the measurement of underlying earnings before tax for its real estate investments portfolio held by Aegon the Netherlands. Comparative numbers have been restated accordingly. For further details please refer to page 206.

New life sales			
Amounts in EUR millions	**2018**	2017	%
Americas	420	472	*(11)*

The Netherlands	101	99	*2*
United Kingdom	40	37	*8*
Central & Eastern Europe	83	88	*(6)*
Spain & Portugal	54	48	*11*
Europe	278	273	*2*
Asia	122	151	*(19)*
Total recurring plus 1/10 single	**820**	**896**	***(9)***

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Gross deposits (on and off balance)

Amounts in EUR millions	**2018**	2017	%
Americas	38,279	38,543	*(1)*
The Netherlands	10,169	8,061	*26*
United Kingdom	13,223	17,259	*(23)*
Central & Eastern Europe	374	323	*16*
Spain & Portugal	32	36	*(11)*
Europe	23,798	25,679	*(7)*
Asia	128	222	*(42)*
Asset Management	59,495	61,332	*(3)*
Total gross deposits	**121,700**	**125,776**	***(3)***

Net deposits (on and off balance)

Amounts in EUR millions	**2018**	2017	%
Americas	(14,734)	(29,713)	*50*
The Netherlands	1,411	1,067	*32*
United Kingdom	1,225	4,665	*(74)*
Central & Eastern Europe	156	176	*(11)*
Spain & Portugal	(14)	13	*n.m.*
Europe	2,779	5,921	*(53)*
Asia	7	129	*(95)*
Asset Management	7,526	6,913	*9*
Total net deposits excluding run-off businesses	**(4,421)**	**(16,750)**	***74***
Run-off businesses	(234)	(338)	*31*
Total net deposits/(outflows)	**(4,656)**	**(17,088)**	***73***

Worldwide revenues

Geographically 2018

Amounts in EUR millions												
Total life insurance gross premiums	7,004	1,632	7,509	405	217	*9,763*	779	-	2	17,548	(579)	16,969
Accident and health insurance premiums	1,571	219	29	2	100	*351*	94	-	-	2,015	(36)	1,979
General insurance premiums	-	136	-	231	112	*479*	-	-	-	479	(112)	367
Total gross premiums	**8,575**	**1,987**	**7,539**	**638**	**429**	***10,592***	**873**	**-**	**2**	**20,042**	**(727)**	**19,316**
Investment income	3,125	2,265	1,346	48	36	*3,695*	268	5	2	7,095	(59)	7,035

Fees and commission income	1,826	211	198	47	16	*473*	58	632	(206)	2,782	(224)	2,558
Other revenue	5	-	-	-	-	-	2	1	4	12	(6)	5
Total revenues	**13,530**	**4,463**	**9,083**	**733**	**480**	***14,760***	**1,201**	**638**	**(199)**	**29,930**	**(1,016)**	**28,914**
Number of employees, including agent employees	8,824	3,548	3,135	2,318	519	*9,520*	6,344	1,464	390	26,543		

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Results 2018 worldwide

Aegon s net income in 2018 declined compared with 2017 to EUR 711 million. Underlying earnings before tax decreased by 3% compared with 2017 to EUR 2,074 million in 2018, as higher underlying earnings before tax from Europe, Asia and Asset Management were more than offset by lower underlying earnings before tax from Americas and Holding and other activities. The net income in 2018 was impacted by fair value losses of EUR 291 million as well as EUR 875 million other charges.

Net income

Net income amounted to EUR 711 million in 2018, as underlying earnings before tax of EUR 2,074 million were partly offset by fair value losses, below the average nominal tax rate, other charges, losses on investments, net impairements, losses from run-off businesses and income taxes. The effective tax rate amounted to 11% as a result of one-time tax benefits of declining US and Dutch corporate income tax rates next to the regular tax exempt income items and tax credits.

Underlying earnings before tax

Aegon s underlying earnings before tax decreased compared with 2017 to EUR 2,074 million in 2018. This was mainly driven by lower fee revenue due to declining equity markets and net outflows of revenue generating investments, and unfavorable mortality experience in the Americas, which more than offset higher earnings in Europe, Asia and Asset Management.

In Americas, underlying earnings before tax in 2018 decreased by 12% compared with 2017 to EUR 1,216 million caused by adverse currency movements, lower fee revenue due to declining equity markets and net outflows, and unfavorable mortality experience. This was partly offset by expense reductions.
In Europe, underlying earnings before tax in 2018 increased by 13% compared with 2017 to EUR 839 million as a result of growth in all regions.
In Asia, underlying earnings before tax improved by 12% compared with 2017 to EUR 55 million in 2018, mainly as a result of higher earnings in the High-Net-Worth business.
Underlying earnings before tax from Asset Management increased by 12% in 2018 compared with 2017 to EUR 151 million. This increase was mainly driven by higher underlying earnings before tax in 2018 compared with 2017 from Strategic partnerships and the Netherlands.
Total Holdings costs amounted to EUR 188 million in 2018 compared with EUR 170 million in 2017, as a result of interest expenses on USD 800 million Tier 2 securities issued in April 2018 to replace perpetual securities. Interest expenses for these Tier 2 securities are taken through the profit & loss statement, while the interest expenses for the perpetuals were recognized directly through equity.

Fair value items

The loss from fair value items amounted to EUR 291 million in 2018. Fair value losses in the Americas amounted to EUR 613 million in 2018, which was primarily related to hedge losses, reflecting the equity market decline at the end of the year, and losses on fair value investments. Fair value gains in Europe amounted to EUR 315 million, as a result of real estate investments in the Netherlands and gains on equity hedges in the United Kingdom. Gains on fair value items in Asia and at the Holding totaled EUR 8 million.

Realized gains on investments

Realized losses on investments amounted to EUR 77 million in 2018, as losses on the sale of US treasuries as part of normal trading activity were more than offset by realized gains on investments in the Netherlands and the united Kingdom.

Impairment charges

Net impairments of EUR 19 million in 2018 primarily related to an impairment of corporate bonds caused by a bankruptcy filing.

Other charges

Other charges amounted to EUR 875 million in 2018. Other charges in the Americas of EUR 397 million in 2018 mainly related to the transition and conversion charges for the TCS partnership (EUR 127 million), a EUR 140 million charge for a class action litigation settlement with universal life policyholders, a EUR 93 million book loss on the divestment of the last remaining substantial block of life reinsurance business, EUR 33 million impact from assumption updates, and a EUR 27 million addition to the provision for unclaimed property. Other charges in Europe of EUR 409 million in 2018 reflect EUR 111 million model & assumption changes in the Netherlands, EUR 93 million loss on the sale of Aegon Ireland, EUR 75 million integration expenses for Cofunds and Blackrock s DC business, and a EUR 49 million reserve strengthening related to the residual annuity book in the UK. Other charges at the Holdings amounted to EUR 57 million in 2018 and were driven by IFRS 9/17 implementation expenses for the Group.

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Run-off businesses

The results of run-off businesses declined compared with 2017 to a loss of EUR 14 million in 2018, following the divestment of the majority of the remainder of these businesses in 2017.

Income tax

The effective tax rate amounted to 11% as a result of one-time tax benefits of declining US and Dutch corporate income tax rates next to the regular tax exempt income items and tax credits. The effective tax rate on underlying earnings before tax amounted to 15%, reflecting the lowering of the US tax rate.

Commissions and expenses

Commissions and expenses increased by 6% compared with 2017 to EUR 6.7 billion in 2018. Operating expenses decreased by 2% compared with 2017 to EUR 3.8 billion in 2018. Expense savings and the divestment of UMG in 2017 more than offset restructuring expenses associated with the acquisitions of Cofunds and BlackRock s defined contribution business in the United Kingdom as well as the partnership with TCS in the United States.

Production

Compared with 2017, gross deposits were down by 3% to EUR 121.7 billion in 2018, driven by lower platform deposits in the United Kingdom and lower Asset Management deposits. Net outflows amounted to EUR 4.7 billion as inflows in Asset Management, the United Kingdom platform and the Dutch banking business were more than offset by outflows in the United States mainly caused by Retirement Plans due to a small number of large contract discontinuances and higher participant withdrawals. New life sales declined by 9% compared with 2017 to EUR 820 million in 2018, mostly driven by lower indexed universal life and term life production in the United States. New premium production for accident & health and property & casual insurance decreased by 52% compared with 2017 to EUR 429 million in 2018, caused by the strategic decision to exit the travel insurance, affinity and stop loss insurance segments.

Capital management

During 2018, shareholders equity decreased by EUR 1.1 billion to EUR 19.2 billion, as net income and strengthening of the US Dollar were more than offset by dividends paid to shareholders, a reduction in revaluation reserves as a result of widening credit spreads and higher interest rates in the United States. Aegon s shareholders equity, excluding revaluation reserves, amounted to EUR 15.8 billion on December 31, 2018, or EUR 7.70 per common share.

As announced in our 2H 2018 earnings release on February 14, 2018, to align closer to definitions used by peers and rating agencies, Aegon has retrospectively changed its internal definition of adjusted shareholders equity used in calculating return on equity for the group, return on capital for its units, and the gross financial leverage ratio. Shareholders equity will no longer be adjusted for the re-measurement of defined benefit plans. All figures in this annual report, including comparatives, are based on the new definition, unless stated otherwise. The gross leverage

ratio (based on IFRS as adopted by the EU) improved to 29.2% on December 31, 2018, compared with 30.7% at the end of 2018, which was mostly the result of the maturity of EUR 500 million senior debt in August 2018. Excess cash in the holding declined in 2018 compared with 2017 to EUR 1.3 billion, as remittances from business units were more than offset by dividends to shareholders, interest payments, operating expenses and capital injections into the units, and the repayment of unstructured senior debt.

On December 31, 2018, Aegon s estimated Solvency II ratio amounted to 211%, up from 201% at the end of 2017. This increase was driven by capital generation net of dividends to shareholders. The RBC ratio in the United States remained relatively stable compared with the end of 2017 to 465% on December 31, 2018. In the Netherlands, the estimated Solvency II ratio at the end of 2018 amounted to 181%, down from 199% at the end of 2017. The ratio was impacted by adverse market impacts, the impact of tax changes and the lowering of the Ultimate Forward Rate. The estimated Solvency II ratio at the end of 2018 of Aegon United Kingdom amounted to 184%, up from 176% at the end of 2017. The normalized capital generation, the positive impact from market movements, and de-risking of the investment portfolio, were only partly offset by other items including remittances to the group and the completion of the Part VII transfer related to the acquisition of BlackRock s defined contribution business.

The Solvency ratios as disclosed in this section represent

Aegon s estimates, are not final until filed with the regulator, and are subject to supervisory review.

Dividends from and capital contributions to business units

Aegon s business units remitted over EUR 1.3 billion to the Group during 2018, including EUR 0.9 billion from the Americas, EUR 200 million from the Netherlands and EUR 113 million from the United Kingdom. Aegon spent EUR 144 million on capital injections, while the proceeds from divestments net of acquisitions amounted to EUR 98 million.

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Results 2017 worldwide

Underlying earnings geographically			
Amounts in EUR millions	2017 [1]	2016 [1]	%
Net underlying earnings	**1,571**	**1,483**	***4***
Tax on underlying earnings	568	429	*30*
Underlying earnings before tax geographically			
Americas	1,381	1,249	*11*
The Netherlands	557	534	*(2)*
United Kingdom	116	59	*98*
Central & Eastern Europe	67	55	*20*
Spain & Portugal	4	8	*(47)*
Europe	744	655	*8*
Asia	49	21	*131*
Asset Management	136	149	*(9)*
Holding and other activities	(170)	(162)	*(5)*
Underlying earnings before tax	**2,140**	**1,913**	***10***
Fair value items	81	(840)	*91*
Gains/(losses) on investments	413	340	*21*
Net impairments	(15)	(54)	*59*
Other income/(charges)	(68)	(771)	*91*
Run-off businesses	30	54	*(45)*
Income before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	**2,579**	**641**	**192**
Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	44	31	*45*
Income tax	(110)	(203)	*69*
Of which Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	(44)	(31)	*(45)*
Net income/(loss)	**2,469**	**438**	***n.m.***
Commissions and expenses	6,309	6,696	*(6)*
of which operating expenses	3,878	3,764	*3*

[1] Aegon has changed the measurement of underlying earnings before tax for its real estate investments portfolio held by Aegon the Netherlands. Comparative numbers have been restated accordingly. For further details please refer to page 206.

New life sales			
Amounts in EUR millions	2017	2016	%
Americas	472	542	*(13)*

The Netherlands	99	111	*(11)*
United Kingdom	37	66	*(44)*
Central & Eastern Europe	88	83	*6*
Spain & Portugal	48	39	*23*
Europe	273	299	*(9)*
Asia	151	128	*18*
Total recurring plus 1/10 single	**896**	**969**	***(8)***

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Gross deposits (on and off balance)

Amounts in EUR millions	2017	2016	%
Americas	38,543	40,881	*(6)*
The Netherlands	8,061	6,686	*21*
United Kingdom	17,259	5,791	*n.m.*
Central & Eastern Europe	323	265	*22*
Spain & Portugal	36	31	*15*
Europe	25,679	12,773	*n.m.*
Asia	222	304	*(27)*
Asset Management	61,332	46,366	*32*
Total gross deposits	**125,776**	**100,325**	***25***

Net deposits (on and off balance)

Amounts in EUR millions	2017	2016	%
Americas	(29,713)	(1,015)	*n.m.*
The Netherlands	1,067	1,909	*(44)*
United Kingdom	4,665	(846)	*n.m.*
Central & Eastern Europe	176	176	-
Spain & Portugal	13	20	*(37)*
Europe	5,921	1,260	*n.m.*
Asia	129	259	*(50)*
Asset Management	6,913	2,964	*133*
Total net deposits excluding run-off businesses	**(16,750)**	**3,468**	***n.m.***
Run-off businesses	(338)	(759)	*55*
Total net deposits/(outflows)	**(17,088)**	**2,709**	***n.m.***

orldwide revenues

ographically 2017

mounts in EUR millions												
otal life insurance gross emiums	7,437	1,857	9,603	411	208	*12,079*	983	-	(1)	20,498	(546)	19,952
ccident and health surance premiums	2,115	203	32	1	83	*319*	97	-	-	2,531	(20)	2,511
eneral insurance emiums	-	148	-	216	103	*467*	-	-	-	466	(103)	363
otal gross premiums	**9,553**	**2,208**	**9,635**	**628**	**394**	**12,865**	**1,080**	**-**	**(2)**	**23,496**	**(670)**	**22,826**
vestment income	3,368	2,172	1,517	49	37	*3,774*	246	4	5	7,396	(58)	7,338
	1,919	326	235	43	17	*621*	63	609	(221)	2,991	(189)	2,802

es and commission come												
her revenue	5	-	-	-	3	*3*	1	-	4	13	(5)	7
otal revenues	**14,844**	**4,706**	**11,387**	**720**	**450**	***17,263***	**1,390**	**613**	**(214)**	**33,895**	**(922)**	**32,973**
umber of employees, cluding agent nployees	10,951	3,089	3,435	2,337	610	*9,471*	6,025	1,500	371	28,318		

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Results 2017 worldwide

Aegon s net income in 2017 improved compared with 2016 to EUR 2,469 million. Underlying earnings before tax increased by 10% compared with 2016 to EUR 2,140 million in 2017, as higher underlying earnings before tax from the Americas, Europe and Asia were only partly offset by lower Asset Management underlying earnings before tax and Holding and other activities. The net result in 2017 benefited from realized gains of EUR 413 million mainly related to normal trading in the investment portfolio, as well as a EUR 554 million benefit related to the US tax reform. Other charges amounted to EUR 68 million in 2017, as the net gain from divestments was more than offset by other items, including charges related to assumption changes and model updates.

Net income

Net income amounted to EUR 2,469 million in 2017 driven by underlying earnings before tax of EUR 2,140 million, realized gains and an effective tax rate of only 4% as a result of a benefit related to US tax reform.

Underlying earnings before tax

Aegon s underlying earnings before tax increased compared with 2016 to EUR 2,140 million in 2017. This was mainly driven by expense reductions, an improvement in claims experience in the Americas, and higher fee revenue resulting from favorable equity market performance.

- Underlying earnings before tax from the Americas increased compared with 2016 to EUR 1,381 million in 2017. Expense reductions, an improvement in claims experience, and higher fee revenue resulting from favorable equity market performance more than offset net outflows.
- In Europe, underlying earnings before tax in 2017 increased by 8% compared with 2016 to EUR 744 million. This was mainly driven by higher fee income in the United Kingdom compared with 2016 from favorable equity markets and net inflows. In addition, the inclusion of Cofunds in 2017 led to higher underlying earnings before tax compared with 2016.
- In Asia, underlying earnings before tax increased in 2017 compared with 2016 to EUR 49 million as a result of increased underlying earnings before tax from the High Net Worth business, Aegon Insights and the Strategic Partnership in China. This was in part driven by lower expenses compared with 2016 as well as favorable mortality experience, favourable persistency and favorable intangible adjustments related to anticipated investment yields.
- Underlying earnings before tax from Asset Management decreased by 9% in 2017 compared with 2016 to EUR 136 million. This decline was mainly driven by lower underlying earnings before tax from the United Kingdom due to lower management fees.
- Total Holdings costs amounted to EUR 170 million in 2017 compared with EUR 162 million in 2016 impacted by regulatory projects.

Fair value items

The results from fair value items amounted to a gain of EUR 81 million in 2017. EUR 170 million fair value gains in the United States in 2017 were driven by positive results on hedging programs and the outperformance of real estate investments. These positive results on hedging programs were the result of favorable equity market movements and reflect changes made to the macro equity hedge program throughout 2017 to a 100% option-based program. Fair value losses in Europe amounted to EUR 113 million, as gains on real estate investments in the Netherlands and the positive result from the mismatch on an IFRS basis between interest rate hedges on the mortgage portfolio and the underlying mortgages were more than offset by a fair value loss on the guarantee provision in the Netherlands, as well as negative fair value changes on equity hedges in the United Kingdom, and interest rate hedges in the Netherlands to protect Aegon s capital position. Gains on interest rate swaps were the main driver of the EUR 24 million fair value gains in 2017 at the holding.

Realized gains on investments

Realized gains on investments amounted to EUR 413 million in 2017 and were primarily related to normal trading activity, the sale of an equity investment in the United States, and gains on bonds to optimize the general account investment portfolio in the Netherlands and the United Kingdom.

Impairment charges

Net impairments of EUR 15 million in 2017 primarily related to a single commercial mortgage loan in the United States.

Other charges

Other charges amounted to EUR 68 million in 2017. The book gains on the divestments of UMG (EUR 208 million) and the majority of the run-off businesses in the Americas (EUR 231 million) were more than offset by the loss on the divestment of an additional block of life reinsurance business in the Americas (EUR 105 million), charges related to assumption changes and model updates (EUR 276 million),

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a provision in anticipation of a possible settlement in connection with an investigation by the US Securities and Exchange Commission at Aegon s Asset Management business in the United States (EUR 85 million), and restructuring and integration charges.

Run-off businesses

The results of run-off businesses declined compared with 2016 to EUR 30 million in 2017, mainly as a result of the divestment of the majority of the run-off businesses.

Income tax

Income tax amounted to a charge of EUR 110 million in 2017, and included a EUR 554 million one-time benefit from US tax reform driven by a reduction in net deferred tax liabilities. As a result of this benefit and the tax exempt gain on the sale of UMG, the effective tax rate on total income for 2017 amounted to 4%. The effective tax rate on underlying earnings before tax amounted to 27%.

Commissions and expenses

Commissions and expenses decreased by 6% compared with 2016 to EUR 6.3 billion in 2017, mainly driven by lower sales of life and annuity products in the United States. Operating expenses increased by 3% compared with 2016 to EUR 3.9 billion in 2017. Expense savings were more than offset by higher expenses associated with the acquisitions of Cofunds and BlackRock s defined contribution business in the United Kingdom.

Production

Compared with 2016, gross deposits in 2017 were up by 44% to EUR 144.4 billion, driven by higher gross deposits in Asset Management and the acquisition of Cofunds. Net outflows amounted to EUR 17.1 billion as inflows in Asset Management and the United Kingdom were more than offset by contract discontinuances from the business acquired from Mercer. These outflows were in line with the guidance provided in 2017, and are driven by the conversion of customers to the Transamerica recordkeeping platform. New life sales declined by 8% compared with 2016 to EUR 896 million in 2017, mostly driven by lower indexed universal life and term life production in the United States and the sale of the annuity business in the United Kingdom, which more than offset the increase in sales in Asia driven by the continued success of the whole life critical illness product. New premium production for accident & health and general insurance decreased by 7% compared with 2016 to EUR 885 million in 2017, mainly as product exits and lower supplemental health sales in the United States more than offset increased general insurance production supported by a portfolio acquisition in Hungary.

Capital management

During 2017, shareholders equity decreased by EUR 0.2 billion to EUR 20.3 billion, as net income was more than offset by a weakening of the US Dollar, dividends paid to shareholders, and

a reduction in revaluation reserves net of deferred tax liabilities. During the year, the revaluation reserves net of deferred tax liabilities decreased by EUR 0.5 billion to EUR 4.9 billion. The benefit from US tax reform in connection to the reduction in net deferred tax liabilities related to revaluation reserves was more than offset by the adverse impact from higher interest rates. Aegon s shareholders equity, excluding revaluation reserves amounted to EUR 15.7 billion on December 31, 2017, or 7.66 per common share. The gross leverage ratio (based on IFRS as adopted by the EU) improved to 30.8% on December 31, 2017, compared with 32.2% at the end of 2016, which was mostly the result of retained earnings. Excess cash in the holding declined in 2017 compared with 2016 to EUR 1.4 billion, as remittances from business units were more than offset by dividends to shareholders, interest payments, operating expenses and capital injections into the units, including a EUR 1 billion injection to increase the Solvency II ratio of Aegon the Netherlands.

On December 31, 2017, Aegon s estimated Solvency II ratio amounted to 201%, up from 157% at the end of 2016. This increase was driven by capital generation, divestments and an amendment of the conversion methodology for US Life insurance entities under Solvency II. This methodology is consistent with EIOPA s guidance on how to calculate group solvency in the context of equivalence. It includes a conversion factor of 150% for required capital and reducing own funds by 100% RBC requirement to reflect transferability restrictions. The methodology is subject to annual review. The RBC ratio in the United States increased from 440% at year-end 2016 to 472% on December 31, 2017. The benefit to the ratio from capital generation and the divestment of the majority of the run-off businesses more than offset remittances to the Group. In the Netherlands, the estimated Solvency II ratio at the end of 2017 amounted to 199%, up from 134% at the end of 2016. The ratio benefited from the aforementioned capital injection, model changes, derisking and the divestment of UMG. The estimated Solvency II ratio at the end of 2017 of Aegon United Kingdom amounted to 176%, up from 156% at the end of 2016. The capital generation, the completion of the Part VII transfers related to the divestment of the majority of the UK annuity book and model changes more than offset remittances to the Group.

The Solvency ratios as disclosed in this section represent

Aegon s estimates, are not final until filed with the regulator, and are subject to supervisory review.

Dividends from and capital contributions to business units

Aegon s business units remitted over EUR 1.8 billion to the Group during 2017, including EUR 1.4 billion from the Americas, EUR 176 million from Asia and EUR 167 million from the United Kingdom. Aegon spent EUR 1.1 billion on capital injections, including EUR 1 billion into the Netherlands.

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Results 2018 Americas

	Amounts in USD millions			Amounts in EUR millions		
	2018	2017	%	**2018**	2017	%
Net underlying earnings	**1,276**	**1,158**	*10*	**1,080**	**1,026**	*5*
Tax on underlying earnings	161	401	*(60)*	136	355	*(62)*
Underlying earnings before tax by business						
Life	263	251	*5*	223	222	-
Accident & health	259	284	*(9)*	220	252	*(13)*
Retirement plans	195	315	*(38)*	165	279	*(41)*
Mutual funds	45	54	*(16)*	38	48	*(20)*
Variable annuities	469	410	*15*	397	363	*9*
Fixed annuities	114	145	*(22)*	96	129	*(25)*
Stable Value Solutions	93	99	*(6)*	79	88	*(11)*
Latin America	(2)	1	*n.m.*	(2)	1	*n.m.*
Underlying earnings before tax	**1,437**	**1,560**	*(8)*	**1,216**	**1,381**	*(12)*
Fair value items	(724)	192	*n.m.*	(613)	170	*n.m.*
Gains/(losses) on investments	(241)	177	*n.m.*	(204)	157	*n.m.*
Net impairments	(10)	(19)	*45*	(9)	(17)	*47*
Other income/(charges)	(469)	(409)	*(15)*	(397)	(353)	*(13)*
Run-off businesses	(16)	33	*n.m.*	(14)	30	*n.m.*
Income before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	**(23)**	**1,535**	*n.m.*	**(20)**	**1,369**	*n.m.*
Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	2	5	*(53)*	2	5	*(55)*
Income tax	84	227	*(63)*	71	198	*(64)*
Of which Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	(2)	(5)	*53*	(2)	(5)	*55*
Net income/(loss)	**61**	**1,762**	*(97)*	**51**	**1,567**	*(97)*
Life insurance gross premiums	8,276	8,397	*(1)*	7,004	7,437	*(6)*
Accident and health insurance premiums	1,856	2,388	*(22)*	1,571	2,115	*(26)*
Total gross premiums	**10,132**	**10,786**	*(6)*	**8,575**	**9,553**	*(10)*
Investment income	3,693	3,803	*(3)*	3,125	3,368	*(7)*

Fees and commission income	2,157	2,167	-	1,826	1,919	*(5)*
Other revenues	6	6	-	5	5	*(5)*
Total revenues	**15,988**	**16,761**	***(5)***	**13,530**	**14,844**	***(9)***
Commissions and expenses	4,776	4,071	*17*	4,042	3,606	*12*
of which operating expenses	1,852	1,798	*3*	1,567	1,593	*(2)*

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113 Financial information **Results of operations** **Americas**

	Amounts in USD millions			Amounts in EUR millions		
New life sales	**2018**	2017	%	**2018**	2017	
Life	416	460	*(9)*	352	407	*(13)*
Latin America	80	74	*8*	67	65	*3*
Total recurring plus 1/10 single	**496**	**533**	***(7)***	**420**	**472**	***(11)***

	Amounts in USD millions			Amounts in EUR millions		
	2018	2017	%	**2018**	2017	%
New premium production accident and health insurance	312	818	*(62)*	264	725	*(64)*

	Amounts in USD millions			Amounts in EUR millions		
Gross deposits (on and off balance)	**2018**	2017	%	**2018**	2017	%
Life	8	7	*22*	7	6	*17*
Retirement plans	34,284	34,235	-	29,015	30,321	*(4)*
Mutual funds	7,029	5,695	*23*	5,949	5,043	*18*
Variable annuities	3,252	3,190	*2*	2,752	2,825	*(3)*
Fixed annuities	443	317	*40*	375	281	*33*
Latin America	214	75	*186*	181	66	*173*
Total gross deposits	**45,231**	**43,518**	***4***	**38,279**	**38,543**	***(1)***

	Amounts in USD millions			Amounts in EUR millions		
Net deposits (on and off balance)	**2018**	2017	%	**2018**	2017	%
Life	(36)	(33)	*(9)*	(30)	(29)	*(4)*
Retirement plans	(12,620)	(30,480)	*59*	(10,681)	(26,995)	*60*
Mutual funds	(627)	377	*n.m.*	(530)	334	*n.m.*
Variable annuities	(3,046)	(2,284)	*(33)*	(2,577)	(2,023)	*(27)*
Fixed annuities	(1,245)	(1,181)	*(5)*	(1,054)	(1,046)	*(1)*
Latin America	165	52	*n.m.*	139	46	*n.m.*
Total net deposits excluding run-off businesses	**(17,409)**	**(33,549)**	***48***	**(14,734)**	**(29,713)**	***50***
Run-off businesses	(277)	(382)	*28*	(234)	(338)	*31*
Total net deposits/(outflows)	**(17,686)**	**(33,931)**	***48***	**(14,968)**	**(30,051)**	***50***

	Weighted average rate		Closing rate as of	
Exchange rates			**December 31,**	December 31,
Per 1 EUR	**2018**	2017	**2018**	2017
USD	1.1816	1.1291	1.1432	1.2008

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Results 2018 Americas

The net income from the Americas amounted to USD 61 million in 2018. Underlying earnings before tax in 2018 decreased by 8% compared with 2017 to USD 1.4 billion caused by lower fee revenue due to declining equity markets and net outflows of revenue generating investments, and unfavorable mortality experience, partly offset by expense reductions. Gross deposits increased by 4% to USD 45.2 billion in 2018 compared with 2017, as a result of increases at all business lines. New life sales declined to USD 496 million in 2018 compared with USD 533 million in 2017 due to lower indexed universal life and term life sales. New premium production for accident & health insurance was down 62% compared with 2017 to USD 312 million in 2018, reflecting the strategic decision to exit travel insurance, affinity and stop loss insurance segments.

Net income

The net income amounted to USD 61 million as underlying earnings before tax were largely offset by losses from fair value items, realized losses on investments and other charges. Underlying earnings before tax in 2018 decreased by 8% compared with 2017 to USD 1.4 billion. Results on fair value items amounted to a loss of USD 724 million in 2018, which was primarily related to:

- The loss on fair value hedges without an accounting match under IFRS was USD 558 million. This loss was higher than anticipated, mainly due to USD 96 million lower than expected gains as a result of the lack of implied volatility movements during the equity market decline at the end of the year.
- The result on fair value hedges with an accounting match amounted to a loss of USD 7 million.
- The results on fair value investments amounted to an underperformance of USD 152 million, mainly from lower commodity prices and equity markets, as well as widening credit spreads. This was partly offset by positive revaluations on real estate.

Realized losses on investments were USD 241 million resulting from the sale of US treasuries as part of normal trading activity. Net impairments amounted to USD 10 million, reflecting an impairment of corporate bonds caused by a bankruptcy filing. Income before tax from run-off businesses in 2018 was a loss of USD 16 million, which is in line with expectations following the divestment of the majority of the remainder of these businesses in 2017. Other charges of USD 469 million in 2018 mainly related to USD 150 million transition and conversion charges for the TCS partnership, a USD 166 million charge for a class action litigation settlement with universal life policyholders, a USD 110 million book loss on the divestment of the last remaining substantial block of life reinsurance business, USD 39 million impact from assumption updates, and a USD 32 million addition to the provision for unclaimed property.

Underlying earnings before tax

Underlying earnings before tax in 2018 decreased by 8% compared with 2017 to USD 1.4 billion caused by lower fee revenue due to declining equity markets and net outflows, and unfavorable mortality experience. This was partly offset by expense reductions.

Underlying earnings before tax from Life increased 5% to USD 263 million in 2018 compared with USD 251 million in 2017. This increase was driven by higher investment income and lower expenses, which were largely offset by adverse mortality experience and adverse persistency.

Accident & health underlying earnings before tax decreased to USD 259 million in 2018 compared with USD 284 million in 2017, mainly due to lower favorable morbidity experience.

Underlying earnings before tax from Mutual Funds declined from USD 54 million in 2017 to USD 45 million in 2018. This was caused by higher expenses as a result of changes in the expense allocation between product lines, partly offset by higher fee income from business growth.

Retirement Plans underlying earnings before tax were down 38% to USD 195 million in 2018 compared with USD 315 million in 2017. This was the result of lower fee income from lower asset balances, a lower investment margin, unfavorable mortality, and higher operating expenses as a result of changes in expense allocations between product lines and investment spend to support growth and improve the Workplace experience.

Underlying earnings before tax from Variable Annuities increased by 15% to USD 469 million in 2018 compared with USD 410 million in 2017, driven by lower operating expenses as a result of changes in expense allocations between product lines.

Fixed Annuity underlying earnings before tax decreased by 22% compared with 2017 to USD 114 million in 2018, mainly due to lower investment income, reflecting the continued balance reduction.

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Underlying earnings before tax from Stable Value Solutions amounted to USD 93 million in 2018 compared with USD 99 million in 2017 caused by margin pressure and lower asset balances.
Latin America declined from USD 1 million underlying earnings before tax in 2017 to an underlying loss before tax of USD 2 million, reflecting increased expenses.

Commissions and expenses

Commissions and expenses increased by 17% compared with 2017 to USD 4.8 billion in 2018. Operating expenses increased by 3% compared with 2017 to USD 1.9 billion in 2018 reflecting higher restructuring expenses due to the transition and conversion charges related to the TCS partnership.

Production

Gross deposits increased by 4% in 2018 compared with 2017 to USD 45.2 billion as a result of increases in all business lines, most notably Mutual Funds, Fixed Annuities and Latin America. Net outflows amounted to USD 17.4 billion, mainly caused by Retirement Plans due to a small number of large contract discontinuances and higher participant withdrawals. Variable Annuities and Fixed Annuities saw outflows as these books mature.

New life sales declined by 7% in 2018 to USD 496 million compared with 2017, as a result of lower indexed universal life and term life sales, reflecting a loss of market share due to increased competition. New premium production for accident & health insurance was down by 62% compared with 2017 to USD 312 million in 2018 caused by the strategic decision to exit the travel insurance, affinity and stop loss insurance segments.

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Results 2017 Americas

	Amounts in USD millions			Amounts in EUR millions		
	2017	2016	%	2017	2016	%
Net underlying earnings	**1,158**	**1,059**	*9*	**1,026**	**956**	*7*
Tax on underlying earnings	401	323	*24*	355	292	*22*
Underlying earnings before tax by business						
Life	251	174	*44*	222	157	*41*
Accident & health	284	218	*30*	252	197	*28*
Retirement plans	315	280	*13*	279	253	*11*
Mutual funds	54	50	*8*	48	45	*6*
Variable annuities	410	393	*4*	363	355	*2*
Fixed annuities	145	172	*(15)*	129	155	*(17)*
Stable Value Solutions	99	96	*3*	88	87	*1*
Latin America	1	1	*66*	1	1	*63*
Underlying earnings before tax	**1,560**	**1,382**	***13***	**1,381**	**1,249**	***11***
Fair value items	192	(577)	*n.m.*	170	(521)	*n.m.*
Gains/(losses) on investments	177	(14)	*n.m.*	157	(13)	*n.m.*
Net impairments	(19)	(33)	*44*	(17)	(30)	*45*
Other income/(charges)	(409)	(111)	*n.m.*	(353)	(100)	*n.m.*
Run-off businesses	33	60	*(44)*	30	54	*(45)*
Income before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	**1,535**	**706**	***117***	**1,369**	**638**	***115***
Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	5	3	*48*	5	3	*45*
Income tax	227	(88)	*n.m.*	198	(80)	*n.m.*
Of which Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	(5)	(3)	*(48)*	(5)	(3)	*(45)*
Net income/(loss)	**1,762**	**618**	***185***	**1,567**	**559**	***181***
Life insurance gross premiums	8,397	8,150	*3*	7,437	7,363	*1*
Accident and health insurance premiums	2,388	2,440	*(2)*	2,115	2,204	*(4)*
Total gross premiums	**10,786**	**10,590**	***2***	**9,553**	**9,567**	***-***
Investment income	3,803	4,114	*(8)*	3,368	3,717	*(9)*
Fees and commission income	2,167	1,828	*19*	1,919	1,651	*16*

Other revenues	6	5	*20*	5	4	*18*
Total revenues	**16,761**	**16,537**	***1***	**14,844**	**14,940**	***(1)***
Commissions and expenses	4,071	4,532	*(10)*	3,606	4,095	*(12)*
of which operating expenses	1,798	1,834	*(2)*	1,593	1,656	*(4)*

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	Amounts in USD millions			Amounts in EUR millions		
New life sales	2017	2016	%	2017	2016	
Life	460	547	*(16)*	407	494	*(18)*
Latin America	74	53	*39*	65	48	*37*
Total recurring plus 1/10 single	**533**	**600**	***(11)***	**472**	**542**	***(13)***

	Amounts in USD millions			Amounts in EUR millions		
	2017	2016	%	2017	2016	%
New premium production accident and health insurance	818	895	*(9)*	725	808	*(10)*

	Amounts in USD millions			Amounts in EUR millions		
Gross deposits (on and off balance)	2017	2016	%	2017	2016	%
Life	7	8	*(22)*	6	8	*(23)*
Retirement plans	34,235	35,137	*(3)*	30,321	31,743	*(4)*
Mutual funds	5,695	5,467	*4*	5,043	4,939	*2*
Variable annuities	3,190	4,375	*(27)*	2,825	3,952	*(29)*
Fixed annuities	317	254	*25*	281	230	*22*
Latin America	75	10	*n.m.*	66	9	*n.m.*
Total gross deposits	**43,518**	**45,251**	***(4)***	**38,543**	**40,881**	***(6)***

	Amounts in USD millions			Amounts in EUR millions		
Net deposits (on and off balance)	2017	2016	%	2017	2016	%
Life	(33)	(40)	*19*	(29)	(37)	*21*
Retirement plans	(30,480)	268	*n.m.*	(26,995)	242	*n.m.*
Mutual funds	377	38	*n.m.*	334	34	*n.m.*
Variable annuities	(2,284)	(125)	*n.m.*	(2,023)	(113)	*n.m.*
Fixed annuities	(1,181)	(1,265)	*7*	(1,046)	(1,143)	*8*
Latin America	52	1	*n.m.*	46	1	*n.m.*
Total net deposits excluding run-off businesses	**(33,549)**	**(1,123)**	***n.m.***	**(29,713)**	**(1,015)**	***n.m.***
Run-off businesses	(382)	(841)	*55*	(338)	(759)	*55*
Total net deposits/(outflows)	**(33,931)**	**(1,964)**	***n.m.***	**(30,051)**	**(1,774)**	***n.m.***

	Weighted average rate	Closing rate as of	
Exchange rates			
Per 1 EUR	2017	December 31, 2016	December 31, 2017

USD	1.1291	1.1069	1.2008	1.0548

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Results 2017 Americas

The net income from the Americas amounted to USD 1.8 billion in 2017.

Underlying earnings before tax in 2017 increased by 13% compared with 2016 to USD 1.6 billion as expense reductions, an improvement in claims experience, and higher fee revenue resulting from favorable equity market performance more than offset net outflows. Gross deposits decreased by 4% to USD 43.5 billion in 2017 compared with 2016, mainly as a result of lower variable annuity and retirement plans deposits. New life sales declined to USD 533 million in 2017 compared with 2016 due to lower indexed universal life and term life sales, partly as a result of not following competitors pricing changes. New premium production for accident & health insurance was down 9% to USD 0.8 billion in 2017 compared with 2016, as product exits and lower supplemental health sales more than offset higher travel sales.

Net income

The net income amounted to USD 1.8 billion in 2017, as underlying earnings before tax, gains from fair value items, realized gains, a net gain on divestments, and a benefit from US tax reform were partly offset by other charges which mainly relate to model updates and assumption changes. Underlying earnings before tax in 2017 strongly increased compared with 2016 to USD 1.6 billion. Results on fair value items amounted to a gain of USD 192 million in 2017, which was primarily related to changes to hedging programs to a 100% option based program and real estate investments. Income before tax from run-off businesses in 2017 almost halved compared with 2016 to USD 33 million following the divestment of the majority of run-off businesses in 2017, while realized gains on investments in 2017 amounted to USD 177 million. Net impairments amounted USD 19 million in 2017, primarily related to a single commercial mortgage loan. Other charges of USD 409 million in 2017 mainly related to the impact of model updates and assumption changes related to conversion of the largest block of universal life business to a new model and a provision in anticipation of a possible settlement in connection with an investigation by the US SEC (USD 51 million), which more than offset a net gain on divestments due to the sale of BOLI/ COLI and Payout annuities (USD 250 million) and life reinsurance block (USD 119 million). The benefit from US tax reform amounted to USD 626 million driven by a reduction in deferred tax liabilities.

Underlying earnings before tax

Underlying earnings before tax in 2017 increased by 13% compared with 2016 to USD 1.6 billion. Expense reductions, an improvement in claims experience, and higher fee revenue resulting from favorable equity market performance more than offset net outflows.

- Underlying earnings before tax from Life increased to USD 251 million in 2017 compared with USD 174 million in 2016. This increase was mainly driven by an improvement in mortality experience.
- Accident & health underlying earnings before tax increased by 30% to USD 284 million in 2017 compared with USD 218 million in 2016, as an improvement in claims experience and expense savings

more than offset the negative impact on underlying earnings before tax of product exits.
Underlying earnings before tax from Mutual Funds increased by USD 4 million in 2017 compared with 2016 to USD 54 million. Increased fee income from higher average account balances driven by equity market performance and inflows more than offset increased expenses.
Retirement Plans underlying earnings before tax were up 13% to USD 315 million in 2017 compared with USD 280 million in 2016, primarily driven by increased fee income compared with 2016. This was the result of higher fee revenue from higher asset balances with favorable equity market performance more than offsetting net outflows related to the conversion of the Mercer business to Aegon USA s platform.
Underlying earnings before tax from Variable Annuities increased by 4% to USD 410 million in 2017 compared with USD 393 million in 2016 , primarily driven by the benefit of expense savings and increased fee income compared with 2016. This was the result of higher fee revenue from higher asset balances with favorable equity market performance more than offsetting net outflows.
Fixed Annuity underlying earnings before tax decreased by 15% in 2017 compared with 2016 to USD 145 million, reflecting the continued balance reduction and unfavorable adjustments of deferred acquisition costs.
Underlying earnings before tax from Stable Value Solutions amounted to USD 99 million in 2017 compared with USD 96 million in 2016 mainly due to lower hedging costs.
Latin America remained stable at USD 1 million of underlying earnings before tax in 2017.

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Commissions and expenses

Commissions and expenses decreased by 10% compared with 2016 to USD 4.1 billion in 2017 mainly driven by lower sales of life and annuity products. Operating expenses decreased by 2% compared with 2016 to USD 1.8 billion in 2017 as a result of expense savings, which were partly offset by investments in business transformation and project expenses.

Production

Gross deposits decreased by 4% in 2017 compared with 2016 to USD 43.5 billion. Higher gross deposits in Mutual Funds and Latin Americas in 2017 were more than offset by a decline in variable annuity and retirement plan deposits compared with 2016. Decreased variable annuity deposits in 2017 compared with 2016 were caused by lower market demand following the implementation of the Department of Labor Fiduciary Rule, in addition to not following competitors pricing changes for some products and partners deciding to offer their own variable annuities solutions. Retirement plan deposits decreased in 2017

compared with 2016, as higher recurring deposits were more than offset by lower takeover deposits. Net outflows amounted to USD 33.9 billion due to contract discontinuances from the business acquired from Mercer. These outflows were in line with guidance provided in 2017, and are driven by the conversion of customers to Aegon USA s recordkeeping platform.

New life sales declined by 11% in 2017 to USD 533 million compared with 2016, as a result of lower indexed universal life and term life sales. Universal life production was down in 2017 compared with 2016, as a result of a decline in market share in indexed universal life. Sales of term life products declined in 2017 compared with 2016 as Aegon did not lower its pricing in line with a number of its competitors. New premium production for accident & health insurance was down by 9% to USD 0.8 billion in 2017 compared with 2016, as product exits and lower supplemental health sales more than offset higher travel sales.

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Introduction Europe

The Results 2018 Europe cover the following operating segments:

The Netherlands, United Kingdom, Central & Eastern Europe, Spain & Portugal.

This segment reporting is based on the businesses as presented in internal reports that are regularly reviewed by the Executive Board which is regarded as Aegon s chief operating decision maker. For Europe, the underlying businesses are separate operating segments which under IFRS 8 cannot be aggregated, therefore further details will be provided for these operating

segments in this section. Management is of the opinion that presenting the information for the entire European area is beneficial to the users of the financial information as it aligns to how Aegon management is looking at the information following convergence in Europe from a regulatory standpoint and financial markets perspective.

Income statement Underlying earnings

Amounts in EUR millions	The Netherlands	United Kingdom	Central & Eastern Europe	Spain & Portugal	Europe
2018					
Net underlying earnings	480	117	64	13	**674**
Tax on underlying earnings	135	12	8	10	165
Underlying earnings before tax by product segment	615	128	72	24	**839**
Fair value items	250	59	4	2	315
Gains/(losses) on investments	46	83	1	(1)	129
Net impairments	6	-	(1)	-	5
Other income/(charges)	(132)	(252)	(7)	(18)	(409)
Income/(loss) before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	**784**	**19**	**69**	**7**	**879**
Income tax	(136)	20	(8)	(10)	(136)
Net income/(loss)	**648**	**38**	**60**	**(3)**	**743**
2018					
Revenues					
Life insurance gross premiums	1,632	7,509	405	217	9,763

Accident and health insurance premiums	219	29	2	100	351
General insurance premiums	136	-	231	112	479
Total gross premiums	**1,987**	**7,539**	**638**	**429**	**10,592**
Investment income	2,265	1,346	48	36	3,695
Fees and commission income	211	198	47	16	473
Other revenues	-	-	-	-	-
Total revenues	**4,463**	**9,083**	**733**	**480**	**14,760**
Commissions and expenses	812	704	265	210	1,991
of which operating expenses	703	521	165	106	1,496

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Income statement Underlying earnings

Amounts in EUR millions	The Netherlands	United Kingdom	Central & Eastern Europe	Spain & Portugal	Europe [1]
2017					
Net underlying earnings	427	96	58	(2)	**580**
Tax on underlying earnings	130	20	9	6	164
Underlying earnings before tax by product segment	557	116	67	4	**744**
Fair value items	(31)	(82)	-	-	(113)
Gains/(losses) on investments	184	62	1	-	248
Net impairments	7	-	(2)	-	5
Other income/(charges)	296	40	-	-	336
Income/(loss) before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	**1,013**	**137**	**66**	**4**	**1,220**
Income tax	(196)	(56)	(9)	(6)	(266)
Net income/(loss)	**818**	**81**	**57**	**(2)**	**954**
2017					
Revenues					
Life insurance gross premiums	1,857	9,603	411	208	12,079
Accident and health insurance premiums	203	32	1	83	319
General insurance premiums	148	-	216	103	467
Total gross premiums	**2,208**	**9,635**	**628**	**394**	**12,865**
Investment income	2,172	1,517	49	37	3,774
Fees and commission income	326	235	43	17	621
Other revenues	-	-	-	3	3
Total revenues	**4,706**	**11,387**	**720**	**450**	**17,263**
Commissions and expenses	930	757	262	192	2,141
of which operating expenses	818	546	152	94	1,610

Income statement Underlying earnings

Amounts in EUR millions	The Netherlands	United Kingdom	Central & Eastern Europe	Spain & Portugal	Europe
2016					
Net underlying earnings	414	89	47	(1)	**548**
Tax on underlying earnings	119	(30)	9	9	107
Underlying earnings before tax by product segment	534	59	55	8	**655**
Fair value items	(228)	(7)	-	(1)	(236)
Gains/(losses) on investments	189	153	-	(1)	342
Net impairments	(12)	-	1	-	(10)

Other income/(charges)	44	(678)	(23)	(0)	(658)
Income/(loss) before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	**526**	**(474)**	**34**	**6**	**92**
Income tax	(109)	18	(15)	(8)	(114)
Net income/(loss)	**418**	**(456)**	**19**	**(2)**	**(22)**
2016					
Revenues					
Life insurance gross premiums	2,015	9,888	399	191	12,493
Accident and health insurance premiums	210	36	1	73	320
General insurance premiums	266	-	179	92	536
Total gross premiums	**2,491**	**9,924**	**578**	**355**	**13,348**
Investment income	2,135	1,661	45	45	3,886
Fees and commission income	350	95	36	14	495
Other revenues	-	-	-	2	2
Total revenues	**4,976**	**11,680**	**659**	**416**	**17,732**
Commissions and expenses	975	667	244	172	2,058
of which operating expenses	821	394	143	88	1,445

[1] Aegon has changed the measurement of underlying earnings before tax for its real estate investments portfolio held by Aegon the Netherlands. Comparative numbers have been restated accordingly. For further details please refer to page 206.

The results of operations Europe for 2017 and 2016 are based on the figures of the separate operating segments that are further disclosed on the following pages.

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Results 2018 Europe

Amounts in EUR millions	2018	2017 [1]	%
Net underlying earnings	**674**	**580**	*16*
Tax on underlying earnings	165	164	-
Underlying earnings before tax by business/country			
The Netherlands	615	557	*10*
United Kingdom	128	116	*10*
Central & Eastern Europe	72	67	*8*
Spain & Portugal	24	4	*n.m.*
Underlying earnings before tax	**839**	**744**	***13***
Fair value items	315	(113)	*n.m.*
Gains/(losses) on investments	129	248	*(48)*
Net impairments	5	5	*(6)*
Other income/(charges)	(409)	336	*n.m.*
Income before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	**879**	**1,220**	*(28)*
Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	11	6	*70*
Income tax	(136)	(266)	*49*
Of which Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	(11)	(6)	*(70)*
Net income/(loss)	**743**	**954**	***(22)***
Life insurance gross premiums	9,763	12,079	*(19)*
Accident and health insurance premiums	351	319	*10*
General insurance premiums	479	467	*3*
Total gross premiums	**10,592**	**12,865**	***(18)***
Investment income	3,695	3,774	*(2)*
Fees and commission income	473	621	*(24)*
Other revenues	-	3	*(98)*
Total revenues	**14,760**	**17,263**	***(14)***
Commissions and expenses	1,991	2,141	*(7)*
of which operating expenses	1,496	1,610	*(7)*

[1] Aegon has changed the measurement of underlying earnings before tax for its real estate investments portfolio held by Aegon the Netherlands. Comparative numbers have been restated accordingly. For further details please refer to page 206.

New life sales			
Amounts in EUR millions	**2018**	2017	*%*
The Netherlands	101	99	*2*
United Kingdom	40	37	*8*
Central & Eastern Europe	83	88	*(6)*
Spain & Portugal	54	48	*11*
Total recurring plus 1/10 single	**278**	**273**	***2***

Amounts in EUR million	**2018**	2017	*%*
New premium production accident and health insurance	36	39	*(8)*
New premium production general insurance	121	109	*11*

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Gross deposits (on and off balance)	**2018**	2017	%
The Netherlands	10,169	8,061	*26*
United Kingdom	13,223	17,259	*(23)*
Central & Eastern Europe	374	323	*16*
Spain & Portugal	32	36	*(11)*
Total gross deposits	**23,798**	**25,679**	*(7)*

Net deposits (on and off balance)	**2018**	2017	%
The Netherlands	1,411	1,067	*32*
United Kingdom	1,225	4,665	*(74)*
Central & Eastern Europe	156	176	*(11)*
Spain & Portugal	(14)	13	*n.m.*
Total net deposits/(outflows)	**2,779**	**5,921**	*(53)*

Exchange rates	Weighted average rate	
Per 1 EUR		
	2018	2017
Pound sterling	0.8844	0.8758
Czech koruna	25.6237	26.3165
Hungarian forint	318.2582	308.7564
Polish zloty	4.2594	4.2558
Romanian leu	4.6521	4.5665
Turkish Lira	5.6958	4.1197
Ukrainian Hryvnia	32.1972	30.2092

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Results 2018 Europe

Net income declined by 22% compared with 2017 to EUR 743 million in 2018, as higher underlying earnings before tax and positive fair value items were more than offset by other charges. The impact from model & assumption changes in the Netherlands, restructuring charges in the United Kingdom and the loss on the sale of Aegon Ireland were the main drivers for other charges of EUR 409 million in 2018. Underlying earnings before tax in 2018 increased by 13% compared with 2017 to EUR 839 million, reflecting increases in all regions.

Net income

Net income amounted to EUR 743 million in 2018 compared with EUR 954 million in 2017, as higher underlying earnings before tax and positive fair value items were more than offset by other charges. Other charges of EUR 409 million in 2018 included EUR 111 million for model & assumption changes in the Netherlands, EUR 94 million restructuring expenses in the United Kingdom and a EUR 93 million loss on the sale of Aegon Ireland, and EUR 49 million reserve strengthening in the UK related to the net residual annuity book.

Net income for the Netherlands

Net income from Aegon s businesses in the Netherlands amounted to EUR 648 million in 2018, largely driven by underlying earnings before tax of EUR 615 million. Results on fair value items increased compared with 2017 to a gain of EUR 250 million in 2018, driven by positive real estate revaluations. Realized gains of EUR 46 million in 2018 were the result of normal trading activity in the investment portfolio. Net impairments amounted to a net recovery of EUR 6 million in 2018. Other charges amounted to EUR 132 million in 2018 and reflect EUR 111 million model & assumption changes, mainly related to updated mortality and lapse assumptions.

Net income for the United Kingdom

Net income from Aegon s businesses in the United Kingdom amounted to EUR 38 million in 2018. The main driver was the underlying result before tax of EUR 128 million. Gains from fair value items of EUR 59 million were the result of gains on equity hedging programs as a result of lower equity markets where hedges have been set up to protect against such a decline. Realized gains amounted to EUR 83 million in 2018 and reflect optimization of the investment portfolio. Other charges amounted to EUR 252 million, mainly caused by EUR 93 million loss on the sale of Aegon Ireland, EUR 75 million integration expenses for Cofunds and Blackrock s DC business as well as EUR 19 million transition and conversion charges related to the agreement with Atos for administration services, and a EUR 49 million reserve strengthening related to the residual annuity book.

Net income for Central & Eastern Europe

Net income from Aegon s businesses in Central & Eastern Europe (CEE) amounted to EUR 60 million in 2018 and reflect underlying earnings before tax of EUR 72 million mainly offset by other charges of EUR 72 million and

income taxes of EUR 8 million.

Net income for Spain & Portugal

Net income from Aegon s businesses in Spain & Portugal amounted to a loss of EUR 3 million in 2018 as underlying earnings before tax of EUR 24 million were more than offset by EUR 18 million other charges, reflecting a restructuring charge in Aegon s own business in Spain, and income tax of EUR 10 million.

Underlying earnings before tax

Underlying earnings before tax in 2018 increased by 13% compared with 2017 to EUR 839 million as a result of growth in all regions.

Underlying earnings before tax for the Netherlands

Underlying earnings before tax for the Netherlands in 2018 increased by 10% compared with 2017 to EUR 615 million.

- Underlying earnings before tax from Life increased by 15% compared with 2017 to EUR 460 million, driven by a higher investment margin, reflecting a shift to higher-yielding assets.
- Underlying earnings before tax from Non-life were up by 18% compared with 2017 to EUR 40 million, due to improved disability underwriting results, reflecting higher provision releases.
- Banking s underlying earnings before tax increased by 32% compared with 2017 to EUR 103 million, driven by a higher net interest margin as a result of balance sheet growth and lower funding costs. This was partly offset by higher expenses in line with the bank s growth.
- Underlying earnings before tax from the Service business decreased by 75% compared with 2017 to EUR 11 million. The decrease was caused by the loss of earnings due to sale of UMG, and investments in new digital propositions.

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Underlying earnings before tax for the United Kingdom

Underlying earnings before tax in the United Kingdom increased by 10% compared with 2017 to EUR 128 million in 2018.

Underlying earnings before tax from Existing Business declined by 14% compared with 2017 to EUR 107 million in 2018, reflecting net outflows, including upgrades to the digital platform, and lower investment income following bond sales.

Underlying earnings before tax from Digital Solutions improved from a loss of EUR 8 million in 2017 to a profit of EUR 21 million in 2018. This was driven by higher fee income as a result of new business inflows and upgrades to the platform, as well as the realization of cost synergies related to the Cofunds integration.

Underlying earnings before tax for Central & Eastern Europe

Underlying earnings before tax from Central & Eastern Europe increased to EUR 72 million in 2018, up 8% compared with 2017. This increase was primarily driven by business growth, most notably in Turkey and Hungary.

Underlying earnings before tax for Spain & Portugal

Underlying earnings before tax from Spain & Portugal increased from EUR 4 million in 2017 to EUR 24 million in 2018, driven by portfolio growth and better underwriting results in the joint ventures with Santander and lower expenses in Aegon s own business, reflecting the restructuring program, while 2017 included one-time expenses.

Commissions and expenses

Commissions and expenses decreased by 7% compared with 2017 to EUR 1,991 million in 2018. Operating expenses declined by 7% compared with 2017 to EUR 1,496 million in 2018.

Commissions and expenses for the Netherlands

Commissions and expenses decreased by 13% compared with 2017 to EUR 812 million in 2018. Operating expenses were down by 14% compared with 2017 to EUR 703 million in 2018, reflecting the sale of UMG in the fourth quarter of 2017 and expense savings in the insurance businesses. This was partly offset by investments in new digital propositions.

Commissions and expenses for the United Kingdom

Commissions and expenses decreased by 7% compared with 2017 to EUR 704 million in 2018. Operating expenses decreased by 5% compared with 2017 to EUR 521 million in 2018, as higher restructuring expenses were more than offset by the realization of cost synergies and the sale of Aegon Ireland.

Commissions and expenses for Central & Eastern Europe

Commissions and expenses increased by 1% compared with 2017 to EUR 265 million in 2018. Operating expenses increased by 9%

compared with 2017 to EUR 165 million in 2018, reflecting the growth of the business.

Commissions and expenses for Spain & Portugal

Commissions and expenses increased by 9% compared with 2017 to EUR 210 million in 2018. Operating expenses increased by 13% compared with 2017 to EUR 106 million in 2018, mainly reflecting the restructuring expenses for Aegon s own business, partly offset by expense reductions and the non-recurrence of one-time expense items.

Production

Gross deposits decreased by 7% compared with 2017 to EUR 23.8 billion in 2018, primarily caused by lower platform flows in the United Kingdom.

New life sales increased by 2% compared with 2017 to EUR 278 million in 2018, driven by higher protection sales in the United Kingdom. New premium production for accident & health insurance decreased by 8% compared with 2017 to EUR 36 million in 2018, as 2017 included one-time higher sales in the Netherlands following legislative changes. New premium production in property & casualty insurance increased compared with 2017 to EUR 121 million in 2018, mainly driven by growth in Hungary.

Production for the Netherlands

Gross deposits increased by 26% compared with 2017 to EUR 10.2 billion in 2018, mainly driven by the growth of Knab, Aegon s online bank. New life sales were up by 2% compared with 2017 to EUR 101 million in 2018, as a result of higher immediate annuity sales and pension indexation premiums.

Production for the United Kingdom

Gross deposits decreased by 23% compared with 2017 to EUR 13.2 billion in 2018, due to lower retail and institutional platform flows. New life sales rose by 8% compared with 2017 to EUR 40 million in 2018, due to higher protection sales.

Production for Central & Eastern Europe

Gross deposits increased by 16% compared with 2017 to EUR 374 million in 2018, driven by higher pension deposits in Romania, Poland, Hungary and Slovakia. New life sales declined by 6% compared with 2017 to EUR 83 million in 2018, reflecting adverse currency movements.

Production for Spain & Portugal

Gross deposits decreased by 11% in 2018 compared with 2017 to EUR 32 million, driven by lower sales of savings products. New life sales in Spain & Portugal in 2017 increased by 11% compared with 2017 and amounted to EUR 54 million, driven by increasing sales through the joint venture with Banco Santander.

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Results 2017 Europe

Amounts in EUR millions	2017 [1]	2016 [1]	%
Net underlying earnings	**580**	**548**	***6***
Tax on underlying earnings	164	107	*54*
Underlying earnings before tax by business/country			
The Netherlands	557	534	*4*
United Kingdom	116	59	*98*
Central & Eastern Europe	67	55	*20*
Spain & Portugal	4	8	*(47)*
Underlying earnings before tax	**744**	**655**	***14***
Fair value items	(113)	(236)	*52*
Gains/(losses) on investments	248	342	*(27)*
Net impairments	5	(10)	*n.m.*
Other income/(charges)	336	(658)	*n.m.*
Income before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	**1,220**	**92**	***n.m.***
Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	6	7	*(16)*
Income tax	(266)	(114)	*(133)*
Of which Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	(6)	(7)	*16*
Net income/(loss)	**954**	**(22)**	***n.m.***
Life insurance gross premiums	12,079	12,493	*(3)*
Accident and health insurance premiums	319	320	-
General insurance premiums	467	536	*(13)*
Total gross premiums	**12,865**	**13,348**	***(4)***
Investment income	3,774	3,886	*(3)*
Fees and commission income	621	495	*25*
Other revenues	3	2	*38*
Total revenues	**17,263**	**17,732**	***(3)***
Commissions and expenses	2,141	2,058	*4*
of which operating expenses	1,610	1,445	*11*

[1] Aegon has changed the measurement of underlying earnings before tax for its real estate investments portfolio held by Aegon the Netherlands. Comparative numbers have been restated accordingly. For further details please refer to page 206.

New life sales

Amounts in EUR millions	2017	2016	%
The Netherlands	99	111	*(11)*
United Kingdom	37	66	*(44)*
Central & Eastern Europe	88	83	*6*
Spain & Portugal	48	39	*23*
Total recurring plus 1/10 single	**273**	**299**	***(9)***

Amounts in EUR million	2017	2016	%
New premium production accident and health insurance	39	34	*14*
New premium production general insurance	109	94	*16*

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Gross deposits (on and off balance)	2017	2016	%
The Netherlands	8,061	6,686	*21*
United Kingdom	17,259	5,791	*n.m.*
Central & Eastern Europe	323	265	*22*
Spain & Portugal	36	31	*15*
Total gross deposits	**25,679**	**12,773**	***n.m.***

Net deposits (on and off balance)	2017	2016	%
The Netherlands	1,067	1,909	*(44)*
United Kingdom	4,665	(846)	*n.m.*
Central & Eastern Europe	176	176	-
Spain & Portugal	13	20	*(37)*
Total net deposits/(outflows)	**5,921**	**1,260**	***n.m.***

	Weighted average rate	
Exchange rates		
Per 1 EUR	2017	2016
Pound sterling	0.8758	0.8187
Czech koruna	26.3165	27.0184
Hungarian forint	308.7564	310.9128
Polish zloty	4.2558	4.3616
Romanian leu	4.5665	4.4889
Turkish Lira	4.1197	3.3426
Ukrainian Hryvnia	30.2092	28.3029

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Results 2017 Europe

Net income improved to EUR 954 million in 2017 compared with 2016 driven by Other income and higher underlying earnings before tax. The gain on the sale of the insurance broker UMG in the Netherlands was the main driver behind Other income of EUR 336 million. Underlying earnings before tax in 2017 increased compared with 2016 to EUR 744 million. This was mainly the result of higher results in the United Kingdom, reflecting higher fee income.

Net income

Net income amounted to EUR 954 million in 2017 compared to a loss of EUR 22 million in 2016. Drivers of this improvement were Other income, improved results of fair value items and a higher underlying earnings before tax. Other income of EUR 336 million in 2017 included a gain on the sale of UMG in the Netherlands, while the sale of the majority of the UK annuity portfolio was the main driver behind Other charges of EUR 658 million in 2016.

Net income for the Netherlands

Net income from Aegon s businesses in the Netherlands amounted to EUR 818 million in 2017, largely driven by underlying earnings before tax of EUR 557 million. Results on fair value items improved compared with 2016 to a gain of EUR 30 million in 2017, as positive real estate revaluations and the positive result from the mismatch on an IFRS basis between interest rate hedges, on the mortgage portfolio and the underlying mortgages were offset by losses on credit spread and interest rate hedges due to a mismatch on an IFRS basis between the valuation of hedges and liabilities. Realized gains of EUR 184 million in 2017 were the result of asset-liability management adjustments and normal trading activity in the investment portfolio. Impairments amounted to EUR 17 million in 2017 and were mostly driven by a loan loss provision related to growing consumer loan origination. Other income amounted to EUR 296 million in 2017. This reflects the EUR 208 million gain on the sale of UMG and EUR 101 million positive assumption changes and model updates mainly related to the guarantee provision in the Netherlands.

Net income for the United Kingdom

Net income from Aegon s businesses in the United Kingdom amounted to EUR 81 million in 2017. The main driver was the underlying result before tax of EUR 116 million. Losses from fair value items of EUR 82 million were mainly caused by losses on equity hedging programs as a result of increased equity markets where hedges have been set up to protect against a decline in equity markets. Realized gains amounted to EUR 62 million in 2017 and reflect rebalancing of the investment portfolio, and the sale of bonds to fund remittances to the Group. Other income amounted to EUR 40 million, mainly driven by the net release of provisions following the completion of the Part VII transfers of the annuity

portfolios sold to Rothesay and Legal & General. This was partly offset by integration expenses for the acquired Cofunds and BlackRock s defined contribution business and the impairment of intangible assets related to the announced sales of Aegon Ireland.

Net income for Central & Eastern Europe

Net income from Aegon s businesses in Central & Eastern Europe (CEE) amounted to EUR 57 million in 2017 and reflect underlying earnings before tax of EUR 67 million.

Net income for Spain & Portugal

Net income from Aegon s businesses in Spain & Portugal amounted to a loss of EUR 2 million in 2017 as underlying earnings before tax of EUR 4 million were more than offset by income tax of EUR 6 million.

Underlying earnings before tax

Underlying earnings before tax in 2017 increased by 8% compared with 2016 to EUR 744 million. This was driven by higher fee income in the United Kingdom and growth in CEE.

Underlying earnings before tax for the Netherlands

Underlying earnings before tax for the Netherlands in 2017 decreased by 2% compared with 2016 to EUR 557 million.

Underlying earnings before tax from Life & Savings declined by 2% compared with 2016 to EUR 301 million, reflecting lower investment income in Life, partly offset by a higher interest margin in Savings.

Underlying earnings before tax from Pensions decreased by 9% compared with 2016 to EUR 209 million, mainly due to lower investment income.

The results from the Non-life business increased from EUR 1 million in 2016 to EUR 30 million in 2017. The main drivers were favorable claims experience, in part due to management actions, and one-time claims provision releases.

Underlying earnings before tax from the Distribution business decreased compared with 2016 to EUR 17 million. The decrease was caused by the sale of UMG and pressure on fee income due to increased competition.

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Underlying earnings before tax for the United Kingdom

Underlying earnings before tax in the United Kingdom amounted to EUR 116 million in 2017.

Underlying earnings before tax from Life increased in 2017 compared with 2016 to EUR 65 million, reflecting higher results on inflation-linked bonds and growth in the protection business.

Underlying earnings before tax from Pensions improved from EUR 9 million in 2016 to EUR 51 million in 2017. This was driven by higher fee income from favorable equity markets and net inflows, as well as the inclusion of Cofunds in 2017.

Underlying earnings before tax for Central & Eastern Europe

Underlying earnings before tax from Central & Eastern Europe increased to EUR 67 million in 2017, up from EUR 55 million in 2016. This increase was primarily driven by business growth, better underwriting results and the acquisition of a non-life portfolio in Hungary.

Underlying earnings before tax for Spain & Portugal

Underlying earnings before tax from Spain & Portugal decreased compared with 2016 to EUR 4 million in 2017, mainly caused by higher operating expenses due to the write-down of an IT system, governance costs and project related expenses.

Commissions and expenses

Commissions and expenses increased by 4% compared with 2016 to EUR 2,141 million in 2017. Operating expenses increased by 11% compared with 2016 and amounted to EUR 1,610 million in 2017.

Commissions and expenses for the Netherlands

Commissions and expenses decreased by 5% compared with 2016 to EUR 930 million in 2017. Operating expenses were down by 0% compared with 2016 to EUR 818 million in 2017, reflecting the sale of UMG. Expense savings in the insurance businesses were more than offset by investments in growth.

Commissions and expenses for the United Kingdom

Commissions and expenses increased by 13% in 2017 to EUR 757 million compared with 2016. Operating expenses increased by 39% in 2017 to EUR 546 million compared with 2016, mainly due to the inclusion of Cofunds and BlackRock s defined contribution business and integration of related activities.

Commissions and expenses for Central & Eastern Europe

Commissions and expenses increased by 7% compared with 2016 to EUR 262 million in 2017. Operating expenses increased by 6% compared with 2016 to EUR 152 million in 2017, reflecting the growth of the business and higher variable personnel expenses.

Commissions and expenses for Spain & Portugal

Commissions and expenses increased by 12% compared with 2016 to EUR 192 million in 2017. Operating expenses increased by 7% compared with 2016 to EUR 94 million in 2017, mainly resulting from the growth of Aegon s joint ventures with Santander and project-related expenses, severance costs and the write-down of an IT system.

Production

Gross deposits increased from EUR 12.8 billion in 2016 to EUR 25.7 billion in 2017. The increase compared with 2016 was primarily driven by the higher platform sales in the United Kingdom.

New life sales declined by 9% compared with 2016 to EUR 273 million in 2017. The decline compared with 2016 was mainly the result of the sale of the annuity business in the United Kingdom. New premium production for general and accident & health insurance increased compared with 2016 to EUR 148 million in 2017.

Production for the Netherlands

Gross deposits increased by 21% compared with 2016 to EUR 8.1 billion in 2017, mainly driven by the growth of Knab, Aegon s online bank. New life sales declined compared with 2016 to EUR 99 million in 2017, caused by lower DB pension sales and individual life sales. Premium production for accident & health increased compared with 2016 to EUR 16 million in 2017, while property & casualty insurance production decreased compared with 2016 to EUR 15 million in 2017.

Production for the United Kingdom

Gross deposits increased from EUR 5.8 billion in 2016 to EUR 17.2 billion in 2017 as a result of higher platform sales, reflecting the inclusion of Cofunds. New life sales decreased compared with 2016 to EUR 37 million in 2017, mainly due to the sale of the majority of the annuity business in the second half of 2016.

Production for Central & Eastern Europe

In Central & Eastern Europe, new life sales in 2017 increased compared with 2016 to EUR 88 million, driven by sales growth in Turkey. For the property & casualty insurance business, there were higher sales compared with 2016 amounting to EUR 64 million in 2017, reflecting the acquisition of a portfolio in Hungary.

Production for Spain & Portugal

New life sales in Spain & Portugal in 2017 increased by 23% compared with 2016 and amounted to EUR 48 million, driven by increasing sales through the joint venture with Banco Santander. Property & casualty insurance and accident & health insurance sales increased compared with 2016 to EUR 53 million in 2017, also as a result of higher sales from the joint ventures with Santander.

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Results 2018 Asia

	Amounts in USD millions			Amounts in EUR millions		
	2018	2017	%	**2018**	2017	%
Net underlying earnings	**30**	7	*n.m.*	**25**	6	*n.m.*
Tax on underlying earnings	35	48	*(27)*	30	43	*(31)*
Underlying earnings before tax by business/country						
High net worth businesses	71	67	*7*	60	59	*2*
Aegon Insights	9	10	*(15)*	7	9	*(18)*
Strategic partnerships	(15)	(21)	*29*	(13)	(19)	*32*
Underlying earnings before tax	**65**	**55**	***17***	**55**	**49**	***12***
Fair value items	3	(1)	*n.m.*	3	(0)	*n.m.*
Gains/(losses) on investments	(10)	5	*n.m.*	(8)	4	*n.m.*
Net impairments	(7)	(1)	*n.m.*	(5)	(1)	*n.m.*
Other income/(charges)	(9)	(21)	*59*	(7)	(19)	*61*
Income before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	**43**	**38**	***14***	**36**	**33**	***9***
Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	15	19	*(19)*	13	16	*(23)*
Income tax	(29)	(32)	*7*	(25)	(28)	*11*
Of which Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	(15)	(19)	*19*	(13)	(16)	*23*
Net income/(loss)	**13**	**6**	***117***	**11**	**5**	***107***
Life insurance gross premiums	921	1,110	*(17)*	779	983	*(21)*
Accident and health insurance premiums	111	110	*1*	94	97	*(4)*
Total gross premiums	**1,032**	**1,220**	***(15)***	**873**	**1,080**	***(19)***
Investment income	317	277	*14*	268	246	*9*
Fees and commission income	68	72	*(4)*	58	63	*(8)*
Other revenues	2	1	*n.m.*	2	1	*n.m.*
Total revenues	**1,419**	**1,569**	***(10)***	**1,201**	**1,390**	***(14)***
Commissions and expenses	273	257	*6*	231	228	*1*
of which operating expenses	187	176	*7*	159	155	*2*

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	Amounts in USD millions			Amounts in EUR millions		
New life sales	**2018**	2017	%	**2018**	2017	%
High net worth businesses	53	84	*(38)*	45	75	*(40)*
Strategic partnerships	92	86	*7*	78	76	*2*
Total recurring plus 1/10 single	**144**	**170**	***(15)***	**122**	**151**	***(19)***

	Amounts in USD millions			Amounts in EUR millions		
Gross deposits (on and off balance)	**2018**	2017	%	**2018**	2017	%
Strategic partnerships China	3	3	-	3	3	*(5)*
Strategic partnerships Japan	148	247	*(40)*	125	219	*(43)*
Total gross deposits	**151**	**250**	***(40)***	**128**	**222**	***(42)***

	Amounts in USD millions			Amounts in EUR millions		
Net deposits (on and off balance)	**2018**	2017	%	**2018**	2017	%
Strategic partnerships China	4	-	*n.m.*	3	-	*n.m.*
Strategic partnerships Japan	5	146	*(97)*	4	129	*(97)*
Total net deposits/(outflows)	**8**	**146**	***(94)***	**7**	**129**	***(95)***

	Amounts in USD millions			Amounts in EUR millions		
	2018	2017	%	**2018**	2017	%
New premium production accident and health insurance	9	14	*(34)*	8	12	*(37)*

	Weighted average rate	
Exchange rates		
Per 1 EUR	**2018**	2017
US dollar	1.1816	1.1291
Chinese Yuan Renminbi	7.8079	7.6520

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Results 2018 Asia

Net income in 2018 increased by USD 7 million to USD 13 million in 2018 compared with 2017. This was mainly driven by improved underlying earnings before tax. Underlying earnings before tax improved by USD 10 million to USD 65 million in 2018 compared with 2017. This was mainly driven by improved underlying earnings before tax and lower other charges, partly offset by losses and impairments on investments. Gross deposits decreased to USD 151 million in 2018 compared with USD 250 million in 2017, primarily due to lower variable annuity sales in Japan as a result from a shrinking market due to the low interest rate environment. New life sales amounted to USD 144 million for 2018, and mainly related to the critical illness product in China and universal life sales from the High Net Worth business.

Net income

Net income improved from USD 6 million in 2017 to USD 13 million in 2018, mainly due to increased underlying earnings before tax in the High Net Worth business and Strategic partnerships. Fair value gains improved from a loss of USD 1 million 2017 to a gain of USD 3 million in 2018 due to hedging gains in Japan. Realized losses amounted to USD 10 million in 2018 compared with a USD 5 million realized gains in 2017 due to portfolio rebalancing on available for sale assets in the High Net Worth businesses to achieve higher yields. Other charges improved to USD 9 million in 2018 compared with USD 21 million in 2017 as a result of a lower impact of assumption changes and model updates. Income tax decreased to USD 29 million in 2018 compared with USD 32 million in 2017.

Underlying earnings before tax

In Asia, underlying earnings before tax improved by 17% compared with 2017 to USD 65 million in 2018.

- Underlying earnings before tax from the High Net Worth businesses in Hong Kong and Singapore increased to USD 71 million in 2018, compared with USD 67 million in 2017. This increase was mainly the result of a benefit related to higher investment yields and favorable claims experience.
- Underlying earnings before tax in Aegon Insights decreased to USD 9 million in 2018 compared with USD 10 million in 2017 as lower operating expenses were more than offset by a reduced size of the in-force business, and by favorable one-time reserve and fee adjustments in 2017.
- Losses from Strategic partnerships improved to USD 15 million in 2018 compared with USD 21 million in 2017 mainly a result of business growth and lower new business related expenses in Japan and India, partially offset by higher operating expenses due to higher sales in China.

Commissions and expenses

Commissions and expenses increased to EUR 273 million in 2018 compared with EUR 257 million in 2017. Operating expenses increased by 7% in 2018 compared with 2017 to USD 187 million. The increase in operating

expenses was mainly driven by strong sales in China and investments in the High Net Worth businesses.

Production

New life sales decreased by 15% in 2018 to USD 144 million compared with 2017.

In the High Net Worth businesses in Hong Kong and Singapore, new life sales were down 38% to USD 53 million in 2018, compared with USD 84 million in 2017. This decrease was mainly the result of higher cost of premium financing for customers as short-term interest rates rose.

New life sales in Strategic Partnerships were up 7% to USD 92 million in 2018 compared with 2017 due to strong sales in China that was mainly driven by the critical illness product. Gross deposits in Asia declined to USD 151 million in 2018 compared with USD 250 million in 2017 as variable annuity sales in Japan continue to be impacted by a shrinking market due to the low interest rate environment.

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Results 2017 Asia

	Amounts in USD millions			Amounts in EUR millions		
	2017	2016	%	2017	2016	%
Net underlying earnings	**7**	**(7)**	***n.m.***	**6**	**(6)**	***n.m.***
Tax on underlying earnings	48	30	*59*	43	27	*56*
Underlying earnings before tax by business/country						
High net worth businesses	67	61	*9*	59	55	*6*
Aegon Insights	10	1	*n.m.*	9	1	*n.m.*
Strategic partnerships	(21)	(39)	*45*	(19)	(35)	*46*
Underlying earnings before tax	**55**	**23**	***136***	**49**	**21**	***131***
Fair value items	(1)	(10)	*95*	-	(9)	*95*
Gains/(losses) on investments	5	9	*(47)*	4	8	*(48)*
Net impairments	(1)	(1)	*48*	(1)	(1)	*49*
Other income/(charges)	(21)	(6)	*n.m.*	(19)	(5)	*n.m.*
Income before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	**38**	**16**	***141***	**33**	**14**	***136***
Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	19	2	*n.m.*	16	2	*n.m.*
Income tax	(32)	(30)	*(6)*	(28)	(27)	*(4)*
Of which Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	(19)	(2)	*n.m.*	(16)	(2)	*n.m.*
Net income/(loss)	**6**	**(14)**	***n.m.***	**5**	**(13)**	***n.m.***
Life insurance gross premiums	1,110	1,240	*(11)*	983	1,121	*(12)*
Accident and health insurance premiums	110	115	*(5)*	97	104	*(6)*
Total gross premiums	**1,220**	**1,355**	***(10)***	**1,080**	**1,225**	***(12)***
Investment income	277	257	*8*	246	232	*6*
Fees and commission income	72	67	*6*	63	61	*4*
Total revenues	**1,569**	**1,680**	***(7)***	**1,390**	**1,517**	***(8)***
Commissions and expenses	257	257	-	228	232	*(2)*
of which operating expenses	176	161	*9*	155	146	*7*

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	Amounts in USD millions			Amounts in EUR millions		
New life sales	2017	2016	%	2017	2016	%
High net worth businesses	84	88	*(4)*	75	79	*(6)*
Strategic partnerships	86	54	*60*	76	49	*56*
Total recurring plus 1/10 single	**170**	**142**	***20***	**151**	**128**	***18***

	Amounts in USD millions			Amounts in EUR millions		
Gross deposits (on and off balance)	2017	2016	%	2017	2016	%
Strategic partnerships China	3	7	*(57)*	3	6	*(58)*
Strategic partnerships Japan	247	330	*(25)*	219	298	*(27)*
Total gross deposits	**250**	**337**	***(26)***	**222**	**304**	***(27)***

	Amounts in USD millions			Amounts in EUR millions		
Net deposits (on and off balance)	2017	2016	%	2017	2016	%
Strategic partnerships China	-	5	*n.m.*	-	4	*n.m.*
Strategic partnerships Japan	146	282	*(48)*	129	255	*(49)*
Total net deposits/(outflows)	**146**	**287**	***(49)***	**129**	**259**	***(50)***

	Amounts in USD millions			Amounts in EUR millions		
	2017	2016	%	2017	2016	%
New premium production accident and health insurance	14	19	*(27)*	12	17	*(28)*

	Weighted average rate	
Exchange rates		
Per 1 EUR	2017	2016
US dollar	1.1291	1.1069
Chinese Yuan Renminbi	7.6520	7.3364

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Results 2017 Asia

Net income in 2017 amounted to USD 6 million, which was mainly driven by improved underlying earnings before tax and a one-time tax benefit from the write-down of deferred tax liabilities as a result of US tax reform. Underlying earnings before tax improved to USD 55 million in 2017 compared with 2016 mainly due to higher underlying earnings before tax from the High Net Worth businesses, Aegon Insights and China. Gross deposits decreased to USD 250 million in 2017 compared with USD 337 million in 2016, primarily due to sales of the recently launched foreign currency variable annuity being more than offset by lower Japanese Yen-denominated variable annuity sales. New life sales amounted to USD 170 million for 2017, mainly related to the critical illness product in China and the new direct sales strategy implemented in India.

Net income

Net income improved from a loss of USD 14 million in 2016 to USD 6 million in 2017, mainly due to increased underlying earnings before tax in the High Net Worth business, Aegon Insights and China. Fair value losses improved compared with 2016 to USD 1 million due to lower losses on hedging of the variable annuity business in Japan. Realized gains decreased to USD 5 million in 2017 due to lower gains from normal trading activity compared with 2016. Other charges increased compared with 2016 to USD 21 million as a result of the net impact of assumption changes and model updates in 2017. Income tax increased to USD 32 million in 2017 compared with USD 30 million in 2016 as higher taxes on higher underlying earnings before tax were partially offset by a one-time tax benefit of USD 10 million from the write-down of deferred tax liabilities in Aegon Insights as a result of US tax reform.

Underlying earnings before tax

In Asia, underlying earnings before tax improved by 136% compared with 2016 to USD 55 million in 2017.

Underlying earnings before tax from the high net worth businesses in Hong Kong and Singapore increased to USD 67 million in 2017, compared with USD 61 million in 2016. This increase was mainly the result of favorable mortality experience and favorable intangible adjustments related to anticipated investment yields compared with 2016.

Underlying earnings before tax in Aegon Insights increased to USD 10 million in 2017 compared with USD 1 million in 2016 due to an accident & health reserve release, an expense release in Indonesia, and lower operating expenses as a result of discontinuing the outbound telemarketing business.

Losses from Strategic Partnerships decreased to USD 21 million in 2017 compared with USD 39 million in 2016 mainly a result of favorable persistency and lower new business related expenses. Following the strong results in China throughout 2017, Aegon THTF is now profitable.

Commissions and expenses

Commissions and expenses remained stable in 2017 compared with 2016 at USD 257 million. Operating expenses increased by 9% in 2017 compared with 2016 to USD 176 million. The increase in operating expenses was mainly driven by strong sales in China and India throughout the year and investments made to support future growth, partially offset by lower operating expenses in Aegon Insights as a result of discontinuing the outbound telemarketing business.

Production

New life sales increased by 20% in 2017 to USD 170 million compared with 2016.

- In the high net worth businesses in Hong Kong and Singapore, new life sales were down 4% to USD 84 million in 2017, compared with USD 88 million in 2016. This decrease was mainly the result of lower sales of universal life products due to increased competitive environment.
- New life sales in Strategic Partnerships were up 60% to USD 86 million in 2017 compared with 2016 due to a strong increase from sales in China that was mainly driven by the critical illness product and the new direct sales strategy implemented in India during the first half of 2017.

Gross deposits in Asia declined to USD 250 million in 2017 compared with USD 337 million in 2016. Increased inflows from foreign currency variable annuities were more than offset by lower Japanese Yen-denominated variable annuity sales. The latter was the result of a pricing change in order to maintain profitability by strictly adhering to Aegon s pricing policy.

New premium production in Asia s accident & health declined by 27% in 2017 compared with 2016 to USD 14 million as a result of running off the Aegon Insights outbound telemarketing business.

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Results 2018 Aegon Asset Management

Amounts in EUR millions	2018	2017	%
Net underlying earnings	**113**	**94**	***20***
Tax on underlying earnings	39	42	*(7)*
Underlying earnings before tax by business/country			
Americas	62	59	*5*
Europe	31	31	*(1)*
Rest of World	(10)	(7)	*(33)*
Strategic partnerships	69	53	*29*
Underlying earnings before tax	**151**	**136**	***12***
Fair value items			*n.m.*
Gains/(losses) on investments	2	3	*(40)*
Net impairments			*n.m.*
Other income/(charges)	(5)	(49)	*91*
Income before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	**149**	**90**	***65***
Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	22	17	*27*
Income tax	(44)	(42)	*(3)*
Of which Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	(22)	(17)	*(27)*
Net income/(loss)	**105**	**48**	***119***
Management fees	492	473	*4*
Performance fees	33	36	*(8)*
Other	65	67	*(4)*
Total revenues	**589**	**576**	***2***
Commissions and expenses	488	481	*2*
of which operating expenses	439	444	*(1)*
Cost/income ratio	74.5%	77.1%	

Amounts in EUR millions	2018	2017	%
Gross flows external third-party			
Americas	9,619	10,567	*(9)*
Europe	12,292	10,419	*18*
Rest of World [1]	(72)	127	*n.m.*

Strategic partnerships	37,657	40,220	*(6)*
Total gross flows external third-party	**59,495**	**61,332**	***(3)***
Net flows external third-party			
Americas	1,267	1,913	*(34)*
The Netherlands	6,648	3,256	*104*
United Kingdom	(3,370)	(6,770)	*50*
Rest of World [1]	(566)	167	*n.m.*
Strategic partnerships	3,547	8,345	*(57)*
Total net flows external third-party	**7,526**	**6,913**	***9***

[1] Rest of world include intragroup eliminations from internal sub-advised agreements

	Weighted average rate	
Exchange rates		
Per 1 EUR	**2018**	2017
US dollar	1.1816	1.1291
Pound sterling	0.8844	0.8758
Hungarian forint	318.2582	308.7564
Chinese Yuan Renminbi	7.8079	7.6520

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Results 2018 Aegon Asset Management

Net income in 2018 increased to EUR 105 million compared with EUR 48 million in 2017 as a result of higher underlying earnings before tax compared with 2017 and the fact that 2017 contained a provision related to the settlement with the SEC. Gross flows in external third-party asset management decreased by 3% to EUR 59.5 billion in 2018 compared with 2017. Higher gross inflows in the Netherlands were more than offset by lower gross inflows in Strategic partnerships, the Americas the UK. Inflows in Strategic partnerships in 2017 included a single large mandate won by Aegon s strategic partner LBPAM.

Net income

Net income in 2018 increased by 119% compared with 2017 to EUR 105 million. This was partly driven by higher underlying earnings before tax in 2018 compared with 2017. In addition, 2017 included a provision related to the settlement with the SEC totalling EUR 40 million.

Underlying earnings before tax

Underlying earnings before tax increased by 12% in 2018 compared with 2017 to EUR 151 million. This increase was mainly driven by higher underlying earnings before tax in 2018 compared with 2017 from Strategic partnerships and the Netherlands.

- Americas underlying earnings before tax increased to EUR 62 million in 2018, compared with EUR 59 million in 2017, mainly driven by higher management and origination fees, in addition to expense savings in 2018 compared with 2017.
- Underlying earnings before tax from Europe in 2018 decreased by EUR 1 million to EUR 30 million compared with 2017, as expense savings and higher management fee income in 2018 compared with 2017 in the Netherlands were more than offset by lower management fees in the United Kingdom.
- Rest of World underlying earnings before tax in 2018 decreased by EUR 3 million compared with 2017 to a loss of EUR 10 million.
- Underlying earnings before tax from Strategic partnerships increased by EUR 16 million compared with 2017 to EUR 69 million in 2018. Aegon s Chinese asset management joint venture AIFMC had higher management and performance fee income in 2018 compared with 2017.

Commissions and expenses

Commissions and expenses increased by 2% in 2018 compared with 2017 to EUR 488 million. Operating expenses decreased by 1% in 2018 compared with 2017 to EUR 439 million. This decrease was mainly driven by lower expenses in the Americas and the United Kingdom as a result of continued strong expense control. These were partly offset by higher personnel expenses in China as a result of its strong performance. The cost/income ratio in 2018

improved by 2 percentage points compared with 2017 to 75%, as result from lower expenses and higher revenues in 2018 compared with 2017. Annualized operating expenses as a percentage of average assets under management remained stable at 14 basis points in 2018 compared with 2017.

Production

Gross inflows in external third-party decreased by 3% in 2018 to EUR 59.5 billion compared with 2017. Higher gross inflows in the Netherlands were more than offset by lower gross inflows in Strategic partnerships, the Americas and the UK. In addition, gross inflows in 2017 included a single large mandate won by Aegon s strategic partner LBPAM.

Net external third-party inflows in 2018 increased compared with 2017 to EUR 7.5 billion, as higher net flows in the Netherlands were partly offset by net outflows in the United Kingdom and lower net inflows in Strategic partnerships and the Americas.

Assets under management

Assets under management decreased by EUR 2 billion in 2018 to EUR 316 billion compared with the start of 2018. Net inflows in external third-party and favorable currency movements were more than offset by outflows in the general account, outflows in affiliates, and unfavorable market movements.

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Results 2017 Aegon Asset Management

Amounts in EUR millions	2017	2016	%
Net underlying earnings	**94**	**99**	*(5)*
Tax on underlying earnings	42	50	*(16)*
Underlying earnings before tax by business/country			
Americas	59	55	*6*
Europe	31	44	*(29)*
Rest of World	(7)	(4)	*(84)*
Strategic partnerships	53	54	*(1)*
Underlying earnings before tax	**136**	**149**	***(9)***
Fair value items	-	-	*n.m.*
Gains/(losses) on investments	3	3	*6*
Net impairments	-	(5)	*n.m.*
Other income/(charges)	(49)	(2)	*n.m.*
Income before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	**90**	**145**	***(38)***
Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	17	19	*(7)*
Income tax	(42)	(48)	*11*
Of which Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	(17)	(19)	*7*
Net income/(loss)	**48**	**97**	***(51)***
Management fees	473	503	*(6)*
Performance fees	36	34	*4*
Other	67	63	*7*
Total revenues	**576**	**601**	***(4)***
Commissions and expenses	481	486	*(1)*
of which operating expenses	444	451	*(2)*
Cost/income ratio	77.1%	75.1%	

Amounts in EUR millions	2017	2016	%
Gross flows external third-party			
Americas	10,567	4,536	*133*
Europe	10,419	9,487	*10*
Rest of World [1]	127	(317)	*n.m.*

Strategic partnerships	40,220	32,660	*23*
Total gross flows external third-party	**61,332**	**46,366**	***32***
Net flows external third-party			
Americas	1,913	499	*n.m.*
The Netherlands	3,256	3,669	*(11)*
United Kingdom	(6,770)	(865)	*n.m.*
Rest of World [1]	167	62	*170*
Strategic partnerships	8,345	(402)	*n.m.*
Total net flows external third-party	**6,913**	**2,964**	***133***

[1] Rest of world include intragroup eliminations from internal sub-advised agreements

	Weighted average rate	
Exchange rates		
Per 1 EUR	2017	2016
US dollar	1.1291	1.1069
Pound sterling	0.8758	0.8187
Hungarian forint	308.7564	310.9128
Chinese Yuan Renminbi	7.6520	7.3364

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Results 2017 Aegon Asset Management

Net income in 2017 decreased compared with 2016 to EUR 48 million as a result of lower underlying earnings before tax compared with 2016 and a provision taken for a potential settlement with the SEC. Lower underlying earnings before tax in 2017 compared with 2016 was mainly the result of lower management fees in the United Kingdom. Gross flows in external third-party asset management increased by 32% to EUR 61.3 billion in 2017 compared with 2016, mainly driven by higher gross inflows in the US, the Netherlands and Strategic partnerships.

Net income

Net income in 2017 declined 51% compared with 2016 to EUR 48 million. This was partly driven by lower underlying earnings before tax in 2017 compared with 2016.

In addition, Aegon has taken a provision in anticipation of a possible settlement in connection with a previously disclosed investigation by the US Securities and Exchange Commission (SEC). The investigation relates to the operation or existence of errors in the quantitative models in question and disclosures regarding these matters. Aegon had discovered these errors in its asset management operations in the United States. The Company notified the SEC and cooperated fully with the investigation. Following the discovery of the errors, Aegon concluded a comprehensive and detailed review.

As a result of recent discussions, Aegon has taken a provision through Other charges in the fourth quarter of 2017 for a potential settlement. This amount is partly recorded in the Americas and partly in Asset Management (EUR 40 million). Aegon believes that the investigation will come to a conclusion in 2018.

Underlying earnings before tax

Underlying earnings before tax decreased by 9% in 2017 compared with 2016 to EUR 136 million. This decline was mainly driven by lower underlying earnings before tax in 2017 compared with 2016 from the United Kingdom due to lower management fees.

Americas underlying earnings before tax increased to EUR 59 million in 2017, compared with EUR 55 million in 2016, as lower expenses more than offset lower management fee income in 2017 compared with 2016.
Underlying earnings before tax from Europe in 2017 decreased by EUR 13 million to EUR 31 million compared with 2016, as higher management fee income in the Netherlands was more than offset by lower management fees in the United Kingdom and higher expenses in the Netherlands in 2018 compared with 2017.
Rest of World underlying earnings before tax in 2017 decreased by EUR 3 million compared with 2016 to a loss of EUR 7 million.

Underlying earnings before tax from Strategic partnerships decreased by EUR 1 million compared with 2016 to EUR 53 million in 2017. Aegon s Chinese asset management joint venture AIFMC had lower performance fee income in 2017 compared with 2016. This was partly offset by higher underlying earnings before tax from French joint venture La Banque Postale Asset Management in 2017 compared with 2016.

Commissions and expenses

Commissions and expenses declined in 2017 compared with 2016 to EUR 481 million. Operating expenses decreased by 2% in 2017 compared with 2016 to EUR 444 million. This decrease was mainly driven by lower expenses in the Americas and the United Kingdom as a result of continued strong expense control and favorable currency movements. These were partly offset by restructuring charges and higher one-time expenses in the Netherlands. The cost/income ratio in 2017 increased by 2 percentage points to 77% compared with 2016, as lower expenses were more than offset by lower revenues in 2017 compared with 2016. Annualized operating expenses as a percentage of average assets under management increased in 2017 compared with 2016 by 1 basis point to 14 basis points.

Production

Gross inflows in external third-party increased by 32% in 2017 to EUR 61.3 billion compared with 2016. This was mainly the result of higher gross flows in Strategic partnerships in 2017 compared with 2016, and higher gross flows in the US and the Netherlands.

Net external third-party inflows in 2017 increased compared with 2016 to EUR 6.9 billion, as higher net flows in Strategic partnerships and the Americas were partly offset by net outflows in the United Kingdom and lower net inflows in the Netherlands.

Assets under management

Assets under management decreased by EUR 14 billion in 2017 to EUR 318 billion compared with the start of 2017. Favorable market movements and net inflows in external third-party were more than offset by outflows in the general account, primarily resulting from the divestment of the majority of the run-off businesses in the US, outflows in affiliates, and unfavorable currency movements.

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Exchange rates

Exchange rates at December 31,

		2018			2017			2016		
		EUR	USD	GBP	EUR	USD	GBP	EUR	USD	GBP
1	EUR	-	1.1432	0.8976	-	1.2008	0.8877	-	1.0548	0.8536
1	USD	0.8747	-	0.7852	0.8328	-	0.7393	0.9480	-	0.8093
1	GBP	1.1141	1.2736	-	1.1265	1.3527	-	1.1715	1.2357	-

Weighted average exchange rates

		2018			2017			2016		
		EUR	USD	GBP	EUR	USD	GBP	EUR	USD	GBP
1	EUR	-	1.1816	0.8844	-	1.1291	0.8758	-	1.1069	0.8187
1	USD	0.8463	-	0.7485	0.8857	-	0.7757	0.9034	-	0.7396
1	GBP	1.1307	1.3360	-	1.1418	1.2892	-	1.2214	1.3520	-

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Consolidated income statement of Aegon N.V.

For the year ended December 31

Amounts in EUR million (except per share data)	Note	2018	2017	2016
Premium income	6	19,316	22,826	23,453
Investment income	7	7,035	7,338	7,788
Fee and commission income	8	2,558	2,802	2,408
Other revenues		5	7	7
Total revenues		**28,914**	**32,973**	**33,655**
Income from reinsurance ceded	9	3,740	4,288	3,687
Results from financial transactions	10	(11,701)	20,250	15,753
Other income	11	8	540	66
Total income		**20,961**	**58,052**	**53,162**
Premiums paid to reinsurers	6	2,663	3,431	3,176
Policyholder claims and benefits	12	10,557	45,599	41,974
Profit sharing and rebates	13	23	23	49
Commissions and expenses	14	6,224	5,925	6,351
Impairment charges/(reversals)	15	78	42	95
Interest charges and related fees	16	507	435	347
Other charges	17	375	235	700
Total charges		**20,427**	**55,689**	**52,693**
Income before share in profit/(loss) of joint ventures, associates and tax		**535**	**2,363**	**470**
Share in profit/(loss) of joint ventures		210	161	137
Share in profit/(loss) of associates		6	11	3
Income/(loss) before tax		**751**	**2,534**	**610**
Income tax (expense)/benefit	18	(40)	(65)	(172)
Net income/(loss)		**711**	**2,469**	**438**
Net income/(loss) attributable to:				
Owners of Aegon N.V.		710	2,469	437
Non-controlling interests		1	-	-
Earnings per share (EUR per share)	19			
Basic earnings per common share		0.29	1.14	0.15

Basic earnings per common share B	0.01	0.03	-
Diluted earnings per common share	0.29	1.14	0.15
Diluted earnings per common share B	0.01	0.03	-

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Consolidated statement of comprehensive income of Aegon N.V.

For the year ended December 31

Amounts in EUR million	2018	2017	2016
Net income/(loss)	**711**	**2,469**	**438**
Items that will not be reclassified to profit or loss:			
Changes in revaluation reserve real estate held for own use	(32)	8	8
Remeasurements of defined benefit plans	(134)	224	(392)
Income tax relating to items that will not be reclassified	(8)	(166)	86
Items that may be reclassified subsequently to profit or loss:			
Gains/(losses) on revaluation of available-for-sale investments	(2,138)	1,283	854
(Gains)/losses transferred to income statement on disposal and impairment of available-for- sale investments	66	(1,330)	(2,122)
Changes in cash flow hedging reserve	5	(853)	(54)
Movement in foreign currency translation and net foreign investment hedging reserves	602	(2,149)	69
Equity movements of joint ventures	9	(15)	9
Equity movements of associates	(1)	(5)	3
Disposal of group assets	36	7	-
Income tax relating to items that may be reclassified	493	951	225
Other	(2)	9	12
Total other comprehensive income/(loss)	**(1,104)**	**(2,038)**	**(1,301)**
Total comprehensive income/(loss)	**(393)**	**431**	**(863)**
Total comprehensive income/(loss) attributable to:			
Owners of Aegon N.V.	(395)	435	(878)
Non-controlling interests	2	(3)	15

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Consolidated statement of financial position of Aegon N.V.

As at December 31

Amounts in EUR million	Note	2018	2017
Assets			
Cash and cash equivalents	21	8,744	10,768
Assets held for sale	22	-	5,249
Investments	23	138,625	136,804
Investments for account of policyholders	24	194,353	194,063
Derivatives	25	7,615	5,912
Investments in joint ventures	26	1,745	1,712
Investments in associates	27	327	308
Reinsurance assets	28	20,507	19,202
Defined benefit assets	41	-	55
Deferred tax assets	43	125	79
Deferred expenses	29	10,910	10,135
Other assets and receivables	30	7,954	10,002
Intangible assets	31	1,727	1,633
Total assets		**392,633**	**395,923**
Equity and liabilities			
Shareholders equity	32	19,225	20,288
Other equity instruments	33	3,320	3,794
Issued capital and reserves attributable to owners of Aegon N.V.		**22,545**	**24,082**
Non-controlling interests		22	20
Group equity		**22,567**	**24,102**
Subordinated borrowings	34	1,389	764
Trust pass-through securities	35	133	133
Insurance contracts	36	115,294	110,818
Insurance contracts for account of policyholders	36	117,113	122,168
Investment contracts	37	18,048	16,943
Investment contracts for account of policyholders	37	80,097	74,434
Derivatives	25	7,230	7,130
Borrowings	39	12,061	13,635
Provisions	40	320	210
Defined benefit liabilities	41	3,989	4,005
Deferred gains	42	12	13
Deferred tax liabilities	43	538	1,029

Liabilities held for sale	**22**	-	5,003
Other liabilities	**44**	13,454	15,208
Accruals	**45**	388	329
Total liabilities		**370,065**	**371,821**
Total equity and liabilities		**392,633**	**395,923**

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Consolidated statement of changes in equity of Aegon N.V.

For the year ended December 31, 2018

Amounts in EUR million	Note	Share capital	Retained earnings	Revaluation reserves	Remeasurement of defined benefit plans	Other reserves	Other equity instruments	Issued capital and reserves	Non-controlling interests	Total
At January 1, 2018		8,053	9,374	4,920	(1,669)	(390)	3,794	24,082	20	**24,102**
Net income/(loss) recognized in the income statement		-	710	-	-	-	-	710	1	711
Other comprehensive income:										
Items that will not be reclassified to profit or loss:										
Changes in revaluation reserve real estate held for own use		-	-	(32)	-	-	-	(32)	-	(32)
Remeasurements of defined benefit plans		-	-	-	(134)	-	-	(134)	-	(134)
Income tax relating to items that will not be reclassified		-	-	7	(15)	-	-	(8)	-	(8)
Items that may be reclassified subsequently to profit or loss:										
Gains/(losses) on revaluation of available-for-sale investments		-	-	(2,138)	-	-	-	(2,138)	-	(2,138)

(Gains)/losses transferred to income statement on disposal and impairment of available-for-sale investments		-	-	66	-	-	-	66	-	66
Changes in cash flow hedging reserve		-	-	5	-	-	-	5	-	5
Movements in foreign currency translation and net foreign investment hedging reserves		-	-	119	(32)	515	-	602	-	602
Equity movements of joint ventures		-	-	-	-	9	-	9	-	9
Equity movements of associates		-	-	-	-	(1)	-	(1)	-	(1)
Disposal of group assets		-	-	-	-	36	-	36	-	36
Income tax relating to items that may be reclassified		-	-	513	-	(20)	-	493	-	493
Other		-	(3)	-	-	-	-	(3)	1	(2)
Total other comprehensive income/(loss)		**-**	**(3)**	**(1,459)**	**(182)**	**539**	**-**	**(1,105)**	**1**	**(1,104)**
Total comprehensive income/(loss) for 2018		**-**	**707**	**(1,459)**	**(182)**	**539**	**-**	**(395)**	**2**	**(393)**
Shares issued		-	-	-	-	-	-	-	-	-
Issuance and purchase of treasury shares		-	14	-	-	-	-	14	-	14
Issuance and redemption of other equity instruments		-	2	-	-	-	(471)	(468)	-	(468)
Dividends paid on common shares		(244)	(329)	-	-	-	-	(573)	-	(573)
Dividend withholding tax reduction		-	1	-	-	-	-	1	-	1
Coupons on perpetual securities		-	(102)	-	-	-	-	(102)	-	(102)
Coupons on non-cumulative subordinated notes		-	(11)	-	-	-	-	(11)	-	(11)
Incentive plans		-	-	-	-	-	(2)	(2)	-	(2)
At December 31, 2018	**32,33**	**7,808**	**9,657**	**3,461**	**(1,850)**	**149**	**3,320**	**22,545**	**22**	**22,567**

[1] Issued capital and reserves attributable to owners of Aegon N.V.

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Consolidated statement of changes in equity of Aegon N.V.

For the year ended December 31, 2017

Amounts in EUR million	Note	Share capital	Retained earnings	Revaluation reserves	Remeasurement of defined benefit plans	Other reserves	Other equity instruments	Issued capital and reserves	Non-controlling interests	Total
At January 1, 2017		8,193	7,419	5,381	(1,820)	1,347	3,797	24,318	23	24,341
Net income/(loss) recognized in the income statement		-	2,469	-	-	-	-	2,469	-	2,469
Other comprehensive income:										
Items that will not be reclassified to profit or loss:										
Changes in revaluation reserve real estate held for own use		-	-	8	-	-	-	8	-	8
Remeasurements of defined benefit plans		-	-	-	224	-	-	224	-	224
Income tax relating to items that will not be reclassified		-	-	9	(175)	-	-	(166)	-	(166)
Items that may be reclassified subsequently to profit or loss:										
Gains/(losses) on revaluation of		-	-	1,283	-	-	-	1,283	-	1,283

available-for-sale investments										
(Gains)/losses transferred to income statement on disposal and impairment of available-for-sale investments		-	-	(1,330)	-	-	-	(1,330)	-	(1,330)
Changes in cash flow hedging reserve		-	-	(853)	-	-	-	(853)	-	(853)
Movements in foreign currency translation and net foreign investment hedging reserves		-	-	(452)	102	(1,800)	-	(2,149)	-	(2,149)
Equity movements of joint ventures		-	-	-	-	(15)	-	(15)	-	(15)
Equity movements of associates		-	-	-	-	(5)	-	(5)	-	(5)
Disposal of group assets		-	-	-	-	7	-	7	-	7
Income tax relating to items that may be reclassified		-	-	874	-	76	-	951	-	951
Other		-	13	-	-	-	-	13	(3)	9
Total other comprehensive income/(loss)		**-**	**13**	**(461)**	**151**	**(1,737)**	**-**	**(2,034)**	**(3)**	**(2,038)**
Total comprehensive income/(loss) for 2017		**-**	**2,482**	**(461)**	**151**	**(1,737)**	**-**	**435**	**(3)**	**431**
Shares issued		3	-	-	-	-	-	3	-	3
Issuance and purchase of treasury shares		-	(105)	-	-	-	-	(105)	-	(105)
Dividends paid on common shares		(142)	(296)	-	-	-	-	(439)	-	(439)
Dividend withholding tax reduction		-	2	-	-	-	-	2	-	2
Coupons on perpetual securities		-	(103)	-	-	-	-	(103)	-	(103)
Coupons on non-cumulative subordinated notes		-	(28)	-	-	-	-	(28)	-	(28)
Incentive plans		-	4	-	-	-	(4)	(1)	-	(1)
At December 31, 2017	**32,33**	**8,053**	**9,374**	**4,920**	**(1,669)**	**(390)**	**3,794**	**24,082**	**20**	**24,102**

[1] Issued capital and reserves attributable to owners of Aegon N.V.

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Consolidated statement of changes in equity of Aegon N.V.

For the year ended December 31, 2016

Amounts in EUR million	Note	Share capital	Retained earnings	Revaluation reserves	Remeasurement of defined benefit plans	Other reserves	Other equity instruments	Issued capital and reserves	Non-controlling interests	Total
At January 1, 2016		8,387	7,832	6,471	(1,532)	1,283	3,800	26,241	9	26,250
Net income/(loss) recognized in the income statement		-	437	-	-	-	-	437	-	438
Other comprehensive income:										
Items that will not be reclassified to profit or loss:										
Changes in revaluation reserve real estate held for own use		-	-	8	-	-	-	8	-	8
Remeasurements of defined benefit plans		-	-	-	(392)	-	-	(392)	-	(392)
Income tax relating to items that will not be reclassified		-	-	(3)	89	-	-	86	-	86
Items that may be reclassified subsequently to profit or loss:										
Gains/(losses) on revaluation of		-	-	854	-	-	-	854	-	854

available-for-sale investments		-	-	(2,122)	-	-	-	(2,122)	-	(2,122)
(Gains)/losses transferred to income statement on disposal and impairment of available- for-sale investments		-	-	(54)	-	-	-	(54)	-	(54)
Changes in cash flow hedging reserve		-	-	(38)	16	91	-	69	-	69
Movements in foreign currency translation and net foreign investment hedging reserves		-	-	-	-	9	-	9	-	9
Equity movements of joint ventures		-	-	-	-	3	-	3	-	3
Equity movements of associates		-	-	264	-	(39)	-	225	-	225
Income tax relating to items that may be reclassified		-	(2)	-	-	-	-	(2)	14	12
Other		-	(2)	(1,090)	(288)	64	-	(1,315)	14	(1,301)
Total other comprehensive income/(loss)		**-**	**(2)**	**(1,090)**	**(288)**	**64**	**-**	**(1,315)**	**14**	**(1,301)**
Total comprehensive income/(loss) for 2016		**-**	**435**	**(1,090)**	**(288)**	**64**	**-**	**(878)**	**15**	**(863)**
Shares issued		1	-	-	-	-	-	1	-	1
Shares withdrawn		(10)	(372)	-	-	-	-	(382)	-	(382)
Issuance and purchase of treasury shares		-	(27)	-	-	-	-	(27)	-	(27)
Dividends paid on common shares		(186)	(304)	-	-	-	-	(490)	-	(490)
Dividend withholding tax reduction		-	(2)	-	-	-	-	(2)	-	(2)
Coupons on perpetual securities		-	(105)	-	-	-	-	(105)	-	(105)
Coupons on non-cumulative subordinated notes		-	(28)	-	-	-	-	(28)	-	(28)
Incentive plans		-	(9)	-	-	-	(3)	(12)	-	(12)
At December 31, 2016	**32, 33**	**8,193**	**7,419**	**5,381**	**(1,820)**	**1,347**	**3,797**	**24,318**	**23**	**24,341**

[1] Issued capital and reserves attributable to owners of Aegon N.V.

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Consolidated cash flow statement of Aegon N.V.

For the year ended December 31

Amounts in EUR million	Note	2018	2017	2016
Income/(loss) before tax		**751**	**2,534**	**610**
Results from financial transactions		11,516	(23,445)	(16,294)
Amortization and depreciation		1,315	781	1,208
Impairment losses		68	84	88
Income from joint ventures		(210)	(161)	(137)
Income from associates		(6)	(11)	(3)
Release of cash flow hedging reserve		(80)	(739)	(59)
Other		145	(620)	577
Adjustments of non-cash items		**12,749**	**(24,112)**	**(14,621)**
Insurance and investment liabilities		1,989	(613)	2,640
Insurance and investment liabilities for account of policyholders		(21,751)	12,988	10,716
Accrued expenses and other liabilities		(2,384)	309	2,610
Accrued income and prepayments		709	(1,797)	(2,812)
Changes in accruals		**(21,437)**	**10,887**	**13,153**
Purchase of investments (other than money market investments)		(31,279)	(32,057)	(34,873)
Purchase of derivatives		(1,525)	752	(831)
Disposal of investments (other than money market investments)		29,192	35,512	33,246
Disposal of derivatives		(597)	(878)	2,373
Net purchase of investments for account of policyholders		10,819	8,869	5,160
Net change in cash collateral		1,029	(455)	(1,347)
Net purchase of money market investments		823	(659)	532
Cash flow movements on operating items not reflected in income		**8,462**	**11,082**	**4,260**
Tax (paid)/received		(9)	173	(116)
Other		1	(12)	34
Net cash flows from operating activities	**21**	**517**	**553**	**3,319**
Purchase of individual intangible assets (other than VOBA and future servicing rights)		(42)	(34)	(22)
Purchase of equipment and real estate for own use		(81)	(72)	(69)
Acquisition of subsidiaries, net of cash		(89)	(52)	(2)
Acquisition joint ventures and associates		(146)	(121)	(112)
Disposal of intangible asset		2	1	-
Disposal of equipment		14	5	3
Disposal of subsidiaries and businesses, net of cash		(200)	(1,054)	(1,082)
Disposal joint ventures and associates		7	2	3

Dividend received from joint ventures and associates		97	129	203
Net cash flows from investing activities	**21**	**(438)**	**(1,196)**	**(1,078)**
Issuance of treasury shares		-	2	-
Purchase of treasury shares		(248)	(266)	(623)
Proceeds from TRUPS [1], Subordinated borrowings and borrowings		4,185	9,170	3,711
Repayment of TRUPS [1], Subordinated borrowings and borrowings		(5,211)	(7,918)	(3,070)
Repayment of perpetuals		(200)	-	-
Repayment of non-cumulative subordinated note		(443)	-	-
Dividends paid		(328)	(294)	(306)
Coupons on perpetual securities		(136)	(138)	(140)
Coupons on non-cumulative subordinated notes		(14)	(37)	(38)
Net cash flows from financing activities	**21**	**(2,395)**	**519**	**(465)**
Net increase/(decrease) in cash and cash equivalents [2]		**(2,317)**	**(125)**	**1,776**
Net cash and cash equivalents at the beginning of the year		11,026	11,347	9,593
Effects of changes in exchange rate		35	(196)	(23)
Net cash and cash equivalents at the end of the year	**21**	**8,744**	**11,026**	**11,346**

[1] Trust pass-through securities.

[2] Included in net increase/(decrease) in cash and cash equivalents are interest received (2018: EUR 5,914 million, 2017: EUR 6,215 million and 2016: EUR 6,691 million) dividends received (2018: EUR 1,222 million, 2017: EUR 1,292 million and 2016: EUR 1,387 million) and interest paid (2018: EUR 400 million, 2017: EUR 311 million and 2016: EUR 300 million). All included in operating activities except for dividend received from joint ventures and associates (2018: EUR 97 million, 2017: EUR 129 million and 2016: EUR 203 million).

The cash flow statement is prepared according to the indirect method.

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Notes to the consolidated financial statements

1 General information

Aegon N.V., incorporated and domiciled in the Netherlands, is a public limited liability company organized under Dutch law and recorded in the Commercial Register of The Hague registered under number 27076669 and with its registered address at Aegonplein 50, 2591 TV, The Hague, the Netherlands. Aegon N.V. serves as the holding company for The Aegon Group and has listings of its common shares in Amsterdam and New York.

Aegon N.V. (or the Company) and its subsidiaries (Aegon or the Group) have life insurance and pensions operations in more than 20 countries in the Americas, Europe and Asia and are also active in savings and asset management operations, accident and health insurance, general insurance and to a limited extent banking operations. Headquarters are located in The Hague, the Netherlands. The Group employs over 26,000 people worldwide (2017: over 28,000).

Aegon Funding Company LLC

Aegon Funding Company LLC (AFC) is an indirect wholly owned subsidiary of Aegon that was established as a financing vehicle to raise funds for the US subsidiaries of Aegon. AFC has been fully consolidated in the financial statements of Aegon under IFRS. If AFC issues debt securities, Aegon will fully and unconditionally guarantee the due and punctual payment of the principal, any premium and any interest on those debts securities when and as these payments become due and payable, wheather at maturity, upon redemption or declaration of acceleration, or otherwise. The guarantees of senior debt securities will constitute an unsecured, unsubordinated obligation of Aegon and will rank equally with all other unsecured and unsubordinated obligations of Aegon. The guarantees of subordinated debt securities will constitute an unsecured obligation of Aegon and will be subordinated in right of payment to all senior indebtedness of Aegon.

2 Significant accounting policies

2.1 Basis of presentation

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board (IFRS) and with Part 9 of Book 2 of the Netherlands Civil Code for purpose of reporting with the U.S. Securities and Exchange Commission (SEC), including financial information contained in this Annual Report on Form 20-F.

The consolidated financial statements have been prepared in accordance with the historical cost convention as modified by the revaluation of investment properties and those financial instruments (including derivatives) and financial liabilities that have been measured at fair value. Information on the standards and interpretations that were adopted in 2018 is provided below in note

2.1.1 Adoption of new IFRS accounting standards. The consolidated financial statements are presented in euro and all values are rounded to the nearest million unless otherwise stated. The consequence is that the rounded amounts may not add up to the rounded total in all cases. All ratios and variances are calculated using the underlying amount rather

than the rounded amount.

The preparation of financial statements in conformity with IFRS requires management to make estimates and assumptions affecting the reported amounts of assets and liabilities as of the date of the financial statements and the reported amounts of revenues and expenses for the reporting period. Those estimates are inherently subject to change and actual results could differ from those estimates. Included among the material (or potentially material) reported amounts and disclosures that require extensive use of estimates are: fair value of certain invested assets and derivatives, deferred policy acquisition costs, value of business acquired and other purchased intangible assets, goodwill, policyholder claims and benefits, insurance guarantees, pension plans, income taxes and the potential effects of resolving litigation matters.

The consolidated financial statements of Aegon N.V. were approved by the Executive Board and by the Supervisory Board on March 21, 2019. The financial statements will be put for adoption to the Annual General Meeting of Shareholders on May 17, 2019. The shareholders meeting can decide not to adopt the financial statements but cannot amend them.

Other than for SEC reporting, Aegon prepares its Annual Accounts under International Financial Reporting Standards as adopted by the European Union, including the decisions Aegon made with regard to the options available under International Financial Reporting Standards as adopted by the EU (IFRS-EU). IFRS-EU differs from IFRS in respect of certain paragraphs in IAS 39 Financial Instruments: Recognition and Measurement regarding hedge accounting for portfolio hedges of interest rate risk (faitr value macro hedges) in accordance with the EU carve out version of IAS 39. Under IFRS, hedge accounting for fair value macro hedges cannot be applied to mortage loans and ineffectiveness arises whenever the revised estimate of the amount of cash flows in scheduled time buckets is either more or less than the original designated amount of that bucket.

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A reconciliation between IFRS and IFRS-EU is included in the table below.

	Shareholders equity			Net income		
	2018	2017	2016	**2018**	2017	2016
In accordance with IFRS	19,225	20,288	20,520	711	2,469	438
Adjustment of EU IAS 39 carve-out	399	368	510	31	(142)	195
Tax effect of the adjustment	(81)	(83)	(117)	3	34	(47)
Effect of the adjustment after tax	318	285	393	34	(108)	149
In accordance with IFRS-EU	**19,543**	**20,573**	**20,913**	**744**	**2,361**	**586**

2.1.1 Adoption of new IFRS accounting standards

New standards and amendments to standards become effective at the date specified by IFRS, but may allow companies to opt for an earlier adoption date. In 2017, the following amendments to existing standards issued by the IASB became mandatory, but are not currently relevant or do not significantly impact the financial position or financial statements:

Accounting standard/amendment/interpretation	IASB effective date	Impact for Aegon
IFRS 9 Financial instruments, including the separate amendment applying IFRS 9 Financial instruments with IFRS 4 Insurance contracts	January 1, 2018 (Aegon makes use of the amendment)	See 2.1.2 for comments
IFRS 15 Revenue from Contracts with Customers, including Clarifications to IFRS 15 as issued in 2016	January 1, 2018	See below for comments
IFRS 2 Clarifications of Classification and measurement of Share Based Payments Transactions	January 1, 2018	Low
IAS 40 Investment property, amendments regarding the transfer of property	January 1, 2018	Low
IFRIC 22 Foreign currency transactions and advance consideration	January 1, 2018	Low
Annual improvements 2014-2016	January 1, 2018	Low

IFRS 15 Revenue from Contracts with Customers

IFRS 15 Revenue from Contracts with Customers issued in May 2014 and the amendments to IFRS 15 issued in April 2016 are effective for the Group from January 1, 2018. The adoption of this standard has a very limited impact on the Group s financial statements because insurance revenue is not in scope of IFRS 15 and because the other types of revenue are already materially compliant with this standard. Given the very limited impact on the Group s financial statements, Aegon chose to apply the modified retrospective approach as transition method.

2.1.2 Future adoption of new IFRS accounting standards

The following standards and amendments to existing standards, published prior to January 1, 2019, were not early adopted by the Group, but will be applied in future years:

Accounting standard/amendment/interpretation	IASB effective date	Early adopted by Aegon	Impact for Aegon
Amendment to IFRS 9 Financial instruments on prepayment features with negative compensation	January 1, 2019	No	See below for comments
IFRS 16 Leases	January 1, 2019	No	See below for comments
IFRS 17 Insurance contract	January 1, 2021	No	See below for comments
IFRIC 23 Uncertainty over Tax Treatments	January 1, 2019	No	Low
Amendments to IAS 28 Long-term Interests in Associates and Joint Ventures	January 1, 2019	No	Low
Annual improvements 2015-2017	January 1, 2019	No	Low
Amendment to IAS 19 Plan amendment, curtailment or settlement	January 1, 2019	No	Low
Amendments to References to the Conceptual Framework in IFRS Standards	January 1, 2020	No	Low
Amendment to IFRS 3 Business Combinations	January 1, 2020	No	Low
Amendments to IAS 1 and IAS 8: Definition of Material	January 1, 2020	No	Low

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IFRS 16 Leases

IFRS 16 Leases, which replaces IAS 17 Leases has been issued by the IASB in January 2016. It will be mandatorily effective for annual reporting periods beginning on or after January 1, 2019. IFRS 16 introduces a single lessee accounting model and requires a lessee to recognize assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value. A lessee is required to recognize a right-of-use asset representing its right to use the underlying leased asset and a lease liability representing its obligation to make lease payments, which will replace the current Operating lease obligations disclosed under note 48 Commitments and Contingencies. Lease costs will be recognised in the form of depreciation of the right-of-use asset and interest on the lease liability, as oppose to the treatment under IAS 17 where expenses are recognised when occurred in Administration expenses . From a lessor perspective, IFRS 16 substantially carries forward the lessor accounting requirements in IAS 17, only with additional disclosure requirements. Accordingly, a lessor continues to classify its leases as operating leases or finance leases, and to account for those two types of leases differently. Aegon has assessed the impacts of IFRS 16 during 2018, and has completed the implementation of the standard.

In order to implement the standard, the Group has adopted a number of key options and practical expedients allowed under IFRS 16 of which the following are the most significant:

- The Group will apply the modified retrospective approach and therefore will not restate the comparative amounts for the year prior to initial application. Under this approach, on a lease-by-lease basis, the following two options are available: (i) right-of-use assets (mainly high value properties) measured on transition as if the new rules had always been applied, but discounted using the lessee s incremental borrowing rate at the date of initial application; or (ii) right-of-use assets measured at the amount of the lease liability on adoption (adjusted for any prepaid or accrued lease expenses). The group will apply these two available options on a lease-by-lease basis;
- The Group has applied the exemption not to recognize right-of-use assets and liabilities for liabilities with less than 12 months of lease term;
- The Group has elected to apply the grandfather option, which means that all conclusions previously reached under IAS 17 (and IFRIC 4 Determining Whether an Arrangement Contains a Lease) are deemed compliant with IFRS 16;
- The Group has elected to use hindsight in areas that involve judgment or estimation, such as in determining the lease term if the contract contains options to extend or terminate the lease.

At transition, the Group expects to recognise right-of-use assets of approximately EUR 248 million and lease liabilities of EUR 299 million (adjusted for any prepaid or accrued lease expenses) on January 1, 2019. The adverse impact on shareholders equity is expected to be approximately EUR 51 million pre-tax and is recognized as an adjustment to the 2019 opening balance of retained earnings. The right-of-use assets mainly consist of approximately EUR 216 million properties and of approximately EUR 32 million equipment. The Group does not expect material movements in net income going forward.

The most significant judgment for the Group is related to the determination of the lease term. Under IFRS 16, the lease term includes extension periods where it is reasonably certain that a lease extension option will be exercised or that a lease termination option will not be exercised. Judgement is also required to determine the appropriate incremental borrowing rate.

IFRS 9 Financial Instruments

The IASB issued the complete version of IFRS 9 Financial Instruments in July 2014. IFRS 9 combines classification and measurement, the expected credit loss impairment model and hedge accounting. The standard replaces IAS 39 and all previous versions of IFRS

9. Under IFRS 9 Classification and Measurement, financial assets are measured at amortized cost, fair value through profit or loss or fair value through other comprehensive income, based on both the entity s business model for managing the financial assets and the financial asset s contractual cash flow characteristics. The classification and measurement of financial liabilities is unchanged from existing requirements apart from own credit risk. For financial liabilities that are designated at fair value through profit or loss, the changes which are attributable to the change in an entity s own credit risk are presented in other comprehensive income, unless doing so would enlarge or create an accounting mismatch. For the impairment component, the IASB included requirements for a credit loss allowance or provision which should be based on expected losses rather than incurred losses.

Application of IFRS 9 is required for annual periods beginning on or after January 1, 2018. However, on May 18, 2017, the IASB published the final version of the IFRS 17 Insurance Contracts standard. Prior to its finalization, the IASB issued an amendment to IFRS 4 Insurance Contracts (the predecessor standard to IFRS 17) that provides for a qualifying insurer a temporary exemption that permits, but does not require, the insurer to apply IAS 39 Financial Instruments: Recognition and Measurement rather than IFRS 9 for annual periods beginning before January 1, 2021 (i.e., a temporary exemption of IFRS 9). The objective of the amendment is to address the temporary accounting consequences of the different effective dates of IFRS 9 and IFRS 17. However, in November 2018, the IASB agreed to start the process to amend IFRS 17, which could lead to the temporary exemption from IFRS 9 to be extended until January 1, 2022.

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An entity is eligible to apply the temporary exemption if the carrying amount of its liabilities connected with insurance activities is

- greater than 90% of the total carrying value of all liabilities; or
- between 80% and 90% of the total carrying value of all its liabilities, and the insurer does not have significant activities unrelated to insurance.

Aegon performed this analysis at December 31, 2015, and concluded that it meets the requirements for the temporary exception as 94% of its liabilities are connected with insurance activities. As a result, Aegon elected to defer implementation of IFRS 9 until January 1, 2021.

As Aegon defers the application of IFRS 9 until 2021, the full impact of the standard is not yet clear, however an initial impact assessment resulted in the expectation that it will have a significant impact on shareholders equity, income and/or other comprehensive income and disclosures. An implementation project has started in 2017 and is combined with the implementation of IFRS17 Insurance Contracts.

By qualifying for and electing the temporary exemption, the IFRS 4 amendment requires certain additional disclosures; specifically, Aegon is required to disclose information to enable users of financial statements to compare insurers applying the temporary exemption with entities applying IFRS 9. This information is presented below:

Fair value changes

The table below presents an overview of the fair value of the classes of financial assets as of December 31, 2018, as well as the change in fair value during the reporting period. The asset classes are divided into two categories:

- SPPI: assets of which cash flows represent solely payments of principal and interest on an outstanding principal amount, excluding any financial assets that meet the definition of held for trading in IFRS 9, or that are managed and whose performance is evaluated on a fair value basis; and
- Other: all financial assets other than those specified in SPPI:
  - with contractual terms that do not give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding;
  - that meet the definition of held for trading in IFRS 9; or
  - that are managed and whose performance are evaluated on a fair value basis.

Financial assets at fair value		Fair value at the end of the reporting period	Change in fair value during the reporting period
Shares	SPPI	68	(2)
	Other	2,092	87
Debt securities	SPPI	76,283	(2,997)
	Other	4,970	(123)
Money Markets and other short-term investments	SPPI	3,126	-

	Other	3,181	-
Mortgage loans	SPPI	39,758	(1,213)
	Other	-	
Private loans	SPPI	4,452	(63)
	Other	42	(5)
Deposits with financial institutions	SPPI	141	-
	Other	-	-
Policy loans	SPPI	-	
	Other	1,973	-
Other financial assets	SPPI	111	-
	Other	3,637	(210)
At December 31		**139,834**	**(4,525)**

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Cash and cash equivalents, deposits with financial institutions, and receivables all pass the SPPI test and are held at amortized cost, whereby the amortized cost is assumed to approximate fair value due to the short-term nature of the assets. For movement schedules of these financial assets, refer to respective notes.

The fair value at the end of the reporting period in the table reconciles back to the respective table in the fair value note.

Credit Risk

The table below details the credit risk rating grades, as of December 31, 2018, for financial assets with cash flows that are SPPI, excluding any financial assets that meet the definition of held for trading in IFRS 9, or that are managed and whose performance is evaluated on a fair value basis. The tables show the carrying value of those financial assets applying IAS 39 (in the case of financial assets measured at amortized cost, before adjusting for any impairment allowances).

SPPI compliant financial assets at carrying value	AAA	AA	A	BBB	BB	B	CCC or lower	Not Rated	**Total**
Shares Carried at fair value	-	-	-	42	9	17	-	-	68
Debt securities Carried at fair value	25,637	9,224	17,057	20,330	1,480	1,159	1,395	-	76,283
Money market and other short-term investments-carried at fair value	55	158	2,561	351	-	-	-	-	3,126
Mortgage loans Carried at amortized cost	941	3,204	3,567	266	15	-	-	28,647	36,639
Private loans Carried at amortized cost	1,611	83	261	924	52	-	-	1,136	4,068
Other financial assets Carried at fair value	-	-	64	12	44	61	1	70	252
At December 31	**28,244**	**12,670**	**23,510**	**21,925**	**1,601**	**1,237**	**1,396**	**29,853**	**120,436**

As no external ratings are available for residential mortgage loans, the residential portfolio is included under Not rated .

For assets that do not have low credit risk (rated BB or below) and of which cash flows represent SPPI, excluding any financial assets that meet the definition of held for trading in IFRS 9, or that are managed and whose performance is evaluated on a fair value basis, the table below provides the credit risk exposure from the financial assets held by Aegon[1]. The financial assets are categorized by asset class with a carrying amount and fair value measured in accordance with IAS 39 measurement requirements.

SPPI compliant financial assets with no low credit risk	Carrying amount	Fair value
Shares Carried at fair value	26	26
Debt securities Carried at fair value	4,035	4,035
Money market and other short-term investments Carried at fair value	-	-
Mortgage loans Carried at amortized cost	28,661	31,711
Private loans Carried at amortized cost	1,189	1,225
Deposits with financial institutions Carried at amortized cost	70	70
Other financial assets Carried at fair value	106	106
At December 31	**34,087**	**37,173**

Investments in joint ventures and associates

All Aegon s equity accounted investments remain to apply IAS 39. Except AMVEST Vastgoed B.V. (AMVEST), Aegon does not hold any other individually material joint-venture nor associate. As most of AMVEST financial assets are measured at fair value through profit or loss, there is no material difference between the financial statements of AMVEST under IFRS 9 and IAS 39. As the remaining joint ventures and associates are not material on a consolidated level, the additional information required by IFRS 4 for electing the temporary exemption are not disclosed for these entities.

Subsidiaries and joint ventures applying IFRS 9 in their statutory accounts

Information on the adoption of IFRS 9 by principal subsidiaries and joint ventures that for statutory purposes cannot elect to defer the effective date of IFRS 9 can be found in the publicly available statutory annual reports on www.aegon.nl and or Chamber of Commerce.

This information is not part of the audited consolidated financial statements of Aegon N.V.. The related entities are:

Aegon Bank N.V.
Aegon Hypotheken B.V.
Aegon Asset Management Holding B.V.
Amvest Vastgoed B.V.

[1] Mortgage loans with no low credit risk are defined as being more than 90 days past due, in line with regulatory guidelines.

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153 Notes to the consolidated financial statements **Note 2**

IFRS 17 Insurance Contracts

The IASB issued IFRS 17 Insurance Contracts in May 2017. The Standard will replace IFRS 4, which was intended as an interim solution and allowed insurers to continue to use accounting principles that they had applied prior to the initial adoption of IFRS. IFRS 17 establishes principles for the recognition, measurement, presentation and disclosure of insurance contracts issued, reinsurance contracts held and investment contracts with discretionary participating features issued. The objective of the Standard is to ensure that entities provide relevant information in a way that faithfully represents those contracts. This information should provide users of financial statements with a basis to assess the effects that the contracts have on the financial position, financial performance and cash flows of the insurer. The Standard also specifies presentation and disclosure requirements to enhance comparability between insurance companies.

In November 2018, the IASB agreed to start the process to amend IFRS 17 to defer the mandatory effective date of IFRS 17 by one year (original effective date was January 1, 2021). Subject to IASB due process, entities will be required to apply IFRS 17 for annual periods beginning on or after January 1, 2022. The IASB noted that given the considerations to propose amendments to IFRS 17 in June/July 2019, and in light of the criteria for assessing them, any such potential amendments could take a year to finalize. As a consequence of the IFRS 17 deferral, the IASB also agreed to revise the fixed expiry date of the temporary exemption from IFRS 9 in IFRS 4 to allow entities to continue applying the temporary exemption from IFRS 9 until January 1, 2022. The Standard represents a fundamental change to current financial reporting and the implementation effort is expected to be significant. Early adoption of the standard is therefore not expected. An implementation project was started soon after the publication of the new Standard. Currently no choices have been made as to the accounting policy options provided in IFRS 17, however, it is expected that the impact of the initial application on Aegon s financial statements is significant.

2.2 Basis of consolidation

Subsidiaries

The consolidated financial statements include the financial statements of Aegon N.V. and its subsidiaries. Subsidiaries (including consolidated structured entities) are entities over which Aegon has control. Aegon controls an entity when Aegon is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The assessment of control is based on the substance of the relationship between the Group and the entity and, among other things, considers existing and potential voting rights that are substantive. For a right to be substantive, the holder must have the practical ability to exercise that right.

The subsidiary s assets, liabilities and contingent liabilities are measured at fair value on the acquisition date and are subsequently accounted for in accordance with the Group s accounting policies, which is consistent with IFRS. Intra-group transactions, including Aegon N.V. shares held by subsidiaries, which are recognized as treasury shares in equity, are eliminated. Intra-group losses may indicate an impairment that requires recognition in the consolidated financial statements. Non-controlling interests are initially stated at their share in the fair value of the net assets on the acquisition date and subsequently adjusted for the non-controlling share in changes in the subsidiary s equity.

The excess of the consideration paid to acquire the interest and the fair value of any interest already owned, over the Group s share in the net fair value of assets, liabilities and contingent liabilities acquired is recognized as goodwill. Negative goodwill is recognized directly in the income statement. If the fair value of the assets, liabilities and contingent liabilities acquired in the business combination has been determined provisionally, adjustments to these values resulting from the emergence of new evidence within 12 months after the acquisition date are made against goodwill. Aegon recognized contingent considerations either as provision or as financial liability depending on the characteristics. Contingent considerations recognized as provisions are discounted and the unwinding is recognized in the income statement as an interest expense. Any changes in the estimated value of contingent consideration given in a business combination are recognized in the income statement. Contingent considerations recognized as financial liabilities are measured at fair value through profit or loss.

The identifiable assets, liabilities and contingent liabilities are stated at fair value when control is obtained.

Subsidiaries are deconsolidated when control ceases to exist. Any difference between the net proceeds plus the fair value of any retained interest and the carrying amount of the subsidiary including non-controlling interests is recognized in the income statement.

Transactions with non-controlling interests

Transactions with non-controlling interests are accounted for as transactions with owners. Therefore disposals to non-controlling interests and acquisitions from non-controlling interests, not resulting in losing or gaining control of the subsidiary are recorded

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in equity. Any difference between consideration paid or received and the proportionate share in net assets is accounted for in equity attributable to shareholders of Aegon N.V.

Investment funds

Investment funds managed by the Group in which the Group holds an interest are consolidated in the financial statements if the Group has power over that investment fund and it is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. In assessing control, all interests held by the Group in the fund are considered, regardless of whether the financial risk related to the investment is borne by the Group or by the policyholders (unless a direct link between the policyholder and the fund can be assumed).

In determining whether Aegon has power over an investment fund all facts and circumstances are considered, including the following:

- Control structure of the asset manager (i.e. whether an Aegon subsidiary);
- The investment constraints posed by investment mandate;
- Legal rights held by the policyholder to the separate assets in the investment vehicle (e.g. policyholders could have the voting rights related to these investments);
- The governance structure, such as an independent board of directors, representing the policyholders, which has substantive rights (e.g. to elect or remove the asset manager); and
- Rights held by other parties (e.g. voting rights of policyholders that are substantive or not).

Exposure or rights to variability of returns can be the result of, for example:

- General account investment of Aegon;
- Aegon s investments held for policyholder;
- Guarantees provided by Aegon on return of policyholders in specific investment vehicles;
- Fees dependent on fund value (including, but not limited to, asset management fees); and
- Fees dependent on performance of the fund (including, but not limited to, performance fees).

Investment funds where Aegon acts as an agent are not consolidated due to lack of control of the funds. In particular, for some separate accounts, the independent board of directors has substantive rights and therefore Aegon does not have power over these separate accounts but acts as an agent.

For limited partnerships, the assessment takes into account Aegon s legal position (i.e. limited partner or general partner) and any substantive removal rights held by other parties. Professional judgment is applied concerning the substantiveness of the removal rights and the magnitude of the exposure to variable returns, leading to the conclusion that Aegon controls some, but not all, of the limited partnerships in which it participates.

Upon consolidation of an investment fund, a liability is recognized to the extent that the Group is legally obliged to buy back participations held by third parties. The liability is presented in the consolidated financial statements as investment contracts for account of policyholders. Where no repurchase obligation exists, the participations held by third parties are presented as non-controlling interests in equity. The assets allocated to participations held by third parties or by the Group on behalf of policyholders are presented in the consolidated financial statements as

investments for account of policyholders.

Equity instruments issued by the Group that are held by investment funds are eliminated on consolidation. However, the elimination is reflected in equity and not in the measurement of the related financial liabilities towards policyholders or other third parties.

Structured entities

A structured entity is defined in IFRS 12 as An entity that has been designed so that voting rights are not the dominant factor in deciding who controls the entity, such as when any voting rights relate to administrative tasks only and the relevant activities are directed by means of contractual arrangements. In these instances the tests and indicators to assess control provided by IFRS 10 have more focus on the purpose and design of the investee (with relation to the relevant activities that most significantly affect the structured entity) and the exposure to variable returns, which for structured entities lies in interests through e.g. derivatives, and will not be focused on entities that are controlled by voting rights.

Structured entities that are consolidated include certain mortgage backed securitization deals, where Aegon was involved in the design of the structured entities and also has the ability to use its power to affect the amount of the investee s returns. Other factors that contribute to the conclusion that consolidation of these entities is required includes consideration of whether Aegon fully services

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the investees and can therefore influence the defaults of the mortgage portfolios and the fact that in these cases the majority of risks are maintained by Aegon.

Structured entities that are not consolidated include general account investments in non-affiliated structured entities that are used for investment purposes.

Non-current assets held for sale and disposal groups

Disposal groups are classified as held for sale if they are available for immediate sale in their present condition, subject only to the customary sales terms of such assets and disposal groups and their sale is considered highly probable. Management must be committed to the sale, which is expected to occur within one year from the date of classification as held for sale.

Upon classification as held for sale, the carrying amount of the disposal group (or group of assets) is compared to their fair value less cost to sell. If the fair value less cost to sell is lower than the carrying value, this expected loss is recognized through a reduction of the carrying value of any goodwill related to the disposal group or the carrying value of certain other non-current, non-financial assets to the extent that the carrying value of those assets exceeds their fair value. Any excess of the expected loss over the reduction of the carrying amount of these relevant assets is not recognized upon classification as held for sale, but is recognized as part of the result on disposal if and when a divestment transaction occurs.

Classification into or out of held for sale does not result in restating comparative amounts in the statement of financial position.

2.3 Foreign exchange translation

a. Translation of foreign currency transactions

The Group s consolidated financial statements are presented in euros. Items included in the financial statements of individual group companies are recorded in their respective functional currency which is the currency of the primary economic environment in which each entity operates. Transactions in foreign currencies are initially recorded at the exchange rate prevailing at the date of the transaction.

At the reporting date, monetary assets and monetary liabilities in foreign currencies are translated to the functional currency at the closing rate of exchange prevailing on that date, except for own equity instruments in foreign currencies which are translated using historical exchange rates. Non-monetary items carried at cost are translated using the exchange rate at the date of the transaction, while assets carried at fair value are translated at the exchange rate when the fair value was determined.

Exchange differences on monetary items are recognized in the income statement when they arise, except when they are deferred in other comprehensive income as a result of a qualifying cash flow or net investment hedge. Exchange differences on non-monetary items carried at fair value are recognized in other comprehensive income or the income statement, consistently with other gains and losses on these items.

b. Translation of foreign currency operations

On consolidation, the financial statements of group entities with a foreign functional currency are translated to euro, the currency in which the consolidated financial statements are presented. Assets and liabilities are translated at the closing rates on the reporting date. Income, expenses and capital transactions (such as dividends) are translated at average exchange rates or at the prevailing rates on the transaction date, if more appropriate. Goodwill and fair value adjustments arising on the acquisition of a foreign entity are translated at the closing rates on the reporting date.

The resulting exchange differences are recognized in the foreign currency translation reserve , which is part of shareholders equity. On disposal of a foreign entity the related cumulative exchange differences included in the reserve are recognized in the income statement.

2.4 Segment reporting

Reporting segments and segment measures are explained and disclosed in note 5 Segment information.

2.5 Offsetting of assets and liabilities

Financial assets and liabilities are offset in the statement of financial position when the Group has a legally enforceable right to offset and has the intention to settle the asset and liability on a net basis or simultaneously. The legally enforceable right must not be contingent on future events and must be enforceable in the normal course of business and in the event of default, insolvency or bankruptcy of the Company or the counterpart.

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2.6 Intangible assets

a. Goodwill

Goodwill is recognized as an intangible asset for interests in subsidiaries and is measured as the positive difference between the acquisition cost and the Group s interest in the net fair value of the entity s identifiable assets, liabilities and contingent liabilities. Subsequently, goodwill is carried at cost less accumulated impairment charges. It is derecognized when the interest in the subsidiary is disposed.

b. Value of business acquired

When a portfolio of insurance contracts is acquired, whether directly from another insurance company or as part of a business combination, the difference between the fair value and the carrying amount of the insurance liabilities is recognized as value of business acquired (VOBA). The Group also recognizes VOBA when it acquires a portfolio of investment contracts with discretionary participation features.

VOBA is amortized over the useful life of the acquired contracts, based on either the expected future premiums, revenues or the expected gross profit margins. The amortization period and pattern are reviewed at each reporting date; any change in estimates is recorded in the income statement. For all products, VOBA, in conjunction with deferred policy acquisition costs (DPAC) where appropriate, is assessed for recoverability using aggregation levels on a geographical jurisdiction basis or at the level of portfolio of contracts that are subject to broadly similar risks and managed together as a single portfolio. The portion determined not to be recoverable is charged to the income statement. VOBA is considered in the liability adequacy test for each reporting period, for more details refer to 2.19.f Liability adequacy testing.

When unrealized gains or losses arise on available-for-sale assets backing the insurance liabilities, VOBA is adjusted to equal the effect that the realization of the gains or losses (through a sale or impairment) would have had on VOBA. The adjustment is recognized in OCI and accumulated in the related revaluation reserve in shareholders equity. VOBA is derecognized when the related contracts are settled or disposed.

c. Future servicing rights

On the acquisition of a portfolio of investment contracts without discretionary participation features under which Aegon will render investment management services, the present value of future servicing rights is recognized as an intangible asset. Future servicing rights can also be recognized on the sale of a loan portfolio or the acquisition of insurance agency activities.

The present value of the future servicing rights is amortized over the servicing period and is subject to impairment testing. It is derecognized when the related contracts are settled or disposed.

Where applicable, Aegon recognizes other intangibles on the acquisition of a business combination such as those related to customer relationships. This can include customer contracts, distribution agreements and client portfolios. For these intangibles the present value of future cash flows are recognized and amortized in the period when future

economic benefits arise from these intangibles. These intangible assets are also presented under future servicing rights.

d. Software and other intangible assets

Software and other intangible assets are recognized to the extent that the assets can be identified, are controlled by the Group, are expected to provide future economic benefits and can be measured reliably. The Group does not recognize internally generated intangible assets arising from research or internally generated goodwill, brands, customer lists and similar items.

Software and other intangible assets are carried at cost less accumulated depreciation and impairment losses. Depreciation of the asset is over its useful life as the future economic benefits emerge and is recognized in the income statement as an expense. The depreciation period and pattern are reviewed at each reporting date, with any changes recognized in the income statement.

An intangible asset is derecognized when it is disposed of or when no future economic benefits are expected from its use or disposal.

2.7 Investments

General account investments comprise financial assets, excluding derivatives, as well as investments in real estate.

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a. Financial assets, excluding derivatives

Financial assets are recognized at trade date (except for Private placements that are recognized at settlement date) when the Group becomes a party to the contractual provisions of the instruments. All financial assets are classified for accounting purposes depending on the characteristics of the instruments and the purpose for which they were purchased.

Classification

The following financial assets are measured at fair value through profit or loss: financial assets held for trading, financial assets managed on a fair value basis in accordance with the Group s investment strategy and financial assets containing an embedded derivative that is not closely related and that cannot be reliably bifurcated. In addition, in certain instances the Group designates financial assets to this category when by doing so a potential accounting mismatch in the financial statements is eliminated or significantly reduced.

Financial assets with fixed or determinable payments, that are not quoted in an active market and that the Group does not intend to sell in the near future are classified as loans. Those for which the holder may not recover substantially all of its initial investment, other than because of credit deterioration, are accounted for as available-for-sale.

All remaining non-derivative financial assets are classified as available-for-sale.

Measurement

Financial assets are initially recognized at fair value excluding interest accrued to date plus, in the case of a financial asset not at fair value through profit or loss, any directly attributable incremental transaction costs.

Loans and financial assets held-to-maturity are subsequently carried at amortized cost using the effective interest rate method. Financial assets at fair value through profit or loss are measured at fair value with all changes in fair value recognized in the income statement as incurred. Available-for-sale assets are recorded at fair value with unrealized changes in fair value recognized in other comprehensive income. Financial assets that are designated as hedged items are measured in accordance with the requirements for hedge accounting.

Amortized cost

The amortized cost of a debt instrument is the amount at which it is measured at initial recognition minus principal repayments, plus or minus the cumulative amortization of any difference between the initial amount and the maturity amount, and minus any reduction for impairment. The effective interest rate method is a method of calculating the amortized cost and of allocating the interest income or expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the debt instrument or, when appropriate, a shorter period to the net carrying amount of the instrument. When calculating the effective interest rate, all contractual terms are considered. Possible future credit losses are not taken into account. Charges and interest paid or received between parties to the contract that are an integral part of the effective interest rate, transaction costs and all other premiums or discounts are included in the calculation.

Fair value

The consolidated financial statements provide information on the fair value of all financial assets, including those carried at amortized cost where the values are provided in the notes to the financial statements.

Fair value is defined as the amount that would be received from the sale of an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date under current market conditions (i.e. an exit price at the measurement date from the perspective of a market participant that holds the asset or owes the liability). For quoted financial assets for which there is an active market, the fair value is the bid price at the reporting date. In the absence of an active market, fair value is estimated by using present value based or other valuation techniques. Where discounting techniques are applied, the discount rate is based on current market rates applicable to financial instruments with similar characteristics. The valuation techniques that include unobservable inputs can result in a different outcome than the actual transaction price at which the asset was acquired. Such differences are not recognized in the income statement immediately but are deferred. They are released over time to the income statement in line with the change in factors (including time) that market participants would consider in setting a price for the asset. Interest accrued to date is not included in the fair value of the financial asset.

Derecognition

A financial asset is derecognized when the contractual rights to the asset s cash flows expire or when the Group retains the right to receive cash flows from the asset but has an obligation to pay any received cash flows in full without delay to a third party and

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either: has transferred the asset and substantially all the risks and rewards of ownership, or has neither transferred nor retained all the risks and rewards but has transferred control of the asset. Financial assets of which the Group has neither transferred nor retained significantly all the risk and rewards are recognized to the extent of the Group s continuing involvement. If significantly all risks are retained, the assets are not derecognized.

On derecognition, the difference between the disposal proceeds and the carrying amount is recognized in the income statement as a realized gain or loss. Any cumulative unrealized gain or loss previously recognized in the revaluation reserve in shareholders equity is also recognized in the income statement.

Security lending and repurchase agreements

Financial assets that are lent to a third party or that are transferred subject to a repurchase agreement at a fixed price are not derecognized as the Group retains substantially all the risks and rewards of the asset. A liability is recognized for cash (collateral) received, on which interest is accrued.

A security that has been received under a borrowing or reverse repurchase agreement is not recognized as an asset. A receivable is recognized for any related cash (collateral) paid by Aegon. The difference between sale and repurchase price is treated as investment income. If the Group subsequently sells that security, a liability to repurchase the asset is recognized and initially measured at fair value.

Collateral

With the exception of cash collateral, assets received as collateral are not separately recognized as an asset until the financial asset they secure defaults. When cash collateral is recognized, a liability is recorded for the same amount.

b. Real estate

Investments in real estate include property held to earn rentals or for capital appreciation, or both. Investments in real estate are presented as Investments . Property that is occupied by the Group and that is not intended to be sold in the near future is classified as real estate held for own use and is presented in Other assets and receivables .

All property is initially recognized at cost. Such cost includes the cost of replacing part of the real estate and borrowing cost for long-term construction projects if recognition criteria are met. Subsequently, investments in real estate are measured at fair value with the changes in fair value recognized in the income statement. Real estate held for own use is carried at its revalued amount, which is the fair value at the date of revaluation less subsequent accumulated depreciation and impairment losses. Depreciation is calculated on a straight line basis over the useful life of a building. Land is not depreciated. On revaluation the accumulated depreciation is eliminated against the gross carrying amount of the asset and the net amount is restated to the revalued amount.

On disposal of an asset, the difference between the net proceeds received and the carrying amount is recognized in the income statement. Any remaining surplus attributable to real estate in own use in the revaluation reserve is transferred to retained earnings.

Maintenance costs and other subsequent expenditure

Expenditure incurred after initial recognition of the asset is capitalized to the extent that the level of future economic benefits of the asset is increased. Costs that restore or maintain the level of future economic benefits are recognized in the income statement as incurred.

2.8 Investments for account of policyholders

Investments held for account of policyholders consist of investments in financial assets as well as investments in real estate.

Investment return on these assets is passed on to the policyholder. Also included are the assets held by consolidated investment funds that are backing liabilities towards third parties. Investments for account of policyholders are valued at fair value through profit or loss.

2.9 Derivatives

a. Definition

Derivatives are financial instruments of which the value changes in response to an underlying variable, that require little or no net initial investment and are settled at a future date.

Assets and liabilities may include derivative-like terms and conditions. With the exception of features embedded in contracts held at fair value through profit or loss, embedded derivatives that are not considered closely related to the host contract are bifurcated, carried at fair value and presented as derivatives. In assessing whether a derivative-like feature is closely related to the contract

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in which it is embedded, the Group considers the similarity of the characteristics of the embedded derivative and the host contract. Embedded derivatives that transfer significant insurance risk are accounted for as insurance contracts.

Derivatives with positive values are reported as assets and derivatives with negative values are reported as liabilities. Derivatives for which the contractual obligation can only be settled by exchanging a fixed amount of cash for a fixed amount of Aegon N.V. equity instruments are accounted for in shareholders equity .

b. Measurement

All derivatives recognized on the statement of financial position are carried at fair value.

The fair value is calculated net of the interest accrued to date and is based on market prices, when available. When market prices are not available, other valuation techniques, such as option pricing or stochastic modeling, are applied. The valuation techniques incorporate all factors that market participants would consider and are based on observable market data, to the extent possible.

c. Hedge accounting

As part of its asset liability management, the Group enters into economic hedges to limit its risk exposure. These transactions are assessed to determine whether hedge accounting can and should be applied.

To qualify for hedge accounting, the hedge relationship is designated and formally documented at inception, detailing the particular risk management objective and strategy for the hedge (which includes the item and risk that is being hedged), the derivative that is being used and how hedge effectiveness is being assessed. A derivative has to be highly effective in accomplishing the objective of offsetting either changes in fair value or cash flows for the risk being hedged. The effectiveness of the hedging relationship is evaluated on a prospective and retrospective basis using qualitative and quantitative measures of correlation. Qualitative methods may include comparison of critical terms of the derivative to the hedged item. Quantitative methods include a comparison of the changes in the fair value or discounted cash flow of the hedging instrument to the hedged item. A hedging relationship is considered highly effective if the results of the hedging instrument are within a ratio of 80% to 125% of the results of the hedged item.

For hedge accounting purposes, a distinction is made between fair value hedges, cash flow hedges and hedges of a net investment in a foreign operation.

Fair value hedges

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recognized in the profit and loss account, together with fair value adjustments to the hedged item attributable to the hedged risk. If the hedge relationship no longer meets the criteria for hedge accounting, the cumulative adjustment of the hedged item is, in the case of interest bearing instruments, amortized through the profit and loss account over the remaining term of the original hedge or recognized directly when the hedged item is derecognized.

Cash flow hedges

Cash flow hedges are hedges of the exposure to variability in cash flows that is attributable to a particular risk of a forecasted transaction or a recognized asset or liability and could affect profit or loss. To the extent that the hedge is effective, the change in the fair value of the derivative is recognized in the related revaluation reserve in shareholders equity. Any ineffectiveness is recognized directly in the income statement. The amount recorded in shareholders equity is released to the income statement to coincide with the hedged transaction, except when the hedged transaction is an acquisition of a non-financial asset or liability. In this case, the amount in shareholders equity is included in the initial cost of the asset or liability.

Net investment hedges

Net investment hedges are hedges of currency exposures on a net investment in a foreign operation. To the extent that the hedge is effective, the change in the fair value of the hedging instrument is recognized in the net foreign investment hedging reserve in shareholders equity. Any ineffectiveness is recognized in the income statement. The amount in shareholders equity is released to the income statement when the foreign operation is disposed of.

Hedge accounting is discontinued prospectively for hedges that are no longer considered effective. When hedge accounting is discontinued for a fair value hedge, the derivative continues to be carried on the statement of financial position with changes in its fair value recognized in the income statement. When hedge accounting is discontinued for a cash flow hedge because the cash flow is no longer expected to occur, the accumulated gain or loss in shareholders equity is recognized immediately in the income statement. In other situations where hedge accounting is discontinued for a cash flow hedge, including those where the derivative is sold,

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terminated or exercised, accumulated gains or losses in shareholders equity are amortized into the income statement when the income statement is impacted by the variability of the cash flow from the hedged item.

2.10 Investments in joint arrangements

In general, joint arrangements are contractual agreements whereby the Group undertakes, with other parties, an economic activity that is subject to joint control. Joint control exists when it is contractually agreed to share control over an economic activity. Joint control exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control.

Investments in joint arrangements are classified as either joint operations or joint ventures depending on the contractual rights and obligations each investor has rather than the legal structure of the joint arrangement. Aegon has assessed the nature of its joint arrangements and determined them to be joint ventures. Joint ventures are accounted for using the equity method.

Under the equity method of accounting, interests in joint ventures are initially recognized at cost, which includes positive goodwill arising on acquisition. Negative goodwill is recognized in the income statement on the acquisition date. If joint ventures are obtained in successive share purchases, each significant transaction is accounted for separately.

The carrying amount is subsequently adjusted to reflect the change in the Group s share in the net assets of the joint venture and is subject to impairment testing. The net assets are determined based on the Group s accounting policies. Any gains and losses recorded in other comprehensive income by the joint venture are recognised in OCI and reflected in other reserves in shareholders equity, while the share in the joint ventures net income is recognized as a separate line item in the consolidated income statement. The Group s share in losses is recognized until the investment in the joint ventures equity and any other long-term interest that are part of the net investment are reduced to nil, unless guarantees exist.

Gains and losses on transactions between the Group and the joint ventures are eliminated to the extent of the Group s interest in the entity, with the exception of losses that are evidence of impairment which are recognized immediately. Own equity instruments of Aegon N.V. that are held by the joint venture are not eliminated.

On disposal of an interest in a joint venture, the difference between the net proceeds and the carrying amount is recognized in the income statement and gains and losses previously recorded directly in the revaluation reserve are reversed and recorded through the income statement.

2.11 Investments in associates

Entities over which the Group has significant influence through power to participate in financial and operating policy decisions, but which do not meet the definition of a subsidiary, are accounted for using the equity method. Interests held by venture capital entities, mutual funds and investment funds that qualify as an associate are accounted for as an investment held at fair value through profit or loss. Interests held by the Group in venture capital entities, mutual funds and investment funds that are managed on a fair value basis, are also accounted for as investments held at fair

value through profit or loss.

Interests in associates are initially recognized at cost, which includes positive goodwill arising on acquisition. Negative goodwill is recognized in the income statement on the acquisition date. If associates are obtained in successive share purchases, each significant transaction is accounted for separately.

The carrying amount is subsequently adjusted to reflect the change in the Group s share in the net assets of the associate and is subject to impairment testing. The net assets are determined based on the Group s accounting policies. Any gains and losses recorded in other comprehensive income by the associate are reflected in other reserves in shareholders equity, while the share in the associate s net income is recognized as a separate line item in the consolidated income statement. The Group s share in losses is recognized until the investment in the associate s equity and any other long-term interest that are part of the net investment are reduced to nil, unless guarantees exist.

Gains and losses on transactions between the Group and the associate are eliminated to the extent of the Group s interest in the entity, with the exception of losses that are evidence of impairment which are recognized immediately. Own equity instruments of Aegon N.V. that are held by the associate are not eliminated.

On disposal of an interest in an associate, the difference between the net proceeds and the carrying amount is recognized in the income statement and gains and losses previously recorded directly in the revaluation reserve are reversed and recorded through the income statement.

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2.12 Reinsurance assets

Reinsurance contracts are contracts entered into by the Group in order to receive compensation for claims/benefits incurred on contracts written by the Group (outgoing reinsurance). Reinsurance assets are also held as part of exiting the business. For contracts transferring sufficient insurance risk, a reinsurance asset is recognized for the expected future benefits, less expected future reinsurance premiums. Reinsurance contracts with insufficient insurance risk transfer are accounted for as investment or service contracts, depending on the nature of the agreement.

Reinsurance assets are measured consistently with the assumptions associated with the underlying insurance contracts and in accordance with the terms of each reinsurance contract. They are subject to impairment testing and are derecognized when the contractual rights are extinguished or expire or when the contract is transferred to another party.

Aegon is not relieved of its legal liabilities when entering into reinsurance transactions, therefore the reserves relating to the underlying insurance contracts will continue to be reported on the consolidated statement of financial position during the contractual term of the underlying contracts.

Reinsurance premiums, commissions and claim settlements are accounted for in the same way as the original contracts for which the reinsurance was concluded. The insurance premiums for the original contracts are presented gross of reinsurance premiums paid.

2.13 Deferred expenses

a. Deferred policy acquisition costs (DPAC)

DPAC relates to all insurance contracts as well as investment contracts with discretionary participation features and represents directly attributable costs that are related to the selling, underwriting and initiating of these insurance contracts.

DPAC are deferred to the extent that they are recoverable and are subsequently amortized based on factors such as expected gross profit margins. For products sold in the United States with amortization based on expected gross profit margins or revenues, the amortization period and pattern are reviewed at each reporting date and any change in estimates is recognized in the income statement. Estimates include, but are not limited to: an economic perspective in terms of future returns on bond and equity instruments, mortality, morbidity and lapse assumptions, maintenance expenses and expected inflation rates.

For all products, DPAC, in conjunction with VOBA where appropriate, is assessed for recoverability at least annually as part of the liability adequacy test for each reporting period. If appropriate, the assumptions included in the determination of estimated gross profits or revenues are adjusted. The portion of DPAC that is determined not to be recoverable is charged to the income statement.

For products sold in the United States, when unrealized gains or losses arise on available-for-sale assets backing the insurance liabilities, DPAC is adjusted to equal the effect that the realization of the gains or losses (through sale or

impairment) would have had on its measurement. This is recognized in OCI and accumulated in the related revaluation reserve in shareholders equity.

DPAC is derecognized when the related contracts are settled or disposed.

b. Deferred cost of reinsurance

A deferred cost of reinsurance is established when Aegon enters into a reinsurance transaction, except for reinsurance transactions that are entered into as part of a plan to exit a business. When Aegon enters into a reinsurance contract as part of a plan to exit a business, an immediate loss is recognized in the income statement. Upon reinsurance, Aegon is not relieved of its legal liabilities, so the reserves relating to the underlying reinsured contracts will continue to be reported in the consolidated statement of financial position during the contractual term of the underlying contracts.

The difference, if any, between amounts paid in a reinsurance transaction and the amount of the liabilities relating to the underlying reinsured contracts is part of the deferred cost of reinsurance.

When losses on buying reinsurance are deferred, the amortization is based on the assumptions of the underlying insurance contracts. The amortization is recognized in the income statement.

c. Deferred transaction costs

Deferred transaction costs relate to investment contracts without discretionary participation features under which Aegon will render investment management services. Incremental costs that are directly attributable to securing these investment management contracts are recognized as an asset if they can be identified separately and measured reliably and if it is probable that they will be recovered.

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For contracts involving both the origination of a financial liability and the provision of investment management services, only the transaction costs allocated to the servicing component are deferred. The other transaction costs are included in the carrying amount of the financial liability.

The deferred transaction costs are amortized in line with fee income, unless there is evidence that another method better represents the provision of services under the contract. The amortization is recognized in the income statement. Deferred transaction costs are subject to impairment testing at least annually.

Deferred transaction costs are derecognized when the related contracts are settled or disposed.

2.14 Other assets and receivables

Other assets include trade and other receivables, prepaid expenses, equipment and real estate held for own use. Trade and other receivables are initially recognized at fair value and are subsequently measured at amortized cost. Equipment is initially carried at cost, depreciated on a straight line basis over its useful life to its residual value and is subject to impairment testing. The accounting for real estate held for own use is described in note 2.7 Investments.

2.15 Cash and cash equivalents

Cash comprises cash at banks and in-hand. Cash equivalents are short-term, highly liquid investments generally with original maturities of three months or less that are readily convertible to known cash amounts, are subject to insignificant risks of changes in value and are held for the purpose of meeting short-term cash requirements. Money market investments that are held for investment purposes (backing insurance liabilities, investment liabilities or equity based on asset liability management considerations) are not included in cash and cash equivalents but are presented as investments or investments for account of policyholders.

2.16 Impairment of assets

An asset is impaired if the carrying amount exceeds the amount that would be recovered through its use or sale. For tangible and intangible assets, financial assets and reinsurance assets, if not held at fair value through profit or loss, the recoverable amount of the asset is estimated when there are indications that the asset may be impaired. Irrespective of the indications, goodwill and other intangible assets with an indefinite useful life that are not amortized, are tested at least annually.

There are a number of significant risks and uncertainties inherent in the process of monitoring investments and determining if impairment exists. These risks and uncertainties include the risk that the Group s assessment of an issuer s ability to meet all of its contractual obligations will change based on changes in the credit characteristics of that issuer and the risk that the economic outlook will be worse than expected or have more of an impact on the issuer than anticipated. Any of these situations could result in a charge against the income statement to the extent of the impairment charge recorded.

a. Impairment of non-financial assets

Assets are tested individually for impairment when there are indications that the asset may be impaired. For goodwill and intangible assets with an undefined life, an impairment test is performed at least once a year or more frequently as a result of an event or change in circumstances that would indicate an impairment charge may be necessary. The impairment loss is calculated as the difference between the carrying and the recoverable amount of the asset, which is the higher of an asset s value in use and its fair value less cost of disposal. The value in use represents the discounted future net cash flows from the continuing use and ultimate disposal of the asset and reflects its known inherent risks and uncertainties. The valuation utilizes the best available information, including assumptions and projections considered reasonable and supportable by management. The assumptions used in the valuation involve significant judgments and estimates. Refer to note 31 Intangible assets for more details.

Impairment losses are charged to other comprehensive income to the extent that they offset a previously recorded revaluation reserve relating to the same item. Any further losses are recognized directly in the income statement. Impairment of deferred policy acquisition costs is included in note 15 Impairment charges/(reversals).

With the exception of goodwill, impairment losses are reversed when there is evidence that there has been a change in the estimates used to determine the asset s recoverable amount since the recognition of the last impairment loss. The reversal is recognized in the income statement to the extent that it reverses impairment losses previously recognized in the income statement. The carrying amount after reversal cannot exceed the amount that would have been recognized had no impairment taken place.

Non-financial assets that only generate cash flows in combination with other assets and liabilities are tested for impairment at the level of the cash-generating unit. The goodwill acquired in a business combination, for the purpose of impairment testing,

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is allocated to cash-generating units, or groups of cash-generating units, that are expected to benefit from the synergies of the combination. The allocation is based on the level at which goodwill is monitored internally and cannot be larger than an operating segment. When impairing a cash-generating unit, any goodwill allocated to the unit is first written-off and recognized in the income statement. The remaining impairment loss is allocated on a pro rata basis among the other assets, on condition that the resulting carrying amounts do not fall below the individual assets recoverable amounts.

b. Impairment of debt instruments

Debt instruments are impaired if there is objective evidence that a credit event has occurred after the initial recognition of the asset that has a negative impact on the estimated future cash flows. Individually significant loans and other receivables are first assessed separately. All non-impaired assets measured at amortized cost are then grouped by credit risk characteristics and collectively tested for impairment.

For debt instruments carried at amortized cost, the carrying amount of impaired financial assets is reduced through an allowance account. The impairment loss is calculated as the difference between the carrying and recoverable amount of the investment. The recoverable amount is determined by discounting the estimated probable future cash flows at the original effective interest rate of the asset. For variable interest debt instruments, the current effective interest rate under the contract is applied.

For debt instruments classified as available-for-sale, the asset is impaired to its fair value. Any unrealized loss previously recognized in other comprehensive income is taken to the income statement in the impairment loss. After impairment the interest accretion on debt instruments that are classified as available-for-sale is recognized using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss.

Impairment losses recognized for debt instruments can be reversed if in subsequent periods the amount of the impairment loss decreases and that decrease can be objectively related to a credit event occurring after the impairment was recognized. For debt instruments carried at amortized cost, the carrying amount after reversal cannot exceed what the amortized cost would have been at the reversal date, had the impairment not been recognized.

c. Impairment of equity instruments

For equity instruments, objective evidence of impairment of an investment in an equity instrument classified as available-for-sale includes information about significant changes with an adverse effect that have taken place in the technological, market, economic or legal environment in which the issuer operates, and indicates that the cost of the investment in the equity instrument may not be recovered. A significant or prolonged decline in fair value below initial cost is also considered objective evidence of impairment and always results in a loss being recognized in the income statement. Significant or prolonged decline is defined as an unrealized loss position for generally more than six months or a fair value of less than 80% of the cost price of the investment. Equity investments are impaired to the asset s fair value and any unrealized gain or loss previously recognized in shareholders equity is taken to the income statement as an impairment loss. The amount exceeding the balance of previously recognized unrealized gains or losses is recognized in the income statement. If an available-for-sale equity security is impaired based upon Aegon s qualitative or quantitative impairment criteria, any further declines in the fair value at subsequent reporting dates are

recognized as impairments. Therefore, at each reporting period, for an equity security that is determined to be impaired based upon Aegon s impairment criteria, an impairment is recognized for the difference between the fair value and the original cost basis, less any previously recognized impairments.

Impairment losses on equity instruments cannot be reversed.

d. Impairment of reinsurance assets

Reinsurance assets are impaired if there is objective evidence, as a result of an event that occurred after initial recognition of the reinsurance asset, that not all amounts due under the terms of the contract may be received. In such a case, the value of the reinsurance asset recoverable is determined based on the best estimate of future cash flows, taking into consideration the reinsurer s current and expected future financial conditions plus any collateral held in trust for Aegon s benefit. The carrying value is reduced to this calculated recoverable value, and the impairment loss recognized in the income statement.

2.17 Equity

Financial instruments that are issued by the Group are classified as equity if they represent a residual interest in the assets of the Group after deducting all of its liabilities and the Group has an unconditional right to avoid delivering cash or another financial asset to settle its contractual obligation. In addition to common shares, the Group has issued perpetual securities. Perpetual securities have no final maturity date, repayment is at the discretion of Aegon and for junior perpetual capital securities, Aegon has the option to defer coupon

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payments at its discretion. The perpetual capital securities are classified as equity rather than debt, are measured at par and those that are denominated in US dollars are translated into euro using historical exchange rates.

Non-cumulative subordinated notes were identified as a compound instrument due to the nature of this financial instrument. For these non-cumulative subordinated notes, Aegon had an unconditional right to avoid delivering cash or another financial asset to settle the coupon payments. The redemption of the principal was however not at the discretion of Aegon and therefore Aegon had a contractual obligation to settle the redemption in cash or another financial asset or through the exchange of financial assets and liabilities at potentially unfavorable conditions for Aegon. Compound instruments were separated into liability components and equity components. The liability component for the non-cumulative subordinated notes was equal to the present value of the redemption amount and carried at amortized cost using the effective interest rate method. The unwinding of the discount of this component was recognized in the income statement. At initial recognition the equity component was assigned the residual amount after deducting the liability component from the fair value of the instrument as a whole. The equity component in US dollars was translated into euro using historical exchange rates. With effect on May 15, 2018, Aegon has exercised its right to redeem USD 525 million non-cumulative subordinated notes, subsequently leading to their redemption. As the Group s obligation under the contract has expired, the liability and equity components of the non-cumulative subordinated notes have been derecognised.

Incremental external costs that are directly attributable to the issuing or buying back of own equity instruments are recognized in equity, net of tax. For compound instruments incremental external costs that were directly attributable to the issuing or buying back of the compound instruments were recognized proportionate to the equity component and liability component, net of tax.

Dividends and other distributions to holders of equity instruments are recognized directly in equity, net of tax. A liability for non-cumulative dividends payable is not recognized until the dividends have been declared and approved.

Treasury shares are shares issued by Aegon N.V. that are held by Aegon, one of its subsidiaries or by another entity controlled by Aegon. Treasury shares are deducted from Group equity, regardless of the objective of the transaction. No gain or loss is recognized in the income statement on the purchase, sale, issue or cancellation of the instruments. If sold, the difference between the carrying amount and the proceeds is reflected in retained earnings. The consideration paid or received is recognized directly in shareholders equity. All treasury shares are eliminated in the calculation of earnings per share and dividend per common share.

2.18 Trust pass-through securities and (subordinated) borrowings

A financial instrument issued by the Group is classified as a liability if the contractual obligation must be settled in cash or another financial asset or through the exchange of financial assets and liabilities at potentially unfavorable conditions for the Group.

Trust pass-through securities and (subordinated) borrowings are initially recognized at their fair value including directly attributable transaction costs and are subsequently carried at amortized cost using the effective interest rate method, with the exception of specific borrowings that are designated as at fair value through profit or loss to eliminate, or significantly reduce, an accounting mismatch, or specific borrowings which are carried as at fair value

through profit or loss as they are managed and evaluated on a fair value basis. The liability is derecognized when the Group s obligation under the contract expires, is discharged or is cancelled.

Subordinated borrowings include the liability component of non-cumulative subordinated notes. These notes are identified as a compound instrument due to the nature of this financial instrument. Compound instruments are separated into equity components and liability components. The liability component for the non-cumulative subordinated notes is related to the redemption amount. For further information on the accounting policy of the non-cumulative subordinated notes refer to note 2.17 Equity.

2.19 Insurance contracts

Insurance contracts are accounted for under IFRS 4 Insurance Contracts. In accordance with this standard, Aegon continues to apply the existing accounting policies that were applied prior to the adoption of IFRS with certain modifications allowed by IFRS 4 for standards effective subsequent to adoption. Aegon applies, in general, non-uniform accounting policies for insurance liabilities and insurance related intangible assets to the extent that it was allowed under Dutch Accounting Principles. As a result, specific methodologies applied may differ between Aegon s operations as they may reflect local regulatory requirements and local practices for specific product features in these local markets. At the time of IFRS adoption, Aegon was applying US GAAP for its United States operations whereas in the Netherlands and the United Kingdom, Aegon was applying Dutch Accounting Principles. Since adoption of IFRS, Aegon has considered new and amended standards in those GAAPs which have become effective subsequent to the date of transition to IFRS. If any changes are made to current accounting policies for insurance contracts, these will be in accordance with IFRS 4.

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Insurance contracts are contracts under which the Group accepts a significant risk other than a financial risk from a policyholder by agreeing to compensate the beneficiary on the occurrence of an uncertain future event by which he or she will be adversely affected. Contracts that do not meet this definition are accounted for as investment contracts. The Group reviews homogeneous books of contracts to assess whether the underlying contracts transfer significant insurance risk on an individual basis. This is considered the case when at least one scenario with commercial substance can be identified in which the Group has to pay significant additional benefits to the policyholder. Contracts that have been classified as insurance are not reclassified subsequently.

Insurance liabilities are recognized when the contract is entered into and the premiums are charged. The liability is derecognized when the contract expires, is discharged, disposed or cancelled. Within the United States, the Netherlands and the United Kingdom, substantially modified contracts are accounted for as an extinguishment of the original liability and the recognition of a new liability.

Insurance assets and liabilities are valued in accordance with the accounting principles that were applied by the Group prior to the transition to IFRS and with consideration of standards effective subsequent to the date of transition to IFRS, as further described in the following paragraphs. In order to reflect the specific nature of the products written, subsidiaries are allowed to apply local accounting principles to the measurement of insurance contracts. All valuation methods used by the subsidiaries are based on the general principle that the carrying amount of the net liability must be sufficient to meet any reasonably foreseeable obligation resulting from the insurance contracts.

a. Life insurance contracts

Life insurance contracts are insurance contracts with life-contingent benefits. The measurement of the liability for life insurance contracts varies depending on the nature of the product.

Liabilities arising from traditional life insurance products that are offered by Aegon, particularly those with fixed and guaranteed account terms, are typically measured using the net premium method. Under this method the liability is determined as the sum of the discounted value of the expected benefits and future administration expenses directly related to the contract, less the discounted value of the expected theoretical premiums that would be required to meet the future cash outflows based on the valuation assumptions used. The liability is either based on current assumptions or calculated using the assumptions established at the time the contract was issued, in which case a margin for risk and adverse deviation is generally included. Furthermore, the liability for life insurance comprises reserves for unearned premiums and accrued annuity benefits payable.

Depending on local accounting principles, the liability may include amounts for future services on contracts where the policy administration charges are higher in the initial years than in subsequent years.

Terms and conditions, including participation features, are considered when establishing the insurance liabilities. Where the Group has discretion over the amount or timing of the bonuses distributed resulting from participation features, a liability is recognized equal to the amount that is available at the reporting date for future distribution to policyholders.

In establishing the liability, guaranteed minimum benefits issued to the policyholder are measured as described in note 2.19.c Embedded derivatives or, if bifurcated from the host contract, as described in note 2.9 Derivatives.

b. Life insurance contracts for account of policyholders

Life insurance contracts under which the policyholder bears the risks associated with the underlying investments are classified as insurance contracts for account of policyholders.

The liability for the insurance contracts for account of policyholders is measured at the policyholder account balance. Contracts with unit-denominated payments are measured at current unit values, which reflect the fair values of the assets of the fund. If applicable, the liability representing the nominal value of the policyholder unit account is amortized over the term of the contract so that interest on actuarial funding is at an expected rate of return.

c. Embedded derivatives

Life insurance contracts may include derivative-like terms and conditions. With the exception of policyholder options to surrender the contract at a fixed amount, contractual features that are not closely related to the insurance contract and that do not themselves meet the definition of insurance contracts are accounted for as derivatives.

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Guaranteed minimum benefits

Certain life insurance contracts, issued by the Group, contain guaranteed minimum benefits. Bifurcated guaranteed minimum benefits are classified as derivatives.

In the United States, the additional liability for guaranteed minimum benefits that are not bifurcated is determined each period by estimating the expected value of benefits in excess of the projected account balance and recognizing the excess over the accumulation period based on total expected assessments. The estimates are reviewed regularly and any resulting adjustment to the additional liability is recognized in the income statement. The benefits used in calculating the liabilities are commonly based on the average benefits payable over a range of stochastic scenarios. Where applicable, the calculation of the liability incorporates a percentage of the potential annuitizations that may be elected by the contract holder.

In the Netherlands, an additional liability is established for guaranteed minimum investment returns on group pension plans with profit sharing and on traditional insurance contracts, with profit sharing based on an external interest index, that are not bifurcated. These guarantees are measured at fair value.

d. Shadow accounting

Shadow accounting allows that all gains and losses on investments affect the measurement of the insurance assets and liabilities in the same way, regardless of whether they are realized or unrealized and regardless of whether the unrealized gains and losses are recognized in the income statement or directly in shareholders equity in the revaluation reserve. In some instances, realized gains or losses on investments have a direct effect on the measurement of the insurance assets and liabilities. For example, some insurance contracts include benefits that are contractually based on the investment returns realized by the insurer. In addition, realization of gains or losses on available-for-sale investments can lead to unlocking of VOBA or DPAC and can also affect the outcome of the liability adequacy test to the extent that it considers actual future investment returns. For similar changes in unrealized gains and losses, shadow accounting is applied. If an unrealized gain or loss triggers a shadow accounting adjustment to VOBA, DPAC or the insurance liabilities, the corresponding adjustment is recognized through other comprehensive income in the revaluation reserve, together with the unrealized gain or loss.

Some profit sharing schemes issued by the Group entitle the policyholder to a bonus which is based on the actual total return on specific assets held. To the extent that the bonus relates to gains or losses on available-for-sale investments for which the unrealized gains or losses are recognized through other comprehensive income in the revaluation reserve in shareholders equity, shadow accounting is applied. This means that the increase in the liability is also charged through other comprehensive income to shareholders equity to offset the unrealized gains rather than to the income statement.

e. Non-life insurance contracts

Non-life insurance contracts are insurance contracts where the insured event is not life-contingent. For non-life products the insurance liability generally includes reserves for unearned premiums, unexpired risk, inadequate premium levels and outstanding claims and benefits. No catastrophe or equalization reserves are included in the

measurement of the liability.

The reserve for unearned premiums includes premiums received for risks that have not yet expired. Generally, the reserve is released over the coverage period of the premium and is recognized as premium income.

The liability for outstanding claims and benefits is established for claims that have not been settled and any related cash flows, such as claims handling costs. It includes claims that have been incurred but have not been reported to the Group. The liability is calculated at the reporting date using statistical methods based on empirical data and current assumptions that may include a margin for adverse deviation. Liabilities for claims subject to periodic payment are calculated using actuarial methods consistent with those applied to life insurance contracts. Discounting is applied if allowed by the local accounting principles used to measure the insurance liabilities. Discounting of liabilities is generally applied when there is a high level of certainty concerning the amount and settlement term of the cash outflows.

f. Liability adequacy testing

At each reporting date, the adequacy of the life insurance liabilities (including life insurance contracts for account of policyholders), net of VOBA and DPAC, is assessed using a liability adequacy test.

All tests performed within the Group are based on current estimates of all contractual future cash flows, including related cash flows from policyholder options and guarantees. A number of valuation methods are applied, including discounted cash flow methods, option pricing models and stochastic modeling. Aggregation levels are set either on geographical jurisdiction or at the level of portfolio

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of contracts that are subject to broadly similar risks and managed together as a single portfolio. Specifically, in the Netherlands the liability adequacy test is performed on a consolidated basis for all life and non-life business, whereas in the Americas and the UK it is performed at the level of the portfolio of contracts. To the extent that the tests involve discounting of future cash flows, the interest rate applied is based on market rates or is based on management s expectation of the future return on investments. These future returns on investments take into account management s best estimate related to the actual investments and, where applicable, reinvestments of these investments at maturity. Aegon the Netherlands, as required locally, adjusts the outcome of the liability adequacy test for the difference between the fair value and the book value of the assets that are measured at amortized cost in the statement of financial position.

To the extent that the account balances are insufficient to meet future benefits and expenses, any resulting deficiency is recognized in the income statement, initially by impairing the DPAC and VOBA and subsequently by establishing an insurance liability for the remaining loss, unless shadow loss recognition has taken place. In the Netherlands, in situations where market interest rates for the valuation of debt securities leads to a change in the revaluation reserve, and where the result of using the same assumptions for the liabilities could lead to a deficiency in the liability adequacy test that should be recognized in the income statement, shadow loss recognition is applied. Shadow loss recognition is applied to the extent that the deficiency of the insurance liabilities relates to the revaluation of debt securities as a result of movements in interest rates, the addition to the insurance liabilities is then offset against the revaluation reserve. If in subsequent periods such a deficiency of the insurance liability is no longer applicable, shadow loss recognition is reversed via the revaluation reserve.

The adequacy of the non-life insurance liability is tested at each reporting date. Changes in expected claims that have occurred, but that have not been settled, are reflected by adjusting the liability for claims and future benefits. The reserve for unexpired risk is increased to the extent that the future claims and expenses in respect of current insurance contracts exceed the future premiums plus the current unearned premium reserve.

2.20 Investment contracts

Aegon conducts its operations through the following reporting segments:

Contracts issued by the Group that do not transfer significant insurance risk, but do transfer financial risk from the policyholder to the Group are accounted for as investment contracts. Depending on whether the Group or the policyholder runs the risks associated with the investments allocated to the contract, the liabilities are classified as investment contracts or as investment contracts for account of policyholders. Investment contract liabilities are recognized when the contract is entered into and are derecognized when the contract expires, is discharged, cancelled or substantially modified.

a. Investment contracts with discretionary participation features

Some investment contracts have participation features whereby the policyholder has the right to receive potentially significant additional benefits which are based on the performance of a specified pool of investment contracts, specific investments held by the Group or on the issuer s net income. If the Group has discretion over the amount or timing of the distribution of the returns to policyholders, the investment contract liability is measured based on the accounting

principles that apply to insurance contracts with similar features.

Some unitized investment contracts provide policyholders with the option to switch between funds with and without discretionary participation features. The entire contract is accounted for as an investment contract with discretionary participation features if there is evidence of actual switching resulting in discretionary participation benefits that are a significant part of the total contractual benefits.

b. Investment contracts without discretionary participation features

At inception, investment contracts without discretionary participation features are carried at amortized cost.

Investment contracts without discretionary participation features are carried at amortized cost based on the expected cash flows and using the effective interest rate method. The expected future cash flows are re-estimated at each reporting date and the carrying amount of the financial liability is recalculated as the present value of estimated future cash flows using the financial liability s original effective interest rate. Any adjustment is immediately recognized in the income statement. For these investment contracts deposit accounting is applied, meaning that deposits are not reflected as premium income, but are recognized as part of the financial liability.

The consolidated financial statements provide information on the fair value of all financial liabilities, including those carried at amortized cost. As these contracts are not quoted in active markets, their value is determined by using valuation techniques, such

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as discounted cash flow methods and stochastic modeling. For investment contracts without discretionary participation features that can be cancelled by the policyholder, the fair value cannot be less than the surrender value.

c. Investment contracts for account of policyholders

Investment contracts for account of policyholders are investment contracts for which the actual return on investments allocated to the contract is passed on to the policyholder. Also included are participations held by third parties in consolidated investment funds that meet the definition of a financial liability.

Investment contracts for account of policyholders are designated at fair value through profit or loss. Contracts with unit-denominated payments are measured at current unit values, which reflect the fair values of the assets of the fund.

For unit-linked contracts without discretionary participation features and subject to actuarial funding, the Group recognizes a liability at the funded amount of the units. The difference between the gross value of the units and the funded value is treated as an initial fee paid by the policyholder for future asset management services and recognized as a deferred revenue liability, refer to note 2.23 Deferred gains.

2.21 Provisions

A provision is recognized for present legal or constructive obligations arising from past events, when it is probable that it will result in an outflow of economic benefits and the amount can be reliably estimated. Management exercises judgment in evaluating the probability that a loss will be incurred.

The amount recognized as a provision is the best estimate of the expenditure required to settle the present obligation at the reporting date, considering all its inherent risks and uncertainties, as well as the time value of money. The estimate of the amount of a loss requires management judgment in the selection of a proper calculation model and the specific assumptions related to the particular exposure. The unwinding of the effect of discounting is recorded in the income statement as an interest expense.

Onerous contracts

With the exception of insurance contracts and investment contracts with discretionary participation features for which potential future losses are already considered in establishing the liability, a provision is recognized for onerous contracts in which the unavoidable costs of meeting the resulting obligations exceed the expected future economic benefits. The unavoidable costs under a contract reflect the least net cost of exiting from the contract, which is the lower of the cost of fulfilling it and any compensation or penalties arising from failure to fulfill it.

2.22 Assets and liabilities relating to employee benefits

a. Short-term employee benefits

A liability is recognized for the undiscounted amount of short-term employee benefits expected to be settled within one year after the end of the period in which the service was rendered. Accumulating short-term absences are

recognized over the period in which the service is provided. Benefits that are not service-related are recognized when the event that gives rise to the obligation occurs.

b. Post-employment benefits

The Group has issued defined contribution plans and defined benefit plans. A plan is classified as a defined contribution plan when the Group has no further obligation than the payment of a fixed contribution. All other plans are classified as defined benefit plans.

Defined contribution plans

The contribution payable to a defined contribution plan for services provided is recognized as an expense in the income statement. An asset is recognized to the extent that the contribution paid exceeds the amount due for services provided.

Defined benefit plans

Measurement

The defined benefit obligation is based on the terms and conditions of the plan applicable on the reporting date. In measuring the defined benefit obligation the Group uses the projected unit credit method and actuarial assumptions that represent the best estimate of future variables. The benefits are discounted using an interest rate based on the market yield for high-quality corporate bonds that are denominated in the currency in which the benefits will be paid and that have terms to maturity that approximate the terms of the related pension liability. Actuarial assumptions used in the measurement of the liability include the discount rate, estimated future salary increases, mortality rates and price inflation. To the extent that actual experience deviates from these

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assumptions, the valuation of defined benefit plans and the level of pension expenses recognized in the future may be affected. Plan improvements (either vested or unvested) are recognized in the income statement at the date when the plan improvement occurs.

Plan assets are qualifying insurance policies and assets held by long-term employee benefit funds that can only be used to pay the employee benefits under the plan and are not available to the Group s creditors. They are measured at fair value and are deducted from the defined benefit obligation in determining the amount recognized on the statement of financial position.

Profit or loss recognition

The cost of the defined benefit plans are determined at the beginning of the year and comprise the following components:

- Current year service cost which is recognized in profit or loss; and
- Net interest on the net defined benefit liability (asset) which is recognized in profit or loss.

Remeasurements of the net defined benefit liability (asset) which is recognized in other comprehensive income are revisited quarterly and shall not be reclassified to profit or loss in a subsequent period.

Deducted from current year service cost are discretionary employee contributions and employee contributions that are linked to service (those which are independent of the number of years of service). Net interest on the net defined benefit liability (asset) shall be determined by multiplying the net defined benefit liability (asset) by the applicable discount rate. Net interest on the net defined benefit liability (asset) comprises interest income on plan assets and interest cost on the defined benefit obligation. Whereby interest income on plan assets is a component of the return on plan assets and is determined by multiplying the fair value of the plan assets by the applicable discount rate. The difference between the interest income on plan assets and the actual return on plan assets is included in the remeasurement of the net defined benefit liability (asset).

Remeasurements of the net defined benefit liability (asset) comprise of:

- Actuarial gains and losses;
- The return on plan assets, excluding amounts included in net interest on the net defined benefit liability (asset); and
- Any change in the effect of the asset ceiling, excluding amounts included in net interest on the net defined benefit liability (asset).

Past service cost and gains or losses on settlements

Past service cost is the change in the present value of the defined benefit obligation for employee service, resulting from a plan amendment or curtailment.

Gains or losses on curtailments or settlements of a defined benefit plan comprise of the difference between:

- The present value of the defined benefit obligation being settled, as determined on the date of settlement; and

The settlement price, including any plan assets transferred and any payments made directly by Aegon in connection with the settlement.

Aegon recognizes (in the income statement) gains or losses on the curtailment or settlement of a defined benefit plan when the curtailment or settlement occurs.

c. Share-based payments

The Group has issued share-based plans that entitle employees to receive equity instruments issued by the Group or cash payments based on the price of Aegon N.V. common shares. Some plans provide employees of the Group with the choice of settlement.

For long-term share-based plans where employees are granted the conditional right to receive Aegon shares if certain performance indicators are met and depending on continued employment of the individual employee, expenses recognized are based on the fair value on the grant date of the shares. The fair value is measured at the market price of the entities shares, adjusted to take into account the terms and conditions upon which the shares were granted. For example, where the employee is not entitled to receive dividends during the vesting period, this factor is taken into account when estimating the fair value of the shares granted. For the determination of factors such as expected dividends, market observable data has been considered.

The cost for long term incentive plans are recognized in the income statement, together with a corresponding increase in shareholders equity, as the services are rendered. During this period the cumulative expense recognized at the reporting date reflects management s best estimate of the number of shares expected to vest ultimately. For cash settled components (such as net settled component of long-term share-based plans) a liability will be recognized using the fair value of the equity settled award based on the elapsed portion of the vesting period. For modifications of the terms and conditions of equity-settled plans that result

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in those plans to be classified as cash-settled plans, the liability is recognized using the fair value measured at the modification date. The liability is remeasured at each reporting date and at the date of settlement, with any changes in fair value recognized in the income statement.

The withholding of shares to fund the payment to the tax authority in respect of the employee s withholding tax obligation associated with the share-based payment is accounted for as a deduction from equity for the shares withheld, except to the extent that the payment exceeds the fair value at the net settlement date of the equity instruments withheld.

2.23 Deferred gains

Initial fees and front-end loadings paid by policyholders and other clients for future investment management services related to investment contracts without discretionary participation features are deferred and recognized as revenue when the related services are rendered.

2.24 Tax assets and liabilities

a. Current tax receivables and payables

Tax receivables and payables for current and prior periods are measured at the amount that is expected to be received from or paid to the taxation authorities and that reflects uncertainty to income taxes, if any. Measurement is done using the tax rates that have been enacted or substantively enacted by the reporting date.

b. Deferred tax assets and liabilities

Deferred tax assets and liabilities are recognized for the estimated future tax effects of temporary differences between the carrying value of an item and its tax value, with the exception of differences arising from the initial recognition of goodwill and of assets and liabilities that do not impact taxable or accounting profits. A tax asset is recognized for tax loss carryforwards to the extent that it is probable at the reporting date that future taxable profits will be available against which the unused tax losses and unused tax credits can be utilized.

Deferred tax liabilities relating to investments in subsidiaries, associates and joint ventures are not recognized if the Group is able to control the timing of the reversal of the temporary difference and it is probable that the difference will not be reversed in the foreseeable future.

Deferred tax assets and liabilities are reviewed at each reporting period and are measured at tax rates that are expected to apply when the asset is realized or the liability is settled. Since there is no absolute assurance that these assets will ultimately be realized, management reviews Aegon s deferred tax positions at each reporting period to determine if it is probable that the assets will be realized. These reviews include, among other things, the nature and amount of the taxable income and deductible expenses, the expected timing when certain assets will be used or liabilities will be required to be reported and the reliability of historical profitability of businesses expected to provide future earnings. Furthermore, management considers tax-planning opportunities it can utilize to increase the likelihood that the tax assets will be realized. The carrying amount is not discounted and reflects the Group s expectations concerning the

manner of recovery or settlement.

Deferred tax assets and liabilities are recognized in relation to the underlying transaction either in profit and loss, other comprehensive income or directly in equity.

2.25 Contingent assets and liabilities

Contingent assets are disclosed in the notes if the inflow of economic benefits is probable, but not virtually certain. When the inflow of economic benefits becomes virtually certain, the asset is no longer contingent and its recognition is appropriate.

A provision is recognized for present legal or constructive obligations arising from past events, when it is probable that it will result in an outflow of economic benefits and the amount can be reliably estimated. If the outflow of economic benefits is not probable, a contingent liability is disclosed, unless the possibility of an outflow of economic benefits is remote.

2.26 Premium income

Gross premiums, including recurring and single premiums, from life and non-life insurance and investment contracts with discretionary participation features are recognized as revenue when they become receivable. For products where deposit accounting is required, the deposits are not reflected as premium income, but are recognized as part of the financial liability. For these products the surrender charges and charges assessed have been included in gross premiums.

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Premium loadings for installment payments and additional payments by the policyholder towards costs borne by the insurer are included in the gross premiums. Rebates that form part of the premium rate, such as no-claim rebates, are deducted from the gross premium, others are recognized as an expense. Depending on the applicable local accounting principles, bonuses that are used to increase the insured benefits may be recognized as gross premiums. The insurance premiums for the original contracts are presented gross of reinsurance premiums paid.

2.27 Investment income

For interest-bearing assets, interest is recognized as it accrues and is calculated using the effective interest rate method. Fees and commissions that are an integral part of the effective yield of the financial assets or liabilities are recognized as an adjustment to the effective interest rate of the instrument. Investment income includes the interest income and dividend income on financial assets carried at fair value through profit or loss.

Investment income also includes rental income due.

2.28 Fee and commission income

Fees and commissions from investment management services and mutual funds are performed on an ongoing basis evenly throughout the year and are accounted for monthly (1/12 of the contractual agreement). Performance fees may be charged to policyholders in the event of outperformance in the investments compared to predefined benchmark levels. They are accounted for only when specified hurdles for generating performance fees are achieved i.e. when the full performance obligation is met.

Aegon acts also as an insurance broker selling insurance contracts of other insurance companies to policyholders and receiving direct sales commission as well as commissions over time when the same policyholders renew their contracts. These commissions are recognized only when received as policyholders renewals are not certain enough to be recorded upfront.

2.29 Policyholder claims and benefits

Policyholder claims and benefits consist of claims and benefits paid to policyholders, including benefits in excess of account value for products for which deposit accounting is applied and the change in the valuation of liabilities for insurance and investment contracts. It includes internal and external claims handling costs that are directly related to the processing and settlement of claims. Amounts receivable in respect of salvage and subrogation are also considered.

2.30 Results from financial transactions

Results from financial transactions include:

Net fair value change of general account financial investments at fair value through profit or loss, other than derivatives

Net fair value change of general account financial investments at fair value through profit or loss, other than derivatives include fair value changes of financial assets carried at fair value through profit or loss. The net gains and losses do not include interest or dividend income.

Realized gains and losses on financial investments

Gains and losses on financial investments include realized gains and losses on general account financial assets, other than those classified as at fair value through profit or loss.

Net fair value change of derivatives

All changes in fair value are recognized in the income statement, unless the derivative has been designated as a hedging instrument in a cash flow hedge or a hedge of a net investment in a foreign operation. Fair value movements of fair value hedge instruments are offset by the fair value movements of the hedged item, and the resulting hedge ineffectiveness, if any, is included in this line. In addition, the fair value movements of bifurcated embedded derivatives are included in this line.

Net fair value change on for account of policyholder financial assets at fair value through profit or loss

Net fair value change on for account of policyholder financial assets at fair value through profit or loss includes fair value movements of investments held for account of policyholders (refer to note 2.8 Investments for account of policyholders). The net fair value change does not include interest or dividend income.

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Other

In addition, results from financial transactions include gains/losses on real estate (general account and account of policyholders), net foreign currency gains/(losses) and net fair value change on borrowings and other financial liabilities and realized gains on repurchased debt.

2.31 Impairment charges/(reversals)

Impairment charges and reversals include impairments and reversals on investments in financial assets, impairments and reversals on the valuation of insurance assets and other non-financial assets and receivables. Impairment of deferred policy acquisition costs is included in note 15 Impairment charges/(reversals). Refer to note 15 Impairment charges/(reversals).

2.32 Interest charges and related fees

Interest charges and related fees includes interest expense on trust pass-through securities and other borrowings. Interest expense on trust pass-through securities and other borrowings carried at amortized cost is recognized in profit or loss using the effective interest method.

2.33 Leases

Arrangements that do not take the form of a lease but convey a right to use an asset in return for a payment are assessed at inception to determine whether they are, or contain, a lease. This involves an assessment of whether fulfillment of the arrangement is dependent on the use of a specific asset and whether the purchaser (lessee) has the right to control the use of the underlying asset.

Leases that do not transfer substantially all the risks and rewards of ownership are classified as operating leases.

Payments made under operating leases, where the Group is the lessee, are charged to the income statement on a straight line basis over the period of the lease.

Where the Group is the lessor under an operating lease, the assets subject to the operating lease arrangement are presented in the statement of financial position according to the nature of the asset. Income from these leases are recognized in the income statement on a straight line basis over the lease term, unless another systematic basis is more representative of the time pattern in which use benefit derived from the leased asset is diminished.

2.34 Events after the reporting period

The financial statements are adjusted to reflect events that occurred between the reporting date and the date when the financial statements are authorized for issue, provided they give evidence of conditions that existed at the reporting date.

Events that are indicative of conditions that arose after the reporting date are disclosed, but do not result in an adjustment of the financial statements themselves.

3 Critical accounting estimates and judgment in applying accounting policies

Application of the accounting policies in the preparation of the financial statements requires management to apply judgment involving assumptions and estimates concerning future results or other developments, including the likelihood, timing or amount of future transactions or events. Those estimates are inherently subject to change and actual results could differ from those estimates. Included among the material (or potentially material) reported amounts and disclosures that require extensive use of estimates are: fair value of certain invested assets and derivatives, deferred policy acquisition costs (please refer to paragraph 2.13), value of business acquired and other purchased intangible assets (please refer to paragraph 2.6), goodwill (please refer to paragraph 2.6), policyholder claims and benefits (please refer to paragraph 2.29), insurance guarantees (please refer to paragraph 2.19), pension plans (please refer to paragraph 2.22), income taxes (please refer to paragraph 2.24) and the potential effects of resolving litigation matters (please refer to paragraph 2.25). Accounting policies that are critical to the financial statement presentation and that require complex estimates or significant judgment are described in the following sections.

Valuation of assets and liabilities arising from life insurance contracts

The liability for life insurance contracts with guaranteed or fixed account terms is either based on current assumptions, on the assumptions established at inception of the contract, reflecting the best estimates at the time increased with a margin for adverse deviation or on the valuation assumptions (historical cost), without risk margin. All contracts are subject to liability adequacy testing which reflects management s current estimates of future cash flows (including investment returns). To the extent that the liability is based on current assumptions, a change in assumptions will have an immediate impact on the income statement. Also, if a change in assumption results in not passing the liability adequacy test, the entire deficiency is recognized in the income statement.

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To the extent that the deficiency relates to unrealized gains and losses on available-for-sale investments, the additional liability is recognized in the related revaluation reserve in shareholders equity.

Some insurance contracts without a guaranteed or fixed contractual term contain guaranteed minimum benefits. Depending on the nature of the guarantee, it may either be bifurcated and presented as a derivative or be reflected in the value of the insurance liability in accordance with local accounting principles. Given the dynamic and complex nature of these guarantees, stochastic techniques under a variety of market return scenarios are often used for measurement purposes. Such models require management to make numerous estimates based on historical experience and market expectations. Changes in these estimates will immediately affect the income statement.

In addition, certain acquisition costs related to the sale of new policies and the purchase of policies already in force are recorded as DPAC and VOBA assets respectively, and are amortized to the income statement over time. If the assumptions relating to the future profitability of these policies are not realized, the amortization of these costs could be accelerated and may require write-offs due to unrecoverability.

Actuarial and economic assumptions

The main assumptions used in measuring DPAC, VOBA and the liabilities for life insurance contracts with fixed or guaranteed terms relate to mortality, morbidity, investment return and future expenses. Depending on local accounting principles, surrender, lapse, and utilization rates may be considered.

Mortality tables applied are generally developed based on a blend of company experience and industry wide studies, taking into consideration product characteristics, own risk selection criteria, target market and past experience. Mortality experience is monitored through regular studies, the results of which are fed into the pricing cycle for new products and reflected in the liability calculation when appropriate. For contracts insuring survivorship or mortality, allowance may be made for further longevity or mortality improvements. Morbidity assumptions are based on own claims severity and frequency experience, adjusted where appropriate for industry information.

Investment assumptions are prescribed by the local regulator, market observable or based on management s future expectations. In the latter case, the anticipated future investment returns are set by management on a countrywide basis, considering available market information and economic indicators. A significant assumption related to estimated gross profits on variable annuities and variable life insurance products in the United States and some of the smaller countries, is the annual long-term growth rate of the underlying assets. The reconsideration of this assumption may affect the original DPAC or VOBA amortization schedule, referred to as DPAC or VOBA unlocking. The difference between the original DPAC or VOBA amortization schedule and the revised schedule, which is based on actual and estimates of future gross profits, is recognized in the income statement as an expense or a benefit in the period of determination.

Assumptions on future expenses are based on the current level of expenses, adjusted for expected expense inflation if appropriate. In Aegon the Netherlands, the expense basis makes an allowance for planned future cost savings, which are included in the liability adequacy test.

Surrender and lapse rates depend on product features, policy duration and external circumstances such as the interest rate environment and competitor behavior. For policies with account value guarantees based on equity market movements, a dynamic lapse assumption is utilized to reflect policyholder behavior based on whether the guarantee is in the money. Own experience, as well as industry published data, are used in establishing assumptions. Lapse experience is correlated to mortality and morbidity levels, as higher or lower levels of surrenders may indicate future claims will be higher or lower than anticipated. Such correlations are accounted for in the mortality and morbidity assumptions based on the emerging analysis of experience.

Actuarial assumption and model updates

Assumptions are reviewed periodically, historically in the third quarter, but now in the second quarter for the US and Asia and in the fourth quarter for Europe, based on historical experience, observable market data, including market transactions such as acquisitions and reinsurance transactions, anticipated trends and legislative changes. Similarly, the models and systems used for determining our liabilities are reviewed periodically and, if deemed necessary, updated based on emerging best practices and available technology.

During 2018, Aegon implemented actuarial assumption and model updates resulting in a net EUR 121 million charge to income before tax (2017: EUR 276 million charge). Refer to note 5 Segment information for further details.

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For the years 2016 through 2018, Aegon kept its long-term equity market return assumption for the estimated gross profits on variable life and variable annuity products in the Americas at 8%. During the three year period, the long-term assumption for 10-year US Treasury yields was 4.25% and the uniform grading period was 10 years. Aegon s assumed returns for US separate account bond funds are 4% over the next 10 years and 6% thereafter. The long term credit spread assumption, net of assumed defaults and expenses, on our most common corporate bonds is 114bps. The 90-day Treasury yield was 2.37%, 1.39%, and 0.51% at December 31, 2018, 2017 and 2016, respectively. During the period 2016 to 2018 the 90-day Treasury yield was assumed to have a uniform grading over 10 years to 2.5%. On a quarterly basis, the estimated gross profits are updated for the difference between the estimated market return and the actual market return.

Sensitivity on variable annuities and variable life insurance products in the United States

A 1% decrease in the expected long-term equity growth rate with regard to Aegon s variable annuities and variable life insurance products in the United States would result in a decrease in DPAC and VOBA balances and reserve strengthening of approximately EUR 148 million (2017: EUR 130 million). The DPAC and VOBA balances for these products in the United States amounted to EUR 2.6 billion at December 31, 2018 (2017: EUR 2.7 billion).

A relative increase of 10% to the mortality assumption was used, dependent on product and characteristics of the block of business, would reduce net income by approximately EUR 207 million (2017: EUR 265 million). A relative 20% increase in the lapse rate assumption would increase net income by approximately EUR 89 million (2017: EUR 78 million).

Any reasonably possible changes in the other assumptions Aegon uses to determine EGP margins (i.e. maintenance expenses) would reduce net income by less than EUR 9 million (2017: EUR 15 million).

Sensitivity on long term care products (LTC) in the United States

Sensitivities of significant product liability assumptions on the LTC IFRS after-tax Gross Present Value Reserve (GPV) margin are indicated below. The GPV is the liability as determined on a best estimate assumption basis. Until an assumption change is of significant amount to breach the current margin of EUR 35 million (loss recognition block of LTC), there will be no IFRS financial impact (2017: EUR 17 million). The GPV margin is the amount by which the IFRS reserve exceeds the GPV liability.

A 5% increase in the incidence rates with regard to Aegon s long term care products would result in a GPV increase of approximately EUR 170 million. A 5% decrease in the incidence rates with regard to Aegon s long term care products would result in a GPV decrease of approximately EUR 170 million.

Removing the morbidity improvement, which is a component of the incidence assumption, would result in a GPV increase of approximately EUR 500 million, of which EUR 425 million relates to the loss recognition block.

Reducing mortality 10% would result in a GPV increase of approximately EUR 85 million. Increasing mortality 10% would result in a GPV decrease of approximately EUR 85 million.

Removing future mortality improvement would result in a GPV decrease of approximately EUR 85 million.

Determination of fair value and fair value hierarchy

The following is a description of Aegon s methods of determining fair value, and a quantification of its exposure to assets and liabilities measured at fair value.

Fair value is defined as the amount that would be received from the sale of an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date under current market conditions (i.e. an exit price at the measurement date from the perspective of a market participant that holds the asset or owes the liability). A fair value measurement assumes that the transaction to sell the asset or transfer the liability takes place either:

- In the principal market for the asset or liability; or
- In the absence of a principal market, in the most advantageous market for the asset or liability.

Aegon uses the following hierarchy for measuring and disclosing of the fair value of assets and liabilities:

- Level I: quoted prices (unadjusted) in active markets for identical assets or liabilities that Aegon can access at the measurement date;

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Level II: inputs other than quoted prices included within Level I that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices of identical or similar assets and liabilities) using valuation techniques for which all significant inputs are based on observable market data; and
Level III: inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs) using valuation techniques for which any significant input is not based on observable market data.

The best evidence of fair value is a quoted price in an actively traded market. In the event that the market for a financial instrument is not active or quoted market prices are not available, a valuation technique is used.

The degree of judgment used in measuring the fair value of assets and liabilities generally inversely correlates with the level of observable valuation inputs. Aegon maximizes the use of observable inputs and minimizes the use of unobservable valuation inputs when measuring fair value. Financial instruments, for example, with quoted prices in active markets generally have more pricing observability and therefore less judgment is used in measuring fair value. Conversely, financial instruments for which no quoted prices are available have less observability and are measured at fair value using valuation models or other pricing techniques that require more judgment.

The assets and liabilities categorization within the fair value hierarchy is based on the lowest input that is significant to the fair value measurement.

An active market is one in which transactions for the asset or liability take place with sufficient frequency and volume to provide pricing information on an ongoing basis. The judgment as to whether a market is active may include, although not necessarily determinative, lower transaction volumes, reduced transaction sizes and, in some cases, no observable trading activity for short periods. In inactive markets, assurance is obtained that the transaction price provides evidence of fair value or it is determined that adjustments to transaction prices are necessary to measure the fair value of the instrument.

The majority of valuation techniques employ only observable market data, and so the reliability of the fair value measurement is high. However, certain assets and liabilities are valued on the basis of valuation techniques that feature one or more significant market inputs that are unobservable and, for such assets and liabilities, the derivation of fair value is more judgmental. An instrument is classified in its entirety as valued using significant unobservable inputs (Level III) if, in the opinion of management, a significant proportion of the instrument s carrying amount is driven by unobservable inputs. Unobservable in this context means that there is little or no current market data available from which to determine the price at which an at arm s length transaction would be likely to occur. It generally does not mean that there is no market data available at all upon which to base a determination of fair value. Additional information is provided in the table headed Effect of changes in significant unobservable assumptions to reasonably possible alternatives in note 47 Fair Value. While Aegon believes its valuation techniques are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain instruments (both financial and non-financial) could result in a different estimate of fair value at the reporting date.

To operationalize Aegon s fair value hierarchy, individual instruments (both financial and non-financial) are assigned a fair value level based primarily on the type of instrument and the source of the prices (e.g. index, third-party pricing service, broker, internally modeled). Periodically, this logic for assigning fair value levels is reviewed to determine if any modifications are necessary in the context of the current market environment.

4 Financial risks

General

As an insurance group, Aegon is exposed to a variety of risks. Aegon s largest exposures are to changes in financial markets (e.g. foreign currency, interest rate, credit and equity market risks) that affect the value of the investments, liabilities from products that Aegon sells, deferred expenses and value of business acquired. Other risks include insurance related risks, such as changes in mortality and morbidity, which are discussed in note 36 Insurance contracts. Aegon manages risk at local level where business is transacted, based on principles and policies established at the Group level. Aegon s integrated approach to risk management involves similar measurement of risk and scope of risk coverage to allow for aggregation of the Group s risk position.

To manage its risk exposure, Aegon has risk policies in place. Many of these policies are group-wide while others are specific to the unique situation of local businesses. The Group level policies limit the Group s exposure to major risks such as equity, interest rates, credit, and currency. The limits in these policies in aggregate remain within the Group s overall tolerance for risk and the Group s financial resources. Operating within this policy framework, Aegon employs risk management programs including asset liability management (ALM) processes and models and hedging programs (which are largely conducted via the use of financial derivative

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instruments). These risk management programs are in place in each country unit and are not only used to manage risk in each unit, but are also part of the Group s overall risk strategy.

Aegon operates a Derivative Use Policy to govern its usage of derivatives. This policy establishes the control, authorization, execution and monitoring requirements of the usage of such instruments. In addition, the policy stipulates necessary mitigation of credit risk created through derivatives management tools. For derivatives, counterparty credit risk is normally mitigated by requirements to post collateral via credit support annex agreements or through a central clearinghouse.

As part of its risk management programs, Aegon takes inventory of its current risk position across risk categories. Aegon also measures the sensitivity of net income and shareholders equity under both deterministic and stochastic scenarios. Management uses the insight gained through these what if? scenarios to manage the Group s risk exposure and capital position. The models, scenarios and assumptions used are reviewed regularly and updated as necessary.

Results of Aegon s sensitivity analyses are presented throughout this section to show the estimated sensitivity of net income and shareholders equity to various scenarios. For each type of market risk, the analysis shows how net income and shareholders equity would have been affected by changes in the relevant risk variable that were reasonably possible at the reporting date. For each sensitivity test the impact of a reasonably possible change in a single factor is shown. Management action is taken into account to the extent that it is part of Aegon s regular policies and procedures, such as established hedging programs. However, incidental management actions that would require a change in policies and procedures are not considered.

Each sensitivity analysis reflects the extent to which the shock tested would affect management s critical accounting estimates and judgment in applying Aegon s accounting policies. Market-consistent assumptions underlying the measurement of non-listed assets and liabilities are adjusted to reflect the shock tested. The shock may also affect the measurement of assets and liabilities based on assumptions that are not observable in the market. For example, a shock in interest rates may lead to changes in the amortization schedule of DPAC or to increased impairment losses on equity investments. Although management s short-term assumptions may change if there is a reasonably possible change in a risk factor, long-term assumptions will generally not be revised unless there is evidence that the movement is permanent. This fact is reflected in the sensitivity analyses.

The accounting mismatch inherent in IFRS is also apparent in the reported sensitivities. A change in interest rates has an immediate impact on the carrying amount of assets measured at fair value. However, the shock will not have a similar effect on the carrying amount of the related insurance liabilities that are measured based on locked-in assumptions or on management s long-term expectations. Consequently, the different measurement bases for assets and liabilities lead to increased volatility in IFRS net income and shareholders equity. Aegon has classified a significant part of its investment portfolio as available-for-sale , which is one of the main reasons why the economic shocks tested have a different impact on net income than on shareholders equity. Unrealized gains and losses on these assets are not recognized in the income statement but are booked directly to the revaluation reserves in shareholders equity, unless impaired. As a result, economic sensitivities predominantly impact shareholders equity but leave net income unaffected. The effect of movements of the revaluation reserve on capitalization ratios and capital adequacy are minimal. Aegon s target ratio for the composition of its capital base is based on shareholders equity excluding the revaluation reserve.

The sensitivities do not reflect what the net income for the period would have been if risk variables had been different because the analysis is based on the exposures in existence at the reporting date rather than on those that actually occurred during the year. Nor are the results of the sensitivities intended to be an accurate prediction of Aegon s future shareholders equity or earnings. The analysis does not take into account the impact of future new business, which is an important component of Aegon s future earnings. It also does not consider all methods available to management to respond to changes in the financial environment, such as changing investment portfolio allocations or adjusting premiums and crediting rates. Furthermore, the results of the analyses cannot be extrapolated for wider variations since effects do not tend to be linear.

Concentration risk for financial risks are measured and managed at the following levels:

- Concentration per risk type: Risk exposures are measured per risk type as part of Aegon s internal economic framework. A risk tolerance framework is in place which sets risk limits per risk type to target desired risk balance and promote diversification across risk types;
- Concentration per counterparty: Risk exposure is measured and risk limits are in place per counterparty as part of the Counterparty Name Limit Policy; and
- Concentration per sector, geography and asset class: Aegon s investment strategy is translated in investment mandates for its internal and external asset managers. Through these investment mandates limits on sector, geography and asset class are set. Compliance monitoring of the investment mandates is done by the insurance operating companies.

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Moreover, concentration of financial risks are measured in Aegon business planning cycle. As part of business planning, the resilience of Aegon s business strategy is tested in several extreme event scenarios. In the Adverse Financial scenario, financial markets are stressed without assuming diversification across different market factors. Within the projection certain management actions may be implemented when management deems this necessary.

Aegon s significant financial risks and related financial information are explained in the order as follows:

- Credit risk
- Equity market risk and other investment risks
- Interest rate risk
- Currency exchange risk
- Liquidity risk

Credit risk

As premiums and deposits are received, these funds are invested to pay for future policyholder obligations. For general account products, Aegon typically bears the risk for investment performance which is equal to the return of principal and interest. Aegon is exposed to credit risk on its general account fixed-income portfolio (debt securities, mortgages and private placements), over-the-counter derivatives and reinsurance contracts. Some issuers have defaulted on their financial obligations for various reasons, including bankruptcy, lack of liquidity, downturns in the economy, downturns in real estate values, operational failure and fraud. During financial downturns, Aegon can incur defaults or other reductions in the value of these securities and loans, which could have a materially adverse effect on Aegon s business, results of operations and financial condition. Investments for account of policyholders are excluded as the policyholder bears the credit risk associated with the investments.

The table that follows shows the Group s maximum exposure to credit risk from investments in general account financial assets, as well as general account derivatives and reinsurance assets, collateral held and net exposure. Please refer to note 49 Transfer of financial assets for further information on collateral given, which may expose the Group to credit risk.

2018	Maximum exposure to credit risk	Cash	Securities	Letters of credit/ guarantees	Real estate property	Master netting agreements	Other	Total collateral	Surplus collateral (or over-collateralization)	Net exposure
Debt securities carried at fair value	81,253	-	-	169	-	-	-	169	-	81,084
Debt securities carried at amortized cost	-	-	-	-	-	-	-	-	-	-
	6,307	-	484	-	-	-	-	484	29	5,852

Money market and other short-term investments carried at fair value										
Mortgage loans carried at amortized cost	36,240	2,535	-	136	57,009	-	-	59,680	23,589	149
Private loans carried at amortized cost	4,103	45	-	-	-	-	-	45	-	4,058
Other loans carried at amortized cost	2,310	-	-	-	-	-	1,960	1,960	1,238	1,589
Other financial assets carried at fair value	3,551	-	-	-	-	-	-	-	-	3,551
Derivatives	7,337	2,627	233	31	-	4,606	-	7,496	225	66
Reinsurance assets	20,505	-	4,035	104	-	-	-	4,139	-	16,366
At December 31	**161,607**	**5,207**	**4,752**	**439**	**57,009**	**4,606**	**1,960**	**73,972**	**25,081**	**112,715**

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2017	Maximum exposure to credit risk	Cash	Securities	Letters of credit/ guarantees	Real estate property	Master netting agreements	Other	Total collateral	Surplus collateral (or overcollateralization)	Net exposure
Debt securities carried at fair value	84,344	-	-	242	-	-	-	242	-	84,102
Debt securities carried at amortized cost	-	-	-	14	-	-	-	14	-	(14)
Money market and other short-term investments carried at fair value	6,809	-	719	-	-	-	-	719	25	6,115
Mortgage loans carried at amortized cost	33,562	2,437	-	379	49,756	-	-	52,573	19,271	260
Private loans carried at amortized cost	3,642	79	-	-	-	-	-	79	-	3,563
Other loans carried at amortized cost	2,164	-	-	-	-	-	1,886	1,886	1,195	1,473
Other financial assets carried at fair value	2,586	-	-	-	-	-	-	-	-	2,586
Derivatives	5,563	647	56	29	-	4,867	-	5,599	85	48
Reinsurance assets	19,200	-	4,395	137	-	-	-	4,532	-	14,667
At December 31	**157,869**	**3,163**	**5,171**	**801**	**49,756**	**4,867**	**1,886**	**65,644**	**20,576**	**112,800**

Debt securities

Several bonds in Aegon s Americas s portfolio are guaranteed by monoline insurers. This is shown in the table above in the column Letters of credit/guarantees . Further information on the monoline insurers is provided below under Monoline insurers .

Money market and short-term investments

The collateral reported for the money market and short-term investments are related to tri-party repurchase agreements (repos). Within tri-party repos Aegon invests under short-term reverse repurchase agreements and the counterparty posts collateral to a third party custodian. The collateral posted is typically high-quality, short-term securities and is only accessible for or available to Aegon in the event the counterparty defaults.

Mortgage loans

The real estate collateral for mortgages includes both residential and commercial properties. The collateral for commercial mortgage loans in Aegon Americas is measured at fair value. At a minimum on an annual basis, a fair value is estimated for each individual real estate property that has been pledged as collateral. When a loan is originally provided, an external appraisal is obtained to estimate the value of the property. In subsequent years, the value is typically estimated internally using various professionally accepted valuation methodologies. Internal appraisals are performed by qualified, professionally accredited personnel. International valuation standards are used and the most significant assumptions made during the valuation of real estate are the current cost of reproducing or replacing the property, the value that the property s net earning power will support, and the value indicated by recent sales of comparable properties. Valuations are primarily supported by market evidence. For Aegon the Netherlands, collateral for the residential mortgages is measured as the foreclosure value which is indexed periodically.

Cash collateral for mortgage loans includes the savings that have been received to redeem the underlying mortgage loans at redemption date. These savings are part of the credit side of the statement of financial position, but reduce the credit risk for the mortgage loan as a whole.

A substantial part of Aegon s Dutch residential mortgage loan portfolio benefits from guarantees by a Dutch government-backed trust (Stichting Waarborgfonds Eigen Woning) through the Dutch Mortgage loan Guarantee program (NHG). With exception of NHG-backed mortgage loans originated after January 1, 2014, for which a 10% lender-incurred haircut applies on realized losses on each defaulted loan, these guarantees cover all principal losses, missed interest payments and foreclosure costs incurred upon termination and settlement of defaulted mortgage loans when lender-specific terms and conditions of the guarantee are met. When not fully met, the trust may pay claims in part or in full, depending on the severity of the breach of terms and conditions. For each specific loan, the guarantee amortizes in line with an equivalent annuity mortgage loan. When the remaining loan balance at default does not exceed

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the amortized guarantee, it covers the full loss under its terms and conditions. Any loan balance in excess of this decreasing guarantee profile serves as a first loss position for the lender.

Derivatives

The master netting agreements column in the table relates to derivative liability positions which are used in Aegon s credit risk management. The offset in the master netting agreements column includes balances where there is a legally enforceable right of offset, but no intention to settle these balances on a net basis under normal circumstances. As a result, there is a net exposure for credit risk management purposes. However, as there is no intention to settle these balances on a net basis, they do not qualify for net presentation for accounting purposes.

Reinsurance assets

The collateral related to the reinsurance assets include assets in trust that are held by the reinsurer for the benefit of Aegon. The assets in trust can be accessed to pay policyholder benefits in the event the reinsurers fail to perform under the terms of their contract. Further information on the related reinsurance transactions is included in note 28 Reinsurance assets.

Other loans

The collateral included in the other column represents the policyholders account value for policy loans. The excess of the account value over the loan value is included in the surplus collateral column. For further information on the policy loans refer to note 23.1 Financial assets, excluding derivatives.

The total collateral includes both under- and over-collateralized positions. To present a net exposure of credit risk, the over-collateralization, which is shown in the surplus collateral column, is extracted from the total collateral.

Credit risk management

Aegon manages credit risk exposure by individual counterparty, sector and asset class, including cash positions. Normally, Aegon mitigates credit risk in derivative contracts by entering into credit support agreement, where practical, and in ISDA master netting agreements for most of Aegon s legal entities to facilitate Aegon s right to offset credit risk exposure. Main counterparties to these transactions are investment banks which are typically rated A or higher. The credit support agreement will normally dictate the threshold over which collateral needs to be pledged by Aegon or its counterparty. Transactions requiring Aegon or its counterparty to post collateral are typically the result of derivative trades, comprised mostly of interest rate swaps, equity swaps, currency swaps and credit swaps. Collateral received is mainly cash (USD and EUR). The credit support agreements that outline the acceptable collateral require high quality instruments to be posted. Over the last three years, there was no default with any derivatives counterparty. The credit risk associated with financial assets subject to a master netting agreement is eliminated only to the extent that financial liabilities due to the same counterparty will be settled after the assets are realized. Eligible derivative transactions are traded via Central Clearing Houses as required by EMIR and the Dodd-Frank act. Credit risk in these transactions is mitigated through posting of initial and variation margins.

Aegon may also mitigate credit risk in reinsurance contracts by including downgrade clauses that allow the recapture of business, retaining ownership of assets required to support liabilities ceded or by requiring the reinsurer to hold assets in trust. For the resulting net credit risk exposure, Aegon employs deterministic and stochastic credit risk modeling in order to assess the Group s credit risk profile, associated earnings and capital implications due to various credit loss scenarios.

Aegon operates a Credit Name Limit Policy (CNLP) under which limits are placed on the aggregate exposure that it has to any one counterparty. Limits are placed on the exposure at both group level and individual country units. The limits also vary by a rating system, which is a composite of the main rating agencies (S&P, Moody s and Fitch) and Aegon s internal rating of the counterparty. If an exposure exceeds the stated limit, then the exposure must be reduced to the limit for the country unit and rating category as soon as possible. Exceptions to these limits can only be made after explicit approval from Aegon s Group Risk and Capital Committee (GRCC). The policy is reviewed regularly.

At December 31, 2018 there was no violation of the Credit Name Limit Policy at Group level (December 31, 2017: nil).

At December 31, 2018 Aegon s largest corporate credit exposures are to Wilton Re Holdings Ltd, American United Mutual Insurance, SCOR and Reinsurance Group of America. Aegon had large government exposures, the largest being in the Americas, the Netherlands and Germany. Highly rated government bonds and government exposure domestically issued and owned in local currency are excluded from the Credit Name Limit Policy.

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Aegon group level long-term counterparty exposure limits are as follows:

Group limits per credit rating		
Amounts in EUR million	**2018**	2017
AAA	900	900
AA	900	900
A	675	675
BBB	450	450
BB	250	250
B	125	125
CCC or lower	50	50

Credit rating

The ratings distribution of general account portfolios of Aegon s major reporting units, excluding reinsurance assets, are presented in the table that follows, organized by rating category and split by assets that are valued at fair value and assets that are valued at amortized cost. Aegon uses a composite rating based on a combination of the external ratings of S&P, Moody s, Fitch and National Association of Insurance Commissioners (NAIC which is for US only) and internal ratings. The rating used is the lower of the external rating and the internal rating.

	Americas		The Netherlands		United Kingdom		Central & Eastern Europe		Spain & Portugal	
Credit rating general account investments, excluding reinsurance assets 2018	Amortized cost	Fair value	Amortized cost	Fair value	Amortized cost	Fair value	Amortized cost	Fair value	Amortized cost	Fair value
AAA	941	15,338	1,611	12,956	-	84	-	1	-	9
AA	3,104	3,855	83	6,704	-	594	-	22	-	78
A	3,567	17,428	55	2,482	-	291	16	119	38	386
BBB	266	17,609	924	1,299	-	95	6	502	(3)	180
BB	7	1,393	52	39	-	1	9	5	-	17
B	-	1,013	-	-	-	-	64	105	-	-
CCC or lower	-	741	-	-	-	-	1	1	-	-
Assets not rated	1,952	4,126	29,534	4,423	-	1,085	11	67	2	4
Total	**9,837**	**61,501**	**32,259**	**27,905**	**-**	**2,149**	**106**	**823**	**37**	**673**
Past due and/or impaired assets	108	1,346	277	25	-	-	-	1	-	-
At December 31	**9,945**	**62,847**	**32,536**	**27,930**	**-**	**2,149**	**106**	**824**	**37**	**673**

Credit rating general account investments, excluding reinsurance assets 2018	Asia Amortized cost	Asia Fair value	Asset Management Amortized cost	Asset Management Fair value	Total 2018 [1] Amortized cost	Total 2018 [1] Fair value	Total 2018 [1] Total carrying value
AAA	-	987	-	136	2,552	29,518	32,070
AA	-	372	-	-	3,188	11,626	14,813
A	-	1,823	-	5	3,675	22,542	26,218
BBB	-	2,186	-	1	1,193	21,871	23,064
BB	-	140	-	9	68	1,653	1,721
B	-	132	-	17	64	1,267	1,331
CCC or lower	-	22	-	9	1	773	774
Assets not rated	16	14	-	5	31,527	9,960	41,488
Total	**16**	**5,676**	**-**	**181**	**42,268**	**99,210**	**141,478**
Past due and/or impaired assets	-	27	-	-	385	1,399	1,784
At December 31	**16**	**5,704**	**-**	**181**	**42,653**	**100,609**	**143,263**

[1] Includes investments of Holding and other activities.

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Credit rating general account investments, excluding reinsurance assets 2017	Americas		The Netherlands		United Kingdom		Central & Eastern Europe		Spain & Portugal	
	Amortized cost	Fair value	Amortized cost	Fair value	Amortized cost	Fair value	Amortized cost	Fair value	Amortized cost	Fair value
AAA	958	18,935	1,658	12,727	-	137	-	1	-	9
AA	2,693	3,353	85	5,449	-	1,139	-	5	-	48
A	2,905	18,684	56	3,186	-	449	8	126	55	167
BBB	330	16,822	941	1,267	-	78	3	495	(3)	401
BB	18	1,567	18	22	-	9	72	92	-	20
B	-	1,162	-	-	-	-	2	1	-	-
CCC or lower	-	793	-	3	-	-	-	-	-	-
Assets not rated	1,892	2,797	27,133	3,770	-	219	107	55	2	6
Total	**8,796**	**64,114**	**29,890**	**26,425**	**-**	**2,031**	**193**	**775**	**54**	**651**
Past due and/or impaired assets	35	1,145	299	41	-	-	82	1	-	-
At December 31	**8,831**	**65,259**	**30,189**	**26,467**	**-**	**2,031**	**275**	**777**	**54**	**651**

Credit rating general account investments, excluding reinsurance assets 2017	Asia		Asset Management		Total 2017 [1]		
	Amortized cost	Fair value	Amortized cost	Fair value	Amortized cost	Fair value	Total carrying value
AAA	-	985	-	144	2,616	32,960	35,575
AA	-	340	-	-	2,778	10,334	13,111
A	-	1,775	-	-	3,024	24,399	27,423
BBB	-	1,920	-	-	1,271	20,983	22,254
BB	-	140	-	1	107	1,852	1,959
B	-	117	-	4	2	1,284	1,287
CCC or lower	-	23	-	4	-	823	823
Assets not rated	6	1	-	4	29,154	7,011	36,165
Total	**6**	**5,300**	**-**	**157**	**38,951**	**99,645**	**138,597**
Past due and/or impaired assets	-	20	-	-	416	1,207	1,624
At December 31	**6**	**5,320**	**-**	**157**	**39,368**	**100,853**	**140,221**

[1] Includes investments of Holding and other activities.

The following table shows the credit quality of the gross positions in the statement of financial position for general account reinsurance assets specifically:

	Carrying value 2018	Carrying value 2017
AAA	-	-
AA	9,150	13,379
A	11,041	5,242
Below A	30	24
Not rated	284	555
At December 31	**20,505**	**19,200**

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Credit risk concentration

The tables that follow present specific credit risk concentration information for general account financial assets.

Credit risk concentrations debt securities and money market investments 2018	America	The Netherlands	United Kingdom	Central & Eastern Europe	Spain & Portugal	Asia	Asset Manage-ment	**Total 2018** [1]	Of which past due and/or impaired assets
Residential mortgage-backed securities (RMBSs)	2,138	395	-	-	-	52	-	2,585	918
Commercial mortgage-backed securities (CMBSs)	3,314	35	127	-	-	537	-	4,013	14
Asset-backed securities (ABSs) CDOs backed by ABS, Corp. bonds, Bank loans	717	1,669	-	-	-	61	-	2,447	3
ABSs Other	1,915	247	61	-	6	323	-	2,552	40
Financial Banking	6,423	1,473	132	92	118	815	6	9,059	29
Financial Other	8,863	188	33	4	112	595	121	9,924	19
Industrial	21,060	1,515	213	5	142	2,486	33	25,457	187
Utility	3,572	115	60	5	46	370	-	4,169	144
Government bonds	9,607	15,948	438	650	238	457	17	27,356	8
At December 31	**57,609**	**21,586**	**1,064**	**756**	**662**	**5,696**	**176**	**87,560**	**1,362**

[1] Includes investments of Holding and other activities.

Credit risk concentrations Government bonds per country of risk 2018	America	The Netherlands	United Kingdom	Central & Eastern Europe	Spain & Portugal	Asia	Asset Manage-ment	**Total 2018** [1]
United States	8,891					362		9,253
Netherlands		6,040						6,040
United Kingdom			356	1			17	374
Austria		1,102			4			1,106
Belgium		1,000	21		6			1,027

Finland		949						949
France		1,292	33		5			1,329
Germany		4,397						4,397
Hungary	3			410				413
Luxembourg		786			1			787
Spain		89		3	206			298
Rest of Europe	103	264		236	11	9		623
Rest of world	580	30	28	-	5	86		730
Supranational	30							30
At December 31	**9,607**	**15,948**	**438**	**650**	**238**	**457**	**17**	**27,356**

[1] Includes investments of Holding and other activities.

Credit risk concentrations Credit rating 2018 [2]	Government bonds	Corporate bonds	RMBSs CMBSs ABSs	Other	**Total 2018** [1]
AAA	20,479	772	6,505	1,753	29,511
AA	4,949	3,264	1,721		9,934
A	614	18,482	1,490	1	20,587
BBB	961	20,360	349	1	21,670
BB	215	1,279	144		1,638
B	136	1,003	69		1,207
CCC or lower	1	302	1,318		1,621
Assets not rated				1,391	1,391
At December 31	**27,356**	**45,462**	**11,596**	**3,147**	**87,560**

[1] Includes investments of Holding and other activities.
[2] CNLP Ratings are used and are the lower of the Barclay s Rating and the Internal Rating with the Barclay s rating being a blended rating of S&P, Fitch, and Moody s.

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Credit risk concentrations debt securities and money market investments 2017	Americas	The Netherlands	United Kingdom	Central & Eastern Europe	Spain & Portugal	Asia	Asset Manage-ment	Total 2017 [1]	Of which past due and/or impaired assets
Residential mortgage-backed securities (RMBSs)	3,025	556	17	-	-	57	-	3,655	1,022
Commercial mortgage-backed securities (CMBSs)	3,375	28	146	-	-	537	-	4,086	10
Asset-backed securities (ABSs) CDOs backed by ABS, Corp. bonds, Bank loans	751	1,529	-	-	-	47	-	2,327	3
ABSs Other	1,688	270	88	-	1	331	-	2,378	35
Financial Banking	6,525	1,440	124	102	104	730	-	9,026	3
Financial Other	9,028	212	58	3	114	498	137	10,069	4
Industrial	21,975	1,726	255	7	129	2,344	-	26,435	62
Utility	3,386	119	65	3	45	309	-	3,927	-
Government bonds	11,319	15,531	1,060	603	253	466	17	29,249	14
At December 31	**61,073**	**21,411**	**1,812**	**718**	**646**	**5,319**	**153**	**91,153**	**1,154**

[1] Includes investments of Holding and other activities.

Credit risk concentrations Government bonds per country of risk 2017	Americas	The Netherlands	United Kingdom	Central & Eastern Europe	Spain & Portugal	Asia	Asset Manage-ment	Total 2017 [1]
United States	10,501	32	-	-	-	372	-	10,906
Netherlands	-	5,777	-	-	4	-	-	5,781
United Kingdom	-	-	946	1	-	-	17	964
Austria	-	1,154	-	-	4	-	-	1,158
Belgium	-	1,065	23	-	6	-	-	1,094
Finland	-	938	-	-	-	-	-	938
France	-	1,216	34	-	5	-	-	1,255
Germany	-	4,233	28	-	-	-	-	4,261
Hungary	3	-	-	402	-	-	-	405
Luxembourg	-	785	-	-	1	-	-	786
Spain	-	89	-	2	203	-	-	294
Rest of Europe	133	205	-	198	16	17	-	568
Rest of world	652	36	29	-	14	77	-	809
Supranational	30	-	-	-	-	-	-	30

At December 31	**11,319**	**15,531**	**1,060**	**603**	**253**	**466**	**17**	**29,249**

[1] Includes investments of Holding and other activities.

Credit risk concentrations rating 2017 [2]	**Credit**	Government bonds	Corporate bonds	RMBSs	CMBSs ABSs	Other	Total 2017 [1]
AAA		21,855	792	7,102		3,157	32,906
AA		5,462	2,879	1,700		-	10,040
A		311	20,765	1,443		-	22,520
BBB		1,198	19,045	396		6	20,646
BB		269	1,395	178		-	1,842
B		152	1,011	111		-	1,273
CCC or lower		2	309	1,516		-	1,828
Assets not rated		-	3	-		95	98
At December 31		**29,249**	**46,199**	**12,446**		**3,258**	**91,153**

[1] Includes investments of Holding and other activities.
[2] CNLP Ratings are used and are the lower of the Barclay s Rating and the Internal Rating with the Barclay s rating being a blended rating of S&P, Fitch, and Moody s.

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Credit risk concentrations mortgage loans 2018	Americas	The Netherlands	United Kingdom	Central & Eastern Europe	Spain & Portugal	Asset Manage-ment	**Total 2018** [1]	Of which past due and/or Impaired assets
Agricultural	69	-	-	-	-	-	69	15
Apartment	3,993	-	-	-	-	-	3,993	92
Industrial	871	-	-	-	-	-	871	-
Office	1,342	-	-	-	-	-	1,343	-
Retail	1,457	9	-	-	-	-	1,466	1
Other commercial	258	35	-	-	-	-	292	2
Residential	12	28,193	-	-	1	-	28,207	227
At December 31	**8,002**	**28,237**	**-**	**-**	**1**	**-**	**36,240**	**337**

[1] Includes investments of Holding and other activities.

Credit risk concentrations mortgage loans 2017	Americas	The Netherlands	United Kingdom	Central & Eastern Europe	Spain & Portugal	Asset Manage-ment	**Total 2017** [1]	Of which past due and/or Impaired assets
Agricultural	77	-	-	-	-	-	77	8
Apartment	3,371	-	-	-	-	-	3,371	-
Industrial	631	-	-	-	-	-	631	7
Office	1,226	-	-	-	-	-	1,226	-
Retail	1,375	11	-	-	-	-	1,385	19
Other commercial	256	38	-	-	-	-	294	2
Residential	16	26,384	-	176	1	-	26,578	343
At December 31	**6,951**	**26,434**	**-**	**176**	**1**	**-**	**33,562**	**379**

[1] Includes investments of Holding and other activities.

The fair value of Aegon Americas commercial and agricultural mortgage loan portfolio as per December 31, 2018, amounted to EUR 8,059 million (2017: EUR 7,132 million). The loan to value (LTV) amounted to approximately 54% (2017: 55%). Of the portfolio 1.25% (2017: 0.06%) is in delinquency (defined as 60 days in arrears). In 2018, Aegon Americas recognized EUR 1 million of net recoveries (2017: EUR 19 million net impairments) on this portfolio. In 2018, there were no foreclosures (2017: EUR 0 million) and no impairments or recoveries associatied with foreclosed loans (2017: EUR 0 million).

The fair value of Aegon the Netherlands mortgage loan portfolio as per December 31, 2018, amounted to EUR 31,686 million (2017: EUR 30,926 million). The LTV amounted to approximately 70% (2017: 76%). A significant part of the portfolio 46% (2017: 51%) is government guaranteed. Of the portfolio, 0.2% (2017: 0.2%) is in delinquency (defined as 60 days in arrears). Impairments in 2018 amounted to EUR 0 million (2017: EUR 8 million). During the last ten years defaults of the portfolio have been 5 basis points on average.

Unconsolidated structured entities

Aegon s investments in unconsolidated structured entities such as RMBSs, CMBSs and ABSs and investment funds are presented in the line item Investments of the statement of financial position. Aegon s interests in these unconsolidated structured entities can be characterized as basic interests, Aegon does not have loans, derivatives, guarantees or other interests related to these investments. Any existing commitments such as future purchases of interests in investment funds are disclosed in note 48 Commitments and contingencies.

For debt instruments, specifically for RMBSs, CMBSs and ABSs, the maximum exposure to loss is equal to the carrying amount which is reflected in the credit risk concentration table regarding debt securities and money market investments. To manage credit risk Aegon invests primarily in senior notes of RMBSs, CMBSs and ABSs. Additional information on credit ratings for Aegon s investments in RMBSs, CMBSs and ABSs are disclosed in the sections that describe per category of debt securities the composition and impairment assessments. The composition of the RMBSs, CMBSs and ABSs portfolios of Aegon are widely dispersed looking at the individual amount per entity, therefore Aegon only has non-controlling interests in individual unconsolidated structured entities. Furthermore these investments are not originated by Aegon.

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Except for commitments as noted in note 48 Commitments and contingencies, Aegon did not provide, nor is required to provide financial or other support to unconsolidated structured entities. Nor does Aegon have intentions to provide financial or other support to unconsolidated structured entities in which Aegon has an interest or previously had an interest.

For RMBSs, CMBSs and ABSs in which Aegon has an interest at reporting date, the following table presents total income received from those interests. The Investments column reflects the carrying values recognized in the statement of financial position of Aegon s interests in RMBSs, CMBSs and ABSs.

	Total income 2018			December 31, 2018
2018	Interest income	Total gains and losses on sale of assets	**Total**	Investments
Residential mortgage-backed securities	140	(3)	137	2,585
Commercial mortgage-backed securities	139	(41)	98	4,013
Asset-backed securities	54	-	54	2,447
ABSs Other	84	15	99	2,552
Total	**417**	**(28)**	**389**	**11,596**

	Total income 2017			December 31, 2017
2017	Interest income	Total gains and losses on sale of assets	Total	Investments
Residential mortgage-backed securities	174	95	269	3,655
Commercial mortgage-backed securities	159	53	212	4,086
Asset-backed securities	56	26	82	2,327
ABSs Other	87	71	158	2,378
Total	**476**	**245**	**721**	**12,446**

Monoline insurers

EUR 178 million (2017: EUR 264 million) of the bonds in Aegon Americas s and Asia s portfolios are insured by Monoline insurers. An insolvency by one of the Monolines could create significant market price volatility for the affected holdings. Of the EUR 178 million indirect exposure on the Monoline insurers, 15% relates to Municipal Bond Insurance Association, Inc. (MBIA), 13% to Ambac Financial Group, inc. (AMBAC), and 52% to Assured Guaranty Corporation (AGC) (2017: 31% related to MBIA, 13% to AMBAC, and 43% to AGC).

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Additional information on credit risk, unrealized losses and impairments

Debt instruments

The amortized cost and fair value of debt securities, money market investments and other, included in Aegon s available-for-sale (AFS) portfolios, are as follows as of December 31, 2018, and December 31, 2017

2018	Amortized cost	Unrealized gains	Unrealized losses	**Total fair value**	Fair value of instruments with unrealized gains	Fair value of instruments with unrealized losses
Debt securities, money market instruments and other						
United States government	6,973	603	(127)	7,449	4,772	2,676
Dutch government	4,908	1,136	(3)	6,040	6,002	38
Other government	11,293	718	(54)	11,957	11,105	852
Mortgage-backed securities	6,275	366	(84)	6,557	3,700	2,857
Asset-backed securities	4,948	65	(55)	4,958	1,825	3,133
Corporate	39,770	1,748	(1,138)	40,379	21,441	18,939
Money market investments	5,955	-	-	5,955	5,701	254
Other	919	71	(88)	902	707	194
Total	**81,039**	**4,707**	**(1,550)**	**84,196**	**55,253**	**28,943**
Of which held by Aegon Americas and NL	72,486	4,370	(1,352)	75,504	50,976	24,528

2017	Amortized cost	Unrealized gains	Unrealized losses	**Total fair value**	Fair value of instruments with unrealized	Fair value of instruments with unrealized

					gains	losses
Debt securities, money market instruments and other						
United States government	8,011	936	(101)	8,846	6,805	2,041
Dutch government	4,799	992	(11)	5,781	4,885	896
Other government	11,746	838	(17)	12,568	11,501	1,067
Mortgage-backed securities	7,326	424	(56)	7,694	5,569	2,126
Asset-backed securities	4,624	92	(17)	4,698	3,878	820
Corporate	37,168	3,663	(218)	40,613	34,945	5,668
Money market investments	6,690	-	-	6,690	5,642	1,048
Other	765	98	(73)	791	597	193
Total	**81,130**	**7,043**	**(493)**	**87,681**	**73,822**	**13,858**
Of which held by Aegon Americas and NL	72,937	6,392	(462)	78,867	66,688	12,179

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Unrealized bond losses by sector

The composition by industry category of Aegon s available-for-sale (AFS) debt securities, money market investments and other in an unrealized loss position at December 31, 2018, and December 31, 2017, is presented in the following table:

	December 31, 2018		December 31, 2017	
Unrealized losses debt securities, money market investments and other	Carrying value of instruments with unrealized losses	Unrealized losses	Carrying value of instruments with unrealized losses	Unrealized losses
Residential mortgage-backed securities (RMBSs)	446	(30)	732	(30)
Commercial mortgage-backed securities (CMBSs)	2,012	(45)	1,140	(22)
Asset-backed securities (ABSs) CDOs backed by ABS, Corp. bonds, Bank loans	2,088	(42)	87	(2)
ABSs Other	829	(10)	603	(13)
Financial Industry Banking	2,522	(106)	663	(39)
Financial Industry Insurance	646	(36)	231	(7)
Financial Industry Other	1,523	(69)	1,411	(10)
Industrial	10,073	(684)	3,305	(131)
Utility	1,258	(78)	375	(14)
Government	2,935	(164)	3,438	(122)
Other	194	(88)	193	(73)
Total held by Aegon Americas and NL	**24,528**	**(1,352)**	**12,179**	**(462)**
Held by other segments	4,415	(197)	1,680	(31)
Total	**28,943**	**(1,550)**	**13,858**	**(493)**

As of December 31, 2018, there are EUR 4,370 million (December 31, 2017: EUR 6,392 million) of gross unrealized gains and EUR 1,352 million (December 31, 2017: EUR 462 million) of gross unrealized losses in the AFS debt securities, money markets and other portfolio of Aegon Americas and Aegon the Netherlands.

After generally strong performance through the first three quarters of 2018, U.S. credit and equity markets weakened dramatically during the fourth quarter. Credit spreads widened for the year, while U.S. equity markets finished the year sharply lower. Developed-world growth was fairly strong, with the U.S. economy outperforming. Emerging economies turned in mixed performances, with trade tensions weighing on some markets. Outside of the U.S., most equity markets were significantly weaker in 2018. The U.S. dollar strengthened against the Euro, but weakened versus the Yen. The U.S. Federal Reserve raised the Fed Funds rate by 100 basis points in 2018, reflecting strong labor conditions and healthy economic growth. Long-term U.S. Treasury rates also increased, but failed to keep pace with

shorter term rates, flattening the U.S yield curve. Corporate default rates remained very low, in spite of widening credit spreads. After rising for most of the year, oil prices fell dramatically in the fourth quarter and ended the year significantly lower. Wider credit spreads and higher U.S. treasury rates decreased the market values of fixed income holdings.

Economic growth in the Eurozone slowed down in 2018, but is still performing above trend. Unemployment is on a downward trend and wage inflation is slowly increasing in several (Northern) European countries due to the tight labor markets. In an aggregate level, the EU has a relatively strong fiscal and external position. However, on a country basis, large differences exist. The Italian government wanted to increase its budget deficit in 2019. The ensuing argument with the EU resulted in lower confidence, wider sovereign spreads and lower investments. The Italian economy therefore came to a standstill in the second half of 2018. Also the inability of the UK and the EU to reach a Brexit deal dented confidence and investments. Especially in more recent data it has become apparent that the UK economy is negatively impacted. The EU is a relatively open economy. The trade conflict between the US and China and weaker Chinese demand was therefore quickly felt via lower export volumes. The European Central Bank announced the end of its quantitative easing program. Markets are however not pricing in any rate hikes for next year.

Impairment of financial assets

Aegon regularly monitors industry sectors and individual debt securities for indicators of impairment. These indicators may include one or more of the following: 1) deteriorating market to book ratio, 2) increasing industry risk factors, 3) deteriorating financial condition of the issuer, 4) covenant violations by the issuer, 5) high probability of bankruptcy of the issuer, or 6) downgrades by internationally recognized credit rating agency. Additionally, for asset-backed securities, cash flow trends and underlying levels of collateral are monitored. A security is impaired if there is objective evidence that a loss event has occurred after the initial recognition of the asset that has a negative impact on the estimated future cash flows.

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In the sections below a description is provided on the composition of the categories of debt securities and money market investments. Individual issuers rated below investment grade in any sector which have unrealized loss positions greater than EUR 25 million are disclosed separately. Furthermore, quality ratings of investment portfolios are based on a composite of the main rating agencies (S&P, Moody s and Fitch) and Aegon s internal rating of the counterparty.

Residential mortgage-backed securities

Aegon Americas and Aegon the Netherlands hold EUR 2,497 million (December 31, 2017: EUR 3,541 million) of residential mortgage-backed securities available-for-sale (RMBS), of which EUR 2,102 million (December 31, 2017: EUR 2,985 million) is held by Aegon Americas and EUR 395 million (December 31, 2017: EUR 556 million) by Aegon the Netherlands. Residential mortgage-backed securities are securitizations of underlying pools of non-commercial mortgages on real estate. The underlying residential mortgages have varying credit characteristics and are pooled together and sold in tranches. The following table shows the breakdown of Aegon America s RMBS available-for-sale (AFS) portfolio.

AFS RMBS by quality	AAA	AA	A	BBB	<BBB	**Total amortized cost**	**Total fair value**
GSE guaranteed	450	149	-	-	-	599	599
Prime jumbo	-	16	1	5	98	120	124
Alt-A	-	59	17	5	221	301	397
Negative amortization floaters	-	1	-	11	438	450	533
Other housing	-	13	4	16	333	366	450
At December 31, 2018	**450**	**238**	**22**	**36**	**1,089**	**1,836**	**2,102**
Of which insured	-	-	20	5	99	124	113

AFS RMBS by quality	AAA	AA	A	BBB	<BBB	Total amortized cost	Total fair value
GSE guaranteed	1,025	270	-	-	-	1,295	1,298
Prime jumbo	-	-	-	5	124	130	136
Alt-A	-	33	20	8	277	337	437
Negative amortization floaters	-	-	-	-	502	502	584
Other housing	-	9	17	30	397	453	530
At December 31, 2017	**1,025**	**312**	**37**	**43**	**1,300**	**2,717**	**2,985**
Of which insured	-	-	24	5	146	175	166

A significant part of Aegon America s RMBS holdings are rated < BBB, as the issuances took place before the United States housing downturn that started in 2007.

Additionally, Aegon Americas has investments in RMBS of EUR 35 million (December 31, 2017: EUR 40 million), which are classified as fair value through profit or loss.

RMBS of Aegon Americas are monitored and reviewed on a monthly basis. Detailed cash flow models using the current collateral pool and capital structure on the portfolio are updated and reviewed quarterly. Model output is generated under base and stress-case scenarios. Aegon s RMBS asset specialists utilize widely recognized industry modeling software to perform a loan-by-loan, bottom-up approach to modeling. Key assumptions used in the models are projected defaults, loss severities, and prepayments. Each of these key assumptions varies greatly based on the significantly diverse characteristics of the current collateral pool for each security. Loan-to-value, loan size, and borrower credit history are some of the key characteristics used to determine the level of assumption that is utilized. Defaults were estimated by identifying the loans that are in various delinquency buckets and defaulting a certain percentage of them over the near-term and long-term. Assumed defaults on delinquent loans are dependent on the specific security s collateral attributes and historical performance.

Loss severity assumptions were determined by obtaining historical rates from broader market data and by adjusting those rates for vintage, specific pool performance, collateral type, mortgage insurance and estimated loan modifications. Prepayments were estimated by examining historical averages of prepayment activity on the underlying collateral. Quantitative ranges of significant assumptions within Aegon s modeling process for Prime Jumbo, Alt-A, Negative Amortization and subprime RMBS are as follows: prepayment assumptions range from approximately 0% to 25% with a weighted average of approximately 5.4% (December 31, 2017:

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5.5%), assumed defaults on delinquent loans range from 0% to 100% with a weighted average of approximately 78.9% (December 31, 2017: 77.6%), assumed defaults on current loans are dependent on the specific security s collateral attributes and historical performance, while loss severity assumptions range from approximately 24% to 103%, with a weighted average of approximately 57.0% (December 31, 2017: 58.3%).

Once the entire pool is modeled, the results are closely analyzed by Aegon s asset specialists to determine whether or not Aegon s particular tranche or holding is at risk for not collecting all contractual cash flows taking into account the seniority and other terms of the tranches held.

Aegon the Netherlands uses its own proprietary cash flow tools to analyse and stress test RMBS transactions. The key input parameters are default rates and loss given default assumptions, which are established based historical pool characteristics and current loan level data. Cash flows for each bond are modelled in 225 scenarios of varying severity, ranging from our base case to extreme stress to even unrealistic scenarios to establish breaking points of the tranche. The model takes all deal characteristics, such as waterfall or reserve funds, into account and gives us detailed insight in the risk of principal loss or deferral of contractual cash flows.

The total gross unrealized loss on available-for-sale RMBS of Aegon Americas and Aegon the Netherlands amounted to EUR 30 million (December 31, 2017: EUR 29 million), of which EUR 29 million (December 31, 2017: EUR 29 million) relates to positions of Aegon Americas, and the total net unrealized gain on available-for-sale RMBS was EUR 268 million (December 31, 2017: EUR 281 million), including a EUR 266 million (December 31, 2017: EUR 268 million) net unrealized gain relating to positions of Aegon Americas. The housing market in the United States remains good but has begun its transition to a more moderate growth trajectory. The housing market continues to benefit from strong employment, historically low inventory, rising household formation rates, income growth, and modest credit easing. This is manifesting itself in low borrower delinquencies, better recoveries upon liquidation, and shorter timelines to sell properties. However, housing affordability has now come under pressure from years of price appreciation outpacing wage growth and rising mortgage rates. Home price appreciation and existing home sales volume have begun to decelerate. These confluence of factors will leave limited room for spread tightening across the asset class.

In general, the European housing market showed further improvement in the second half of 2018 barring some signs of stress in the UK housing market although this is mostly concentrated in the London metropolitan area. House prices are increasing and affordability remains high given the low level of interest rates. Although economic growth picked up, markets are expecting (global) growth to slow. Unemployment levels meanwhile continue to drop which is clearly beneficial for consumer risk in general and retail mortgages in particular. While the net supply in the European RMBS markets is still negative, primary markets are very active. While RMBS backed by new origination is increasing, securitizations backed by legacy mortgage pools continue to be part of the primary supply. Improving fundamentals, deleveraging of the deals and collateral, and negative net supply (together with increasing demand) in the sector were overshadowed by the anticipation of monetary policy tightening, political related turmoil and expectations of a less benign macroeconomic climate and resulted in widening of credit spreads.

There are no individual issuers rated below investment grade in this RMBS sector which have unrealized loss position greater than EUR 25 million.

The fair values of Aegon Americas available-for-sale (AFS) RMBS instruments were determined as follows:

	Level II	Level III	Total 2018	Level II	Level III	Total 2017
RMBS	2,060	42	2,102	2,931	54	2,985

Commercial mortgage-backed securities

As of December, 31, 2018, Aegon Americas and Aegon the Netherlands hold EUR 3,349 million (December 31, 2017: EUR 3,403 million) of AFS commercial mortgage-backed securities (CMBS), of which EUR 3,314 million (December 31, 2017: EUR 3,375 million) is held by Aegon Americas and EUR 35 million (December 31, 2017: EUR 28 million) by Aegon the Netherlands. CMBS are securitizations of underlying pools of mortgages on commercial real estate. The underlying mortgages have varying risk characteristics and are pooled together and sold in different rated tranches. The company s CMBS include conduit, large loan, single borrower, commercial real estate collateralized debt obligations (CRE CDOs), collateralized debt obligations (CDOs), government agency, and franchise loan receivable trusts.

The total gross unrealized loss on available-for-sale CMBS of Aegon Americas amounted to EUR 44 million as of December 31, 2018 (December 31, 2017: EUR 22 million). The total net unrealized gain on the available-for-sale CMBS as of December 31, 2018, is EUR 17 million (December 31, 2017: EUR 36 million), of which EUR 17 million (December 31, 2017: EUR 36 million)

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relates to positions of Aegon Americas. CMBS fundamentals remain stable. Commercial real estate valuation increases have slowed. The delinquency rate continues to fall as distressed legacy loan resolutions outpace new defaults and positive net supply increases the total outstanding balance. Liquidity remains reasonable for the CMBS market. Lower prices in the US CMBS sector since the start of the year are mostly driven by broader market moves from higher interest rates.

The tables below summarize the credit quality of Aegon Americas available-for-sale (AFS) CMBS portfolio. Additionally, as of December 31, 2018, Aegon Americas has no investments in CMBS (December 31, 2017: EUR nil), which are classified as fair value through profit or loss.

CMBS by quality	AAA	AA	A	BBB	<BBB	**Total amortized cost**	**Total fair value**
CMBS	2,635	567	65	3	57	3,326	3,310
CMBS and CRE CDOs	-	-	-	-	5	5	4
At December 31, 2018	**2,635**	**567**	**65**	**3**	**62**	**3,331**	**3,314**

CMBS by quality	AAA	AA	A	BBB	<BBB	Total amortized cost	Total fair value
CMBS	2,626	559	63	3	84	3,335	3,372
CMBS and CRE CDOs	-	-	-	-	4	4	3
At December 31, 2017	**2,626**	**559**	**63**	**3**	**88**	**3,339**	**3,375**

CMBS of Aegon Americas are monitored and reviewed on a monthly basis. Detailed cash flow models using the current collateral pool and capital structure on the portfolio are updated and reviewed quarterly. Model output is generated under base and several stress-case scenarios by Aegon s internal CMBS asset specialists. For conduit securities, a widely recognized industry modeling software is used to perform a loan-by-loan, bottom-up approach. For non-conduit securities, a CMBS asset specialist works closely with Aegon s real estate valuation group to determine underlying asset valuation and risk. Both methodologies incorporate external estimates on the property market, capital markets, property cash flows, and loan structure. Results are then closely analyzed by the asset specialist to determine whether or not a principal or interest loss is expected to occur.

As the remaining unrealized losses in the CMBS portfolio relate to holdings where Aegon expects to receive full principal and interest, Aegon does not consider the underlying investments to be impaired as of December 31, 2018.

There are no individual issuers rated below investment grade in the CMBS sector which have unrealized loss position greater than EUR 25 million.

The fair values of Aegon Americas available-for-sale (AFS) CMBS instruments were determined as follows:

	Level II	Level III	Total 2018	Level II	Level III	Total 2017
CMBS	3,310	4	3,314	3,372	3	3,375

Asset-backed securities

Aegon Americas and Aegon the Netherlands hold EUR 4,503 million (December 31, 2017: EUR 4,225 million) of AFS ABS instruments of which EUR 2,626 million (December 31, 2017: EUR 2,429 million) is held by Aegon Americas and EUR 1,877 million (December 31, 2017: EUR 1,796 million) by Aegon the Netherlands. Additionally, as of December 31, 2018, Aegon Americas has investments in ABS of EUR 6 million (December 31, 2017: EUR 10 million), which are classified as fair value through profit or loss. ABS are securitizations of underlying pools of credit card receivables, auto financing loans, small business loans, bank loans, and other receivables.

The underlying assets of the asset backed securities have been pooled together and sold in tranches with varying credit ratings.

The total gross unrealized loss on available-for-sale ABS of Aegon Americas and Aegon the Netherlands amounted to EUR 52 million as of December 31, 2018 (December 31, 2017: EUR 14 million). Aegon Americas has EUR 18 million (December 31, 2017: EUR 12 million) of this gross unrealized loss and Aegon the Netherlands EUR 34 million (December 31, 2017: EUR 2 million). In the United States, increasing investor demand has been met with new issuance in the asset-backed sector. Spreads in the asset-backed sector widened in the latter part of 2018 in conjunction with the widening of corporate bond spreads. European ABS markets

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fared well through otherwise volatile financial markets in the first half of 2018. Against a benign macroeconomic backdrop and increasing demand for European ABS, spreads continued to tighten and resulted in positive performance. In the second half of 2018, European ABS markets joined in on the general risk-off sentiment on financial markets. Spreads across all sectors were affected but overall the movements have been less severe when looking at credit markets over the last three months. Investors have shifted their attention to short-maturity assets and sectors further down the curve were affected the most. Due to the recent spread widening, valuations of European ABS have become more appealing. However, it seems that investors are still reluctant to add risk despite the attractive spreads. We expect this to be temporary and that investors will step back in the first half of 2019. Spreads will, however, remain volatile for the moment.

The breakdown by quality of the available-for-sale (AFS) ABS portfolio of Aegon Americas and Aegon the Netherlands is as follows:

ABS US and NL	AAA	AA	A	BBB	<BBB	**Total amortized cost**	**Total fair value**
Credit cards	174	19	-	-	-	193	201
Autos	230	-	58	2	-	290	289
Small business loans	-	-	2	12	46	60	63
CDOs backed by ABS, Corp. bonds, Bank loans	1,535	479	216	146	46	2,423	2,386
Other ABS	525	151	774	88	8	1,547	1,563
At December 31, 2018	**2,464**	**649**	**1,051**	**248**	**100**	**4,512**	**4,503**

ABS US and NL	AAA	AA	A	BBB	<BBB	Total amortized cost	Total fair value
Credit cards	170	19	-	30	-	219	229
Autos	226	-	64	2	-	292	292
Small business loans	-	-	3	6	62	70	74
CDOs backed by ABS, Corp. bonds, Bank loans	1,467	407	224	120	46	2,265	2,281
Other ABS	494	76	683	81	1	1,336	1,350
At December 31, 2017	**2,357**	**503**	**975**	**238**	**109**	**4,182**	**4,226**

There were no individual issuers rated below investment grade in this ABS sector which has unrealized loss position greater than EUR 25 million.

The fair values of Aegon Americas and Aegon the Netherlands available-for-sale (AFS) ABS instruments were determined as follows:

	Level II	Level III	**Total 2018**	Level II	Level III	Total 2017
ABSs	3,650	853	4,503	3,323	903	4,226

Corporate Financial sector

The Corporate Financial sector is further subdivided into banking, brokerage, insurance, REIT s and Financial Other sub-sectors. A majority of the gross unrealized loss in Aegon s available-for-sale portfolio is from the banking and REITs sub-sectors.

Corporate Financial sector Banking sub-sector

The Banking sub-sector in Aegon s portfolio is relatively large, diverse, and of high quality. Aegon Americas and Aegon the Netherlands hold EUR 6,293 million (December 31, 2017: EUR 6,669 million) of AFS bonds issued by banks, of which EUR 6,069 million (December 31, 2017: EUR 6,364 million) is held by Aegon Americas and EUR 224 million (December 31, 2017: EUR 305 million) by Aegon the Netherlands. In aggregate, the gross unrealized loss on these bonds amounted to EUR 106 million (December 31, 2017: EUR 39 million) and the net unrealized gain on these bonds amounted to EUR 4 million (December 31, 2017: EUR 307 million).

Bank regulators continue to implement a wide array of reforms designed to strengthen capital levels, reduce balance sheet risk and improve liquidity in an ongoing effort to reduce systemic risk and harmonize global bank regulation. Both regulators and central governments are adopting new bank guidelines designed to improve resolvability in an attempt to ensure that banks can fail in an orderly manner without the use of taxpayer money. While most banks already meet new capital and liquidity requirements, well ahead of regulatory deadlines, they are now in the process of issuing loss absorbing securities and altering their legal, financial and operating

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structures. Bank balance sheet repair and risk reduction is expected to continue. Globally, risk concentrations on bank balance sheets continue to exist but confidence in the sector has increased materially since the financial crisis. Aegon evaluated the near-term prospects of the issuers and it is believed that the contractual terms of these investments will be met and these investments are not impaired as of December 31, 2018.

Within the Banking sub-sector, Aegon Americas and Aegon the Netherlands hold EUR 456 million (December 31, 2017:

EUR 627 million) of deeply subordinated securities with deferrable coupons that have an associated unrealized loss of EUR 42 million (December 31, 2017: EUR 10 million).

There are no individual issuers rated below investment grade in the Banking sub-sector which have unrealized losses greater than EUR 25 million.

Corporate Financial sector REITs sub-sector

Within the REITS sub-sector, Aegon Americas and Aegon the Netherlands hold EUR 1,624 million (December 31, 2017: EUR 1,369 million) of AFS bonds issued by banks, of which EUR 1,552 million (December 31, 2017: EUR 1,290 million) is held by Aegon Americas and EUR 71 million (December 31, 2017: EUR 79 million) by Aegon the Netherlands. In aggregate, the gross unrealized loss on these bonds amounted to EUR 49 million (December 31, 2017: EUR 5 million) and the net unrealized gain on these bonds amounted to EUR 33 million (December 31, 2017: EUR 48 million).

The REITs sub-sector encompasses companies invested across various real estate property types, including Apartment REITs, Healthcare REITs, Office REITS, Other REITs, and Retail REITs. The majority of the gross unrealized loss relates to Other REITs and Retail REITs. Most of the Other REITs unrealized losses are related to long-term private placement investments, which have been negatively impacted by market price volatility despite otherwise stable credit fundamentals. Within Retail REITs, credit fundamentals are bifurcated by asset quality. Retail REITs with strong locations continue to experience tenant demand and are able to grow rents and maintain healthy occupancy. In contrast, operating performance in secondary locations has be mixed due to the over-retailed environment and competitive pressures from e-commerce. Despite these challenges, immediate liquidity remains more than adequate to address near term funding obligations. Aegon evaluated the near-term prospects of the issuers and it is believed that the contractual terms of these investments will be met and these investments are not impaired as of December 31, 2018.

There are no individual issuers rated below investment grade in the REITS sub-sector which have unrealized losses greater than EUR 25 million.

Corporate Industrial sector

The Industrial sector is further subdivided into various sub-sectors. A majority of Aegon s available-for-sale portfolio gross unrealized loss is in the Consumer Non-Cyclical and Energy sub-sectors. Aegon also saw significant losses in

the Capital Goods, Consumer Cyclical, Technology, Transportation, and Communications sub-sectors.

Corporate Industrial sector Capital Goods sub-sector

Within the Capital Goods sub-sector, Aegon Americas and Aegon the Netherlands hold EUR 2,038 million (December 31, 2017: EUR 2,308 million) of AFS bonds, of which EUR 1,995 million (December 31, 2017: EUR 2,212 million) is held by Aegon Americas and EUR 43 million (December 31, 2017: EUR 96 million) by Aegon the Netherlands. In aggregate, the gross unrealized loss on these bonds amounted to EUR 60 million (December 31, 2017: EUR 5 million) and the net unrealized gain on these bonds amounted to EUR 29 million (December 31, 2017: EUR 210 million).

The Capital Goods sub-sector encompasses various industries including aerospace/defense, building materials, construction machinery, diversified manufacturing, environmental, and packaging. The majority of the gross unrealized loss relates to building materials and diversified manufacturing. Building material credit fundamentals were solid for most of the year, benefiting from favorable end-market demand. However, while infrastructure markets are improving, softness has emerged in residential housing as interest rates have risen, resulting in concerns over affordability, buyers delaying decisions, and a less robust near term outlook. Within Diversified Manufacturing, credit fundamentals are generally stable. Two large issuers have experienced some idiosyncratic issues that have led to deteriorating credit profiles, which has contributed to the unrealized losses. Despite these issues, immediate liquidity remains adequate for near term obligations. Aegon evaluated the near-term prospects of the issuers and it is believed that the contractual terms of these investments will be met and these investments are not impaired as of December 31, 2018.

There are no individual issuers rated below investment grade in this sub-sector which have unrealized loss positions greater than EUR 25 million.

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Corporate Industrial sector Consumer Cyclical sub-sector

Within the Consumer Cyclical sub-sector, Aegon Americas and Aegon the Netherlands hold EUR 2,637 million (December 31, 2017: EUR 2,657 million) of AFS bonds, of which EUR 2,428 million (December 31, 2017: EUR 2,494 million) is held by Aegon Americas and EUR 209 million (December 31, 2017: EUR 163 million) by Aegon the Netherlands. In aggregate, the gross unrealized loss on these bonds amounted to EUR 75 million (December 31, 2017: EUR 10 million) and the net unrealized gain on these bonds amounted to EUR 52 million (December 31, 2017: EUR 245 million).

The Consumer Cyclical sub-sector encompasses various industries ranging from retailers to home construction. The more significant of these sub-sectors from an unrealized loss perspective are automotive and retailers.

Within the automotive sector, North American sales have been driven by continued demand for high-margin full-size pickups and SUVs. However, negative headwinds for the sector have included: tariffs, commodity prices, regulations in Europe and deteriorating demand in China. Since the last downturn, ongoing efforts by the auto companies have significantly lowered the breakeven production and sales levels for the industry. Ford Motor Co has been slower than its peers to restructure its global operations, only recently announcing a general multi-year effort. As such, price declines have reflected investor uncertainty around the timing and success of the turnaround.

Within the retail sector, fundamentals are largely positive with modest top line growth, inventory levels aligned with demand, and rational promotional levels. Unrealized losses are driven by price volatility and would not be deemed fundamentally driven.

Aegon evaluated the near-term prospects of the issuers and it is believed that the contractual terms of these investments will be met and these investments are not impaired as of December 31, 2018

There are no individual issuers rated below investment grade in this sub-sector which have unrealized loss positions greater than EUR 25 million.

Corporate Industrial sector Consumer Non-Cyclical sub-sector

Within the Consumer Non-Cyclical sub-sector, Aegon Americas and Aegon the Netherlands hold EUR 5,615 million (December 31, 2017: EUR 6,010 million) of AFS bonds, of which EUR 5,362 million (December 31, 2017: EUR 5,729 million) is held by Aegon Americas and EUR 253 million (December 31, 2017: EUR 281 million) by Aegon the Netherlands. In aggregate, the gross unrealized loss on these bonds amounted to EUR 182 million (December 31, 2017: EUR 35 million) and the net unrealized gain on these bonds amounted to EUR 99 million (December 31, 2017: EUR 529 million).

The Consumer Non-Cyclical sub-sector encompasses various industries ranging from consumer products to supermarkets. The more significant of these sub-sectors from an unrealized loss perspective are food, beverage and pharmaceuticals. In food and beverage, a number of large issuers have increased leverage for M&A in an effort to ignite growth, with the new issuance and higher leverage weighing on bond prices. And more recently, some larger

issuers have been impacted by downgrades, notably AB Inbev (largest issuer in the space), which crossed over from A- to BBB+ due to a slower than expected de-levering trajectory. In pharmaceuticals, unrealized losses have primarily been driven by price volatility in the bond market rather than fundamental issues. We do note however that M&A risk in pharmaceuticals is modestly increasing as some key issuers face patent cliffs in the next 5 years, including Abbvie. Aegon evaluated the near-term prospects of the issuers and it is believed that the contractual terms of these investments will be met and these investments are not impaired as of December 31, 2018.

There are no individual issuers rated below investment grade in this sub-sector which have unrealized loss positions greater than EUR 25 million.

Within the Energy sub-sector, Aegon Americas and Aegon the Netherlands hold EUR 3,802 million (December 31, 2017:

EUR 4,020 million) of AFS bonds, of which EUR 3,592 million (December 31, 2017: EUR 3,813 million) is held by Aegon Americas and EUR 211 million (December 31, 2017: EUR 207 million) by Aegon the Netherlands. In aggregate, the gross unrealized loss on these bonds amounted to EUR 138 million (December 31, 2017: EUR 41 million) and the net unrealized gain on these bonds amounted to EUR 13 million (December 31, 2017: EUR 316 million).

The Energy sub-sector encompasses various industries including integrated oil and gas producers, independent oil and gas producers, midstream processing and transport, oil field services and drilling, and refining. Lower oil prices have reduced cash flow for upstream producers. Oil field service and drilling companies have been pressured by reduced capital spending by their upstream client base and margin compression from price concessions and new capacity additions. While refiners have seen positive impacts from lower feedstock

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costs, margins have softened due to high refined product inventory levels. Commodity price pressure has been the result of strong non-OPEC supply growth, reduced supply disruptions, high global inventories and concerns on softening global demand. In response, OPEC has coordinated an agreement to cut production levels in an effort to reduce global inventories and increase prices. Aegon evaluated the near-term prospects of the issuers in relation to the severity and duration of the unrealized loss and does not consider those investments to be impaired as of December 31, 2018.

There are no individual issuers rated below investment grade in this sub-sector which have unrealized loss positions greater than EUR 25 million.

Corporate Industrial sector Technology sub-sector

Within the Technology sub-sector, Aegon Americas and Aegon the Netherlands hold EUR 2,046 million (December 31, 2017: EUR 1,840 million) of AFS bonds, of which EUR 2,002 million (December 31, 2017: EUR 1,819 million) is held by Aegon Americas and EUR 44 million (December 31, 2017: EUR 21 million) by Aegon the Netherlands. In aggregate, the gross unrealized loss on these bonds amounted to EUR 47 million (December 31, 2017: EUR 6 million) and the net unrealized gain on these bonds amounted to EUR 28 million (December 31, 2017: EUR 157 million).

The Technology sector can be further divided into hardware, software, semiconductors, IT services, memory, and payment processors. The majority of the gross unrealized losses are related to interest rates moving higher, causing long duration bond prices to move lower. A small group of issuers have been negatively impacted by merger and acquisition financing, poor integration of recent acquisitions, and newly announced debt financed stock repurchase programs. On a fundamental basis, majority of technology subsectors performed well; however the memory industry has experienced price erosion due to high inventory levels. Aegon evaluated the near-term prospects of the issuers in relation to the severity and duration of the unrealized loss and does not consider those investments impaired as of December 31, 2018.

There are no individual issuers rated below investment grade in this sub-sector which have unrealized loss positions greater than EUR 25 million.

Corporate Industrial sector Transportation sub-sector

Within the Transportation sub-sector, Aegon Americas and Aegon the Netherlands hold EUR 1,720 million (December 31, 2017: EUR 1,787 million) of AFS bonds, of which EUR 1,549 million (December 31, 2017: EUR 1,597 million) is held by Aegon Americas and EUR 171 million (December 31, 2017: EUR 191 million) by Aegon the Netherlands. In aggregate, the gross unrealized loss on these bonds amounted to EUR 70 million (December 31, 2017: EUR 9 million) and the net unrealized gain on these bonds amounted to EUR 2 million (December 31, 2017: EUR 117 million).

The Transportation sub-sector can be further divided into airlines, railroads and transportation services. The majority of the gross unrealized loss relates to completed and operating private infrastructure, such as airports, ports and toll roads. These investments tend to be longer dated debt which have had significant negative price changes solely due to

moves in long term rates. Across the public credits, increases in fuel were a notable headwind, as well as North American railroads adopting more aggressive financial policies following lowered corporate tax rates. Aegon evaluated the near-term prospects of the issuers in relation to the severity and duration of the unrealized loss and does not consider those investments impaired as of December 31, 2018.

There are no individual issuers rated below investment grade in this sub-sector which have unrealized loss positions greater than EUR 25 million.

Corporate Industrial sector Communications sub-sector

Within the Communications sub-sector, Aegon Americas and Aegon the Netherlands hold EUR 2,566 million (December 31, 2017: EUR 2,690 million) of AFS bonds, of which EUR 2,484 million (December 31, 2017: EUR 2,600 million) is held by Aegon Americas and EUR 82 million (December 31, 2017: EUR 90 million) by Aegon the Netherlands. In aggregate, the gross unrealized loss on these bonds amounted to EUR 68 million (December 31, 2017: EUR 21 million) and the net unrealized gain on these bonds amounted to EUR 90 million (December 31, 2017: EUR 279 million).

The Communication sector encompasses various sub-sectors including cable satellite, media entertainment, wireless and wirelines. Merger and acquisition speculation and activity created volatility in each of the sub-sectors during the year. In addition, several issuers in the communications sector are among the largest issuers in the market and were negatively impacted by the sell-off in liquid securities as we saw an increase in market price volatility and higher treasury yields. On a fundamental basis, the competitive environment in the wireless market remains challenging. The wireline market continues to see a gradual secular decline, whereas

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cable continues to benefit from the demand for broadband. Media continues to be impacted by consumers viewing content on digital platforms as well as intense competition from non-traditional content providers. Aegon evaluated the near-term prospects of the issuers in relation to the severity and duration of the unrealized loss and does not consider those investments impaired as of December 31, 2018.

There are no individual issuers rated below investment grade in this sub-sector which have unrealized loss positions greater than EUR 25 million.

Corporate Utility sector

The Utility sector is further subdivided into various sub-sectors. A majority of Aegon s available-for-sale portfolio gross unrealized loss is in the Electric sub-sector.

Corporate Utility sector Electric sub-sector

Within the Electric sub-sector, Aegon Americas and Aegon the Netherlands hold EUR 3,178 million (December 31, 2017:

EUR 3,098 million) of AFS bonds, of which EUR 3,121 million (December 31, 2017: EUR 3,013 million) is held by Aegon Americas and EUR 57 million (December 31, 2017: EUR 85 million) by Aegon the Netherlands. In aggregate, the gross unrealized loss on these bonds amounted to EUR 64 million (December 31, 2017: EUR 13 million) and the net unrealized gain on these bonds amounted to EUR 128 million (December 31, 2017: EUR 343 million).

Regulated electric utilities, which account for the majority of debt issuance in the sector, continue to produce predictable cash flow and credit trends have been stable for most companies operating in the United States, although, M&A has continued in the sector with some adding incremental leverage. The low natural gas price environment has generally been beneficial for regulated utilities because it has had the effect of decreasing the fuel component on customer s bills. Lower all in cost to the customer generally enables increases in other operating costs to be passed through with less regulatory lag. It should also be noted that utilities operating in California, particularly PG&E Corp, generated unrealized losses due to potential exposure to the recent wildfires

Unregulated merchant power generators operating in the United States continue to be negatively impacted by low natural gas prices and the corresponding low electricity prices as well as reduced customer usage. These companies have experienced margin pressure for their coal and nuclear generation assets. Absent a recovery in electricity prices, credit fundamentals are unlikely to improve significantly, however, capacity auctions have shown improvement and most companies have taken actions to navigate this difficult environment including consolidation, cost cutting, expanding retail operations and de-levering balance sheets. AEGON evaluated the near-term prospects of the issuers and it is believed that the contractual terms of these investments will be met and these investments are not impaired as of December 31, 2018.

There are no individual issuers rated below investment grade in this sub-sector which have unrealized loss positions greater than EUR 25 million.

Government bonds

Aegon Americas and Aegon the Netherlands government issued available-for-sale debt securities include emerging market government bonds, US Treasury bonds, agency and state bonds. Aegon evaluated the near-term prospects of the issuers and it is believed that the contractual terms of these investments will be met and these investments are not impaired as of December 31, 2018.

There are no individual issuers rated below investment grade in the government sector which have unrealized loss positions greater than EUR 25 million.

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Unrealized loss by maturity

The table below shows the composition by maturity of all available-for-sale debt securities in an unrealized loss position held by Aegon Americas and Aegon the Netherlands.

Debt securities	December 31, 2018		December 31, 2017	
	Carrying value of securities with gross unrealized losses	Gross unrealized losses	Carrying value of securities with gross unrealized losses	Gross unrealized losses
One year or less	643	(18)	442	(6)
Over 1 through 5 years	5,545	(120)	1,784	(31)
Over 5 through 10 years	9,575	(446)	4,517	(95)
Over 10 years	8,317	(680)	4,194	(258)
Total	**24,080**	**(1,264)**	**10,937**	**(389)**

Unrealized loss by credit quality

The table below shows the composition by credit quality of debt securities, available-for-sale, in an unrealized loss position held by Aegon Americas and Aegon the Netherlands.

Debt securities	December 31, 2018		December 31, 2017	
	Carrying value of securities with unrealized losses	Unrealized losses	Carrying value of securities with unrealized losses	Unrealized losses
AAA	6,318	(186)	4,924	(135)
AA	1,468	(48)	753	(16)
A	5,345	(181)	1,750	(44)
BBB	8,881	(578)	2,339	(70)
BB	920	(90)	507	(39)
B	742	(87)	323	(32)
Below B	407	(95)	341	(54)
Total	**24,080**	**(1,264)**	**10,937**	**(389)**

The table below provides the length of time an available-for-sale security has been below cost and the respective unrealized loss.

Debt securities	At December 31, 2018			
	Investment grade carrying value of securities with unrealized losses	Below investment grade carrying value of securities with unrealized losses	Investment grade unrealized loss	Below investment grade unrealized loss
0 6 months	8,354	977	(227)	(58)
6 12 months	9,976	609	(504)	(96)
> 12 months	3,681	483	(261)	(119)
Total	**22,012**	**2,069**	**(992)**	**(272)**

Debt securities	At December 31, 2017			
	Investment grade carrying value of securities with unrealized losses	Below investment grade carrying value of securities with unrealized losses	Investment grade unrealized loss	Below investment grade unrealized loss
0 6 months	4,051	485	(45)	(15)
6 12 months	1,391	62	(9)	(5)
> 12 months	4,324	624	(211)	(105)
Total	**9,766**	**1,171**	**(264)**	**(125)**

The unrealized loss increased during 2018 due mainly to widening credit spreads and increasing US Treasury rates.

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Aging and severity unrealized losses

The table below provides the length of time a below investment grade security has been in an unrealized loss and the percentage of carrying value (CV) to amortized cost in Aegon Americas and Aegon the Netherlands.

	2018		2017	
Aging and severity unrealized losses debt securities	Carrying value	Unrealized losses	Carrying value	Unrealized losses
CV 70-100% of amortized cost	970	(53)	482	(13)
CV 40-70% of amortized cost	7	(5)	3	(2)
CV < 40% of amortized cost	-	-	-	-
0-6 months	**977**	**(58)**	**485**	**(15)**
CV 70-100% of amortized cost	577	(76)	62	(5)
CV 40-70% of amortized cost	31	(18)	-	-
CV < 40% of amortized cost	-	(1)	-	-
6-12 months	**609**	**(96)**	**62**	**(5)**
CV 70-100% of amortized cost	143	(21)	67	(10)
CV 40-70% of amortized cost	8	(5)	8	(4)
CV < 40% of amortized cost	1	(2)	-	-
12-24 months	**151**	**(28)**	**75**	**(13)**
CV 70-100% of amortized cost	265	(34)	511	(63)
CV 40-70% of amortized cost	58	(43)	30	(16)
CV < 40% of amortized cost	8	(13)	8	(12)
> 24 months	**331**	**(90)**	**549**	**(92)**
Total	**2,069**	**(272)**	**1,171**	**(125)**

There are no individual issuers rated below investment grade which has an unrealized loss greater than EUR 25 million.

Realized gains and losses on debt securities of Aegon Americas and Aegon the Netherlands

The following table provides the realized gains and losses on the debt securities of Aegon Americas and Aegon the Netherlands for the twelve months ended December 31, 2018, and December 31, 2017.

Gross realized gains and (losses)	Gross realized gains	Gross realized losses
December 31, 2018		
Debt securities	156	(378)
December 31, 2017		
Debt securities	1,813	(171)

The table below provides the length of time the security was below cost prior to the sale and the respective realized loss for assets not considered impaired.

	Gross realized losses		
	0 - 12 months	>12 months	Total
December 31, 2018			
Debt securities	(145)	(233)	(378)
December 31, 2017			
Debt securities	(137)	(35)	(171)

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Impairment losses and recoveries

The composition of Aegon Americas and Aegon the Netherlands bond impairment losses and recoveries by issuer for the periods ended December 31, 2018, and December 31, 2017, is presented in the table below. Those issuers with impairments or recoveries above EUR 25 million are specifically noted.

	2018 (Impairment)/recovery	2017 (Impairment)/recovery
Impairments:		
Other (none individually greater than EUR 25 million)	(24)	(16)
Subtotal	**(24)**	**(16)**
Recoveries:		
Total recoveries	34	16
Sub-total	**34**	**16**
Net (impairments) and recoveries	**10**	**-**
Net (impairments) and recoveries		

Net recoveries for the twelve months ended December 31, 2018, totaled EUR 10 million (twelve months ended December 31, 2017: EUR 0 million net recoveries).

For the twelve months ended December 31, 2018, Aegon recognized EUR 34 million (twelve months ended December 31, 2017: EUR 16 million) in recoveries on previously impaired securities. In each case where a recovery was taken on structured securities, improvements in underlying cash flows for the security were documented and modeling results improved significantly. Recoveries on non-structured securities were supported by documented credit events combined with significant market value improvements.

Past due and impaired assets

The tables that follow provide information on past due and individually impaired financial assets for the whole Aegon Group. An asset is past due when a counterparty has failed to make a payment when contractually due. Assets are impaired when an impairment loss has been charged to the income statement relating to this asset. After the impairment loss is reversed in subsequent periods, the asset is no longer considered to be impaired. When the terms and conditions of financial assets have been renegotiated, the terms and conditions of the new agreement apply in determining whether the financial assets are past due.

Aegon s policy is to pursue realization of the collateral in an orderly manner as and when liquidity permits. Aegon generally does not use the non-cash collateral for its own operations.

	2018				2017			
Past due but not impaired assets	0-6 months	6-12 months	> 1 year	**Total**	0-6 months	6-12 months	> 1 year	Total
Debt securities carried at fair value	108	121	48	277	49	14	28	91
Mortgage loans	192	22	2	215	111	2	4	117
Other loans	41	2	2	45	31	1	3	35
Accrued interest	3	3	-	6	-	1	1	1
At December 31	**344**	**148**	**52**	**544**	**191**	**18**	**35**	**244**

Impaired financial assets	**Carrying amount 2018**	Carrying amount 2017
Shares	33	48
Debt securities carried at fair value	1,085	1,063
Mortgage loans	122	262
Private Loans	-	-
Other loans	3	3
Other financial assets carried at fair value	5	6
At December 31	**1,247**	**1,381**

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199 Notes to the consolidated financial statements **Note 4**

Equity instruments classified as available-for-sale

Objective evidence of impairment of an investment in an equity instrument classified as available-for-sale includes information about significant changes with an adverse effect that have taken place in the technological, market, economic or legal environment in which the issuer operates, and indicates that the cost of the investment in the equity instrument may not be recovered. A significant or prolonged decline in the fair value of an investment in an equity instrument below its cost is also objective evidence of impairment. Significant or prolonged decline is generally defined within Aegon as an unrealized loss position for more than six months or a fair value of less than 80% of the cost price of the investment. Additionally, as part of an ongoing process, internal equity analysts actively monitor earnings releases, company fundamentals, new developments and industry trends for any signs of possible impairment.

These factors typically require significant management judgment. The impairment review process has resulted in EUR 4 million of impairment charges for the twelve months ended December 31, 2018 (twelve months ended December 31, 2017: EUR 2 million) for Aegon Americas and Aegon the Netherlands.

As of December 31, 2018, there are EUR 40 million of gross unrealized gains and EUR 20 million of gross unrealized losses in the equity portfolio of Aegon (December 31, 2017: EUR 62 million of gross unrealized gains and EUR 13 million of gross unrealized losses). The table below represents the unrealized gains and losses on share positions held by Aegon Americas and Aegon the Netherlands.

	Cost basis	Carrying value	Net unrealized gains/(losses)	Carrying value of securities with unrealized gains	Gross unrealized gains	Carrying value of securities with unrealized losses	Gross unrealized losses
December 31, 2018							
Shares	371	391	20	304	40	86	(20)
December 31, 2017							
Shares	385	433	48	400	62	34	(13)

The composition of shares by industry sector in an unrealized loss position held by Aegon Americas and Aegon the Netherlands at December 31, 2018, and December 31, 2017 is presented in the following table.

Unrealized losses on shares	2018		2017	
	Carrying value of instruments with unrealized losses	Unrealized losses	Carrying value of instruments with unrealized losses	Unrealized losses

Financials	49	(15)	19	(12)
Other	37	(6)	14	(2)
Total	**86**	**(20)**	**34**	**(13)**

Impairment losses on shares

The table below provides the length of time the shares held by Aegon Americas and Aegon the Netherlands were below cost prior to their impairment in 2018 and 2017.

In million EUR	0- 6 months
2018	
Shares	(5)
2017	
Shares	-

Equity market risk and other investments risk

Fluctuations in the equity, real estate and capital markets have affected Aegon s profitability, capital position and sales of equity related products in the past and may continue to do so. Exposure to equity, real estate and capital markets exists in both assets and liabilities. Asset exposure exists through direct equity investment, where Aegon bears all or most of the volatility in returns and investment performance risk. Equity market exposure is also present in insurance and investment contracts for policyholders where funds are invested in equities, backing variable annuities, unit-linked products and mutual funds. Although most of the risk remains with the policyholder, lower investment returns can reduce the asset management fee earned by Aegon on the asset balance in these products. In addition, some of this business has minimum return or accumulation guarantees.

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The general account equity, real estate and other non-fixed-income portfolio of Aegon is as follows:

Equity, real estate and non-fixed income exposure	Americas	The Netherlands	United Kingdom	Central & Eastern Europe	Spain & Portugal	Asia	Asset Management	Holding and other activities	**Total 2018**
Equity funds	141	196	-	63	-	-	-	-	401
Common shares [1]	203	-	3	2	3	7	1	66	287
Preferred shares	187	-	-	-	-	-	-	46	233
Investments in real estate	530	2,150	-	4	17	-	-	-	2,700
Hedge funds	678	1	-	-	-	-	2	-	681
Other alternative investments	1,206	438	-	-	-	-	-	22	1,666
Other financial assets	555	832	1,046	2	7	-	1	-	2,443
At December 31	**3,501**	**3,617**	**1,050**	**71**	**27**	**7**	**5**	**134**	**8,412**

[1] Common shares in Holding and other activities includes the elimination of treasury shares in the general account for an amount of EUR nil million.

Equity, real estate and non-fixed income exposure	Americas	The Netherlands	United Kingdom	Central & Eastern Europe	Spain & Portugal	Asia	Asset Management	Holding and other activities	**Total 2017**
Equity funds	142	161	-	47	-	-	-	-	351
Common shares [1]	232	-	5	8	4	1	-	40	290
Preferred shares	192	-	-	-	-	-	-	-	192
Investments in real estate	633	1,495	-	4	15	-	-	-	2,147
Hedge funds	688	1	-	-	-	-	2	-	691
Other alternative investments	1,122	309	-	-	-	-	-	18	1,448
Other financial assets	556	410	194	2	2	-	1	-	1,165
At December 31	**3,566**	**2,375**	**199**	**62**	**20**	**1**	**4**	**57**	**6,284**

[1] Common shares in Holding and other activities includes the elimination of treasury shares in the general account for an amount of EUR nil million.

Market risk concentrations shares	Americas	The Netherlands	United Kingdom	Central & Eastern Europe	Spain & Portugal	Asia	Asset Management	Total 2018 [1]	Of which impaired assets
Communication	26	-	-	-	-	-	-	32	-
Consumer	6	-	-	-	-	-	-	7	-
Financials	466	3	-	-	3	7	-	491	3
Funds	-	1,410	3	62	7	-	-	1,558	26
Industries	19	-	-	-	-	-	-	19	-
Other	15	-	-	2	-	-	4	54	3
At December 31	**532**	**1,412**	**3**	**64**	**10**	**7**	**4**	**2,161**	**33**

[1] Includes investments of Holding and other activities.

Market risk concentrations shares	Americas	The Netherlands	United Kingdom	Central & Eastern Europe	Spain & Portugal	Asia	Asset Management	Total 2017 [1]	Of which impaired assets
Communication	28	-	-	-	-	-	-	28	-
Consumer	8	-	-	-	-	-	-	8	-
Financials	491	3	1	-	3	1	-	499	1
Funds	-	852	4	53	2	-	-	968	43
Industries	19	-	-	-	-	-	-	19	-
Other	22	4	-	2	-	-	2	30	4
At December 31	**567**	**859**	**5**	**54**	**5**	**1**	**2**	**1,551**	**48**

[1] Includes investments of Holding and other activities.

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The table that follows sets forth the closing levels of certain major indices at the end of the last five years.

	2018	2017	2016	2015	2014
S&P 500	2,507	2,674	2,239	2,044	2,059
Nasdaq	6,635	6,903	5,383	5,007	4,736
FTSE 100	6,728	7,688	7,143	6,242	6,566
AEX	488	545	483	442	424

The sensitivity analysis of net income and shareholders equity to changes in equity prices is presented in the table below. The sensitivity of shareholders equity and net income to changes in equity markets reflects changes in the market value of Aegon s portfolio, changes in DPAC amortization, contributions to pension plans for Aegon s employees and the strengthening of the guaranteed minimum benefits, when applicable. Aegon generally has positive income benefits from equity market increases and negative impacts from equity market declines as it earns fees on policyholder account balances and provides minimum guarantees for account values. Aegon uses options and other equity derivatives to provide protection against the negative impact of equity market declines.

Sensitivity analysis of net income and shareholders equity to equity market

Immediate change of	Estimated approximate effects on net income	Estimated approximate effects on shareholders equity
2018		
Equity increase 10%	293	405
Equity decrease 10%	(273)	(379)
Equity increase 20%	652	877
Equity decrease 20%	(393)	(599)
2017		
Equity increase 10%	317	405
Equity decrease 10%	(316)	(405)
Equity increase 20%	647	820
Equity decrease 20%	(660)	(839)

Interest rate risk

Aegon bears interest rate risk with many of its products. In cases where cash flows are highly predictable, investing in assets that closely match the cash flow profile of the liabilities can offset this risk. For some Aegon country units, local capital markets are not well developed, which prevents the complete matching of assets and liabilities for those businesses. For some products, cash flows are less predictable as a result of policyholder actions that can be affected by the level of interest rates.

In periods of rapidly increasing interest rates, policy loans, surrenders and withdrawals may increase. Premiums in flexible premium policies may decrease as policyholders seek investments with higher perceived returns. This activity may result in cash payments by Aegon requiring the sale of invested assets at a time when the prices of those assets are adversely affected by the increase in market interest rates; this may result in realized investment losses. These cash payments to policyholders result in a decrease in total invested assets and a decrease in net income. Among other things, early withdrawals may also require accelerated amortization of DPAC, which in turn reduces net income.

During periods of sustained low interest rates, Aegon may not be able to preserve margins as a result of minimum interest rate guarantees and minimum guaranteed crediting rates provided on policies. Also, investment earnings may be lower because the interest earnings on new fixed-income investments are likely to have declined with the market interest rates. Mortgage loans and redeemable bonds in the investment portfolio are more likely to be repaid as borrowers seek to borrow at lower interest rates and Aegon may be required to reinvest the proceeds in securities bearing lower interest rates. Accordingly, net income declines as a result of a decrease in the spread between returns on the investment portfolio and the interest rates either credited to policyholders or assumed in reserves.

Aegon manages interest rate risk closely, taking into account all of the complexity regarding policyholder behavior and management action. Aegon employs sophisticated interest rate measurement techniques and actively uses derivatives and other risk mitigation tools to closely manage its interest rate risk exposure. Aegon operates an Interest Rate Risk policy that limits the amount of interest rate risk to which the Group is exposed. All derivative use is governed by Aegon s Derivative Use Policy. A detailed description on the use of derivatives within Aegon is included in note 25 Derivatives.

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The following table shows interest rates at the end of each of the last five years.

	2018	2017	2016	2015	2014
3-month US LIBOR	2.81%	1.69%	1.00%	0.61%	0.26%
3-month EURIBOR	(0.31%)	(0.33%)	(0.32%)	(0.13%)	0.08%
10-year US Treasury	2.69%	2.41%	2.43%	2.27%	2.17%
10-year Dutch government	0.39%	0.53%	0.35%	0.79%	0.68%

The sensitivity analysis in the table below shows an estimate of the effect of a parallel shift in the yield curves on net income and shareholders equity arising from the impact on general account investments and offset due to liabilities from insurance and investment contracts. In general, increases in interest rates are beneficial to Aegon. However, timing and valuation differences between assets and liabilities may cause short-term reductions in net income as rates rise. The rising interest rates would also cause the fair value of the available-for-sale bond portfolio to decline and the level of unrealized gains could become too low to support recoverability of the full deferred tax asset triggering an allowance charge to income. The offsetting economic gain on the insurance and investment contracts is however not fully reflected in the sensitivities because many of these liabilities are not measured at fair value. The short to medium term reduction in net income due to rising interest rates would be offset by higher net income in later years, all else being equal. Therefore, higher interest rates are not considered a long-term risk to the Group. However, a long sustained period of low interest rates will erode net income due to lower returns earned on reinvestments and due to lower long term returns from decreased overall portfolio yields.

Parallel movement of yield curve	Estimated approximate effects on net income	Estimated approximate effects on shareholders equity
2018		
Shift up 100 basis points	(677)	(3,892)
Shift down 100 basis points	1,188	2,819
2017		
Shift up 100 basis points	(282)	(2,620)
Shift down 100 basis points	200	2,160

The hedge strategy targets minimal mismatch according to the Aegon economic framework which aligns with Solvency II Own Funds and stabilize Solvency II ratio volatility.

Currency exchange rate risk

As an international group, Aegon is subject to foreign currency translation risk. Foreign currency exposure exists mainly when policies are denominated in currencies other than the issuer s functional currency. Currency risk in the

investment portfolios backing insurance and investment liabilities is managed using asset liability matching principles. Assets allocated to equity are kept in local currencies to the extent shareholders equity is required to satisfy regulatory and self-imposed capital requirements. Therefore, currency exchange rate fluctuations will affect the level of shareholders equity as a result of translation of subsidiaries into euro, the Group s presentation currency. Aegon holds the remainder of its capital base (perpetual capital securities, subordinated and senior debt) in various currencies in amounts that are targeted to correspond to the book value of the country units. This balancing mitigates currency translation impacts on shareholders equity and leverage ratios. Aegon does not hedge the income streams from the main non-euro units and, as a result, earnings may fluctuate due to currency translation. As Aegon has significant business segments in the Americas and in the United Kingdom, the principal sources of exposure from currency fluctuations are from the differences between the US dollar and the euro and between the UK pound and the euro. Aegon may experience significant changes in net income and shareholders equity because of these fluctuations.

Aegon operates a Currency Risk Policy which applies currency risk exposure limits both at Group and regional levels, and under which direct currency speculation or program trading by country units is not allowed unless explicit approval has been granted by the Group Risk and Capital Committee and the Management Board. Assets should be held in the functional currency of the business written or hedged back to that currency. Where this is not possible or practical, remaining currency exposure should be sufficiently documented and limits are placed on the total exposure at both group level and for individual country units.

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Information on Aegon s three year historical net income/(loss) and shareholders equity in functional currency are shown in the table below:

	2018	2017	2016
Net income			
Americas (in USD)	61	1,762	618
The Netherlands (in EUR)	648	818	418
United Kingdom (in GBP)	35	71	(346)
Central & Eastern Europe (in EUR)	60	57	19
Spain & Portugal (in EUR)	(3)	(2)	(2)
Asia (in USD)	13	6	(14)
Asset Management (in EUR)	105	48	97
Equity in functional currency			
Americas (in USD)	15,239	17,712	17,103
The Netherlands (in EUR)	6,967	6,558	5,101
United Kingdom (in GBP)	1,671	1,905	1,845
Central & Eastern Europe (in EUR)	377	402	378
Spain & Portugal (in EUR)	427	433	451
Asia (in USD)	862	1,169	1,281
Asset Management (in EUR)	471	397	422

The exchange rates for US dollar and UK pound per euro for each of the last five year ends are set forth in the table below:

Closing rates	**2018**	2017	2016	2015	2014
USD	1.14	1.20	1.05	1.09	1.21
GBP	0.90	0.89	0.85	0.74	0.78

Aegon Group companies foreign currency exposure from monetary assets and liabilities denominated in foreign currencies is not material.

The sensitivity analysis in the following table shows an estimate of the effect of movements in the exchange rates of Aegon s non-euro currencies relative to the euro on net income and shareholders equity.

Sensitivity analysis of net income and shareholders equity to translation risk

Movement of currency exchange rates [1]	Estimated approximate effects	Estimated approximate effects

	on net income	on shareholders equity
2018		
Increase by 15% of USD currencies relative to the euro	1	1,909
Increase by 15% of GBP currencies relative to the euro	4	269
Increase by 15% of non-euro currencies relative to the euro	20	2,301
Decrease by 15% of USD currencies relative to the euro	3	(1,389)
Decrease by 15% of GBP currencies relative to the euro	(2)	(179)
Decrease by 15% of non-euro currencies relative to the euro	(9)	(1,659)
2017		
Increase by 15% of USD currencies relative to the euro	260	2,159
Increase by 15% of GBP currencies relative to the euro	21	321
Increase by 15% of non-euro currencies relative to the euro	265	2,598
Decrease by 15% of USD currencies relative to the euro	(189)	(1,566)
Decrease by 15% of GBP currencies relative to the euro	(16)	(216)
Decrease by 15% of non-euro currencies relative to the euro	(184)	(1,868)

[1] The effect of currency exchange movements is reflected as a one-time shift up or down in the value of the non-euro currencies relative to the euro on December 31.

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Liquidity risk

Liquidity risk is inherent in much of Aegon s business. Each asset purchased and liability incurred has its own liquidity characteristics. Some liabilities are surrenderable while some assets, such as privately placed loans, mortgage loans, real estate and limited partnership interests, have low liquidity. If Aegon requires significant amounts of cash on short notice in excess of normal cash requirements and existing credit facilities, it may have difficulty selling these investments at attractive prices or in a timely manner. Liquidity risk is also affected by our use of collateralized financial derivatives to mitigate risk.

Aegon operates a Liquidity Risk Policy under which country units are obliged to maintain sufficient levels of highly liquid assets to meet cash demands by policyholders and account holders over the next two years. Potential cash demands are assessed under a stress scenario including spikes in disintermediation risk due to rising interest rates and concerns over Aegon s financial strength due to multiple downgrades of the Group s credit rating. At the same time, the liquidity of assets other than cash and government issues is assumed to be severely impaired for an extended period of time. All legal entities and Aegon Group must maintain enough liquidity in order to meet all cash needs under this extreme scenario.

Aegon held EUR 32,116 million of general account investments in cash, money market products and government bonds that are readily saleable or redeemable on demand (2017: EUR 34,393 million). The Group expects to meet its obligations, even in a stressed liquidity event, from operating cash flows and the proceeds of maturing assets as well as these highly liquid assets. Further, the Group has access to back-up credit facilities, as disclosed in note 39 Borrowings, amounting to EUR 3,680 million which were unused at the end of the reporting period (2017: EUR 3,367 million).

The maturity analysis below shows the remaining contractual maturities of each category of financial liabilities (including coupon interest). When the counterparty has a choice of when an amount is paid, the liability is included on the basis of the earliest date on which it can be required to be paid. Financial liabilities that can be required to be paid on demand without any delay are reported in the category On demand. If there is a notice period, it has been assumed that notice is given immediately and the repayment has been presented at the earliest date after the end of the notice period. When the amount payable is not fixed, the amount reported is determined by reference to the conditions existing at the reporting date. For example, when the amount payable varies with changes in an index, the amount disclosed may be based on the level of the index at the reporting date.

To manage the liquidity risk arising from financial liabilities, Aegon holds liquid assets comprising cash and cash equivalents and investment grade investment securities for which there is an active and liquid market. These assets can be readily sold to meet liquidity requirements. For this reason, Aegon believes that it is not necessary to disclose a maturity analysis in respect of these assets to enable users to evaluate the nature and extent of liquidity risk.

Maturity analysis gross undiscounted	On demand	< 1 yr	1 < 5 yrs	5 < 10 yrs	> 10 yrs	Total

contractual cash flows (for non-derivatives)		amount	amount	amount	amount
	amount				
2018					
Trust pass-through securities	-	9	36	110	69	223
Subordinated loans	-	66	266	201	1,400	1,933
Borrowings	-	1,713	8,136	1,499	2,825	14,174
Investment contracts [1]	13,305	1,439	1,831	985	1,517	19,077
Investment contracts for account of policyholders [1]	29,360	19,670	20	26	91	49,166
Other financial liabilities	5,849	2,445	81	45	38	8,457
Total financial liabilities (excluding investment/insurance contracts)	**5,849**	**4,234**	**8,519**	**1,854**	**4,332**	**24,787**
2017					
Trust pass-through securities	-	9	34	110	68	221
Subordinated loans	-	28	112	56	1,137	1,333
Borrowings	-	1,888	8,396	2,411	2,668	15,362
Investment contracts [1]	12,189	1,381	1,591	577	1,709	17,448
Investment contracts for account of policyholders [1]	33,738	2,605	1	1	133	36,478
Other financial liabilities	6,277	2,002	791	23	32	9,125
Total financial liabilities (excluding investment/insurance contracts)	**6,277**	**3,926**	**9,333**	**2,599**	**3,905**	**26,041**

[1] Excluding investment contracts with discretionary participating features.

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Aegon s liquidity management is based on expected claims and benefit payments rather than on the contractual maturities.

The projected cash benefit payments in the table below are based on management s best estimates of the expected gross benefits and expenses, partially offset by the expected gross premiums, fees and charges relating to the existing business in force. Estimated cash benefit payments are based on mortality, morbidity and lapse assumptions based on Aegon s historical experience, modified for recently observed trends. Actual payment obligations may differ if experience varies from these assumptions. The cash benefit payments are presented on an undiscounted basis and are before deduction of tax and before reinsurance.

Financial liabilities relating to insurance and investment contracts [1]	On demand	< 1 yr amount	1 < 5 yrs amount	5 < 10 yrs amount	> 10 yrs amount	Total amount
2018						
Insurance contracts	-	5,255	17,147	17,891	126,514	166,807
Insurance contracts for account of policyholders	-	8,382	35,238	36,455	130,475	210,550
Investment contracts	-	6,679	6,985	2,739	5,087	21,490
Investment contracts for account of policyholders	169	8,839	23,185	28,747	64,185	125,125
	169	**29,155**	**82,556**	**85,831**	**326,261**	**523,972**
2017						
Insurance contracts	-	3,865	16,348	17,155	122,702	160,070
Insurance contracts for account of policyholders	-	8,122	33,916	35,391	123,911	201,339
Investment contracts	-	5,961	6,870	2,510	4,620	19,960
Investment contracts for account of policyholders	234	10,117	23,871	21,202	54,930	110,353
	234	**28,064**	**81,005**	**76,258**	**306,162**	**491,723**

[1] The liability amount in the consolidated financial statements reflects the discounting for interest as well as adjustments for the timing of other factors as described above. As a result, the sum of the cash benefit payments shown for all years in the table exceeds the corresponding liability amounts included in notes 36 Insurance contracts and 37 Investments contracts.

The following table details the Group s liquidity analysis for its derivative financial instruments, based on the undiscounted contractual net cash inflows and outflows on derivative instruments that settle on a net basis, and the undiscounted gross inflows and outflows on those derivatives that require gross settlement.

Maturity analysis relating to derivatives [1]		< 1 yr	1 < 5 yrs	5 < 10 yrs	> 10 yrs	Total
(Contractual cash flows)	On demand	amount	amount	amount	amount	amount
2018						
Gross settled						
Cash inflows	-	23,453	8,092	11,323	21,233	64,101
Cash outflows	-	(23,143)	(7,351)	(10,832)	(20,816)	(62,141)
Net settled						
Cash inflows	-	156	709	982	2,230	4,078
Cash outflows	-	(66)	(288)	(516)	(5,743)	(6,614)
2017						
Gross settled						
Cash inflows	-	14,646	7,024	10,658	18,916	51,245
Cash outflows	-	(14,766)	(6,367)	(9,890)	(18,447)	(49,471)
Net settled						
Cash inflows	-	129	783	1,033	2,428	4,374
Cash outflows	-	(67)	(332)	(543)	(5,870)	(6,812)

[1] Derivatives includes all financial derivatives regardless whether they have a positive or a negative value. It does not include bifurcated embedded derivatives. These are presented together with the host contract. For interest rate derivatives only, cash flows related to the pay leg are taken into account for determining the gross undiscounted cash flows.

For maturity information on other obligations, please refer to note 48 Commitments and contingencies.

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5 Segment information

Aegon s operating segments are based on the businesses as presented in internal reports that are regularly reviewed by the Executive Board which is regarded as the chief operating decision maker. All reportable segments are involved in insurance or reinsurance business, asset management or services related to these activities. The reportable segments are:

- Americas: one operating segment which covers business units in the United States, Brazil and Mexico, including any of the units activities located outside these countries;
- The Netherlands;
- United Kingdom;
- Central & Eastern Europe;
- Spain & Portugal;
- Asia: one operating segment which covers businesses operating in Hong Kong, Singapore, China, Japan, India and Indonesia including any of the units activities located outside these countries;
- Asset Management: one operating segment which covers business activities from Aegon Asset Management;
- Holding and other activities: one operating segment which includes financing, reinsurance activities, employee and other administrative expenses of holding companies.

Aegon s segment information is prepared by consolidating on a proportionate basis Aegon s joint ventures and associated companies.

Performance Measure

A non-IFRS performance measure of reporting segments utilized by the Company is underlying earnings before tax. Underlying earnings before tax reflects Aegon s profit from underlying business operations and mainly excludes components that relate to accounting mismatches that are dependent on market volatility, updates to best estimate actuarial and economic assumptions and model updates or events that are considered outside the normal course of business.

Aegon believes that its performance measure underlying earnings before tax provides meaningful information about the underlying results of Aegon s business, including insight into the financial measures that Aegon s senior management uses in managing the business. Among other things, Aegon s senior management is compensated based in part on Aegon s results against targets using underlying earnings before tax. While many other insurers in Aegon s peer group present substantially similar performance measures, the performance measures presented in this document may nevertheless differ from the performance measures presented by other insurers.

There is no standardized meaning to these measures under IFRS or any other recognized set of accounting standards.

The reconciliation from underlying earnings before tax to income before tax, being the most comparable IFRS measure, is presented in the tables in this note.

The items that are excluded from underlying earnings before tax as described further below are: fair value items, realized gains or losses on investments, impairment charges/reversals, other income or charges, run-off businesses and share in earnings of joint ventures and associates.

Change in measurement of performance measure

Aegon has changed the measurement of underlying earnings before tax for its real estate investments portfolio held by Aegon the Netherlands. Previously, direct returns on these investments were reported as part of underlying earnings before tax and the fair value movements were reported as part of Fair value items. From January 1, 2018, fair value items include the over-or underperformance for the real estate investments of Aegon the Netherlands, for which management s best estimate is included in underlying earnings before tax. In addition, Aegon the Netherlands started to record its management s best estimate investment return on consumer loan investments (net of expected impairments) in underlying earnings before tax, where previously the gross returns were recorded in underlying earnings before tax and the impairments in the impairment line. All other alternative investments are reported similarly with management s best estimate investment return being included in underlying earnings before tax and the over- or underperformance in Fair value items.

For segment reporting purposes, the impact of this change in measurement on full year 2017 was an increase in Aegon Group consolidated underlying earnings before tax of EUR 37 million and a decrease in fair value items of EUR 61 million and a decrease in impairment charges of EUR 24 million. There is no impact on net income in any of the reporting periods. Comparative numbers have been restated in Aegon s segment reporting note, enabling a like for like comparison. The presentation of the items in the IFRS income statement remains unchanged and continue to be part of the line Investment income .

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Impact from assumption and model updates

In 2018, a pre-tax charge of EUR 121 million (2017: EUR 276 million charge) has been recorded in other income/(charges) in respect of assumption changes and model updates. The impact is mainly attributable to Aegon s business in the Americas and the Netherlands. Assumption changes and model updates in the Americas led to a net negative impact of EUR 6 million, which includes charges of EUR 164 million, mainly driven by Americas Life mortality updates to reflect actual experience, partially offset by gains of EUR 158 million, mainly driven by the positive impact from new expense allocation methodology within Retirement plans and Variable and Fixed annuities lines of business, Universal Life model update using results from AXIS model and a Variable Annuities (WB) modelling enhancement in discount curve upon account exhaustion. In the Netherlands, assumption changes and model updates led to a net loss of EUR 111 million, which includes charges of EUR 219 million mainly related to the population mortality best estimate update to reflect latest available data and an improvement in the modelling of policyholder behavior (lapses) and the lowering of IFRS ultimate forward rate from 4.25% to 3.65%. This was partly offset by EUR 108 million gains driven by the TKP/UL model conversion.

During 2017 Aegon implemented actuarial assumption and model updates resulting in a net EUR 276 million charge (2016: EUR 118 million charge) to income before tax.

Fair value items

Fair value items include the over-or underperformance of investments and guarantees held at fair value for which management s best estimate investment return is included in underlying earnings before tax.

In addition, hedge ineffectiveness on hedge transactions, fair value changes on economic hedges without natural offset in earnings and for which no hedge accounting is applied and fair value movements on real estate are included under fair value items.

Certain assets held by Aegon are carried at fair value and managed on a total return basis, with no offsetting changes in the valuation of related liabilities. These include assets such as investments in hedge funds, private equities, real estate (limited partnerships), convertible bonds and structured products. Underlying earnings before tax exclude any over-or underperformance compared to management s best estimate investment return on assets. Based on current holdings and asset returns, the long-term expected return on an annual basis is 3-10%, depending on asset class, including cash income and market value changes. The expected earnings from these asset classes are net of deferred policy acquisition costs (DPAC) where applicable.

In addition, certain products offered by Aegon Americas contain guarantees and are reported on a fair value basis and the total return annuities and guarantees on variable annuities. The earnings on these products are impacted by movements in equity markets and risk-free interest rates. Short-term developments in the financial markets may therefore cause volatility in earnings. Included in underlying earnings before tax is management s best estimate expected return on these products. Any over-or underperformance compared to management s expected return is excluded from underlying earnings before tax.

The fair value movements of certain guarantees and the fair value change of derivatives that hedge certain risks on these guarantees of Aegon s businesses in the Netherlands and Japan are excluded from underlying earnings before tax, because management s best estimate expected return for these guarantees is set at zero. In addition, fair value items include market related results on our loyalty bonus reserves in the United Kingdom. The value of these reserves are directly related to policyholder investments which value is directly impacted by movements in equity and bond markets.

Holding and other activities include certain issued bonds that are held at fair value through profit or loss (FVTPL). The interest rate risk on these bonds is hedged using swaps. The fair value movement resulting from changes in Aegon s credit spread used in the valuation of these bonds are excluded from underlying earnings before tax and reported under fair value items.

Realized gains or losses on investments

Realized gains or losses on investments includes realized gains and losses on available-for-sale investments, mortgage loans and other loan portfolios.

Impairment charges/reversals

Impairment charges/reversals include impairments on available-for-sale debt securities, shares including the effect of deferred policyholder acquisition costs, mortgage loans and other loan portfolios at amortized cost, joint ventures and associates. Impairment reversals include reversals on available-for-sale debt securities. For Aegon the Netherlands, the expected impairments on alternative assets classes (e.g. illiquid investments including consumer loans and catastrophe bonds and residential real estate) are allocated to underlying earnings in order to present management s best estimate investment return in underlying earnings. Deviations from the expected impairments are presented as part of impairment charges/(reversals) in non-underlying earnings.

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Other income or charges

Other income or charges includes the following:

- items which cannot be directly allocated to a specific line of business;
- the impact of actuarial and economic assumption and model updates used to support calculations of our liabilities for insurance and investment contracts sold to policyholders and related assets; and
- items that are outside the normal course of business, including restructuring charges.

In the Consolidated income statement, these restructuring charges are included in operating expenses. Actuarial assumption and model updates are recorded in Policyholder claims and benefits in the Consolidated income statement.

Run-off businesses

Run-off businesses includes results of business units where management in earlier years has decided to exit the market and to run-off the existing block of business. This line only includes results related to the run-off of the remaining institutional spread-based business, structured settlements blocks of business, the life reinsurance business and the bank-owned and corporate-owned life insurance (BOLI/COLI) business in the United States. Aegon has other blocks of business for which sales have been discontinued and of which the earnings are included in underlying earnings before tax.

Share in earnings of joint ventures and associates

Earnings from Aegon s joint ventures in the Netherlands, Mexico, Spain, Portugal, China and Japan and Aegon s associates in India, Brazil, the Netherlands, United Kingdom, Mexico and France are reported on an underlying earnings before tax basis.

The following table presents Aegon s segment results.

come atement												
nderlying rnings 018												
nderlying rnings before x	1,216	615	128	72	24	55	151	(189)	1	**2,074**	72	**2,146**
ir value items	(613)	250	59	4	2	3	-	5	-	(291)	(119)	(409
	(204)	46	83	1	(1)	(8)	2	4	-	(77)	(2)	(79

ealized ins/(losses) on vestments												
npairment arges	(46)	4	-	(2)	-	(5)	-	(9)	-	(58)	-	(58
npairment versals	37	2	-	1	-	-	-	-	-	39	-	39
ther come/(charges)	(397)	(132)	(252)	(7)	(18)	(7)	(5)	(57)	-	(875)	1	(874
un-off usinesses	(14)	-	-	-	-	-	-	-	-	(14)	-	(14
come/(loss) efore tax	**(20)**	**784**	**19**	**69**	**7**	**36**	**149**	**(247)**	**1**	**798**	**(47)**	**751**
come tax xpense)/benefit	71	(136)	20	(8)	(10)	(25)	(44)	46	-	(87)	47	(40
et come/(loss)	**51**	**648**	**38**	**60**	**(3)**	**11**	**105**	**(201)**	**1**	**711**	**-**	**711**
ter-segment nderlying rnings	(73)	(101)	(82)	(15)	(2)	(5)	198	80				
evenues												
018												
fe insurance oss premiums	7,004	1,632	7,509	405	217	779	-	9	(7)	17,548	(579)	16,969
ccident and ealth insurance	1,571	219	29	2	100	94	-	-	-	2,015	(36)	1,979
eneral insurance	-	136	-	231	112	-	-	1	(1)	479	(112)	367
otal gross remiums	**8,575**	**1,987**	**7,539**	**638**	**429**	**873**	**-**	**10**	**(8)**	**20,042**	**(727)**	**19,316**
vestment come	3,125	2,265	1,346	48	36	268	5	286	(284)	7,095	(59)	7,035
ee and ommission come	1,826	211	198	47	16	58	632	-	(206)	2,782	(224)	2,558
ther revenues	5	-	-	-	-	2	1	4	-	12	(6)	5
otal revenues	**13,530**	**4,463**	**9,083**	**733**	**480**	**1,201**	**638**	**300**	**(499)**	**29,930**	**(1,016)**	**28,914**
ter-segment venues	1	2	-	-	-	-	206	290				

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come tement												
derlying rnings 17												
derlying rnings before x	1,381	557	116	67	4	49	136	(170)	-	2,140	61	2,20
ir value items	170	(31)	(82)	-	-	-	-	24	-	81	(97)	(1
alized ins/(losses) on vestments	157	184	62	1	-	4	3	-	-	413	(5)	40
pairment arges	(37)	(3)	-	(2)	-	(1)	-	(3)	-	(46)	(0)	(4
pairment versals	22	10	-	-	-	-	-	-	-	32	-	3
her come/(charges)	(353)	296	40	-	-	(19)	(49)	16	-	(68)	(4)	(7
n-off sinesses	30	-	-	-	-	-	-	-	-	30	-	3
come/(loss) fore tax	1,370	1,013	137	66	4	33	90	(134)	-	2,580	(45)	2,53
come tax xpense)/benefit	198	(196)	(56)	(9)	(6)	(28)	(42)	29	-	(110)	44	(6
t come/(loss)	1,568	818	81	57	(2)	5	48	(105)	-	2,470	(0)	2,47
er-segment *derlying* *rnings*	(78)	(111)	(87)	(11)	(1)	(1)	214	73				
evenues												
17												
fe insurance oss premiums	7,437	1,857	9,603	411	208	983	-	7	(9)	20,498	(546)	19,95
cident and alth insurance	2,115	203	32	1	83	97	-	-	-	2,531	(20)	2,51
neral insurance	-	148	-	216	103	-	-	1	(1)	466	(103)	36
tal gross emiums	9,553	2,208	9,635	628	394	1,080	-	8	(10)	23,496	(670)	22,82
vestment come	3,368	2,172	1,517	49	37	246	4	295	(291)	7,396	(58)	7,33

e and mmission come	1,919	326	235	43	17	63	609	-	(222)	2,990	(188)	2,80
her revenues	5	-	-	-	3	1	-	4	-	13	(5)	
tal revenues	**14,844**	**4,706**	**11,387**	**720**	**450**	**1,390**	**613**	**308**	**(523)**	**33,895**	**(921)**	**32,97**
er-segment venues	-	(1)	-	-	-	3	222	298				

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Income statement												
Underlying earnings 2016												
Underlying earnings before tax	1,249	534	59	55	8	21	149	(162)	-	1,913	48	1,960
Fair value items	(521)	(228)	(7)	-	(1)	(9)	-	(74)	-	(840)	(72)	(912)
Realized gains/(losses) on investments	(13)	189	153	-	(1)	8	3	-	-	340	(6)	334
Impairment charges	(72)	(29)	-	1	-	(1)	(5)	(7)	-	(113)	-	(112)
Impairment reversals	42	17	-	-	-	-	-	-	(1)	58	-	58
Other income/(charges)	(100)	44	(678)	(23)	(0)	(5)	(2)	(6)	-	(771)	-	(771)
Run-off businesses	54	-	-	-	-	-	-	-	-	54	-	54
Income/(loss) before tax	**638**	**526**	**(474)**	**34**	**6**	**14**	**145**	**(249)**	**(0)**	**641**	**(31)**	**610**
Income tax (expense)/benefit	(80)	(109)	18	(15)	(8)	(27)	(48)	65	-	(203)	31	(172)
Net income/(loss)	**559**	**418**	**(456)**	**19**	**(2)**	**(13)**	**97**	**(183)**	**(0)**	**438**	**-**	**438**
Inter-segment underlying earnings	(194)	(95)	(87)	(14)	(1)	74	234	84				
Revenues 2016												
Life insurance gross premiums	7,363	2,015	9,888	399	191	1,121	-	6	(84)	20,898	(498)	20,400
Accident and health insurance	2,204	210	36	1	73	104	-	(4)	-	2,624	(15)	2,609
General insurance	-	266	-	179	92	-	-	5	(5)	536	(92)	444
Total gross premiums	**9,567**	**2,491**	**9,924**	**578**	**355**	**1,225**	**-**	**7**	**(89)**	**24,058**	**(606)**	**23,453**
Investment income	3,717	2,135	1,661	45	45	232	3	406	(403)	7,841	(54)	7,788
	1,651	350	95	36	14	61	632	-	(242)	2,596	(188)	2,408

Fee and commission income												
Other revenues	4	-	-	-	2	-	1	3	-	11	(4)	7
Total revenues	**14,940**	**4,976**	**11,680**	**659**	**416**	**1,517**	**636**	**416**	**(734)**	**34,507**	**(852)**	**33,655**
Inter-segment revenues	-	3	-	-	-	79	243	409				

The Group uses underlying earnings before tax in its segment reporting as an important indicator of its financial performance. The reconciliation of this measure to the income before tax is shown below. Aegon believes that underlying earnings before tax, together with the other information included in this report, provides a meaningful measure for the investing public to evaluate Aegon s business relative to the businesses of its peers.

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The reconciliation from underlying earnings before tax to income before tax, being the most comparable IFRS measure, is presented in the table below. For those items that cannot be directly reconciled to the respective notes, the explanation is provided below the table.

	Note	2018	2017	2016
Underlying earnings before tax & excl. JVs/Assoc.		**2,074**	**2,140**	**1,913**
Elimination of share in earnings of joint ventures and associates		**72**	**61**	**48**
Rental income	**7**	(72)	(61)	-
Dividend income	**7**	30	-	-
Recovered claims and benefits	**9**	2	-	-
Net fair value change of general account financial investments at fair value through profit or loss, other than derivatives	**10**	(295)	(437)	(783)
Net fair value change on borrowings and other financial liabilities	**10**	6	-	-
Realized gains and losses on financial investments	**10**	(92)	431	327
Gains and (losses) on investments in real estate	**10**	261	193	70
Net fair value change of derivatives	**10**	(67)	(134)	(277)
Net foreign currency gains and (losses)	**10**	(2)	5	30
Realized gains and (losses) on repurchased debt	**10**	1	1	1
Other income	**11**	8	540	66
Change in valuation of liabilities for insurance contracts	**12**	(341)	(254)	(144)
Change in valuation of liabilities for investment contracts	**12**	13	(19)	(18)
Policyholder claims and benefits Other	**12**	(9)	34	45
Commissions and expenses	**14**	(428)	256	75
Impairment (charges) reversals	**15**	(20)	(16)	(97)
Other charges	**17**	(375)	(235)	(700)
Run-off businesses	**5**	(14)	30	54
Income/(loss) before tax		**751**	**2,534**	**610**

Net fair value change of general account financial investments at fair value through profit or loss, other than derivatives is reported as part of the respective line in Note 10 and reflects the over-or underperformance of investments and guarantees held at fair value for which the expected long-term return is included in underlying earnings before tax.

Net fair value change of derivatives is reported as part of the respective line in Note 10 and includes: 1) the over-or underperformance of derivatives of EUR 3 million gain (2017: EUR 9 million gain, 2016: EUR 8 million gain) for which the expected long-term return is included in underlying earnings before tax; 2) Net fair value change on economic hedges where no hedge accounting is applied of EUR 77 million loss (2017: EUR 145 million loss, 2016:

EUR 297 million loss); 3) Ineffective portion of hedge transactions to which hedge accounting is applied of EUR 7 million gain (2017: EUR 2 million gain, 2016: EUR 12 million gain).
Net foreign currency gains and (losses) are reported as part of the respective line in Note 10.
Change in valuation of liabilities for insurance contracts is reported as part of the respective line in Note 12.
Change in valuation of liabilities for investment contracts is reported as part of the respective line in Note 12.
Policyholder claims and benefits Other are reported as part of the Other line in note 12 and is related to policyholder tax.
Commissions and expenses include: 1) Restructuring charges of EUR 279 million (2017: EUR 116 million charge, 2016: EUR 54 million charge) which are reported as part of Employee and Administration expenses lines in Note 14; 2) Amortization of deferred expenses of EUR 67 million loss (2017: gain of EUR 285 million, 2016: gain of EUR 137 million) which is reported as part of the respective line in Note 14. This is offset against realized gains and losses and impairments on financial investments; 3) Amortization of VOBA and future servicing rights of EUR 20 million loss (2017: gain of EUR 94 million; 2016: charge of EUR 8 million) which is reported as part of the respective line in Note 14. Commissions and expenses include a DPAC/VOBA fair value adjustment of EUR 88 million loss (2017: gain of EUR 135 million; 2016: gain of EUR 105 million).
Impairment (charges) reversals include: 1) Impairment charges and reversals on financial assets, excluding receivables of EUR 41 million charge (2017: EUR charge of 42 million , 2016: charge of EUR 59 million) as shown in Note 15; 2) Impairment charges and reversals on non-financial assets and receivables of EUR 19 million loss (2017: EUR 1 million gain; 2016: EUR 38 million charge) reported as part of the respective line in Note 15.
There are no interest charges and related fees that are classified for segment reporting purposes as non-underlying earnings.

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Other selected income statement items

2018										
Amortization of deferred expenses, VOBA and future servicing rights	852	25	119	52	-	24	-	-	-	1,072
Depreciation	38	12	14	9	3	1	1	2	-	80
Impairment charges/(reversals) on financial assets, excluding receivables	(9)	34	-	1	-	5	-	9	-	41
Impairment charges/(reversals) on non-financial assets and receivables	19	15	1	-	-	1	-	-	-	36
2017										
Amortization of deferred expenses, VOBA and future servicing rights	336	27	134	55	-	33	-	-	-	586
Depreciation	44	16	28	8	3	1	3	2	-	105
Impairment charges/(reversals) on financial assets, excluding receivables	19	17	-	2	-	-	-	3	-	42
Impairment charges/(reversals) on non-financial assets and receivables	(2)	3	-	-	-	-	-	-	-	-
2016										
Amortization of deferred expenses, VOBA and future servicing rights	761	32	177	59	-	32	-	-	2	1,065
Depreciation	38	17	21	9	3	1	-	2	-	89
Impairment charges/(reversals) on financial assets, excluding receivables	35	12	-	(1)	-	1	5	7	-	59
Impairment charges/(reversals) on non-financial assets and	7	(2)	31	(1)	-	-	-	-	-	36

receivables

Number of employees									
2018									
Number of employees headcount	8,824	3,548	3,135	2,318	519	6,344	1,464	390	26,543
Of which Aegon s share of employees in joint ventures and associates	559	-	58	-	86	5,983	168	-	6,854
2017									
Number of employees headcount	10,951	3,089	3,435	2,337	610	6,025	1,500	371	28,318
Of which Aegon s share of employees in joint ventures and associates	549	-	-	-	83	5,702	163	-	6,497
2016									
Number of employees headcount	11,943	4,464	2,673	2,317	600	5,579	1,474	330	29,380
Of which Aegon s share of employees in joint ventures and associates	561	-	-	-	41	5,186	156	-	5,944

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213 Notes to the consolidated financial statements **Note 5**

Summarized assets and liabilities per segment 2018										
Assets										
Cash and Cash equivalents	683	6,004	315	68	80	90	213	1,290	-	8,744
Assets held for sale	-	-	-	-	-	-	-	-	-	-
Investments	71,056	57,738	2,114	933	727	5,720	181	157	-	138,625
Investments for account of policyholders	95,343	23,767	73,958	1,088	99	103	-	-	(5)	194,353
Investments in joint ventures	1	1,001	-	-	472	152	119	-	-	1,745
Investments in associates	72	85	8	5	-	17	131	8	-	327
Deferred expenses	9,209	66	896	74	1	665	-	-	-	10,910
Other assets	27,893	7,421	1,893	210	62	1,907	123	27,284	(28,864)	37,928
Total assets	**204,257**	**96,083**	**79,184**	**2,378**	**1,441**	**8,654**	**767**	**28,738**	**(28,869)**	**392,633**
Liabilities										
Insurance contracts	71,584	34,844	1,435	657	681	7,726	-	15	(1,648)	115,294
Insurance contracts for account of policyholders	68,126	23,855	24,086	919	103	24	-	-	-	117,113
Investment contracts	6,943	10,795	223	85	-	2	-	-	-	18,048
Investment contracts for account of policyholders	27,217	2,101	50,532	169	-	79	-	-	-	80,097
Liabilities held for sale	-	-	-	-	-	-	-	-	-	-
Other liabilities	17,055	17,507	1,047	170	231	67	293	6,156	(3,012)	39,513
Total liabilities	**190,924**	**89,102**	**77,322**	**2,000**	**1,015**	**7,898**	**293**	**6,171**	**(4,660)**	**370,065**

Summarized assets and liabilities per segment 2017										
Assets										
Cash and Cash equivalents	548	8,382	317	67	116	71	141	1,125	-	10,768
Assets held for sale	-	-	5,249	-	-	-	-	-	-	5,249
Investments	73,469	53,975	2,011	1,055	720	5,326	157	91	-	136,804
Investments for account of policyholders	102,964	26,697	62,961	1,343	105	-	-	-	(6)	194,063

Investments in joint ventures	6	1,008	-	-	480	118	99	1	-	1,712
Investments in associates	77	74	7	6	-	14	122	8	-	308
Deferred expenses	8,552	76	945	70	1	490	-	-	-	10,135
Other assets	26,628	6,763	1,840	245	72	1,786	101	28,427	(28,979)	36,883
Total assets	**212,245**	**96,975**	**73,331**	**2,787**	**1,494**	**7,805**	**620**	**29,651**	**(28,985)**	**395,923**
Liabilities										
Insurance contracts	68,556	34,379	1,451	624	703	6,696	-	24	(1,615)	110,818
Insurance contracts for account of policyholders	72,501	25,587	22,862	1,109	108	-	-	-	-	122,168
Investment contracts	6,824	9,787	278	52	-	2	-	-	-	16,943
Investment contracts for account of policyholders	30,463	3,255	40,482	234	-	-	-	-	-	74,434
Liabilities held for sale	-	-	5,003	-	-	-	-	-	-	5,003
Other liabilities	19,145	17,400	1,103	365	250	133	218	5,526	(1,684)	42,456
Total liabilities	**197,490**	**90,408**	**71,178**	**2,385**	**1,061**	**6,830**	**218**	**5,550**	**(3,299)**	**371,821**

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Amounts included in the tables on investments are presented on an IFRS basis, which means that investments in joint ventures and associates are not consolidated on a proportionate basis. Instead, these investments are included on a single line using the equity method of accounting.

nvestments 018										
hares	532	1,412	3	64	10	7	4	128	-	2,161
ebt securities	51,681	21,586	1,005	754	662	5,526	36	3	-	81,253
oans	9,945	32,536	-	106	37	16	-	12	-	42,653
ther financial assets	8,367	54	1,105	5	-	170	142	14	-	9,858
nvestments in real state	530	2,150	-	4	17	-	-	-	-	2,700
nvestments general ccount	**71,056**	**57,738**	**2,114**	**933**	**727**	**5,720**	**181**	**157**	**-**	**138,625**
hares	-	7,403	13,044	184	14	-	-	-	(5)	20,640
ebt securities	1,716	11,283	7,259	176	7	-	-	-	-	20,441
nconsolidated vestment funds	93,548	1,059	48,296	717	78	103	-	-	-	143,800
ther financial assets	79	4,022	4,748	11	-	-	-	-	-	8,861
nvestments in real state	-	-	612	-	-	-	-	-	-	612
nvestments for ccount of olicyholders	**95,343**	**23,767**	**73,958**	**1,088**	**99**	**103**	**-**	**-**	**(5)**	**194,353**
nvestments on alance sheet	166,399	81,505	76,072	2,021	826	5,823	181	157	(5)	332,979
ff-balance sheet nvestments third arties	204,184	3,339	106,347	5,360	491	2,818	149,197	-	(774)	470,963
otal evenue-generating nvestments	**370,583**	**84,844**	**182,419**	**7,381**	**1,317**	**8,641**	**149,378**	**157**	**(778)**	**803,942**
nvestments										
vailable-for-sale	55,921	19,974	1,459	810	673	5,686	131	21	-	84,675
oans	9,945	32,536	-	106	37	16	-	12	-	42,653
	100,002	26,846	74,001	1,101	99	121	50	123	(5)	202,339

inancial assets at ir value through rofit or loss										
nvestments in real state	530	2,150	612	4	17	-	-	-	-	3,312
otal investments n balance sheet	**166,399**	**81,505**	**76,072**	**2,021**	**826**	**5,823**	**181**	**157**	**(5)**	**332,979**
nvestments in joint entures	1	1,001	-	-	472	152	119	-	-	1,745
nvestments in ssociates	72	85	8	5	-	17	131	8	-	327
ther assets	37,786	13,491	3,104	352	143	2,662	336	28,573	(28,864)	57,582
onsolidated total ssets	**204,257**	**96,083**	**79,184**	**2,378**	**1,441**	**8,654**	**767**	**28,738**	**(28,869)**	**392,633**

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Investments										
2017										
Shares	567	859	5	54	5	1	2	57	-	1,551
Debt securities	54,535	21,411	1,779	712	646	5,252	9	-	-	84,344
Loans	8,831	30,189	-	275	54	6	-	13	-	39,368
Other financial assets	8,904	21	228	10	-	67	146	20	-	9,395
Investments in real estate	633	1,495	-	4	15	-	-	-	-	2,147
Investments general account	**73,469**	**53,975**	**2,011**	**1,055**	**720**	**5,326**	**157**	**91**	**-**	**136,804**
Shares	-	9,262	15,856	244	14	-	-	-	(6)	25,370
Debt securities	3,116	13,370	8,125	216	9	-	-	-	-	24,836
Unconsolidated investment funds	99,426	276	33,476	873	81	-	-	-	-	134,132
Other financial assets	422	3,788	4,850	11	1	-	-	-	-	9,072
Investments in real estate	-	-	655	-	-	-	-	-	-	655
Investments for account of policyholders	**102,964**	**26,697**	**62,961**	**1,343**	**105**	**-**	**-**	**-**	**(6)**	**194,063**
Investments on balance sheet	176,434	80,672	64,972	2,398	825	5,326	157	91	(6)	330,868
Off-balance sheet investments third parties	212,736	1,759	114,906	5,709	528	2,718	143,923	-	(981)	481,297
Total revenue-generating investments	**389,170**	**82,431**	**179,878**	**8,107**	**1,353**	**8,043**	**144,079**	**91**	**(987)**	**812,165**
Investments										
Available-for-sale	59,459	19,841	2,007	756	651	5,299	137	20	-	88,170
Loans	8,831	30,189	-	275	54	6	-	13	-	39,368
Financial assets at fair value through profit or loss	107,511	29,147	62,310	1,363	105	21	20	57	(6)	200,528
Investments in real estate	633	1,495	655	4	15	-	-	-	-	2,801
Total investments on balance sheet	**176,434**	**80,672**	**64,972**	**2,398**	**825**	**5,326**	**157**	**91**	**(6)**	**330,868**

Investments in joint ventures	6	1,008	-	-	480	118	99	1	-	1,712
Investments in associates	77	74	7	6	-	14	122	8	-	308
Other assets	35,728	15,221	8,352	383	189	2,347	242	29,552	(28,979)	63,034
Consolidated total assets	**212,245**	**96,975**	**73,331**	**2,787**	**1,494**	**7,805**	**620**	**29,651**	**(28,985)**	**395,923**

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6 Premium income and premiums paid to reinsurers

	2018	2017	2016
Life insurance	16,969	19,952	20,400
Non-life insurance	2,346	2,874	3,053
Total premium income	**19,316**	**22,826**	**23,453**
- Accident and health insurance	1,979	2,511	2,609
- General insurance	367	363	444
Non-life insurance premium income	**2,346**	**2,874**	**3,053**

	2018	2017	2016
Life insurance	2,500	3,214	2,932
Non-life insurance	163	217	244
Total premiums paid to reinsurers	**2,663**	**3,431**	**3,176**
- Accident and health insurance	152	205	238
- General insurance	11	13	7
Non-life insurance paid to reinsurers	**163**	**217**	**244**

Premium income decreased by EUR 3,510 million in 2018 (2017: EUR 627 million) mainly driven by a reduction of upgraded Life insurance policies to the retirement platform in the UK, which represents EUR 3,439 million (2017: EUR 5,139 million; 2016: EUR 5,255 million) of total premium income Life insurance.

In addition, there is a negative impact on Non-life insurance from product exits in the US and currency translation adjustments.

The decrease of EUR 714 million in Premium paid to reinsurers Life in 2018 is mainly due to the divestment of annuity businesses in Americas and the United Kingdom which occurred in 2017.

7 Investment income

	2018	2017	2016
Interest income	5,783	6,052	6,479
Dividend income	1,124	1,164	1,180
Rental income	129	121	129
Total investment income	**7,035**	**7,338**	**7,788**
Investment income related to general account	5,268	5,394	5,737

Investment income for account of policyholders	1,767	1,944	2,051
Total	**7,035**	**7,338**	**7,788**

Included in interest income is EUR 160 million (2017: EUR 190 million; 2016: EUR 230 million) in respect of interest income accrued on impaired financial assets. The interest income on financial assets that are not carried at fair value through profit or loss amounted to EUR 4,811 million (2017: EUR 5,056 million; 2016: EUR 5,642 million).

Total investment income from:	**2018**	2017	2016
Shares	1,124	1,164	1,180
Debt securities and money market instruments	3,899	4,248	4,838
Loans	1,704	1,686	1,752
Real estate	129	121	129
Other	181	119	(111)
Total	**7,035**	**7,338**	**7,788**

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Investment income from financial assets held for general account:	**2018**	2017	2016
Available-for-sale	3,180	3,467	4,007
Loans	1,704	1,686	1,752
Financial assets designated at fair value through profit or loss	212	148	80
Real estate	82	71	69
Derivatives	72	31	(139)
Other	18	(10)	(32)
Total	**5,268**	**5,394**	**5,737**

8 Fee and commission income

	2018	2017	2016
Fee income from asset management	1,853	2,126	1,702
Commission income	594	535	562
Other	112	140	144
Total fee and commission income	**2,558**	**2,802**	**2,408**

Included in fee and commission income is EUR 215 million of fees on trust and fiduciary activities (2017: EUR 190 million; 2016: EUR 55 million).

9 Income from reinsurance ceded

	2018	2017	2016
Recovered claims and benefits	3,127	3,669	3,477
Change in technical provisions	372	497	(26)
Commissions	241	122	236
Total	**3,740**	**4,288**	**3,687**

Income from reinsurance ceded decreased by EUR 549 million compared to 2017, mainly due to the completion of the part VII transfers of the annuity portfolios in the UK in 2017. Refer to note 51 Business combinations for more details on these transactions.

10 Results from financial transactions

Results from financial transactions comprise:	**2018**	2017	2016
Net fair value change of general account financial investments at fair value through profit or loss, other than derivatives	(79)	232	(42)
Realized gains and (losses) on financial investments	(92)	431	327
Gains and (losses) on investments in real estate	261	193	70
Net fair value change of derivatives	(545)	(1,159)	239

Net fair value change on account of policyholder financial assets at fair value through profit or loss	(11,326)	20,524	15,121
Net fair value change on investments in real estate for account of policyholders	5	38	(26)
Net foreign currency gains and (losses)	44	(20)	41
Net fair value change on borrowings and other financial liabilities	29	10	21
Realized gains and (losses) on repurchased debt	1	1	1
Total	**(11,701)**	**20,250**	**15,753**

Net fair value change of general account financial investments at fair value through profit or loss, other than derivatives comprise:	**2018**	2017	2016
Shares	69	25	4
Debt securities and money market investments	(143)	127	8
Other	(5)	80	(54)
Total	**(79)**	**232**	**(42)**

Other mainly includes net fair value changes of alternative investments.

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Realized gains and losses on financial investments comprise:	**2018**	2017	2016
Shares	25	165	46
Debt securities and money market investments	(147)	242	211
Loans	16	20	16
Other	14	3	54
Total	**(92)**	**431**	**327**

Realized gains and losses on financial investments comprise:	**2018**	2017	2016
Available-for-sale investments	(108)	411	311
Loans	16	20	16
Total	**(92)**	**431**	**327**

Net fair value change of derivatives comprise:	**2018**	2017	2016
Net fair value change on economic hedges where no hedge accounting is applied	272	70	793
Net fair value change on bifurcated embedded derivatives	(824)	(1,231)	(565)
Ineffective portion of hedge transactions to which hedge accounting is applied	7	2	12
Total	**(545)**	**(1,159)**	**239**

The ineffective portion of hedge transactions to which hedge accounting is applied comprises:	**2018**	2017	2016
Fair value change on hedging instruments in a fair value hedge	13	(12)	(29)
Fair value change on hedged items in a fair value hedge	(8)	15	35
Ineffectiveness fair value hedge	5	3	7
Ineffectiveness cash flow hedges	2	-	5
Total	**7**	**2**	**12**

Net fair value change on for account of policyholder financial assets at fair value through profit or loss comprise:	**2018**	2017	2016
Shares	(2,318)	2,372	2,462
Debt securities and money market investments	(421)	166	1,682
Unconsolidated investment funds	(8,158)	17,720	10,496
Derivatives	(153)	94	252
Other	(276)	171	230
Total	**(11,326)**	**20,524**	**15,121**

Net fair value change on for account of policyholder financial assets at fair value through profit or loss decreased in 2018 compared to 2017, mainly from unfavorable credit and equity markets. Net fair value changes on for account of policyholder financial assets at fair value through profit or loss are offset by changes in technical provisions reported as part of the lines Change in valuation of liabilities for insurance contracts and Change in valuation of liabilities for investment contracts in note 12 Policyholder claims and benefits.

Net fair value change on borrowings and other financial liabilities	**2018**	2017	2016
Borrowings	23	10	21
Other financial liabilities	6	-	-
Total	**29**	**10**	**21**

11 Other income

	2018	2017	2016
Other income	8	540	66

Other income in 2017 of EUR 540 million mainly related to a book gain of EUR 231 million (USD 250 million) from the divestment of the payout annuity and the BOLI/COLI businesses in the Americas and a book gain of EUR 208 million on the sale of the Unirobe Meeùs Groep. Furthermore, a release of an expense reserve of EUR 82 million (GBP 71 million) was recorded that was embedded in the liabilities for insurance contracts following the completion of the Part VII transfer to Rothesay Life. Also EUR 17 million (GBP 14 million) related to the completion of the Part VII transfer of annuities reinsured to Legal & General in 2016 was included. An insurance business transfer scheme under Part VII of the United Kingdom Financial Services and Markets Act 2000 allows an insurer

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to transfer policies as at a fixed time and date to another insurer, along with related contracts with other parties. For more details refer to note 51 Business combinations.

Other income of EUR 66 million for 2016 includes the result on the sale of Transamerica Financial Advisors. This transaction has resulted in a gain of USD 58 million (EUR 52 million). Refer to note 51 Business combinations for more details.

12 Policyholder claims and benefits

	2018	2017	2016
Benefits and claims paid life	19,673	23,634	23,877
Benefits and claims paid non-life	1,658	1,903	2,052
Change in valuation of liabilities for insurance contracts	(2,639)	22,741	16,193
Change in valuation of liabilities for investment contracts	(8,143)	(2,644)	(104)
Other	9	(34)	(45)
Total	**10,557**	**45,599**	**41,974**

Policyholder claims and benefits includes claims and benefits in excess of account value for products for which deposit accounting is applied and the change in valuation of liabilities for insurance and investment contracts. The lines Change in valuation of liabilities for insurance contracts and Change in valuation of liabilities for investment contracts reflect movements in technical provisions resulting from Net fair value change on for account of policyholder financial assets at fair value through profit or loss included in note 10 Results from financial transactions of EUR 11,326 million negative (2017: EUR 20,524 million positive, 2016: EUR 15,121 million positive). In addition, the line Change in valuation of liabilities for insurance contracts includes an increase of technical provisions for life insurance contracts of EUR 1,403 million (2017: increase of EUR 601 million, 2016: increase of EUR 2,349 million).

13 Profit sharing and rebates

	2018	2017	2016
Surplus interest bonuses	2	2	4
Profit appropriated to policyholders	21	21	45
Total	**23**	**23**	**49**

14 Commissions and expenses

	2018	2017	2016
Commissions	2,445	2,661	2,929

Employee expenses	2,061	2,234	2,287
Administration expenses	1,477	1,424	1,273
Deferred expenses	(831)	(980)	(1,203)
Amortization of deferred expenses	928	543	880
Amortization of VOBA and future servicing rights	144	43	184
Total	**6,224**	**5,925**	**6,351**

Included in administration expenses is an amount of EUR 80 million of depreciation that relates to equipment, software and real estate held for own use (2017: EUR 105 million; 2016: EUR 89 million). Minimum lease payments recognized as expense amounted to EUR 84 million (2017: EUR 89 million; 2016: EUR 89 million).

The minimum lease payments recognized as expense for both 2017 and 2016 have been adjusted to conform to the current year presentation as certain amounts were previously not included in the narrative in this note. These adjusted amounts are not considered material as these adjustments had no effect on net income, shareholders equity and earnings per share, nor on the total of commissions and expenses of EUR 5,925 reported in 2017 and EUR 6,351 reported in 2016.

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Employee expenses	**2018**	2017	2016
Salaries	1,261	1,470	1,471
Post-employment benefit costs	277	318	338
Social security charges	120	151	155
Other personnel costs	367	267	294
Shares	36	28	28
Total	**2,061**	**2,234**	**2,287**

An amount of EUR 44 million is included in employee expenses relating to defined contributions (2017: EUR 46 million; 2016: EUR 46 million).

Long Term Incentive Plans

Selected senior employees within Aegon, who have not been classified as Identified Staff , can be granted the conditional right to receive Aegon shares at the start of a performance year. The grant price for these shares is equal to the volume weighted average price (VWAP) on the Euronext stock exchange in Amsterdam during the period between December 15 preceding a plan year and January 15 of a plan year. The actual allocation of these shares to eligible employees depends on Aegon Group performance, the employee s unit performance and individual performance on predefined financial and non-financial performance indicators and targets, as well as the continued employment of the employee.

Once allocated, the shares are subject to a vesting period of two years from the moment of allocation. In specific circumstances Aegon s Supervisory Board can reclaim variable compensation that has already been allocated (but still unvested) or vested (claw back).

Variable Compensation Identified Staff

Members of the Executive Board and the Management Board as well as other senior employees are classified as Identified Staff in accordance with the applicable rules and guidance from the relevant supervisory authorities. Of these, the Dutch 2015 Act on compensation in the financial sector (Wet beloningsbeleid financiële ondernemingen Wft) and the Dutch 2014 Decree on sound remuneration policy (Regeling beheerst beloningsbeleid 2014) are prominent examples. In line with these rules, variable compensation awards for Identified Staff is partially paid out and partly deferred and split into cash and Aegon shares. The shares are conditionally granted at the start of the performance year. The grant price of these shares is equal to the volume weighted average price (VWAP) on the Euronext stock exchange in Amsterdam during the period between December 15 preceding a plan year and January 15 of the plan year. The actual allocation of these shares to eligible employees depends on Aegon Group performance, the employee s unit performance and individual performance against predefined financial and non-financial performance indicators and targets, as well as the continued employment of the employee.

Once allocated, the deferred parts of the variable compensation award are subject to a vesting period of three years from the moment of allocation. Before each vesting moment, the Supervisory Board can decide to adjust an award downwards based on the annual ex-post risk assessment, which takes into account significant and exceptional circumstances which were not (sufficiently) reflected in the initial performance assessment.

The shares may be subject to an additional holding period up to three years after vesting. For the Members of the Executive Board and the members of the Management Board, who are based in the Netherlands, this holding period is three years. During this holding period it is not allowed to sell the vested shares, with the exception of shares withheld or sold to cover for the payment of any applicable taxes, social security premiums and possible other deductions by the government due for which the Company holds a withholding obligation in connection with the vesting of the shares. In specific circumstances Aegon s Supervisory Board will reclaim variable compensation that has already vested (claw back).

The following overview contains the cumulative number of shares and their status in relation to active Long Term Incentive Plans and allocated variable compensation to Identified Staff.

	2014 [1]	2015 [1]	2016 [1]	2017 [1]	2018 [1]	Total
Number of shares conditionally granted [2]	5,306,037	5,178,633	6,809,814	6,722,418	6,513,984	30,530,886
Number of shares allocated	4,714,569	4,942,275	7,155,420	7,461,564	-	24,273,828

[1] Performance year for both Long-term incentive plans and Variable compensation Identified Staff

[2] Number of shares conditionally granted based on the at target number of grants made that could increase or decrease subject to the actual performance attained

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	2014 [1]	2015 [1]	2016 [1]	2017 [1]	2018 [1]	Total
Unvested at January 1, 2017	4,181,844	4,553,637	6,809,814	-	-	15,545,295
Number of shares conditionally granted [2]	-	-	-	6,722,418	-	6,722,418
Number of shares allocated [4]	49,780	-	345,606	1,115,876	-	1,511,262
Number of shares forfeited	42,580	116,505	136,506	-	-	295,591
Number of shares vested	1,887,728	122,638	427,485	158,666	-	2,596,517
Unvested at December 31, 2017	**2,301,316**	**4,314,494**	**6,591,429**	**7,679,628**	**-**	**20,886,867**
Number of shares conditionally granted [2]	-	-	-	-	6,513,984	6,513,984
Number of shares allocated [4]	-	-	11,471	739,146	166,371	916,988
Number of shares forfeited	94,876	102,383	169,629	364,515	-	731,403
Number of shares vested	2,206,440	1,831,944	189,300	810,028	-	5,037,712
Unvested at December 31, 2018	**-**	**2,380,167**	**6,243,971**	**7,244,231**	**6,680,355**	**22,548,724**
Average share price used for grant in EUR [3]	6.739	6.106	5.128	5.246	5.405	
Fair value of shares at grant date in EUR	5.840 to 6.658	5.159 to 6.018	3.990 to 4.898	4.040 to 4.933	4.143 to 5.054	

[1] Performance year for both Long-term incentive plans and Variable compensation Identified Staff

[2] Number of shares conditionally granted based on the at target number of grants made that could increase or decrease subject to the actual performance attained

[3] This value is the volume weighted average price (VWAP) of Aegon on the Euronext Amsterdam stock exchange for the period December 15 to January 15

[4] Per 2017 shares allocated as sign-on are not allocated anymore to the plan years in which the vesting takes place. Instead, we now create and allocate specific sign-on shares in the calendar year of commencement.

Aegon applies a net settlement option for participants in order to meet their income tax obligations when their shares vest. This means that Aegon will not sell shares on the market, but hold these shares within Aegon and settle directly with the tax authorities in cash rather than selling shares first.

Refer to note 53 Related party transactions for detailed information on conditional shares granted to the Executive Board.

15 Impairment charges/(reversals)

Impairment charges/(reversals) comprise:	2018	2017	2016
Impairment charges on financial assets, excluding receivables	71	70	110
Impairment reversals on financial assets, excluding receivables	(39)	(32)	(58)
Impairment charges and reversals on non-financial assets and receivables	46	4	43
Total	**78**	**42**	**95**

Impairment charges on financial assets, excluding receivables, from:	2018	2017	2016
Shares	5	2	1
Debt securities and money market instruments	30	17	53
Loans	35	50	23
Other	-	-	33
Total	**71**	**70**	**110**

Impairment reversals on financial assets, excluding receivables, from:	2018	2017	2016
Debt securities and money market instruments	(34)	(17)	(42)
Loans	(3)	(13)	(14)
Other	(2)	(2)	(2)
Total	**(39)**	**(32)**	**(58)**

Impairment charges/(reversals) on non-financial assets and receivables increased to EUR 46 million in 2018 mainly due to updated valuations on various real estate properties in the Americas and impairments to software in the Netherlands.

For more details on impairments on financial assets, excluding receivables, refer to note 4 Financial risks.

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16 Interest charges and related fees

	2018	2017	2016
Subordinated loans	62	34	34
Trust pass-through securities	8	9	9
Borrowings	300	283	210
Other	136	108	95
Total	**507**	**435**	**347**

Other includes interest charges on short term borrowings and bank fees.

The interest charges accrued on financial assets and liabilities that are not carried at fair value through profit or loss amounted to EUR 143 million (2017: EUR 162 million; 2016: EUR 176 million).

17 Other charges

	2018	2017	2016
Other charges	**375**	**235**	**700**

Other charges in 2018 of EUR 375 million include the gross settlement amount of a litigation regarding certain monthly deduction rate adjustments on universal life insurance policies and other related plaintiff and administration fees. The settlement relates to a block of around 70,000 universal life policies on which Transamerica raised the monthly deduction rates in 2015 and 2016. These adjustments were necessitated by, among other factors, low long-term interest rates and changes in future mortality experience, and were in accordance with the contractual terms of the policies. Nonetheless, the increases were challenged by policyholders in several court cases. To remove the uncertainty of ongoing litigation for Aegon and its customers, the decision was made to settle with the plaintiffs. In January 2019, a court approved the aforementioned settlement with universal life policyholders. Over 99% of affected policyholders participated in the settlement. While less than 1% of policyholders opted out of the settlement, they represented approximately 43% of the value of the settlement fund. The settlement fund was reduced proportionally for opt outs, although Aegon continues to hold a provision for these policyholders. The charge to the income statement for 2018 was USD 166 million (EUR 140 million). Included in the charge is a release of the technical provision (USD 38 million) and a reduction of the amortization of other intangible assets (USD 6 million).

Other charges include a loss of USD 110 million (EUR 93 million) related to the divestment of the last substantial block of its life reinsurance business to SCOR Global Life. Under the terms of the agreement, Aegon s Transamerica

life subsidiaries reinsured approximately USD 700 million of liabilities through SCOR Global Life. The transaction covered the last substantial block of life reinsurance business that Transamerica retained after it divested the vast majority of its reinsurance business to SCOR Global Life in 2011 and 2017.

Furthermore, other charges include a loss of GBP 81 million (EUR 93 million) from the divestment of Aegon Ireland Plc. For more details on the divestment of Aegon Ireland Plc. refer to note 51 Business combinations.

Other charges in 2017 of EUR 235 million mainly relate to the book loss of EUR 105 million (USD 119 million) regarding the divestment of a block of life reinsurance business in the Americas and a charge of EUR 85 million (USD 100 million), regarding a provision in anticipation of a possible settlement in connection with an investigation by the SEC, refer to Note 48 Commitments and contingencies. In addition, an impairment of deferred transaction costs of EUR 36 million (GBP 32 million) was recorded as a result of the agreed sale of Aegon Ireland plc. For more details on the divestment of a block of US reinsurance run off business and Aegon Ireland plc. refer to note 51 Business combinations.

Other charges in 2016 of EUR 700 million mainly relate to the book loss on the sale of the UK annuity portfolio (EUR 682 million) and charges related to claims and litigations regarding fees payable upon purchase or surrender of unit-linked policies in the Polish Life insurance portfolio (EUR 19 million). For more details on the sale of the UK annuity portfolio refer to note 22 Assets and Liabilities held for sale and note 51 Business combinations. In note 40 Provisions more details are provided on the Polish claims and litigations.

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18 Income tax

	Note	2018	2017	2016
Current tax				
Current year		54	220	33
Adjustments to prior years		(36)	47	(46)
		18	**267**	**(13)**
Deferred tax	**43**			
Origination/(reversal) of temporary differences		23	397	102
Changes in tax rates/bases		(30)	(550)	93
Changes in deferred tax assets as a result of recognition/write off of previously not recognized/recognized tax losses, tax credits and deductible temporary differences		(35)	(45)	(54)
Non-recognition of deferred tax assets		17	41	33
Adjustments to prior years		48	(45)	12
		22	**(201)**	**185**
Income tax for the period (income)/charge		**40**	**65**	**172**

Adjustments to prior years include shifts between current and deferred tax.

Reconciliation between standard and effective income tax:	**2018**	2017	2016
Income before tax	751	2,534	610
Income tax calculated using weighted average applicable statutory tax rates	178	745	239
Difference due to the effects of:			
Non-taxable income	(80)	(157)	(126)
Non-tax deductible expenses	28	28	21
Changes in tax rate/base	(30)	(550)	93
Different tax rates on overseas earnings	-	(1)	8
Tax credits	(68)	(67)	(41)
Other taxes	29	67	38
Adjustments to prior years	11	2	(34)
Origination and change in contingencies	2	9	8
Changes in deferred tax assets as a result of recognition/write off of previously not recognized/recognized tax losses, tax credits and deductible temporary differences	(35)	(45)	(54)
Non-recognition of deferred tax assets	17	41	33
Tax effect of (profit)/losses from joint ventures and associates	(9)	(7)	(7)

Other	(3)	(1)	(6)
	(138)	**(680)**	**(67)**
Income tax for the period (income)/charge	**40**	**65**	**172**

The weighted average applicable statutory tax rate for 2018 is 23.7% (2017: 29.4%; 2016: 39.2%). The decrease in the weighted average applicable statutory tax rate compared to 2017 is mainly due to the high contribution of income before tax in the Netherlands versus income before tax in the United Kingdom and the United States.

Non-taxable income in 2018 is lower compared to previous years because of the decrease of the US corporate income tax rate from 35% to 21% as from January 1, 2018. Non-taxable income in 2017 includes the tax exempt sale proceeds of the Dutch Unirobe Meeùs Group.

Changes in tax rate/base in 2017 highly benefited by the decrease of the US corporate income tax rate from 35% to 21% as from January 1, 2018.

Changes in tax rate/base in 2016 was heavily impacted by the release of profits from other comprehensive income (OCI) to income statement in the United Kingdom. These profits were taxed in the past against high historic tax rates and were released from OCI to the income statement against a lower statutory tax rate in 2016. The difference caused a negative impact in changes in tax rate/base.

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In the Netherlands, the corporate income tax rate will decrease from 25% to 22.55% as from January 1, 2020 and will further decrease to 20.5% as from January 1, 2021. The beneficial impact of this tax rate change is included in the 2018 change in tax rate/ base. In the UK, the corporate income tax rate will decrease from 19% to 17% with effect from April 1, 2020. The minor impact of this tax rate change was included in the 2016 change in tax rate/base. In Hungary, the corporate income tax rate decreased from 19% to 9% as from January 1, 2017. The minor impact of this tax rate change was included in the 2016 change in tax rate/base.

Tax credits in 2018 and 2017 increased by US foreign tax credits. Tax credits include tax benefits from US investments that provide affordable housing to individuals and families that meet median household income requirements and from investing in solar energy.

Adjustments to prior years in 2016 included a one-time tax benefit in the US caused by the revised tax deduction for dividends received on prior filed tax returns.

The following tables present income tax related to components of other comprehensive income and retained earnings.

	2018	2017	2016
Items that will not be reclassified to profit and loss:			
Changes in revaluation reserve real estate held for own use	7	9	(3)
Remeasurements of defined benefit plans	(15)	(175)	89
	(8)	**(166)**	**86**
Items that may be reclassified subsequently to profit and loss:			
Gains/losses on revaluation of available-for-sale investments	530	(134)	(187)
Gains/losses transferred to the income statement on disposal and impairment of available-for-sale investments	(17)	441	427
Changes in cash flow hedging reserve	1	567	24
Movement in foreign currency translation and net foreign investment hedging reserve	(20)	76	(39)
	493	**951**	**225**
Total income tax related to components of other comprehensive income	**485**	**785**	**311**

	Note	2018	2017	2016
Income tax related to equity instruments and other				
Income tax related to equity instruments	**33**	38	44	44
Other		(12)	14	(3)
Total income tax recognized directly in retained earnings		**26**	**58**	**41**

In 2017, the income tax related to components of OCI included a deferred tax benefit of EUR 479 million caused by the decrease of the US corporate income tax rate from 35% to 21% as from January 1, 2018.

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225 Notes to the consolidated financial statements **Note 19**

19 Earnings per share

Basic earnings per share

Basic earnings per share is calculated by dividing the net income attributable to owners, after deduction of coupons on perpetual securities and non-cumulative subordinated notes by the weighted average number of common shares, excluding common shares purchased by the Company and held as treasury shares (refer to note 32.1 Share capital par value and 32.3 Treasury shares respectively).

	2018	2017	2016
Net income/(loss) attributable to owners	710	2,469	437
Coupons on perpetual securities	(102)	(103)	(105)
Coupons on non-cumulative subordinated notes	(11)	(28)	(28)
Net income/(loss) attributable to owners for basic earnings per share calculation	**597**	**2,338**	**304**
Net income/(loss) attributable to common shareholders	593	2,321	302
Net income/(loss) attributable to common shareholders B	4	16	2
Weighted average number of common shares outstanding (in million)	2,036	2,042	2,048
Weighted average number of common shares B outstanding (in million)	571	575	575
Basic earnings per common share (EUR per share)	0.29	1.14	0.15
Basic earnings per common share B (EUR per share)	0.01	0.03	-

Diluted earnings per share

The diluted earnings per share equaled the basic earnings per share for all years disclosed since there were no outstanding share options which were considered dilutive.

20 Dividend per common share

Final dividend 2018

At the Annual General Meeting of Shareholders on May 17, 2019, the Supervisory Board will, absent unforeseen circumstances, propose a final dividend for the year 2018 of EUR 0.15 per common share. After taking into account the interim dividend 2018 of EUR 0.14 per common share, this will result in a total 2018 dividend of EUR 0.29 per common share. With respect to the common shares B, each of which has financial rights attached to it of 1/40th of a common share, the proposed final dividend will be EUR 0.00375. After taking the interim dividend 2018 of EUR 0.0035 per common share B into account, this will result in a total 2018 dividend of EUR 0.00725 per common share B.

Interim dividend 2018

The interim dividend 2018 was paid in cash or stock at the election of the shareholder. Approximately 56% of holders of common shares elected to receive the cash dividend. The remaining 44% have opted for stock dividend. The cash dividend amounted to EUR 0.14 per common share, the stock dividend amounted to one new Aegon common share for every 37 common shares held. The stock dividend and cash dividend are approximately equal in value. The interim dividend was payable as of September 21, 2018. The interim dividend 2018 for common shares B amounted to 1/40th of the dividend paid on common shares.

To neutralize the dilutive effect of the 2018 interim dividend paid in shares, Aegon executed a program to repurchase 24,133,950 common shares. Between October 1, 2018, and November 9, 2018, these common shares were repurchased at an average price of EUR 5.43 per share. These shares will be held as treasury shares and will be used to cover future stock dividends.

Final dividend 2017

The Annual General Meeting of Shareholders on May 18, 2018, approved a final dividend over the year 2017 of EUR 0.14 per common share payable in either cash or stock, related to the second half of 2017. Approximately 58% of holders of common shares elected to receive the cash dividend. The remaining 42% have opted for stock dividend. The final dividend was payable as of June 22, 2018. The stock dividend amounted to one new Aegon common share for every 39 common shares held. The stock dividend and cash dividend are approximately equal.

To neutralize the dilutive effect of the 2017 final dividend paid in shares, Aegon executed a program to repurchase 21,954,140 common shares. Between July 2, 2018, and August 10, 2018, these common shares were repurchased at an average price of EUR 5.34 per share. These shares will be held as treasury shares and will be used to cover future stock dividends.

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Interim dividend 2017

The interim dividend 2017 was paid in cash or stock at the election of the shareholder. Approximately 57% of holders of common shares elected to receive the cash dividend. The remaining 43% have opted for stock dividend. The cash dividend amounted to EUR 0.13 per common share, the stock dividend amounted to one new Aegon common share for every 36 common shares held. The stock dividend and cash dividend are approximately equal in value. The interim dividend was payable as of September 15, 2017. The interim dividend 2017 for common shares B amounted to 1/40th of the dividend paid on common shares.

To neutralize the dilutive effect of the 2016 final and 2017 interim dividend paid in shares, Aegon executed a program to repurchase 51,864,626 common shares. Between October 2, 2017, and December 15, 2017, these common shares were repurchased at an average price of EUR 5.0950 per share. These shares will be held as treasury shares and will be used to cover future stock dividends.

Final dividend 2016

The Annual General Meeting of Shareholders on May 19, 2017, approved a final dividend over 2016 of EUR 0.13 per common share payable in either cash or stock, related to the second half of 2016. Approximately 54% of holders of common shares elected to receive the cash dividend. The remaining 46% have opted for stock dividend. The final dividend was payable as of June 23, 2017. The stock dividend amounted to one new Aegon common share for every 35 common shares held. The stock dividend and cash dividend are approximately equal in value. Dividend paid on common shares B amounted to 1/40th of the dividend paid on common shares.

Interim dividend 2016

The interim dividend 2016 was paid in cash or stock at the election of the shareholder. Approximately 58% of holders of common shares elected to receive the cash dividend. The remaining 42% have opted for stock dividend. The cash dividend amounted to EUR 0.13 per common share, the stock dividend amounted to one new Aegon common share for every 28 common shares held. The stock dividend and cash dividend are approximately equal in value. The interim dividend was payable as of September 16, 2016. The interim dividend 2016 for common shares B amounted to 1/40th of the dividend paid on common shares.

To neutralize the dilutive effect of the 2016 interim dividend paid in shares, Aegon executed a program to repurchase 30,765,224 common shares. Between October 3, 2016, and November 11, 2016, these common shares were repurchased at an average price of EUR 3.8406 per share. These shares will be held as treasury shares and will be used to cover future stock dividends.

21 Cash and cash equivalents

	2018	2017	2016

Cash at bank and in hand	3,725	3,720	3,727
Short-term deposits	2,524	2,544	3,666
Money market investments	2,493	4,496	3,939
Short-term collateral	2	7	16
At December 31	**8,744**	**10,768**	**11,347**

The carrying amounts disclosed reasonably approximate the fair values as at the year-end.

EUR 6.2 billion (2017: EUR 7.0 billion) of cash collateral is received related to securities lending, repurchase agreements and margins on derivatives transactions. A corresponding liability to repay the cash is recognized in other liabilities (note 44 Other liabilities). Refer to note 49 Transfer of financial assets for details on collateral received and paid. Investment of cash collateral received is restricted through limitations on credit worthiness, duration, approved investment categories and borrower limits. EUR 2 million (2017: EUR 7 million) of the cash collateral received is included in cash and cash equivalents and the remainder is included in other asset classes as that collateral is typically reinvested. Aegon earns a share of the spread between the collateral earnings and the rebate paid to the borrower of the securities. Income from securities lending programs was approximately EUR 8 million (2017: EUR 11 million; 2016: EUR 13 million).

The weighted effective interest rate on short-term deposits in 2018 was 0.39% negative (2017: 0.32% negative) and these deposits have an average maturity of 28 days (2017: 31 days).

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For the purposes of the cash flow statement, cash and cash equivalents comprise the following:

	Note	2018	2017	2016
Cash and cash equivalents		8,744	10,768	11,347
Cash classified as Assets held for sale	22	-	260	-
Bank overdrafts	44	-	(2)	(1)
Bank overdrafts classified as Liabilities held for sale		-	(1)	-
Net cash and cash equivalents		**8,744**	**11,026**	**11,346**

Cash and cash equivalents include cash and demand balances held at the Dutch Central Bank. The Dutch Central Bank requires Aegon Bank N.V. to place 1% of their deposits with agreed maturity or the savings accounts (without restrictions to withdraw their money) in an account with the Dutch Central Bank. This deposit is renewed 12 times per year, based on an updated valuation of total assets. The interest received on this deposit is equal to the ECB deposit rate (which was -40bp throughout 2017 and 2018). The year-end minimum required balance on deposit by the Dutch Central Bank was EUR 70 million (2017: EUR 67 million). These deposits are therefore not freely available.

Summary cash flow statement	2018	2017	2016
Net cash flows from operating activities	517	553	3,319
Net cash flows from investing activities	(438)	(1,196)	(1,078)
Net cash flows from financing activities	(2,395)	519	(465)
Net increase in cash and cash equivalents	**(2,317)**	**(125)**	**1,776**

Net cash and cash equivalents at December 31, 2018, are positively impacted by effects of changes in exchange rates of EUR 35 million (2017: EUR 196 million negative; 2016: EUR 23 million negative).

Analysis of cash flows

2018 compared to 2017

Net cash flows from operating activities

Total net cash flow from operating activities decreased slightly by EUR 36 million to a EUR 517 million inflow (2017: EUR 553 million inflow). The main movements are the inflow from results from financial transactions (refer to note 10 Result from financial transactions) offset by cash outflows regarding insurance and investment liabilities for account of policyholder (refer to note 36 Insurance contracts and note 37 Investment contracts).

Net cash flows from investing activities

Net cash flows from investing activities increased by EUR 758 million to a EUR 438 million outflow (2017: EUR 1,196 million outflow). The total consideration paid for acquisitions, including cash in acquired entities, was EUR

89 million. The total consideration received for disposals, excluding transferred assets and reinsurance assets from reinsurance transactions, was EUR 214 million. Total consideration received in cash and cash equivalents amounted to EUR 202 million, as an earn-out of EUR 2 million was part of the total consideration. Transferred cash and cash equivalents amounts to an outflow of EUR 416 million as a result of reinsurance transactions and disposal of entities over which control is lost. The outflow in 2018 is mainly driven by the acquisition of Robidus, the divestment of Aegon Ireland plc and the divestment of the last substantial block of US Life reinsurance business (refer to note 51 Business combinations).

Net cash flows from financing activities

Net cash flow from financing activities decreased by EUR 2,914 million to a EUR 2,395 million outfow (2017: EUR 519 million inflow). The decrease is a result of proceeds and repayments of borrowings (refer to the following table and note 39 Borrowings) and other equity instruments redeemed (refer to note 33 Other equity instruments).

2017 compared to 2016

Net cash flows from operating activities

Total net cash flows from operating activities decreased by EUR 2,766 million to a EUR 553 million inflow (2016: 3,319 EUR million inflow). The decrease is mainly driven by an outflow from results from financial transactions, changes in accruals and money market investments. These cash outflows are partly offset by the net purchase of investments for account of policyholders and by net changes in cash collateral.

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Net cash flows from investing activities

Net cash flows from investing activities decreased by EUR 118 million to a EUR 1,196 million outflow (2016: EUR 1,078 million outflow). The total consideration paid for acquisitions, including cash in acquired entities, was EUR 52 million. The total consideration received for disposals, excluding transferred assets and reinsurance assets from reinsurance transactions, was EUR 299 million. Total consideration received in cash and cash equivalents amounted to EUR 306 million, as an earn-out of EUR 7 million was part of the total consideration. Transferred cash and cash equivalents amounts to an outflow of EUR 1,361 million as a result of reinsurance transactions and disposals of entities over which control is lost. The decrease is mainly driven by the aquisition of Cofunds Ltd., the divestment of the payout annuity business and Bank Owned Life Insurance/Corporate Owned Life Insurance business (BOLI/COLI) and the sale of Unirobe Meeùs Groep (UMG) (refer to note 51 Business combinations).

Net cash flows from financing activities

Net cash flows from financing activities increased by EUR 984 million to a EUR 519 million inflow (2016: EUR 465 million outflow). The increase is mainly a result of proceeds and repayments of borrowings (refer to the table below and note 39 Borrowings).

Reconciliation of liabilities arising from financing activities

The table below shows the reconciliation between the net cash flows from financing activities and the liabilities as included in the consolidated statement of financial position.

		Cash flows		Non-cash changes							
Reconciliation of debt from financing activities											
Subordinated borrowings	764	640	-	-	-	-	2	(68)	-	52	1,389
Trust pass-through securities	133	-	-	-	-	(6)	-	-	-	6	133
Borrowings	13,635	3,545	(5,211)	(151)	(23)	-	2	-	-	263	12,061
Assets held to hedge Trust pass-through securities	15	-	-	-	(6)	-	-	-	-	1	10

		Cash flows		Non-cash changes					
Reconciliation of debt from financing activities									
Subordinated borrowings	767	-	-	-	-	6	-	(9)	764
Trust pass-through securities	156	-	-	-	(4)	-	-	(19)	133

Borrowings	13,153	9,170	(7,918)	(10)	-	(1)	1	(760)	13,635
Assets held to hedge Trust pass-through securities	22	-	-	(4)	-	-	-	(2)	15

22 Assets and liabilities held for sale

Assets and liabilities held for sale include disposal groups whose carrying amount will be recovered principally through a sale transaction expected within the next year rather than through continuing operations. This relates to businesses for which a sale is agreed upon or a sale is highly probable at the reporting date, but for which the transaction has not yet fully closed. As of December 31, 2018, there are no assets or liabilities held for sale.

In 2018, Aegon completed the sale of Aegon Ireland plc., also referred to as VA Europe. As a consequence, the related assets and liabilities are no longer classified as assets and liabilities held for sale at year-end 2018. For more information related to the sale transaction, refer to note 51 Business combinations.

As of December 31, 2018, there are no unrealized gains relating to non-current assets and disposal groups classified as held for sale included in other comprehensive income.

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229 Notes to the consolidated financial statements **Note 23**

23 Investments

Investments for general account comprise financial assets, excluding derivatives, as well as investments in real estate.

	Note	2018	2017
Available-for-sale (AFS)		84,675	88,170
Loans		42,653	39,368
Financial assets at fair value through profit or loss (FVTPL)		8,597	7,119
Total financial assets, excluding derivatives	**23.1**	**135,925**	**134,658**
Investments in real estate	**23.2**	2,700	2,147
Total investments for general account		**138,625**	**136,804**

23.1 Financial assets, excluding derivatives

	AFS	FVTPL	Loans	Total	Fair value
2018					
Shares	478	1,682	-	2,161	2,161
Debt securities	77,340	3,913	-	81,253	81,253
Money market and other short-term investments	5,955	352	-	6,307	6,307
Mortgage loans	-	-	36,240	36,240	39,758
Private loans	-	-	4,103	4,103	4,494
Deposits with financial institutions	-	-	141	141	141
Policy loans	-	-	1,973	1,973	1,973
Other	902	2,649	196	3,747	3,747
At December 31, 2018	**84,675**	**8,597**	**42,653**	**135,925**	**139,834**
2017					
Shares	490	1,062	-	1,551	1,551
Debt securities	80,200	4,144	-	84,344	84,344
Money market and other short-term investments	6,690	119	-	6,809	6,809
Mortgage loans	-	-	33,562	33,562	38,076
Private loans	-	-	3,642	3,642	4,181
Deposits with financial institutions	-	-	139	139	139
Policy loans	-	-	1,897	1,897	1,897
Other	791	1,795	127	2,713	2,713
At December 31, 2017	**88,170**	**7,119**	**39,368**	**134,658**	**139,711**

Of the debt securities, money market and other short-term investments, mortgage loans and private loans EUR 13,287 million is current (2017: EUR 13,749 million).

Refer to note 47 Fair value for further detail on fair value measurement.

Loan allowance

Movement on the loan allowance account during the year were as follows:

	2018	2017
At January 1	(165)	(137)
Addition charged to income statement	(35)	(50)
Reversal to income statement	3	13
Amounts written off	40	10
Net exchange differences	(1)	3
Other	20	(4)
At December 31	**(138)**	**(165)**

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23.2 Investments in real estate

	2018	2017
At January 1	2,147	1,999
Additions	472	239
Subsequent expenditure capitalized	3	10
Transfers from other headings	-	1
Disposals	(209)	(202)
Fair value gains/(losses)	261	193
Net exchange differences	27	(89)
Other	(1)	(4)
At December 31	**2,700**	**2,147**

99% of the value of Aegon s properties, both for general account and for account of policyholders, were appraised (2017: 95%), of which 98% was performed by independent external appraisers (2017: 99%).

Of the investments in real estate EUR 530 million (2017: EUR 633 million) is held by Aegon Americas and EUR 2,150 million (2017: EUR 1,494 million) is held by Aegon the Netherlands.

Aegon Americas has invested in a commercial property portfolio, consisting of office, retail and industrial buildings. These non-cancellable leases have remaining lease terms up to 20 years. Most leases include a clause to enable upward revision of the rental charge on an annual basis according to either a fixed schedule or prevailing market conditions.

Aegon the Netherlands has invested in long-term residential property leases that can be terminated subject to a short-term notice. Under Dutch law, the maximum annual rent increase on residential property rented in the affordable housing segment is specified by the Dutch national government and equals the annual inflation rate plus a small margin.

Refer to note 48 Commitments and contingencies for a description of non-cancellable lease rights.

Rental income of EUR 82 million (2017: EUR 71 million; 2016: EUR 69 million) is reported as part of investment income in the income statement. Direct operating expenses (including repairs and maintenance) arising from investment property that generated rental income during the period amounted to EUR 63 million (2017: EUR 71 million; 2016: EUR 79 million). In 2018, EUR 2 million of direct operating expenses is related to investment properties that did not generate rental income during the period (2017: EUR 1 million; 2016: 1 million).

Transfers from other headings in 2017 mainly reflect the properties that were foreclosed during the year. The associated mortgage loans were previously reported as part of investments.

There are no restrictions on the realizability of investment property or the remittance of income and proceeds of disposal.

Refer to note 48 Commitments and contingencies for a summary of contractual obligations to purchase investment property.

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231 Notes to the consolidated financial statements **Note 24**

24 Investments for account of policyholders

Investments for account of policyholders comprise financial assets at fair value through profit or loss, excluding derivatives, and investments in real estate.

	Note	2018	2017
Shares		20,640	25,370
Debt securities		20,441	24,836
Money market and other short-term investments		1,578	2,340
Deposits with financial institutions		3,263	2,946
Unconsolidated investment funds		143,800	134,132
Other		4,020	3,786
Total investments for account of policyholders at fair value through profit or loss, excluding derivatives		**193,741**	**193,409**
Investments in real estate	**24.1**	612	655
Total investments for account of policyholders		**194,353**	**194,063**

Included in investments for account of policyholders is the BlackRock Part VII transfer[1] in the United Kingdom, completed on July 1, 2018. This transaction has transferred GBP 16.3 billion (EUR 18.4 billion) of unit linked defined contribution assets and liabilities into the Group s portfolio. Refer to note 37 Investments contracts for account of policyholders for the impact on liabilities.

The resulting increase in investments for account of policyholders above is offset by increased withdrawals and unfavorable equity markets performance in 2018. Refer to note 10 Results from financial transactions for further details on the impact of fair value changes.

Refer to note 47 Fair value for a summary of all financial assets and financial liabilities at fair value through profit or loss.

24.1 Investments in real estate for account of policyholders

	2018	2017
At January 1	655	686
Additions	-	7
Subsequent expenditure capitalized	2	3
Disposals	(43)	(53)
Fair value gains/(losses)	5	38
Net exchange differences	(7)	(26)
At December 31	**612**	**655**

The investment properties are leased out under operating leases.

Rental income of EUR 47 million (2017: EUR 50 million; 2016: EUR 60 million) is reported as part of investment income in the income statement. Direct operating expenses relating to investments in real estate for account of policyholder amounted to EUR 4 million in 2018 (2017: EUR 4 million, 2016: EUR 5 million). There are no restrictions on the realizability of investment property or the remittance of income and proceeds of disposal.

Refer to note 48 Commitments and contingencies for a summary of contractual obligations to purchase investment property.

[1] A Part VII transfer is a court-sanctioned legal transfer of some or all of the policies of one company to another governed by Part VII of the UK Financial Services and Markets Act 2000.

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25 Derivatives

	Derivative asset		Derivative liability	
	2018	2017	**2018**	2017
Derivatives for general account				
Derivatives not designated in a hedge	6,904	5,081	6,879	6,716
Derivatives designated as fair value hedges	30	32	29	48
Derivatives designated as cash flow hedges	289	393	151	233
Derivatives designated as Net foreign investment hedges	115	57	114	57
	7,337	**5,563**	**7,174**	**7,053**
Derivatives for account of policyholders				
Derivatives not designated in a hedge	278	349	56	76
	278	**349**	**56**	**76**
Total derivatives [1]	**7,615**	**5,912**	**7,230**	**7,130**

[1] Refer to note 47 Fair value for a summary of all financial assets and financial liabilities at fair value through profit or loss.

The fair value of derivatives on the asset and liability side of the consolidated statement of financial position increased during 2018 mainy due to market movements, changes in interest rates and changes in the credit spread, as well as purchases, disposals and maturities. Refer to note 47 Fair value for details on fair value measurement of derivatives.

Of the derivatives EUR 1,643 million (2017: EUR 495 million) and EUR 1,886 million (2017: EUR 949 million) are current derivative assets and liabilities respectively.

Aegon the Netherlands partially hedges the risk of future longevity increases in the Netherlands related to a part of its insurance liabilities. These longevity derivatives are constructed to pay out if the mortality rates in future years have decreased more than a pre-determined percentage compared with the base scenario at the moment of signing the contract.

The above mentioned transactions are used to enhance Aegon s risk-return profile and to improve capital efficiency.

The derivatives are measured at fair value through profit or loss in accordance with IAS 39. The value of the longevity derivatives are calculated using an internal model as there is no active market for this type of derivatives. For more details refer to the paragraph on underwriting risk included in note 36 Insurance contracts and the paragraph on derivatives included in note 47 Fair value.

Use of derivatives

Derivatives not designated in a hedge general account

	Derivative asset		Derivative liability	
Derivatives not designated in a hedge general account	**2018**	2017	**2018**	2017
Derivatives held as an economic hedge	6,808	4,933	4,278	4,774
Bifurcated embedded derivatives	5	13	2,588	1,937
Other	91	134	12	5
Total	**6,904**	**5,081**	**6,879**	**6,716**

Aegon utilizes derivative instruments as a part of its asset liability risk management practices. The derivatives held for risk management purposes are classified as economic hedges to the extent that they do not qualify for hedge accounting, or that Aegon has elected not to apply hedge accounting. The economic hedges of certain exposures relate to an existing asset, liability or future reinvestment risk. In all cases, these are in accordance with internal risk guidelines and are closely monitored for continuing compliance.

Bifurcated embedded derivatives that are not closely related to the host contracts have been bifurcated and recorded at fair value in the consolidated statement of financial position. These bifurcated embedded derivatives are embedded in various institutional products, modified coinsurance and unit-linked insurance contracts in the form of guarantees for minimum benefits. Please refer to note 38 Guarantees in insurance contracts for more disclosures about these guarantees.

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CDSs

Aegon has entered into free-standing credit derivative transactions. The positions outstanding at the end of the year were:

	2018		2017	
	Notional	Fair value	Notional	Fair value
CDSs	**4,358**	**57**	**3,606**	**92**

	2018		2017	
Credit derivative disclosure by quality	Notional	Fair value	Notional	Fair value
AAA	16	-	4	-
AA	97	1	83	2
A	764	10	750	15
BBB	3,201	45	2,392	68
BB	226	5	357	8
B or lower	54	(3)	21	-
Total	**4,358**	**57**	**3,606**	**92**

Certain derivatives are used to add risk by selling protection in the form of single name and index based credit default swaps.This involves the purchase of high quality, low risk assets and the sale of credit derivatives. The table above provides a breakdown in credit quality of these credit derivatives.

Derivatives designated as fair value hedges

Aegon s fair value hedges consist mainly of interest rate swaps, swaptions, equity and fixed income total return swaps, equity options, equity futures, bond futures and variance swaps that are used to protect against changes in the fair value of interest rate and equity sensitive instruments or liabilities. Gains and losses on derivatives designated under fair value hedge accounting are recognized in the income statement. The effective portion of the fair value change on the hedged item is also recognized in the income statement. As a result, only the net accounting ineffectiveness has an impact on the net result.

Aegon has entered into interest rate swap agreements that effectively convert certain fixed-rate assets and liabilities to a floating-rate basis (generally to six months or less LIBOR). These hedges are used for portfolio management to better match assets to liabilities or to protect the value of the hedged item from interest rate movements. These agreements involve the payment or receipt of fixed-rate interest amounts in exchange for floating-rate interest amounts over the life of the agreement without the exchange of the underlying principal amounts. Some of the arrangements use forward starting swaps to better match the duration of assets and liabilities.

Aegon has entered into cross-currency interest rate swap agreements that effectively convert certain foreign currency fixed-rate and floating-rate assets and liabilities to US dollar floating-rate assets and liabilities. These agreements

involve the exchange of the underlying principal amounts.

For the years ended December 31, 2018, 2017 and 2016, Aegon recognized gains and (losses) related to the ineffectiveness portion of designated fair value hedges of EUR 5 million, EUR 3 million and EUR 7 million respectively. No portion of derivatives was excluded when assessing hedge effectiveness.

During 2016 Aegon the Netherlands changed their risk management policy and decided to take on more interest rate risk, in order to economically offset the interest rate risk on the insurance liabilities. This has resulted in a de-designation for some of the fair value hedge accounting portfolios. The cumulative base adjustment of EUR 53 million per year-end 2018 (2017: EUR 67 million) is amortized over the weighted average duration (7 to 13 years) of the mortgage portfolios to which hedge-accounting was applied at the date of de-designation.

Derivatives designated as cash flow hedges

Aegon has entered primarily into interest rate swap agreements that effectively convert certain variable-rate assets and liabilities to a fixed-rate basis in order to match the cash flows of the assets and liabilities within Aegon s portfolio more closely. These agreements involve the payment or receipt of variable-rate interest amounts in exchange for fixed-rate interest amounts over the life of the agreement without the exchange of the underlying principal amounts. Aegon hedges its exposure to the variability of future

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cash flows from the interest rate movements for terms up to 27 years for hedges converting existing floating-rate assets and liabilities to fixed-rate assets.

Aegon uses forward starting interest rate swap agreements to hedge the variability in future cash flows associated with the forecasted purchase of fixed-income assets. These agreements reduce the impact of future interest rate changes on the forecasted transaction. Fair value adjustments for these interest rate swaps are deferred and recorded in equity until the occurrence of the forecasted transaction at which time the interest rate swaps will be terminated. The accumulated gain or loss in equity will be amortized into investment income as the acquired asset affects income. Aegon hedges its exposure to the variability of future cash flows from interest rate movements for terms up to 25 years. The cash flows from these hedging instruments are expected to affect the profit and loss for approximately the next 34 years. For the year ended December 31, 2018, the contracts for which cash flow hedge accounting was terminated resulted in deferred gains of EUR 57 million (2017: EUR 598 million) that are recognized directly in equity to be reclassified into net income during the period when the cash flows occur of the underlying hedged items. During the year ended December 31, 2017, EUR 248 million of Aegon s cash flow hedges were discontinued, due to the divestment of the payout annuity and BOLI/COLI business. Refer to note 51 Business combinations for more details regarding this investment. Outside of this transaction no other of Aegon s cash flow hedges were discontinued as it was highly probable that the original forecasted transactions would occur by the end of the originally specified time period documented at the inception of the hedging relationship. Aegon projects investment needs many years into the future in order to support the insurance liabilities and pay all contractual obligations arising from the policies in force today.

In addition, Aegon also makes use of cross currency swaps to convert variable or fixed foreign currency cash flows into fixed cash flows in local currencies. The cash flows from these hedging instruments are expected to occur over the next 18 years. These agreements involve the exchange of the underlying principal amounts.

For the year ended December 31, 2018, Aegon recognized EUR 2 million of hedge ineffectiveness on cash flow hedges (2017: EUR 0 million; 2016: EUR 5 million gain). In 2018, EUR 62 million loss was reclassified from equity into investment income (2017: EUR 113 million loss, 2016: EUR 37 million loss). The amount of deferred gains or losses to be reclassified from equity into net income during the next 12 months is expected to be EUR 9 million gain.

The periods when the cash flows are expected to occur are as follows:

	< 1 year	1 5 years	5 10 years	> 10 years	**2018 Total**
Cash inflows	95	321	301	5,582	6,299
Cash outflows	-	1	3	-	5
Net cash flows	**95**	**320**	**297**	**5,582**	**6,294**

	< 1 year	1 5 years	5 10 years	> 10 years	2017 Total
Cash inflows	78	315	312	5,648	6,352
Cash outflows	-	1	4	-	5

Net cash flows	**78**	**314**	**309**	**5,648**	**6,348**

Net foreign investment hedges

Aegon funds its investments in insurance subsidiaries with a mixture of debt and equity. Aegon aims to denominate debt funding in the same currency as the functional currency of the investment. Investments outside the eurozone, the United States and the United Kingdom are funded in euros. When the debt funding of investments is not in the functional currency of the investment, Aegon uses derivatives to swap the currency exposure of the debt instrument to the appropriate functional currency. This policy will ensure that total capital will reflect currency movements without distorting debt to shareholders equity ratios. Aegon utilizes various financial instruments as designated hedging instruments of its foreign investments. These instruments include long-term and short-term borrowings, short-term debts to credit institutions, cross currency swap contracts and forward foreign exchange contracts.

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26 Investments in joint ventures

	2018	2017
At January 1	1,712	1,614
Additions	120	81
Disposals	(211)	-
Share in net income	210	161
Share in changes in joint ventures equity (note 32.6)	8	(15)
Dividend	(94)	(118)
Net exchange difference	4	(17)
Other	(5)	7
At December 31	**1,745**	**1,712**

In 2018, one of the Amvest funds with a carrying value of EUR 211 million was liquidated. Based on the termination agreement, Aegon received a distribution of its share of the assets and liabilities. As a result, the investment properties, being the main asset class in the fund, were recognized as part of investments in real estate of Aegon.

All joint ventures are unlisted and are accounted for using the equity method and are considered to be non-current. The investments in joint ventures include interest in insurance companies that are required to maintain a minimum solvency margin based on local directives. Such restrictions can affect the ability of these joint ventures to transfer funds in the form of cash dividends, or repayment of loans or advances, and therefore, there can be no assurance that these restrictions will not become a limitation in the future. Refer to note 48 Commitments and contingencies for any commitments and contingencies related to investments in joint ventures. There are no unrecognized shares of losses in joint ventures. The financial statements of the principal joint ventures have the same reporting date as the Group. Refer to note 52 Group companies for a listing of the investments in joint ventures and the Group s percentage holding.

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Summarized financial information of joint ventures

The summarized financial information presented in the following table presents the joint ventures on a 100% basis. Aegon considers its investment in AMVEST Vastgoed B.V. (AMVEST) a material joint venture and is therefore presented separately.

	AMVEST		Other Joint ventures	
	2018	2017	**2018**	2017
Summarized statement of financial position				
Cash and cash equivalents	132	109	511	342
Other current assets	157	166	896	721
Total current assets	**289**	**276**	**1,407**	**1,063**
Non-current assets	3,304	3,173	6,723	6,521
Total assets	**3,593**	**3,449**	**8,130**	**7,584**
Current financial liabilities excluding trade payables and other provisions	-	-	27	30
Other current liabilities	154	133	590	503
Total current liabilities	**154**	**133**	**617**	**533**
Non-current financial liabilities excluding trade payables and other provisions	590	643	416	220
Other non-current liabilities	-	-	6,040	5,871
Total non-current financial liabilities	**590**	**643**	**6,456**	**6,091**
Total liabilities	**745**	**776**	**7,073**	**6,624**
Net assets	**2,848**	**2,673**	**1,057**	**960**
Summarized statement of comprehensive income				
Revenue	89	91	1,599	1,420
Results from financial transactions	349	275	(1)	(1)
Depreciation and amortization	-	-	(14)	(20)
Interest income	-	-	51	186
Interest expense	(6)	(5)	(4)	(3)
Profit or loss	438	357	226	160
Income tax (expense) or income	(6)	(1)	(82)	(74)
Post-tax profit or (loss)	**432**	**357**	**144**	**86**

Other comprehensive income	-	-	12	(32)
Total comprehensive income	**432**	**357**	**156**	**54**
Dividends received	24	49	70	69

An overview of the summarized financial information of the carrying amount of the joint ventures is as follows:

	AMVEST		Other Joint ventures	
	2018	2017	**2018**	2017
Net assets of joint venture as presented above	2,848	2,673	1,057	960
Net assets of joint venture excluding goodwill	2,848	2,673	681	587
Group share of net assets of joint venture, excluding goodwill	1,001	1,008	352	312
Goodwill on acquisition	-	-	376	373
Carrying amount	**1,001**	**1,008**	**728**	**685**

The difference in the carrying value of investments in joint ventures of EUR 1,745 million (2017: EUR 1,712 million) and the total of the carrying value of joint ventures presented above of EUR 1,729 million (2017: EUR 1,693 million) relates to joint ventures with a negative carrying value of EUR 16 million (2017: EUR 18 million) which have been reclassified to Provisions.

Aegon s group share of net assets of joint ventures, as presented in the table above, is less than Aegon s share of the net assets as presented in the summarized financial information on a 100% basis, due to the inclusion of third parties in the joint ventures.

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The following table includes the summarized financial information of the joint ventures based on the Group s relative holding.

	AMVEST		Other Joint ventures	
	2018	2017	**2018**	2017
Post-tax profit or loss	144	126	66	35
Other comprehensive income	-	-	5	(14)
Total comprehensive income	**144**	**126**	**71**	**20**

27 Investments in associates

	2018	2017
At January 1	308	270
Additions	23	73
Disposals	(1)	(15)
Share in net income	6	11
Share in changes in associate s equity (note 32.6)	2	(5)
Impairment losses	(1)	(1)
Dividend	(3)	(11)
Net exchange difference	(8)	(13)
At December 31	**327**	**308**

All associates are unlisted and are accounted for using the equity method and are considered to be non-current. The investments in associates include interest in insurance companies that are required to maintain a minimum solvency margin based on local directives. Such restrictions can affect the ability of these associates to transfer funds in the form of cash dividends, or repayment of loans or advances, and therefore, there can be no assurance that these restrictions will not become a limitation in the future. There are no unrecognized shares of losses in associates. The financial statements of the principal associates have the same reporting date as the Group. Refer to note 52 Group companies for a listing of the investments in associates and the Group s percentage holding.

Summarized financial information of associates

	2018	2017

Post-tax profit or loss	6	9
Other comprehensive income	2	(5)
Total comprehensive income	**9**	**3**
Carrying amount	327	308

The summarized financial information of associates presented above is based on the Group s relative holding.

28 Reinsurance assets

Assets arising from reinsurance contracts related to:	**2018**	2017
Life insurance general account	18,712	17,419
Life insurance for account of policyholders	2	2
Non-life insurance	1,356	1,327
Investment contracts	437	453
At December 31	**20,507**	**19,202**

Amounts due from reinsurers in respect of claims already paid by the Group are included in note 30 Other assets and receivables.

Of the reinsurance assets EUR 12 million is current (2017: EUR 13 million).

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Movements during the year in reinsurance assets relating to life insurance:	Life insurance general account	Life insurance for account of policyholders	Total life insurance
At January 1, 2018	17,419	2	17,421
Gross premium and deposits existing and new business	2,038	3	2,041
Unwind of discount/interest credited	860	-	860
Insurance liabilities released	(2,518)	(3)	(2,521)
Fund charges released	(82)	-	(82)
Changes to valuation of expected future benefits	109	-	109
Policy transfers	25	-	25
Net exchange differences	858	-	858
Transfers to disposal groups	-	-	-
Transfer to/from insurance contract	-	-	-
Other movements	2	-	2
At December 31, 2018	**18,712**	**2**	**18,714**
At January 1, 2017	9,714	2	9,716
Gross premium and deposits existing and new business	11,326	6	11,332
Unwind of discount/interest credited	533	-	533
Insurance liabilities released	(2,877)	(3)	(2,880)
Fund charges released	(49)	-	(49)
Changes to valuation of expected future benefits	823	-	823
Policy transfers	(38)	-	(38)
Net exchange differences	(1,698)	-	(1,697)
Transfers to disposal groups	(239)	(3)	(242)
Transfer to/from insurance contract	23	-	23
Other movements	(97)	-	(97)
At December 31, 2017	**17,419**	**2**	**17,421**

Movements during the year in reinsurance assets relating to non-life insurance:	**2018**	2017
At January 1	1,327	1,481
Gross premium and deposits existing and new business	84	99
Unwind of discount/interest credited	84	89
Insurance liabilities released	(123)	(129)
Changes to valuation of expected future benefits	-	28
Changes in unearned premiums	(28)	(42)
Incurred related to current year	77	85
Incurred related to prior years	36	37

Release for claims settled current year	(18)	(19)
Release for claims settled prior years	(130)	(119)
Change in IBNR	12	(8)
Shadow accounting adjustment	(24)	6
Net exchange differences	65	(180)
Portfolio transfers and acquisitions	-	2
Other movements	(8)	(4)
At December 31	**1,356**	**1,327**

Assets arising from reinsurance contracts related to:	**2018**	2017
Normal course of business	6,900	6,648
Exit of a business	13,606	12,553
At December 31	**20,507**	**19,202**

The assets arising from reinsurance contracts related to the exit of a business per December 31, 2018 and 2017 relate to the divestment in 2017 of the payout annuity, BOLI/COLI business and a block of reinsurance business in the US and the sale of Aegon s life reinsurance business from Transamerica Reinsurance (TARe) to SCOR. The divestment of TARe consists of a series

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of reinsurance agreements between various statutory insurance entities and SCOR for the US domestic business. For more details on the divestment of this business refer to note 51 Business combinations.

29 Deferred expenses

	2018	2017
DPAC for insurance contracts and investment contracts with discretionary participation features	10,457	9,688
Deferred cost of reinsurance	23	41
Deferred transaction costs for investment management services	431	406
At December 31	**10,910**	**10,135**
Current	957	838
Non-current	9,953	9,297

	DPAC	Deferred costs of reinsurance	Deferred transaction costs
At January 1, 2018	9,688	41	406
Costs deferred during the year	802	-	29
Amortization through income statement	(914)	(19)	(23)
Shadow accounting adjustments	455	-	-
Impairments	-	-	-
Net exchange differences	433	1	18
Transfers to disposal groups	-	-	-
Other	(7)	-	-
At December 31, 2018	**10,457**	**23**	**431**

	DPAC	Deferred costs of reinsurance	Deferred transaction costs
At January 1, 2017	10,882	60	481
Costs deferred during the year	938	-	41
Amortization through income statement	(770)	(13)	(29)
Shadow accounting adjustments	(216)	-	-
Impairments	-	-	(36)
Net exchange differences	(1,227)	(7)	(52)
Transfers to disposal groups	(6)	-	-
Other	88	-	-
At December 31, 2017	**9,688**	**41**	**406**

Deferred expenses are predominantly impacted by regular amortizations, adjustments for differences between projections versus realizations of deferral schemes and changes in foreign exchange rates.

30 Other assets and receivables

	Note	2018	2017
Real estate held for own use and equipment	30.1	498	530
Receivables	30.2	6,019	8,091
Accrued income	30.3	1,436	1,382
At December 31		**7,954**	**10,002**

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30.1 Real estate held for own use and equipment

Net book value	General account real estate held for own use	Equipment	Total
At January 1, 2017	332	241	572
At December 31, 2017	307	223	530
At December 31, 2018	**263**	**235**	**498**
Cost			
At January 1, 2018	396	488	885
Additions	1	63	64
Acquired through business combinations	-	1	1
Capitalized subsequent expenditure	18	-	18
Disposals	(26)	(26)	(52)
Unrealized gains/(losses) through equity	(32)	-	(32)
Transfer to investments in real estate	(1)	-	(1)
Realized gains/(losses) through income statement	(4)	-	(4)
Net exchange differences	11	12	23
At December 31, 2018	**363**	**538**	**901**
Accumulated depreciation and impairment losses			
At January 1, 2018	90	265	355
Depreciation through income statement	4	54	58
Disposals	(16)	(22)	(38)
Impairment losses	18	-	18
Transfer to investments in real estate	(1)	-	(1)
Net exchange differences	4	5	9
At December 31, 2018	**100**	**303**	**403**
Cost			
At January 1, 2017	453	593	1,046
Additions	3	68	71
Acquired through business combinations	-	11	11
Capitalized subsequent expenditure	1	-	1
Disposals	(34)	(144)	(179)
Unrealized gains/(losses) through equity	8	-	8
Transfer to investments in real estate	-	-	-
Transfers to disposal groups	-	(5)	(5)
Net exchange differences	(34)	(40)	(74)
Other	-	7	7
At December 31, 2017	**396**	**488**	**885**
Accumulated depreciation and impairment losses			

At January 1, 2017	121	352	474
Depreciation through income statement	8	63	71
Disposals	(28)	(131)	(159)
Impairment losses	-	-	-
Impairment losses reversed	(1)	-	(1)
Transfers to disposal groups	-	(5)	(5)
Net exchange differences	(10)	(20)	(30)
Other	-	6	6
At December 31, 2017	**90**	**265**	**355**

General account real estate held for own use are mainly held by Aegon USA and Aegon the Netherlands, with relatively smaller holdings at Aegon UK, Aegon Hungary and Aegon Spain. The carrying value under a historical cost model amounted to EUR 301 million (2017: EUR 319 million).

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57% of the value of the general account real estate held for own use was last revalued in 2018 (2017: 30%), based on market value appraisals by qualified internal and external appraisers. The increase is mainly related to positive revaluations in the Dutch real estate markets. 99% of the appraisals in 2018 were performed by independent external appraisers (2017: 95%).

General account real estate held for own use has not been pledged as security for liabilities, nor are there any restrictions on title. Depreciation expenses are recorded in Commissions and expenses in the income statement. The useful lives of buildings range between 40 and 50 years.

None of the equipment is held for lease (2017: none). Equipment has not been pledged as security for liabilities, nor are there any restrictions on title. Depreciation expenses have been recorded in Commissions and expenses in the income statement. Equipment is generally depreciated over a period of three to five years.

30.2 Receivables

	2018	2017
Loans to associates	12	12
Loans to joint ventures	18	13
Receivables from policyholders	969	999
Receivables from brokers and agents	396	400
Receivables from reinsurers	1,129	2,708
Cash outstanding from assets sold	116	46
Trade receivables	1,321	910
Cash collateral	616	1,545
Reverse repurchase agreements	-	230
Income tax receivable	102	85
Other	1,382	1,190
Provision for doubtful debts	(41)	(48)
At December 31	**6,019**	**8,091**
Current	5,989	8,061
Non-current	30	30

With the exception of receivables from reinsurers, the receivables balances presented above are mostly not externally rated.

The movements in the provision for doubtful debts during the year were as follows:

	2018	2017
At January 1	(48)	(79)

Additions charged to earnings	(7)	(6)
Unused amounts reversed through the income statement	4	4
Used during the year	10	31
Net exchange differences	-	2
At December 31	**(41)**	**(48)**

30.3 Accrued income

	2018	2017
Accrued interest	1,415	1,357
Other	21	25
At December 31	**1,436**	**1,382**

Of accrued income EUR 1,421 million is current (2017: EUR 1,364 million).

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31 Intangible assets

Net book value	Goodwill	VOBA	Future servicing rights	Software	Other	Total
At January 1, 2017	294	1,399	64	50	12	1,820
At December 31, 2017	293	1,153	99	51	36	1,633
At December 31, 2018	**384**	**1,123**	**91**	**64**	**64**	**1,727**
Cost						
At January 1, 2018	462	6,565	359	294	128	7,808
Additions	-	-	-	45	2	47
Acquisitions through business combinations	85	-	-	7	33	126
Capitalized subsequent expenditure	-	-	-	5	-	5
Disposals	-	-	-	(19)	-	(19)
Net exchange differences	6	293	2	(6)	2	298
At December 31, 2018	**554**	**6,858**	**361**	**327**	**166**	**8,265**
Accumulated amortization, depreciation and impairment losses						
At January 1, 2018	169	5,412	260	243	92	6,176
Amortization through income statement	-	135	8	16	6	165
Shadow accounting adjustments	-	(56)	-	-	-	(56)
Disposals	-	-	-	(6)	-	(6)
Impairment losses	-	-	-	15	-	15
Net exchange differences	-	244	2	(5)	3	243
At December 31, 2018	**169**	**5,735**	**270**	**263**	**101**	**6,538**
Cost						
At January 1, 2017	503	7,576	327	362	109	8,876
Additions	-	6	-	29	2	37
Acquisitions through business combinations	56	-	47	9	29	140
Capitalized subsequent expenditure	-	-	-	3	-	3
Disposals	(55)	(175)	-	(98)	-	(328)
Net exchange differences	(42)	(841)	(15)	(9)	(11)	(919)
Transfers to disposal groups	-	-	-	(2)	-	(2)
At December 31, 2017	**462**	**6,565**	**359**	**294**	**128**	**7,808**
Accumulated amortization, depreciation and impairment losses						
At January 1, 2017	209	6,177	263	311	97	7,056
Amortization through income statement	-	63	7	28	6	104

Shadow accounting adjustments	-	26	-	-	-	26
Disposals	(28)	(165)	-	(95)	-	(288)
Impairment losses	-	-	-	8	-	8
Net exchange differences	(11)	(689)	(9)	(8)	(11)	(728)
Transfers to disposal groups	-	-	-	(2)	-	(2)
At December 31, 2017	**169**	**5,412**	**260**	**243**	**92**	**6,176**

Amortization and depreciation through income statement is included in Commissions and expenses. None of the intangible assets have titles that are restricted or have been pledged as security for liabilities.

With the exception of goodwill, all intangible assets have a finite useful life and are amortized accordingly. VOBA and future servicing rights are amortized over the term of the related insurance contracts, which can vary significantly depending on the maturity of the acquired portfolio. VOBA currently recognized is amortized over an average period of 24 years, with an average remaining amortization period of 7 years (2017: 7 years). Future servicing rights are amortized over an average period up to 30 years, of which 13 years remain at December 31, 2018 (2017: 14 years). Software is generally depreciated over an average period of 5 years. At December 31, 2018, the remaining average amortization period was 4 years (2017: 4 years).

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Goodwill and Other increased by EUR 85 million and EUR 33 million respectively following the acquisition of Robidus in September 2018. For details of the acquisition, refer to note 51 Business combinations.

Goodwill

The goodwill balance has been allocated across the cash-generating units which are expected to benefit from the synergies inherent in the goodwill. Goodwill is tested for impairment both annually and when there are specific indicators of a potential impairment. The recoverable amount is the higher of the value in use and fair value less costs of disposal for a cash-generating unit. The operating assumptions used in all the calculations are best estimate assumptions and based on historical data where available.

The economic assumptions used in all the calculations are based on observable market data and projections of future trends. All the cash-generating units tested showed that the recoverable amounts were higher than their carrying values, including goodwill. A reasonably possible change in any key assumption is not expected to cause the carrying value of the cash-generating units to exceed its recoverable amount.

A geographical summary of the cash-generating units to which the goodwill is allocated is as follows:

Goodwill	**2018**	2017
Americas	182	174
Central & Eastern Europe	30	34
Asset Management	33	31
United Kingdom	54	54
The Netherlands	85	-
At December 31	**384**	**293**

Goodwill in Aegon Americas is allocated to groups of cash-generating units including variable annuities, fixed annuities and the retirement plans cash-generating unit. Value in use calculations of Aegon Americas have been actuarially determined based on business plans covering a period of typically three years and pre-tax risk adjusted discount rates. Based on the value in use tests, goodwill in the Americas for the group of annuities cash-generating units (2018: EUR 127 million: 2017: EUR 121 million) and the retirement plans cash-generating unit (2018: EUR 55 million: 2017: EUR 52 million) remain unchanged from prior year except for the impact of currency translation adjustments. The value in use tests assume business plans covering a period of three years further extrapolated to ten years, where the new business levels for years 4-10 assumed a 0% growth rate (2017: 0%). The pre-tax adjusted discount rate was 17% for annuities and 18% for retirement plans.

To determine the recoverable amounts of the cash generating units of Aegon Central & Eastern Europe (CEE), value in use was calculated, and compared to the carrying amounts. Value in use has been determined based on a business plan covering a period of typically 3 years, that, in certain instances was further extrapolated to 20 years where the new business levels for years 4-20 assumed a growth rate based on the business plan of the third year, prudentially

decreased by 20% (2017: 20%). Other key assumptions used for the calculation were pre-tax risk adjusted discount rate of ranging between 9.1%-14.0% (2017: 8.3%-14.6%), new business contribution, renewals, asset fees, investment return, persistency and expenses. Operating assumptions are best estimate assumptions and based on historical data where available. Economic assumptions are based on observable market data and projections of future trends.

For Aegon UK, goodwill that was provisionally allocated to the cash-generating unit Cofunds Ltd., is now allocated to Aegon UK, whose value in use exceeded its carrying value. Assessment of value in use at this level is considered to reflect the expected benefit flowing to Aegon UK from the synergies arising from the acquisition of Cofunds. The value in use of Scottish Equitable plc (SE plc) is the most material part of the Aegon UK value in use calculation, and it is determined using SE plc s Solvency II own funds value with adjustments for contract boundaries, risk margin and SE plc s share of the defined benefit pension scheme liability. An allowance has also been made for the present value of the next 3 years profits, from expected new business. This is considered a key assumption which if it does not arise would reduce the value in use, however a headroom would still remain.

For Aegon Netherlands, goodwill was allocated to Robidus a cash generating unit whose value in use exceeds its carrying value. The value in use calculations were based on business plans covering a period of five years, pre-tax discount rate of 8.2%, post-tax discount rate of 8.1%, and terminal growth rate at 2%. The goodwill arises mainly from new customers, future software platform developments, synergies, and assembled workforce.

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VOBA

The movement in VOBA over 2018 can be summarized and compared to 2017 as follows:

	2018	2017
At January 1	1,153	1,399
Additions	-	6
Disposals	-	(11)
Amortization/depreciation through income statement	(135)	(63)
Shadow accounting adjustments	56	(26)
Net exchange differences	49	(153)
At December 31	**1,123**	**1,153**

32 Shareholders equity

Issued share capital and reserves attributable to shareholders of Aegon N.V.

	Note	2018	2017	2016
Share capital par value	32.1	322	322	319
Share premium	32.2	7,487	7,731	7,873
Total share capital		**7,808**	**8,053**	**8,193**
Retained earnings		9,995	9,699	7,609
Treasury shares	32.3	(337)	(325)	(190)
Total retained earnings		**9,657**	**9,374**	**7,419**
Revaluation reserves	32.4	3,461	4,920	5,381
Remeasurement of defined benefit plans	32.5	(1,850)	(1,669)	(1,820)
Other reserves	32.6	149	(390)	1,347
Total shareholders equity		**19,225**	**20,288**	**20,520**

Share capital transactions relating to common shares A	2018 Number of shares (thousands)	2017 Number of shares (thousands)	2016 Number of shares (thousands)
Transactions in 2018:			
Final dividend 2017 [1]	(21,954)		
Share buyback program (final dividend 2017)	21,954		
Interim dividend 2018 [1]	(24,134)		
Share buyback program (interim dividend 2018)	24,134		

Transactions in 2017:		
Final dividend 2016 [1]	(26,916)	
Interim dividend 2017 [2]	(24,948)	
Issuance of common shares with a par value of EUR 0.12	21,099	
Share buyback program (final dividend 2016 and interim dividend 2017)	51,865	
Transactions in 2016:		
Final dividend 2015 [2]		(29,259)
Issuance of common shares with a par value of EUR 0.12		9,122
Share buyback program (final dividend 2015)		29,259
Interim dividend 2016 [2]		(30,765)
Issuance of common shares with a par value of EUR 0.12		1,507
Share buyback program (interim dividend 2016)		30,765

[1] Dividend distribution paid from treasury shares (note 32.3)

[2] Dividend distribution paid from treasury shares (note 32.3) and issuance of common shares performed in the year.

On May 18, 2018, Vereniging Aegon exercised its options rights to purchase in aggregate 1,489,200 common shares B at fair value of a common share B (being 1/40th of the market value of a common share in the capital of the Company at the time

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of issuance) to mitigate dilution caused the issuance of shares on May 18, 2018, in connection with the Long Term Incentive Plans for senior management.

In addition to the transactions presented above, in May 2017, Aegon issued a total of 1,979,260 common shares B with a par value of EUR 0.12 to compensate for the dilution of Vereniging Aegon s shareholding caused by the allocation of shares with senior management on May 19, 2017, in connection with the Long Term Incentive Plans for senior management.

Furthermore, in June 2017, Aegon issued to Vereniging Aegon 13,042,612 common shares B with a par value of EUR 0.12 to compensate for the dilution of Vereniging Aegon s shareholding caused by the distribution of the final dividend 2016 in shares.

In June 2016 and December 2017, Aegon repurchased from Vereniging Aegon 17,324,960 and 13,042,592 common shares B respectively, to keep the voting rights of Vereniging Aegon on the agreed level.

32.1 Share capital par value

	2018	2017	2016
Common shares	251	251	249
Common shares B	70	70	70
At December 31	**322**	**322**	**319**

Common shares	2018	2017	2016
Authorized share capital	720	720	720
Number of authorized shares (in million)	6,000	6,000	6,000
Par value in cents per share	12	12	12

Common shares B	2018	2017	2016
Authorized share capital	360	360	360
Number of authorized shares (in million)	3,000	3,000	3,000
Par value in cents per share	12	12	12

	Common shares		Common shares B	
	Number of shares (thousands)	Total amount	Number of shares (thousands)	Total amount
At January 1, 2016	**2,147,037**	**258**	**585,022**	**70**
Dividend	10,629	1	-	-

Shares withdrawn	(83,117)	(10)	-	-
At December 31, 2016	**2,074,549**	**249**	**585,022**	**70**
Dividend	21,099	3	-	-
At December 31, 2017	**2,095,648**	**251**	**585,022**	**70**
Dividend	-	-	-	-
At December 31, 2018	**2,095,648**	**251**	**585,022**	**70**

The table below represents weighted average number of common shares including treasury shares attributable to Aegon N.V.:

	Weighted average number of common shares (thousands)	Weighted average number of common shares B (thousands)
2016	**2,129,074**	**585,022**
2017	**2,080,792**	**585,022**
2018	**2,095,648**	**585,022**

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All issued common shares and common shares B each have a nominal value of EUR 0.12 and are fully paid up. Repayment of capital can only be initiated by the Executive Board, is subject to approval of the Supervisory Board and must be resolved by the General Meeting of Shareholders. Moreover, repayment on common shares B needs approval of the related shareholders. Refer to Other information for further information on dividend rights.

Vereniging Aegon, based in The Hague, the Netherlands, holds all of the issued and outstanding common shares B.

Under the terms of the 1983 Amended Merger Agreement, dated May 2013, Vereniging Aegon has a call option relating to common shares B. Vereniging Aegon may exercise its call option at fair value of a common share B (being 1/40th of the market value of a common share in the capital of the Company at the time of issuance) to keep or restore its total stake at 32.6%, irrespective of the circumstances which cause the total shareholding to be or become lower than 32.6%.

32.2 Share premium

	2018	2017	2016
At January 1	7,731	7,873	8,059
Share dividend	(244)	(142)	(186)
At December 31	**7,487**	**7,731**	**7,873**
Share premium relating to:			
- Common shares	5,834	6,078	6,220
- Common shares B	1,653	1,653	1,653
Total share premium	**7,487**	**7,731**	**7,873**

The share premium account reflects the balance of paid-in amounts above par value at issuance of new shares less the amounts charged for share dividends.

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32.3 Treasury shares

On the reporting date, Aegon N.V. and its subsidiaries held 62,562,070 (2017: 65,650,650) of its own common shares and 13,856,480 (2017: 15,345,680) own common shares B with a par value of EUR 0.12 each.

Movements in the number of treasury common shares held by Aegon N.V. were as follows:

	2018		2017		2016	
	Number of shares (thousands)	Amount	Number of shares (thousands)	Amount	Number of shares (thousands)	Amount
At January 1	64,488	314	47,473	178	42,998	257
Transactions in 2018:						
Sale: transactions, average price 3.76	(3,070)	(12)				
Sale: 1 transaction, average price 4.62	(21,954)	(101)				
Purchase: 1 transaction average price 5.34	21,954	117				
Sale: 1 transaction, average price 5.09	(24,134)	(123)				
Purchase: 1 transaction average price 5.43	24,134	131				
Transactions in 2017:						
Sale: transactions, average price EUR 3.44			(4,085)	(14)		
Sale: 1 transaction, average price EUR 3.68			(26,916)	(99)		
Sale: 1 transaction, average price EUR 3.77			(3,849)	(14)		
Purchase: 1 transaction, average price EUR 5.09			51,865	263		
Transactions in 2016:						
Purchase: transactions, average price EUR 4.81					83,117	400
Sale: transactions, price average EUR 6.49					(6,153)	(40)
Sale: 1 transaction, price EUR 6.38					(20,137)	(129)
Purchase: transactions, average price EUR 3.51					29,259	103
Sale: 1 transaction, price EUR 5.11					(29,259)	(150)
Shares withdrawn: 1 transaction, price EUR 4.60					(83,117)	(382)
Purchase: transactions, average price EUR 3.84					30,765	118
At December 31	**61,418**	**326**	**64,488**	**314**	**47,473**	**178**

Movements in the number of treasury common shares B held by Aegon N.V. were as follows:

	2018	2017	2016

	Number of shares (thousands)	Amount	Number of shares (thousands)	Amount	Number of shares (thousands)	Amount
At January 1	15,346	2	17,325	2	-	-
Transactions in 2018:						
Sale: 1 transaction, average price EUR 0.11	(1,489)	-				
Transactions in 2017:						
Sale: 1 transaction, average price EUR 0.11			(1,979)	-		
Sale: 1 transaction, average price EUR 0.11			(13,043)	(1)		
Purchase: 1 transaction, average price EUR 0.13			13,043	2		
Transactions in 2016:						
Purchase: transactions, average price EUR 0.11					17,325	2
At December 31	**13,856**	**2**	**15,346**	**2**	**17,325**	**2**

As part of their insurance and investment operations, subsidiaries within the Group also hold Aegon N.V. common shares, both for their own account and for account of policyholders. These shares have been treated as treasury shares and are (de)recognized at the consideration paid or received.

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	2018		2017		2016	
	Number of shares (thousands)	Total amount	Number of shares (thousands)	Total amount	Number of shares (thousands)	Total amount
Common shares						
Held by Aegon N.V.	61,418	326	64,488	314	47,473	178
Held by subsidiaries	1,144	9	1,162	9	1,307	10
Common shares B						
Held by Aegon N.V.	13,856	2	15,346	2	17,325	2
At December 31	**76,419**	**337**	**80,996**	**325**	**66,105**	**190**

	Weighted average number of treasury shares, including treasury shares held by subsidiaries (thousands)	Weighted average number of treasury shares B (thousands)
2016	**81,570**	**9,893**
2017	**38,490**	**9,841**
2018	**60,129**	**14,415**

32.4 Revaluation reserves

	Available-for-sale investments	Real estate held for own use	Cash flow hedging reserve	Total
At January 1, 2018	3,450	68	1,402	4,920
Gross revaluation	(2,138)	(32)	85	(2,086)
Net (gains)/losses transferred to income statement	66	-	(80)	(14)
Foreign currency translation differences	46	2	71	119
Tax effect	513	7	1	521
Other	-	-	-	1
At December 31, 2018	**1,936**	**46**	**1,479**	**3,461**
At January 1, 2017	3,418	59	1,904	5,381
Gross revaluation	1,310	8	(115)	1,203
Net (gains)/losses transferred to income statement	(1,330)	-	(738)	(2,069)
Foreign currency translation differences	(228)	(8)	(216)	(452)
Tax effect	308	9	567	883
Other	(28)	-	1	(27)
At December 31, 2017	**3,450**	**68**	**1,402**	**4,920**
At January 1, 2016	4,546	52	1,873	6,471
Gross revaluation	857	8	(131)	733
Net (gains)/losses transferred to income statement	(2,122)	-	78	(2,044)
Foreign currency translation differences	(101)	2	61	(38)
Tax effect	240	(3)	24	262

Other	(2)	-	-	(2)
At December 31, 2016	**3,418**	**59**	**1,904**	**5,381**

The revaluation accounts for both available-for-sale investments and for real estate held for own use include unrealized gains and losses on these investments, net of tax. Upon sale, the amounts realized are recognized in the income statement (for available-for-sale investments) or transferred to retained earnings (for real estate held for own use). Upon impairment, unrealized losses are recognized in the income statement.

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The closing balances of the revaluation reserve for available-for-sale investments relate to the following instruments:

	2018	2017	2016
Shares	22	40	130
Debt securities	1,937	3,423	3,245
Other	(23)	(14)	43
Revaluation reserve for available-for-sale investments	**1,936**	**3,450**	**3,418**

The cash flow hedging reserve includes (un)realized gains and losses on the effective portions of hedging instruments, net of tax. The amounts are recognized in the income statement at the moment of realization of the hedged position to offset the gain or loss from the hedged cash flow. No amounts have been released from equity to be included in the initial measurement of non-financial assets or liabilities.

32.5 Remeasurement of defined benefit plans

	2018	2017	2016
At January 1	(1,669)	(1,820)	(1,532)
Remeasurements of defined benefit plans	(134)	224	(392)
Tax effect	(15)	(175)	89
Net exchange differences	(32)	102	16
Total remeasurement of defined benefit plans	**(1,850)**	**(1,669)**	**(1,820)**

32.6 Other reserves

	Foreign currency translation reserve	Net foreign investment hedging reserve	Equity movements of joint ventures and associates	Total
At January 1, 2018	(80)	(321)	11	(390)
Movement in foreign currency translation and net foreign investment hedging reserves	562	(46)	(3)	513
Disposal of a business	50	(14)	-	36
Tax effect	(32)	12	-	(20)

Equity movements of joint ventures	-	-	8	8
Equity movements of associates	-	-	2	2
Other	-	-	1	1
At December 31, 2018	**499**	**(370)**	**19**	**149**
At January 1, 2017	1,734	(418)	31	1,347
Movement in foreign currency translation and net foreign investment hedging reserves	(1,929)	129	-	(1,800)
Disposal of a business	7	-	-	7
Tax effect	108	(32)	-	76
Equity movements of joint ventures	-	-	(15)	(15)
Equity movements of associates	-	-	(5)	(5)
At December 31, 2017	**(80)**	**(321)**	**11**	**(390)**
At January 1, 2016	1,731	(467)	19	1,283
Movement in foreign currency translation and net foreign investment hedging reserves	25	65	-	91
Tax effect	(22)	(17)	-	(39)
Equity movements of joint ventures	-	-	9	9
Equity movements of associates	-	-	3	3
At December 31, 2016	**1,734**	**(418)**	**31**	**1,347**

The foreign currency translation reserve includes the currency results from investments in non-euro denominated subsidiaries. The amounts are released to the income statement upon the sale of the subsidiary.

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The net foreign investment hedging reserve is made up of gains and losses on the effective portions of hedging instruments, net of tax. The amounts are recognized in the income statement at the moment of realization of the hedged position to offset the gain or loss from the net foreign investment.

The equity movements of joint ventures and associates reflect Aegon s share of changes recognized directly in the joint venture s and associate s equity.

33 Other equity instruments

	Junior perpetual capital securities	Perpetual cumulative subordinated bonds	Share options and incentive plans [1]	Non-cumulative subordinated notes	Total
At January 1, 2018	3,008	454	61	271	3,794
Shares granted	-	-	16	-	16
Shares vested	-	-	(19)	-	(19)
Securities redeemed	(200)	-	-	(271)	(471)
At December 31, 2018	**2,808**	**454**	**58**	**-**	**3,320**
At January 1, 2017	3,008	454	65	271	3,797
Shares granted	-	-	26	-	26
Shares vested	-	-	(30)	-	(30)
At December 31, 2017	**3,008**	**454**	**61**	**271**	**3,794**
At January 1, 2016	3,008	454	68	271	3,800
Shares granted	-	-	13	-	13
Shares vested	-	-	(16)	-	(16)
At December 31, 2016	**3,008**	**454**	**65**	**271**	**3,797**

[1] Share options and incentive plans include the shares and options granted to personnel which are not yet vested.

Junior perpetual capital securities	Coupon rate	Coupon date, as of	Year of next call	**2018**	2017	2016
USD 500 million	6.50%	Quarterly, December 15	2019	424	424	424
USD 250 million	floating LIBOR rate [1]	Quarterly, December 15	2019	212	212	212
USD 500 million	floating CMS rate [2]	Quarterly, July 15	2019	402	402	402

USD 1 billion	6.375%	Quarterly, June 15	2019	821	821	821
EUR 950 million	floating DSL rate [3]	Quarterly, July 15	2019	950	950	950
			Called in			
EUR 200 million	6.0%	Annually, July 21	2018	-	200	200
At December 31				**2,808**	**3,008**	**3,008**

[1] The coupon of the USD 250 million junior perpetual capital securities is reset each quarter based on the then prevailing three-month LIBOR yield plus a spread of 87.5 basis points, with a minimum of 4%.
[2] The coupon of the USD 500 million junior perpetual capital securities is reset each quarter based on the then prevailing ten-year US dollar interest rate swap yield plus a spread of ten basis points, with a maximum of 8.5%.
[3] The coupon of the EUR 950 million junior perpetual capital securities is reset each quarter based on the then prevailing ten-year Dutch government bond yield plus a spread of ten basis points, with a maximum of 8%.
The interest rate exposure on some of these securities has been swapped to a three-month LIBOR and/or EURIBOR based yield.

The securities have been issued at par. The securities have subordination provisions, rank junior to all other liabilities and senior to shareholders equity only. The conditions of the securities contain certain provisions for optional and required coupon payment deferral and, in situations under Aegon s control, mandatory coupon payment events. Although the securities have no stated maturity, Aegon has the right to call the securities for redemption at par for the first time on the coupon date in the years as specified, or on any coupon payment date thereafter.

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Perpetual cumulative subordinated bonds	Coupon rate	Coupon date	Year of next call	**2018**	2017	2016
EUR 203 million	4.260% [1, 4]	Annual, March 4	2021	203	203	203
EUR 114 million	1.506% [2, 4]	Annual, June 8	2025	114	114	114
EUR 136 million	1.425% [3, 4]	Annual, October 14	2028	136	136	136
At December 31				**454**	**454**	**454**

[1] The coupon of the EUR 203 million bonds was originally set at 7.125% until March 4, 2011. Subsequently, the coupon has been reset at 4.26% until March 4, 2021.
[2] The coupon of the EUR 114 million bonds was originally set at 8% until June 8, 2005. Subsequently, the coupon has been reset at 4.156% until June 8, 2015 and 1.506% until June 8, 2025.
[3] The coupon of the EUR 136 million bonds was originally set at 7.25% until October 14, 2008. Subsequently, the coupon has been reset at 5.185% until October 14, 2018 and 1.425% until October 14, 2028.
[4] If the bonds are not called on the respective call dates and after consecutive period of ten years, the coupons will be reset at the then prevailing effective yield of ten-year Dutch government securities plus a spread of 85 basis points.

The bonds have the same subordination provisions as dated subordinated debt. In addition, the conditions of the bonds contain provisions for interest deferral.

Although the bonds have no stated maturity, Aegon has the right to call the bonds for redemption at par for the first time on the coupon date in the year of next call.

Non-cumulative subordinated notes	Coupon rate	Coupon date	Year of next call	**2018**	2017	2016
USD 525 million	8%	Quarterly, February 15	Called in 2018	-	271	271
At December 31				**-**	**271**	**271**

With effect on May 15, 2018, Aegon has exercised its right to redeem USD 525 million non-cumulative subordinated notes, subsequently leading to their redemption. The securities had a stated maturity of 30 years, however, Aegon had the right to call the securities for redemption at par on any coupon payment date.

The non-cumulative subordinated notes were initially issued on February 7, 2012, in aggregate principal amount of 8.00%, due 2042, in an underwritten public offering in the United States registered with the US Securities and Exchange Commission.

The securities were subordinated and rank senior to the junior perpetual capital securities, equally with the perpetual cumulative subordinated bonds and fixed floating subordinated notes, and junior to all other liabilities. The conditions of the securities contained certain provisions for optional and required cancellation of interest payments.

These notes were recognized as compound financial instruments and separated into an equity component and a liability component. Prior to redemption, the equity component had a book value of EUR 271 million (2017: EUR 271 million), subordinated borrowings amounted to EUR 68 million (2017: EUR 69 million) and a deferred tax liability amounting to EUR 89 million (2017: EUR 92 million).

Refer to note 34 Subordinated borrowings for details of the component classified as subordinated borrowings.

34 Subordinated borrowings

	Coupon rate	Coupon date	Year of next call	2018	2017
Fixed floating subordinated notes					
EUR 700 million	4%	Annually, April 25	2024	696	695
USD 800 million	5,5%	Semi-annually, April 11	2028	693	-
Non-cumulative subordinated notes					
USD 525 million	8%	Quarterly, February 15	Called in 2018	-	69
At December 31				**1,389**	**764**

The subordinated debt securities of USD 800 million issued on April 11, 2018 have a fixed coupon of 5.5% until the first call date and floating thereafter with a margin including a 100 basis points step-up. The securities are first callable on April 11, 2028 and maturing on April 11, 2048.

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These securities are subordinated and rank senior to the junior perpetual capital securities, equally with the perpetual cumulative subordinated bonds and junior to all other liabilities. The conditions of the securities contain certain provisions for optional and required deferral of interest payments. There have been no defaults or breaches of conditions during the period.

In 2017, subordinated borrowings included a liability of EUR 69 million relating to the USD 525 million non-cumulative subordinated notes issued on February 7, 2012. The liability component of the non-cumulative subordinated notes related to the redemption amount was derecognised subsequent to Aegon exercising its redemption rights in May 2018.

For further information on the non-cumulative subordinated notes, their subordination and redemption refer to note 33 Other equity instruments.

The fair value of these loans amounted to EUR 1,355 million (2017: EUR 953 million).

35 Trust pass-through securities

	Coupon rate	Coupon date	Year of issue	Year of maturity	Year of next call	2018	201
SD 225 million [1]	7.65%	Semi-annually, December 1	1996	2026	n.a.	90	9
SD 190 million [1]	7.625%	Semi-annually, November 15	1997	2037	n.a.	43	4
t December 31						**133**	**13**

[1] Issued by a subsidiary of, and guaranteed by Aegon N.V.

Trust pass-through securities are securities through which the holder participates in a trust. The assets of these trusts consist of junior subordinated deferrable interest debentures issued by Transamerica Corporation. The trust pass-through securities carry provisions with regard to deferral of distributions for extension periods up to a maximum of 10 consecutive semi-annual periods. The trust pass-through securities are subordinated to all other unsubordinated borrowings and liabilities of Transamerica Corporation.

There were no defaults or breaches of conditions during the period.

The fair value of these loans amounted to EUR 128 million (2017: EUR 137 million).

36 Insurance contracts

36.1 Underwriting risk

Aegon s earnings depend significantly upon the extent to which actual claims experience differs from the assumptions used in setting the prices for products and establishing the technical liabilities and liabilities for claims. To the extent that actual claims experience is less favorable than the underlying assumptions used in establishing such liabilities, income would be reduced. Furthermore, if these higher claims were part of a permanent trend, Aegon may be required

to change best estimate assumptions for future claims which could increase the required reserves for these future claims, which could reduce income. In addition, certain acquisition costs related to the sale of new policies and the purchase of policies already in force have been recorded as assets on the statement of financial position and are being amortized into the income statement over time. If the assumptions relating to the future profitability of these policies (such as future claims, investment income and expenses) are not realized, the amortization of these costs could be accelerated and may even require write offs should there be an expectation of unrecoverability. This could have a materially adverse effect on Aegon s business, results of operations and financial condition.

Sources of underwriting risk include policyholder behavior (such as lapses, surrender of policies or partial withdrawals), policy claims (such as mortality, longevity or morbidity) and expenses. For some product lines, Aegon is at risk if policy lapses increase as sometimes Aegon is unable to fully recover upfront expenses in selling a product despite the presence of commission recoveries or surrender charges and fees. There are also products where Aegon is at risk if lapses decrease, for example where this would result in a higher utilization rate of product guarantees. For mortality and morbidity risk, Aegon sells certain types of policies that are at risk if mortality or morbidity increases, such as term life insurance and accident insurance, Aegon also sells certain types of policies that are at risk if mortality decreases (longevity risk) such as annuity products. Aegon is also at risk if expenses are higher than the expenses assumed beforehand by management and that were priced into the products.

Aegon monitors and manages its underwriting risk by underwriting risk type. Attribution analysis is performed on earnings and reserve movements in order to understand the source of any material variation in actual results from what was expected. Aegon s units also perform experience studies for underwriting risk assumptions, comparing Aegon s experience to industry experience as well as combining Aegon s experience and industry experience based on the depth of the history of each source to Aegon s underwriting assumptions. Where policy charges are flexible in products, Aegon uses these analyses as the basis for modifying these charges, with

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a view to maintain a balance between policyholder and shareholder interests. Aegon also has the ability to reduce expense levels over time, thus mitigating unfavorable expense variation.

Sensitivity analysis of net income and shareholders equity to various underwriting risks is shown in the table that follows. Aegon s best estimate assumptions already include expected future developments and the sensitivities represent an increase or decrease of lapse rates, mortality rates and morbidity rates, compared to Aegon s best estimate assumptions. These underwriting sensitivities were run using a permanent shock applied to all of Aegon s products, exposed to an increase and to a decrease in the rates. The table below indicates that the mortality sensitivity has the largest impact and in aggregate, Aegon is exposed to a decrease in mortality rates.

Sensitivity analysis of net income and shareholders equity to changes in various underwriting risks	2018		2017	
Estimated approximate effect	On shareholders equity	On net income	On shareholders equity	On net income
20% increase in lapse rates	94	109	69	94
20% decrease in lapse rates	(139)	(154)	(124)	(155)
10% increase in mortality rates	478	105	514	91
10% decrease in mortality rates	(965)	(532)	(1,011)	(577)
10% increase in morbidity rates	(525)	(446)	(492)	(463)
10% decrease in morbidity rates	183	125	189	142

Aegon the Netherlands partially hedges the risk of future longevity increases in the Netherlands related to a part of its insurance liabilities. Aegon the Netherlands hedges this risk via both longevity index derivatives and reinsurance contracts.

36.2 Insurance contracts for general account

	2018	2017
Life insurance	102,418	98,422
Non-life insurance		
- Unearned premiums and unexpired risks	5,341	5,447
- Outstanding claims	2,338	2,206
- Incurred but not reported claims	820	830
Incoming reinsurance	4,377	3,913
At December 31	**115,294**	**110,818**

	2018	2017
Non-life insurance:		
- Accident and health insurance	8,247	8,225
- General insurance	252	259
Total non-life insurance	**8,499**	**8,484**

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Movements during the year in life insurance:	**2018**	2017
At January 1	98,422	105,763
Acquisitions	-	-
Disposals	-	-
Portfolio transfers and acquisitions	95	139
Gross premium and deposits existing and new business	6,293	6,498
Unwind of discount/interest credited	3,711	4,200
Insurance liabilities released	(9,582)	(9,247)
Changes in valuation of expected future benefits	617	(1,145)
Loss recognized as a result of liability adequacy testing	49	843
Shadow accounting adjustments	(303)	92
Net exchange differences	3,087	(8,598)
Transfer (to)/from reinsurance assets	-	23
Transfer (to)/from insurance contracts for account of policyholders	-	135
Transfers to disposal groups [1]	-	(239)
Other	1	(43)
At December 31	**102,418**	**98,422**

[1] Linked to the sale of Aegon UK s annuity portfolio, refer to note 51 Business combinations.

Movements during the year in non-life insurance:	**2018**	2017
At January 1	8,484	9,066
Acquisitions	-	-
Disposals	-	-
Portfolio transfers and acquisitions	-	5
Gross premiums existing and new business	1,563	1,893
Unwind of discount/interest credited	450	444
Insurance liabilities released	(1,052)	(1,065)
Changes in valuation of expected future claims	(8)	173
Change in unearned premiums	(742)	(1,017)
Change in unexpired risks	2	3
Incurred related to current year	747	750
Incurred related to prior years	195	231
Release for claims settled current year	(278)	(287)
Release for claims settled prior years	(704)	(717)
Shadow accounting adjustments	(459)	76
Change in IBNR	(51)	(79)
Net exchange differences	354	(986)
Other	(2)	(5)
At December 31	**8,499**	**8,484**

Movements during the year in incoming reinsurance:	**2018**	2017
At January 1	3,913	4,739
Gross premium and deposits existing and new business	1,441	1,625
Unwind of discount/interest credited	199	175
Insurance liabilities released	(1,557)	(2,005)
Change in unearned premiums	-	1
Changes in valuation of expected future benefits	190	(57)
Shadow accounting adjustments	(11)	(1)
Loss recognized as a result of liability adequacy	(4)	(1)
Net exchange differences	205	(558)
Other	2	(4)
At December 31	**4,377**	**3,913**

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36.3 Insurance contracts for account of policyholders

Insurance contracts for account of policyholders	2018	2017
At January 1	122,168	120,929
Portfolio transfers and acquisitions	(140)	(259)
Gross premium and deposits existing and new business	9,716	12,144
Unwind of discount/interest credited	(5,311)	13,349
Insurance liabilities released	(10,471)	(10,882)
Fund charges released	(1,671)	(1,746)
Changes in valuation of expected future benefits	(245)	100
Transfer (to)/from insurance contracts	(27)	(135)
Transfer (to)/from investment contracts for account of policyholders	-	-
Transfers to disposal groups	-	(1,359)
Net exchange differences	3,092	(10,289)
Other	2	317
At December 31	**117,113**	**122,168**

Included in Transfers to disposal groups for 2017 is the sale of Aegon Ireland plc. business which is classified as held for sale per year-end 2017. As a result, the Insurance contracts for account of policyholders are no longer included in the 2017 ending balance. Refer to note 22 Assets and liabilities held for sale and note 51 Business combinations.

Other in 2017 reflects the reclassification of the pension contract relating to the personnel of Unirobe Meeùs Groep (UMG) from defined benefit plans to insurance contracts for account of policy holders following the sale of UMG in November 2017.

37 Investment contracts

37.1 Investment contracts for general account

	Without discretionary participation features	With discretionary participation features	Total
At January 1, 2018	16,665	278	16,943
Portfolio transfers and acquisitions	271	-	271
Deposits	10,308	-	10,308
Withdrawals	(10,101)	-	(10,101)
Investment contracts liabilities released	-	(53)	(53)
Interest credited	236	-	236
Net exchange differences	335	(2)	332
Transfer to/from other headings	133	-	133

Other	(22)	-	(22)
At December 31, 2018	**17,825**	**223**	**18,048**
At January 1, 2017	19,217	355	19,572
Portfolio transfers and acquisitions	55	-	55
Deposits	8,432	-	8,432
Withdrawals	(8,455)	-	(8,455)
Investment contracts liabilities released	-	(64)	(64)
Interest credited	268	-	268
Net exchange differences	(1,102)	(13)	(1,114)
Transfer to/from other headings	21	-	21
Other	(1,771)	-	(1,771)
At December 31, 2017	**16,665**	**278**	**16,943**

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Investment contracts consist of the following:	**2018**	2017
Institutional guaranteed products	944	1,053
Fixed annuities	5,981	5,714
Savings accounts	10,586	9,568
Investment contracts with discretionary participation features	223	278
Other	314	331
At December 31	**18,048**	**16,943**

37.2 Investment contracts for account of policyholders

	Without discretionary participation features	With discretionary participation features	Total
At January 1, 2018	37,169	37,265	74,434
Additions	18,415	-	18,415
Gross premium and deposits existing and new business	6,432	1,279	7,711
Withdrawals	(10,279)	-	(10,279)
Interest credited	(2,682)	(1,475)	(4,157)
Investment contracts liabilities released	-	(6,506)	(6,506)
Fund charges released	(157)	-	(157)
Net exchange differences	1,084	(312)	772
Transfers to disposal groups	-	-	-
Other	(135)	-	(135)
At December 31, 2018	**49,847**	**30,250**	**80,097**
At January 1, 2017	42,803	41,971	84,774
Gross premium and deposits existing and new business	5,393	1,313	6,706
Withdrawals	(7,654)	-	(7,654)
Interest credited	4,589	4,558	9,147
Investment contracts liabilities released	-	(9,006)	(9,006)
Fund charges released	(176)	-	(176)
Net exchange differences	(4,272)	(1,570)	(5,842)
Transfers to disposal groups	(3,498)	-	(3,498)
Other	(16)	-	(16)
At December 31, 2017	**37,169**	**37,265**	**74,434**

The value of investment contracts for account of policyholders increased in 2018 mainly due to the completion of BlackRock Part VII transfer on July 1, 2018, in the UK. This transaction has transferred into the Group s portfolio GBP 16.3 billion (EUR 18.4 billion) unit linked defined contribution assets and liabilities. Refer to note 24 Investments for account of policyholders for the impact on assets.

38 Guarantees in insurance contracts

For financial reporting purposes Aegon distinguishes between the following types of minimum guarantees:

a. Financial guarantees: these guarantees are treated as bifurcated embedded derivatives, valued at fair value and presented as derivatives (refer to note 2.9 and note 47 Fair value);
b. Total return annuities: these guarantees are not bifurcated from their host contracts because they are presented and valued at fair value together with the underlying insurance contracts (refer to note 2.19);
c. Life contingent guarantees in the United States: these guarantees are not bifurcated from their host contracts, presented and valued in accordance with insurance accounting together with the underlying insurance contracts (refer to note 2.19); and
d. Minimum investment return guarantees in the Netherlands: these guarantees are not bifurcated from their host contracts, valued at fair value and presented together with the underlying insurance contracts (refer to note 2.19 and note 47 Fair value).

In addition to the guarantees mentioned above, Aegon has traditional life insurance contracts that include minimum guarantees that are not valued explicitly; however, the adequacy of all insurance liabilities, net of VOBA and DPAC, and including all guarantees, are assessed periodically (refer to note 2.19).

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a. Financial guarantees

In the United States and in the United Kingdom, a guaranteed minimum withdrawal benefit (GMWB) is offered directly on some variable annuity products Aegon issues and is also assumed from a ceding company. Additionally, Aegon offers guarantees on variable annuities sold through its joint venture in Japan. Variable annuities allow a customer to provide for the future on a tax-deferred basis and to participate in equity or bond market performance. Variable annuities allow a customer to select payout options designed to help meet the customer s need for income upon maturity, including lump sum payment or income for life or for a period of time. This benefit guarantees that a policyholder can withdraw a certain percentage of the account value, starting at a certain age or duration, for either a fixed period or during the life of the policyholder.

In the Netherlands, individual variable unit-linked products have a minimum benefit guarantee if premiums are invested in certain funds. The sum insured at maturity or upon the death of the beneficiary has a minimum guaranteed return (in the range of 3% to 4%) if the premium has been paid for a consecutive period of at least ten years and is invested in a mixed fund and/or fixed-income funds. No guarantees are given if invested is in equity only.

The following table provides information on the liabilities for financial guarantees for minimum benefits, net of present value of the expected future premiums that are received to cover these guarantees:

	2018				2017			
	United States [1]	The Netherlands [2]	United Kingdom	**Total [3]**	United States [1]	The Netherlands [2]	United Kingdom	Total [3]
At January 1	247	1,547	-	1,794	405	1,555	68	2,028
Incurred guarantee benefits [4]	491	131	-	622	(114)	(8)	(37)	(158)
Paid guarantee benefits	(1)	-	-	(1)	(1)	-	-	(1)
Transfers to disposal groups	-	-	-	-	-	-	(30)	(30)
Net exchange differences	29	-	-	29	(42)	-	(2)	(44)
At December 31	**766**	**1,678**	**-**	**2,445**	**247**	**1,547**	**-**	**1,794**
Account value [5]	30,788	8,175	-	38,963	33,371	8,805	-	42,175
Net amount at risk [6]	235	2,004	-	2,239	94	1,737	-	1,831

[1] Guaranteed minimum accumulation and withdrawal benefits.
[2] Fund plan and unit-linked guarantees.
[3] Balances are included in the derivatives liabilities on the face of the statement of financial position; refer to note 25 Derivatives.
[4] Incurred guarantee benefits mainly comprise the effect of guarantees from new contracts, releases related to expired out-of-the-money guarantees and fair value movements during the reporting year.
[5] Account value reflects the actual fund value for the policyholders.
[6] The net amount at risk represents the sum of the positive differences between the discounted maximum amount payable under the guarantees and the account value.

The increase of incurred guarantee benefits mainly relates to declines in equity markets in 2018. This also lowered the account value and increased the amount at risk.

Aegon Americas mitigates the exposure from the elective guaranteed minimum withdrawal benefit rider issued with a ceding company s variable annuity contracts. The rider is essentially a return of premium guarantee, which is payable over a period of at least 14 years from the date that the policyholder elects to start withdrawals. At contract inception, the guaranteed remaining balance is equal to the premium payment. The periodic withdrawal is paid by the ceding company until the account value is insufficient to cover additional withdrawals. Once the account value is exhausted, Aegon pays the periodic withdrawals until the guaranteed remaining balance is exhausted. At December 31, 2018, the reinsured account value was EUR 1.7 billion (2017: EUR 2.0 billion) and the guaranteed remaining balance was EUR 1.1 billion (2017: EUR 1.2 billion).

The GMWB rider Aegon assumed from the ceding company is accounted for as a derivative and is carried in Aegon s statement of financial position at fair value. At December 31, 2018, the contract had a value of EUR 36 million (2017: EUR 34 million). Aegon entered into a derivative program to mitigate the overall exposure to equity market and interest rate risks associated with the reinsurance contract. This program involves selling equity futures contracts and equity total return swap contracts (S&P 500, Midcap, Russell 2000, and the MCSI EAFE index in accordance with Aegon s exposure) to mitigate the effect of equity market movement on the reinsurance contract and the purchase of interest rate swaps, treasury futures and treasury forwards to mitigate the effect of movements in interest rates on the reinsurance contracts.

Aegon the Netherlands provides guarantees to its customers on expiry date for certain insurance contracts. In order to mitigate the risks related to the guarantees Aegon the Netherlands has setup a hedging program. Aegon the Netherlands does not use

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reinsurance in order to mitigate risks related to insurance contracts with a guarantee component. The net amount at risk represents the sum of the positive differences between the discounted maximum amount payable under the guarantees and the account value, which is the actual fund value of the policyholder.

b. Total return annuities

Total Return Annuity (TRA) is an annuity product in the United States which provides customers with a pass-through of the total return on an underlying portfolio of investment securities (typically a mix of corporate and convertible bonds) subject to a cumulative minimum guarantee. Both the assets and liabilities are carried at fair value, however, due to the minimum guarantee not all of the changes in the market value of the asset will be offset in the valuation of the liability. This product exists for the fixed annuity line of business and represents a closed block.

The fixed annuities product balance as of December 31, 2018, amounted to EUR 243 million (2017: EUR 270 million).

c. Life contingent guarantees in the United States

Certain variable insurance contracts in the United States also provide guaranteed minimum death benefits (GMDB) and guaranteed minimum income benefits (GMIB). Under a GMDB, the beneficiaries receive the greater of the account balance or the guaranteed amount upon the death of the insured. The net amount at risk for GMDB contracts is defined as the current GMDB in excess of the capital account balance at the reporting date.

The GMIB feature provides for minimum payments if the contract holder elects to convert to an immediate payout annuity. The guaranteed amount is calculated using the total deposits made by the contract holder, less any withdrawals and sometimes includes a roll-up or step-up feature that increases the value of the guarantee with interest or with increases in the account value.

The additional liability for guaranteed minimum benefits that are not bifurcated are determined each period by estimating the expected value of benefits in excess of the projected account balance and recognizing the excess over the accumulation period based on total expected assessments. The estimates are reviewed regularly and any resulting adjustment to the additional liability is recognized in the income statement. The benefits used in calculating the liabilities are based on the average benefits payable over a range of stochastic scenarios. Where applicable, the calculation of the liability incorporates a percentage of the potential annuitizations that may be elected by the contract holder.

The following table provides information on the liabilities for guarantees for minimum benefits that are included in the valuation of the host contracts:

	2018			2017		
	GMDB [1]	GMIB [2]	**Total** [4]	GMDB [1]	GMIB [2]	Total [4]

At January 1	364	608	972	531	849	1,381
Incurred guarantee benefits [5]	197	282	479	(49)	(121)	(171)
Paid guarantee benefits	(65)	(23)	(88)	(60)	(26)	(86)
Net exchange differences	23	39	62	(58)	(94)	(153)
At December 31	**519**	**906**	**1,425**	**364**	**608**	**972**

	GMDB [1,3]	GMIB [2,3]		GMDB [1,3]	GMIB [2,3]
Account value [6]	48,174	4,770		52,070	5,270
Net amount at risk [7]	2,839	888		1,309	474
Average attained age of contract holders	70	71		69	70

[1] Guaranteed minimum death benefit in the United States.
[2] Guaranteed minimum income benefit in the United States.
[3] Note that the variable annuity contracts with guarantees may offer more than one type of guarantee in each contract; therefore, the amounts listed are not mutually exclusive.
[4] Balances are included in the insurance liabilities on the face of the statement of financial position; refer to note 36 Insurance contracts.
[5] Incurred guarantee benefits mainly comprise the effect of guarantees from new contracts, releases related to expired out-of-the-money guarantees and value changes as a consequence of interest movements during the reporting year.
[6] Account value reflects the actual fund value for the policyholders.
[7] The net amount at risk is defined as the present value of the minimum guaranteed annuity payments available to the contract holder determined in accordance with the terms of the contract in excess of the current account balance.

d. Minimum investment return guarantees in the Netherlands

The traditional life and pension products offered by Aegon in the Netherlands include various products that accumulate a cash value. Premiums are paid by customers at inception or over the term of the contract. The accumulation products pay benefits on the policy

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maturity date, subject to survival of the insured. In addition, most policies also pay death benefits if the insured dies during the term of the contract. The death benefits may be stipulated in the policy or depend on the gross premiums paid to date. Premiums and amounts insured are established at inception of the contract. The amount insured can be increased as a result of profit sharing, if provided for under the terms and conditions of the product. Minimum interest guarantees exist for all generations of traditional accumulation products written. Older generations contain a 4% guarantee; in 1999 the guarantee decreased to 3% and in 2013 the guarantee decreased to 0%.

The traditional group pension contracts offered by Aegon in the Netherlands include large group insurance contracts that have an individually determined asset investment strategy underlying the pension contract. The guarantee given is that the profit sharing is the maximum of 0% and the realized return on an asset portfolio specified in the policy conditions, adjusted for technical interest rates ranging from 3% to 4%. If the adjusted return is negative, the 0% minimum is effective, but the loss in any given year is carried forward to be offset against any future surpluses within the contract period. In general, a guarantee is given for the life of the underlying employees so that their pension benefit is guaranteed. Large group contracts also share technical results (mortality risk and disability risk). The contract period is typically five years and the premiums are fixed over this period.

These guarantees are valued at fair value and are included as part of insurance liabilities with the underlying host insurance contracts in note 36 Insurance contracts.

The following table provides information on the liabilities for guarantees that are included in the valuation of the host contracts, net of the present value of the expected future premiums that are received to cover these guarantees:

	2018	2017
	GMI [1, 2]	GMI [1, 2]
At January 1	4,719	5,542
Incurred guarantee benefits [3]	344	(823)
At December 31	**5,063**	**4,719**
Account value [4]	18,346	18,754
Net amount at risk [5]	4,933	4,440

1 Guaranteed minimum investment return in the Netherlands.

2 Balances are included in the insurance liabilities on the face of the statement of financial position; refer to note 36 Insurance contracts.

3 Incurred guarantee benefits mainly comprise the effect of guarantees from new contracts, releases related to expired out-of-the-money guarantees and fair value movements during the reporting year.

4 Account value reflects the liability value of the insurance contracts as a whole.

5 The net amount at risk represents the sum of the differences between the guaranteed and actual amount that is credited to the policyholders. For Individual policies only positive differences are included, for Group pensions contracts carry forwards of negative differences are recognized.

Fair value measurement of guarantees in insurance contracts

The fair values of guarantees mentioned above (with the exception of life contingent guarantees in the United States) are calculated as the present value of future expected payments to policyholders less the present value of assessed rider fees attributable to the guarantees. For further details refer to note 47 Fair value.

For equity volatility, Aegon uses a term structure assumption with market-based implied volatility inputs for the first five years and a long-term forward rate assumption of 25% thereafter. The volume of observable option trading from which volatilities are derived generally declines as the contracts term increases, therefore, the volatility curve grades from implied volatilities for five years to the ultimate rate. The resulting volatility assumption in year 20 for the S&P 500 index (expressed as a spot rate) was 23.3% at December 31, 2018, and 23.1% at December 31, 2017. Correlations of market returns across underlying indices are based on historical market returns and their inter-relationships over a number of years preceding the valuation date. Assumptions regarding policyholder behavior, such as lapses, included in the models are derived in the same way as the assumptions used to measure insurance liabilities.

These assumptions are reviewed at each valuation date, and updated based on historical experience and observable market data, including market transactions such as acquisitions and reinsurance transactions. Disclosure on interest rate risk, including interest rate risk sensitivity is included in note 4 Financial risks.

Aegon utilizes different risk management strategies to mitigate the financial impact of the valuation of these guarantees on the results including asset and liability management and derivative hedging strategies to hedge certain aspects of the market risks embedded in these guarantees.

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Guarantees valued at fair value contributed a net loss before tax of EUR 56 million (2017: loss of EUR 75 million) to earnings.

The main drivers of this loss before tax are a loss of EUR 532 million related to a decrease in equity markets (2017: EUR 1,147 million gain) a loss of EUR 8 million related to increases in equity volatility (2017: EUR 81 million gain) and other contributed a loss of EUR 233 million (2017: EUR 205 million gain), partly offset by a fair value gain on hedges related to the guarantee reserves of EUR 527 million (2017: EUR 1,417 million loss), a gain of EUR 148 million related to widening own credit spread (2017: EUR 243 million loss) and positive results related to increases in risk free rates of EUR 32 million (2017: EUR 169 million gain) and DPAC offset.

Guarantee reserves increased by EUR 1,081 million in 2018 (2017: decrease of EUR 1,121 million) to EUR 7,708 million (2017: EUR 6,627 million).

39 Borrowings

	2018	2017
Capital funding	1,774	2,280
Operational funding	10,287	11,355
At December 31	**12,061**	**13,635**
Current	1,379	1,692
Non-current	10,682	11,943
Fair value of borrowings	12,421	14,035

Aegon s borrowings are defined separately as capital funding and operational funding. Capital funding includes debt securities that are issued for general corporate purposes and for capitalizing its business units. Capital funding is part of the Company s total capitalization that is used for financing its subsidiaries and the cash held at the holding company. Operational funding includes debt securities that are issued for financing of dedicated pools of assets. These assets are either legally segregated or tracked as separate portfolios.

Capital funding

During 2018, capital funding decreased by EUR 0.5 billion related to the repayment of EUR 500 million senior unsecured notes with a coupon rate of 0%.

A detailed composition of capital funding is included in the following table:

(sorted at maturity)	Coupon rate	Coupon date	Issue/ Maturity	2018	2017
EUR 500 million Unsecured Notes	0%	August 30	2017/18	-	500

EUR 75 million Medium-Term Notes [1]	4.625%	December 9	2004/19	78	82
USD 500 million Senior Notes [1, 2]	5.75%	Semi-annually	2005/20	457	455
EUR 500 million Senior Unsecured Notes	1.00%	December 8	2016/23	496	495
GBP 250 million Medium-Term Notes	6.125%	December 15	1999/31	277	279
GBP 400 million Senior Unsecured Notes	6.625%	Semi-annually	2009/39	440	445
Other				26	24
At December 31				**1,774**	**2,280**

1 Measured at fair value.

2 Issued by subsidiaries of, and guaranteed by, Aegon N.V.

These loans are considered senior debt in calculating financial leverage in note 46 Capital management and solvency.

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Operational funding

During 2018, the operational funding decreased by EUR 1.1 billion mainly due to the redemption of SAECURE 13 of EUR 0.7 billion, paydown of FHLB advances of EUR 0.7 billion and a decrease in other mortgage funding of EUR 0.5 billion. This was partly offset by a transaction under the Dutch SAECURE program (SAECURE 16) to sell Class A mortgage backed securities (RMBS). SAECURE 16 consists of EUR 875 million of class A notes with an expected weighted average life of 4.1 years and a coupon of 3 month Euribor plus 40bps.

During 2017, the operational funding increased EUR 0.6 billion due to new FHLB advances of EUR 1.3 billion and two covered bond issuances in the Netherlands of EUR 0.5 billion in June and November 2017. This was partly offset by the redemption of SAECURE 12 in the Netherlands of EUR 1.0 billion and the redemption of operational funding of EUR 0.4 billion supporting a captive insurance company, which was dissolved following the divestment of a block of life reinsurance business in the Americas. Next to this there was a decrease of EUR 0.5 billion as result of foreign exchange impacts on the US dollar positions as a result of the strengthening of the euro.

	Coupon rate	Coupon date	Issue/ Maturity	2018	2017
Revolving Loan Facility Warehouse Mortgage Loans [1]	Floating	Monthly	- /2018-20	375	729
EUR 1,123 million SAECURE 13 RMBS Note [2]	Floating	Quarterly	2013/18	-	750
EUR 1,367 million SAECURE 14 RMBS Note [3]	Floating	Quarterly	2014/19	874	994
EUR 1,443 million SAECURE 15 RMBS Note [4]	Floating	Quarterly	2014/20	1,038	1,164
EUR 875 million SAECURE 16 RMBS Note [5]	Floating	Quarterly	2018/23	875	-
EUR 750 million Conditional Pass-Through Covered Bond [1, 6]	0.267%	Annual	2015/20	748	747
EUR 500 million Conditional Pass-Through Covered Bond [1, 7]	0.250%	Annual	2016/23	497	496
EUR 500 million Conditional Pass-Through Covered Bond [1, 8]	0.750%	Annual	2017/27	488	486
EUR 500 million Conditional Pass-Through Covered Bond [1, 9]	0.375%	Annual	2017/24	497	497
USD 1.54 billion Variable Funding Surplus Note [10, 11]	Floating	Quarterly	2006/36	1,388	1,322
FHLB Secured borrowings [1]	Floating	Quarterly	2016/46	3,495	4,160
Other				12	10
At December 31				**10,287**	**11,355**

1 Issued by a subsidiary of Aegon N.V.

2 The Notes were called for redemption on the first optional redemption date (February 28, 2018)

3 The first optional redemption date is January 30, 2019; the final maturity date is January 30, 2092. Notes are fully collateralized by mortgage loans which are part of Aegon s general account investments.

4

The first optional redemption date is January 30, 2020; the final maturity date is January 30, 2092. Notes are fully collateralized by mortgage loans which are part of Aegon s general account investments.

5 The first optional redemption date is October 30, 2023; the final legal maturity date is October 30, 2091. Notes are fully collateralized by mortgage loans which are part of Aegon s general account investments.

6 The maturity date is December 1, 2020; the extended due for payment date is December 1, 2052.

7 The maturity date is May 25, 2023; the extended due for payment date is May 25, 2055.

8 The maturity date is June 27, 2027; the extended due for payment date is June 27, 2059.

9 The maturity date is November 21, 2024; the extended due for payment date is November 21, 2056.

10 Outstanding amounts can vary up to the maximum stated nominal amount.

11 This debenture is issued by a wholly owned captive that is consolidated in the Aegon N.V. consolidated financial statements. A guarantee has been provided by Aegon N.V. refer to note 48 Commitments and contingencies.

Other

Included in borrowings is EUR 536 million relating to borrowings measured at fair value (2017: EUR 536 million). For the year 2018, Aegon s credit spread had a positive impact of EUR 1 million on income before tax (2017: negative impact of EUR 15 million) and a negative impact of EUR 3 million on shareholders equity (2017: negative impact of EUR 10 million). The cumulative negative impact of Aegon s credit spread for borrowings in portfolio at year-end, based on observable market data, on income before tax amounted to EUR 26 million (2017: EUR 27 million).

The difference between the contractually required payment at maturity date and the carrying amount of the borrowings amounted to EUR (8) million (2017: EUR 9 million).

Undrawn committed borrowing facilities:	**2018**	2017
Floating-rate		
- Expiring within one year	260	197
- Expiring beyond one year	3,420	3,170
At December 31	**3,680**	**3,367**

There were no defaults or breaches of conditions during the period.

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40 Provisions

	2018	2017
At January 1	210	173
Additional provisions	231	107
Disposals	(94)	(72)
Unused amounts reversed through the income statement	(1)	-
Used during the year	(34)	12
Net exchange differences	8	(9)
At December 31	**320**	**210**
Current	275	151
Non-current	45	60

The provisions as at December 31, 2018 mainly consist of litigation provisions of EUR 198 million (2017: EUR 92 million) mainly related to a settlement in the US relating to increases in monthly deduction rates on universal life products, refer to note 48 Commitments and contingencies, restructuring provisions of EUR 30 million (2017: EUR 27 million), provisions regarding fees payable upon purchase and surrender of unit-linked policies in the Polish Life Insurance portfolio of EUR 17 million (2017: EUR 20 million) and other provisions of EUR 76 million (2017: EUR 71 million) including the remaining provision related to the harbor workers former pension fund Optas.

41 Defined benefit plans

	2018	2017
Retirement benefit plans	3,714	3,657
Other post-employment benefit plans	275	293
Total defined benefit plans	**3,989**	**3,950**
Retirement benefit plans in surplus	-	55
Other post-employment benefit plans in surplus	-	-
Total defined benefit assets	**-**	**55**
Retirement benefit plans in deficit	3,714	3,712
Other post-employment benefit plans in deficit	275	293
Total defined benefit liabilities	**3,989**	**4,005**

	2018			2017		
Movements during the year in defined benefit plans	Retirement benefit plans	Other post-employment benefit plans	**Total**	Retirement benefit plans	Other post-employment benefit plans	Total

At January 1	3,657	293	3,950	4,453	314	4,767
Defined benefit expenses	192	13	206	242	19	262
Remeasurements of defined benefit plans	157	(23)	134	(233)	10	(224)
Contributions paid	(234)	-	(234)	(163)	-	(163)
Benefits paid	(99)	(19)	(118)	(108)	(19)	(128)
Net exchange differences	37	11	47	(133)	(31)	(164)
Other	5	-	5	(400)	-	(400)
At December 31	**3,714**	**275**	**3,989**	**3,657**	**293**	**3,950**

Other in 2017 reflects the reclassification of the pension contract relating to the personnel of Unirobe Meeùs Groep (UMG) from defined benefit plans to insurance contracts for account of policyholders following the sale of UMG in November 2017.

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The amounts recognized in the statement of financial position are determined as follows:

	2018			2017		
	Retirement benefit plans	Other post-employment benefit plans	**Total**	Retirement benefit plans	Other post-employment benefit plans	Total
Present value of wholly or partly funded obligations	4,027	-	4,027	4,389	-	4,389
Fair value of plan assets	(3,525)	-	(3,525)	(3,622)	-	(3,622)
	502	**-**	**502**	**767**	**-**	**767**
Present value of wholly unfunded obligations [1]	3,212	275	3,487	2,890	293	3,183
At December 31	**3,714**	**275**	**3,989**	**3,657**	**293**	**3,950**

[1] As all pension obligations are insured at subsidiary Aegon Levensverzekering almost all assets held by Aegon Nederland backing retirement benefits of EUR 2,568 million (2017: EUR 2,457 million) do not meet the definition of plan assets and as such were not deducted in calculating this amount. Instead, these assets are recognized as general account assets. Consequently, the return on these assets does not form part of the calculation of defined benefit expenses.

The fair value of Aegon s own transferable financial instruments included in plan assets and the fair value of other assets used by Aegon included in plan assets was nil in both 2018 and 2017.

	2018			2017		
Defined benefit expenses	Retirement benefit plans	Other post-employment benefit plans	**Total**	Retirement benefit plans	Other post-employment benefit plans	Total
Current year service cost	121	10	131	148	11	158
Net interest on the net defined benefit liability (asset)	87	8	96	99	10	109
Past service cost	(16)	(5)	(21)	(5)	(1)	(6)
Total defined benefit expenses	**192**	**13**	**206**	**242**	**19**	**262**

	2016		
	Retirement benefit plans	Other post-employment benefit plans	Total
Current year service cost	127	13	140
Net interest on the net defined benefit liability (asset)	123	11	134

Past service cost	53	(2)	50
Total defined benefit expenses	**302**	**22**	**324**

Defined benefit expenses are included in Commissions and expenses in the income statement.

Movements during the year of the present value of the defined benefit obligations	**2018**	**2017**
At January 1	7,572	8,560
Acquisition of subsidiary	-	-
Current year service cost	131	158
Interest expense	213	230
Remeasurements of the defined benefit obligations:		
- Actuarial gains and losses arising from changes in demographic assumptions	(28)	30
- Actuarial gains and losses arising from changes in financial assumptions	(102)	29
Past service cost	(21)	(6)
Contributions by plan participants	11	12
Benefits paid	(409)	(523)
Net exchange differences	144	(519)
Other	5	(400)
At December 31	**7,514**	**7,572**

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Movements during the year in plan assets for retirement benefit plans	**2018**	2017
At January 1	3,622	3,793
Interest income (based on discount rate)	117	121
Remeasurements of the net defined liability (asset)	(264)	283
Contributions by employer	245	175
Benefits paid	(291)	(396)
Net exchange differences	96	(355)
At December 31	**3,525**	**3,622**

	2018				2017			
Breakdown of plan assets for retirement benefit plans	Quoted	Unquoted	**Total**	**in % of total plan assets**	Quoted	Unquoted	Total	in % of total plan assets
Equity instruments	106	5	111	3%	127	4	131	4%
Debt instrument	369	343	712	20%	397	411	809	22%
Real estate	-	111	111	3%				
Derivatives	-	149	149	4%	-	254	254	7%
Investment funds	11	1,945	1,956	55%	5	2,027	2,032	56%
Structured securities	-	-	-	0%	-	-	-	0%
Other	14	471	484	14%	25	372	397	11%
At December 31	**500**	**3,025**	**3,525**	**100%**	**554**	**3,068**	**3,622**	**100%**

Defined benefit plans are mainly operated by Aegon USA, Aegon the Netherlands and Aegon UK. The following sections contain a general description of the plans in each of these subsidiaries and a summary of the principal actuarial assumptions applied in determining the value of defined benefit plans.

Aegon USA

Aegon USA has defined benefit plans covering substantially all its employees that are qualified under the Internal Revenue Service Code, including all requirements for minimum funding levels. The defined benefit plans are governed by the Board of Managers of Transamerica Corporation. The Board of Managers has the full power and discretion to administer the plan and to apply all of its provisions, including such responsibilities as, but not limited to, developing the investment policy and managing assets for the plan, maintaining required funding levels for the plan, deciding questions related to eligibility and benefit amounts, resolving disputes that may arise from plan participants and for complying with the plan provisions, and legal requirements related to the plan and its operation. The benefits are based on years of service and the employee s eligible annual compensation. The plans provide benefits based on a traditional final average formula or a cash balance formula (which defines the accrued benefit in terms of a stated account balance), depending on the age and service of the plan participant. The defined benefit plans have a deficit of EUR 450 million at December 31, 2018 (2017: EUR 629 million deficit).

Investment strategies are established based on asset and liability studies by actuaries which are updated as they consider appropriate. These studies, along with the investment policy, assist to develop the appropriate investment

criteria for the plan, including asset allocation mix, return objectives, investment risk and time horizon, benchmarks and performance standards, and restrictions and prohibitions. The overall goal is to maximize total investment returns to provide sufficient funding for the present and anticipated future benefit obligations within the constraints of a prudent level of portfolio risk and diversification. Aegon believes that the asset allocation is an important factor in determining the long-term performance of the plan. The plan uses multiple asset classes as well as sub-classes to meet the asset allocation and other requirements of the investment policy, which minimizes investment risk. From time to time the actual asset allocation may deviate from the desired asset allocation ranges due to different market performance among the various asset categories. If it is determined that rebalancing is required, future additions and withdrawals will be used to bring the allocation to the desired level.

Aegon USA maintains minimum required funding levels as set forth by the Internal Revenue Code. If contributions are required, the funding would be provided from the Company s general account assets. Pension plan contributions were not required for Aegon USA in 2018 or 2017. However, with the Aegon N.V. Management Board approval of a proposal from Transamerica Corporation, Transamerica Corporation made a pension plan contribution of EUR 190 million in September 2018 (EUR 89 million in September 2017) that was over and above the minimum required funding levels as set forth by the Internal Revenue Code.

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Aegon USA also sponsors supplemental retirement plans to provide senior management with benefits in excess of normal retirement benefits. The plans are unfunded and are not qualified under the Internal Revenue Code. The supplemental retirement plans are governed by either Transamerica Corporation, or the Compensation Committee of the Board of Directors of Transamerica Corporation. Transamerica Corporation, or the Compensation Committee of the Board of Directors has the full power and discretion to apply all of the plan s provisions, including such responsibilities as, but not limited to, interpret the plan provisions, to make factual determinations under the plan, to determine plan benefits, and to comply with any statutory reporting and disclosure requirements. The benefits are based on years of service and the employee s eligible annual compensation. The plans provide benefits based on a traditional final average formula or a cash balance formula (which defines the accrued benefit in terms of a stated account balance), depending on the age and service of the plan participant. The company funds the benefit payments of the supplemental retirement plans from its general account assets. The unfunded amount related to these plans, for which a liability has been recorded, was EUR 241 million (2017: EUR 257 million unfunded).

Aegon USA provides health care benefits to retired employees through continuation of coverage in self funded plans, which are classified as unfunded per IAS 19 financial guidance. The postretirement health care benefits under the Plans are administered by Transamerica Corporation, which has delegated the claims administration to third-party administrators. Aegon USA maintains two plans which provide continuation of coverage for retiree medical benefits. For each plan, Aegon USA has the fiduciary responsibility to administer the plan in accordance with its terms, and decides questions related to eligibility and determines plan provisions and benefit amounts.

Under the Employee Retirement Income Security Act (ERISA), Aegon USA has the fiduciary responsibility to monitor the quality of services provided by the third-party claims administrator and to replace the third-party administrator if needed. In addition, Aegon USA has the fiduciary obligation to interpret the provisions of the plans, and to comply with any statutory reporting and disclosure requirements. Finally, Aegon USA reviews the terms of the plans and makes changes to the plans if and when appropriate. Aegon USA funds the benefit payments of the post-retirement health care plans from its general account assets. The post-retirement health benefit liability amounted to EUR 210 million (2017: EUR 227 million).

The weighted average duration of the defined benefit obligation is 12.2 years (2017: 13.2 years).

The principal actuarial assumptions that apply for the year ended December 31 are as follows:

Actuarial assumptions used to determine defined benefit obligations at year-end	**2018**	2017
Demographic actuarial assumptions		
Mortality	US mortality table[1]	US mortality table[2]
Financial actuarial assumptions		
Discount rate[3]	4.22%/4.05%	3.55%
Salary increase rate	3.85%	3.85%
Health care trend rate	7.00%	7.40%

[1] U.S. Society of Actuaries RP2014 mortality table with Scale MP2018.
[2] U.S. Society of Actuaries RP2014 mortality table with Scale MP2017.
[3] Aegon USA has separate discount rates beginning with 2018 4.22% for all pension plans and 4.05% for post retirement welfare plan.

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The principal actuarial assumptions have an effect on the amounts reported for the defined benefit obligation. A change as indicated in the table below in the principal actuarial assumptions would have the following effects on the defined benefit obligation per year-end:

	Estimated approximate effects on the defined benefit obligation	
	2018	2017
Demographic actuarial assumptions		
10% increase in mortality rates	(70)	(76)
10% decrease in mortality rates	77	83
Financial actuarial assumptions		
100 basis points increase in discount rate	(351)	(402)
100 basis points decrease in discount rate	430	498
100 basis points increase in salary increase rate	29	38
100 basis points decrease in salary increase rate	(26)	(33)
100 basis points increase in health care trend rate	12	15
100 basis points decrease in health care trend rate	(11)	(13)

The above sensitivity analysis is based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as when calculating the pension liability recognized within the statement of financial position.

	Target allocation of plan assets for retirement benefit plans for the next annual period is:
Equity instruments	19-28%
Debt instruments	47-58%
Other	20-28%

Aegon the Netherlands

Aegon the Nederlands has a number of defined benefit plans and a small number of defined contribution plans. The defined benefit plans are subject to Dutch Pension regulations and governed by the Board of Directors of Aegon the Netherlands. The Board of Directors has the full power and discretion to administer the plan including developing investment policy and managing assets for the plans (although these assets do not qualify as plan assets as defined by IFRS), deciding questions related to eligibility and benefit amounts, and any disputes that may arise from plan participants and for complying with the plan provisions, and legal requirements related to the plan and its operation. Aegon the Netherlands runs, in principle, full actuarial and investment risk regarding the defined benefit plans. This

includes the risks of low interest rates, low returns and increased longevity. A part of this risk can be attributed to plan participants by lowering indexation or by increasing employee contributions.

Furthermore, the specific statutory requirements governing the administration of group pension schemes have been laid down in the Pension Act (Pensioenwet/Pw). Insurers are subject to prudential supervision pursuant to the Financial Supervision Act (Wet op het financieel toezicht/Wft).

Investment strategies are established based on asset and liability studies. The overall goal is to maximize total investment returns to provide sufficient funding for the present and anticipated future benefit obligations within the constraints of a prudent level of portfolio risk. These studies use for example return objectives and various investment instruments. Investment restrictions are updated regularly and they result in asset allocation mix and hedges.

The contributions to the retirement benefit plan of Aegon the Netherlands are paid by both the employees and the employer, with the employer contribution being variable[1]. The benefits covered are retirement benefits, disability, death and survivor pension and are based on an average wage system. The defined benefit plans were unfunded by EUR 2,967 million at December 31, 2018. (2017:

[1] Aegon Nederland deducts employee contributions from the total pension expenses.

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EUR 2,628 million). The defined benefit plans are largely backed by investment, although these assets do not qualify as plan assets as defined by IFRS. The average remaining duration of the defined benefits obligation is 20.9 years (2017: 19.6 years).

Aegon the Netherlands also has a post-retirement medical plan that contributes to the health care coverage of employees and beneficiaries after retirement. For this plan, Aegon the Nederlands has the responsibility to administer the plan in accordance with its terms, and decides on questions related to eligibility and determines plan provisions and benefit amounts. In addition, Aegon the Nederlands has the obligation to interpret the provisions of the plans, and to comply with any statutory reporting and disclosure requirements. Finally, Aegon the Nederlands reviews the terms of the plans and makes changes to the plans if and when appropriate. The liabilities related to these other post-employment benefit plans are fully unfunded and amount to EUR 65 million at December 31, 2018 (2017: EUR 65 million). The weighted average duration of the other post-employment benefit plans is 11.7 years (2017: 11.9 years).

Plan amendments

As per December 31, 2017 Aegon the Nederlands has accounted for a plan amendment as from January 1, 2018 which concerns the increase of its retirement age of its pension plan from 67 to 68 years. There were no plan amendments during 2018.

The principal actuarial assumptions that apply for the year-ended December 31 are as follows:

Actuarial assumptions used to determine defined benefit obligations at year-end	**2018**	2017
Demographic actuarial assumptions		
Mortality	NL mortality table [1]	NL mortality table [1]
Financial actuarial assumptions		
Discount rate	1.74%	2.09%
Salary increase rate [2]	Curve 2018	Curve 2017
Indexation [3]	57.75% of Curve 2018	44.10% of Curve 2017

[1] Based on prospective mortality table of the Dutch Actuarial Society with minor methodology adjustments.
[2] Based on Dutch Consumer Price Index.
[3] Based on Dutch Consumer Price Index.

The principal actuarial assumptions have an effect on the amounts reported for the defined benefit obligation. A change as indicated in the table below in the principal actuarial assumptions of the retirement benefit plan would have the following effects per year-end:

	Estimated approximate effects on the defined benefit obligation	
	2018	2017
Demographic actuarial assumptions		
10% increase in mortality rates	(81)	(69)
10% decrease in mortality rates	90	77
Financial actuarial assumptions		
100 basis points increase in discount rate	(534)	(447)
100 basis points decrease in discount rate	733	605
100 basis points increase in salary increase rate	18	4
100 basis points decrease in salary increase rate	(18)	(4)
25 basis points increase in indexation	167	140
25 basis points decrease in indexation	(152)	(128)

The above sensitivity analysis is based on a change in one assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as when calculating the defined benefit obligation recognized within the statement of financial position.

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Aegon UK

Aegon UK operated a defined benefit pension scheme providing benefits for staff based on final pensionable salary and years of service. The scheme closed to new entrants a number of years ago and closed to future accrual on March 31, 2013. Aegon UK now offers a defined contribution pension scheme to all employees.

The pension scheme is administered separately from Aegon UK and is governed by Trustees, who are required to act in the best interests of the pension scheme members.

The pension scheme Trustees are required to carry out triennial valuations on the scheme s funding position, with the latest valuation being as at March 31, 2016. As part of this triennial valuation process, a schedule of contributions is agreed between the Trustees and Aegon UK in accordance with UK pensions legislation and guidance issued by the Pensions Regulator in the UK. The schedule of contributions includes deficit reduction contributions to clear any scheme deficit. Under IAS 19, the defined benefit plan has a deficit of EUR 51 million at December 31, 2018 (2017: EUR 137 million deficit). During 2018 EUR 55 million (2017: EUR 87 million) of contributions were paid into the scheme. The 2017 contributions included a one off payment of EUR 34 million in addition to the schedule of contributions.

The investment strategy for the scheme is determined by the trustees in consultation with Aegon UK. Currently 30% of assets are invested in growth assets (i.e. primarily equities) and 70% are liability driven investments where the investments are a portfolio of fixed interest and inflation-linked bonds and related derivatives, selected to broadly match the interest rate and inflation profile of liabilities.

Under the scheme rules, pensions in payment increase in line with the UK Retail Price Index, and deferred benefits increase in line with the UK Consumer Price Index. The pension scheme is therefore exposed to UK inflation changes as well as interest rate risks, investment returns and changes in the life expectancy of pensioners.

The weighted average duration of the defined benefit obligation is 21.6 years (2017: 23.1 years).

The principal actuarial assumptions that apply for the year ended December 31 are as follows:

Actuarial assumptions used to determine defined benefit obligations at year-end	**2018**	2017
Demographic actuarial assumptions		
Mortality	UK mortality table [1]	UK mortality table [2]
Financial actuarial assumptions		
Discount rate	2.94%	2.56%
Price inflation	3.32%	3.29%

[1] Club Vita tables based on analysis of Scheme membership CMI 2017 1.5%/1.25% p.a. (males/females)
[2] Club Vita tables based on analysis of Scheme membership CMI 2014 1.5%/1.25% p.a. (males/females)

The principal actuarial assumptions have an effect on the amounts reported for the defined benefit obligation. A change as indicated in the table below in the principal actuarial assumptions would have the following effects on the defined benefit obligation per year-end:

	Estimated approximate effects on the defined benefit obligation	
	2018	2017
Demographic actuarial assumptions		
10% increase in mortality rates	(34)	(44)
10% decrease in mortality rates	38	50
Financial actuarial assumptions		
100 basis points increase in discount rate	(235)	(299)
100 basis points decrease in discount rate	313	412
100 basis points increase in price inflation	119	169
100 basis points decrease in price inflation	(192)	(248)

The above sensitivity analysis is based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined

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benefit obligation to significant actuarial assumptions the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as when calculating the pension liability recognized within the statement of financial position.

	Target allocation of plan assets for retirement benefit plans for the next annual period is:
Equity instruments	33%
Debt instruments	68%

All other operating segments

Businesses included in all other operating segments mostly operate defined contribution plans. Please refer to note 14 Commissions and expenses for the employee expenses regarding these contribution plans.

42 Deferred gains

	2018	2017
At January 1	13	64
Income deferred	-	1
Disposals	-	-
Release to income statement	(1)	(5)
Net exchange differences	-	(2)
Transfers to disposal groups	-	(45)
At December 31	**12**	**13**

Transfers to disposal groups relates to the Aegon Ireland plc. business which is classified as held for sale per year-end 2017 and as a result the deferred gains are no longer included in the 2017 ending balance.

43 Deferred tax

	2018	2017
Deferred tax assets	125	79
Deferred tax liabilities	537	1,029
Total net deferred tax liability/(asset)	**412**	**950**

Deferred tax assets comprise temporary differences on:	2018	2017
Financial assets	(7)	(20)
Insurance and investment contracts	-	(19)
Deferred expenses, VOBA and other intangible assets	(125)	(140)
Defined benefit plans	12	26
Losses	167	176
Other	79	57
At December 31	**125**	**79**

Deferred tax liabilities comprise temporary differences on:	2018	2017
Real estate	520	554
Financial assets	815	1,724
Insurance and investment contracts	(1,433)	(1,806)
Deferred expenses, VOBA and other intangible assets	1,788	1,752
Defined benefit plans	(257)	(268)
Losses	(147)	(120)
Other	(748)	(807)
At December 31	**537**	**1,029**

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The following table provides a movement schedule of net deferred tax broken-down by those items for which a deferred tax asset or liability has been recognized.

	Real estate	Financial assets	Insurance and investment contracts	Deferred expenses, VOBA and other intangible assets	Defined benefit plans	Losses	Other	Total
At January 1, 2018	554	1,744	(1,787)	1,892	(295)	(296)	(863)	950
Acquisitions/Additions	-	-	-	9	-	-	-	9
Charged to income statement	(31)	(451)	401	(63)	23	(1)	143	22
Charged to equity	(7)	(513)	2	-	17	(2)	12	(493)
Net exchange differences	4	46	(51)	82	(14)	(4)	(38)	25
Disposal of a business	-	-	-	-	-	-	-	-
Transfers to disposal groups	-	-	-	-	-	-	-	-
Transfer to current income tax	-	-	-	-	-	-	-	-
Transfer to/from other headings	-	(3)	-	(6)	-	-	9	-
Other	-	-	-	-	-	(11)	(90)	(101)
At December 31, 2018	**519**	**822**	**(1,434)**	**1,914**	**(269)**	**(314)**	**(827)**	**412**
At January 1, 2017	541	3,165	(2,988)	3,298	(645)	(407)	(850)	2,113
Acquisitions/Additions	-	-	-	9	-	(1)	(14)	(6)
Charged to income statement	37	32	609	(1,016)	120	78	(62)	(202)
Charged to equity	(9)	(874)	-	-	174	-	(5)	(715)
Net exchange differences	(16)	(270)	241	(322)	57	27	111	(172)
Disposal of a business	-	-	-	2	-	-	-	2
Transfers to disposal groups	-	-	-	-	-	8	-	8
Transfer to current income tax	-	-	-	-	-	-	(73)	(73)
Transfer to/from other headings	-	(300)	351	(79)	-	-	27	-
Other	-	(9)	-	-	-	-	2	(7)
At December 31, 2017	**554**	**1,744**	**(1,787)**	**1,892**	**(295)**	**(296)**	**(863)**	**950**

In 2018, the decrease of deferred tax liability primarily related to a decrease of unrealised profits in respect of financial assets mainly driven by an increase of interest rates and widening credit spread.

The movement in other of EUR 90 million is caused by the redemption of the non-cumulative subordinated note. Refer to note 33 Other equity instruments and note 34 Subordinated borrowings .

The decrease of the United States corporate income tax rate from 35% to 21% as from January 1, 2018 with an impact of total EUR 1,034 million, EUR 554 million through profit and loss and EUR 479 million through other comprehensive income (refer to note 18) is the main cause for the total decrease in the deferred tax liability in 2017 of EUR 1,197 million.

The transfer to current income tax in 2017 relates to transfers from deferred to current tax, in relation to own equity instruments.

Transfer to/from other headings includes transfers between two reporting segments.

Deferred corporate income tax assets are recognized for tax losses carried forward to the extent that the realization of the related tax benefit through future taxable profits is probable. For an amount of gross EUR 26 million; tax EUR 6 million (2017: gross EUR 85 million; tax EUR 15 million) the realization of the deferred tax asset is dependent on the projection of future taxable profits from existing business in excess of the profits arising from the reversal of existing taxable temporary differences.

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For the following amounts, arranged by loss carry forward periods, the deferred corporate income tax asset is not recognized:

	Gross amounts[1]		Not recognized deferred tax assets	
	2018	2017	**2018**	2017
< 5 years	65	89	15	22
³ 5 10 years	21	137	5	18
³ 10 15 years	20	-	36	25
³ 15 20 years	-	-	-	-
Indefinitely	385	499	86	111
At December 31	**490**	**725**	**142**	**177**

[1] The gross value of state tax loss carry forward is not summarized in the disclosure, due to the fact that the United States files in different state jurisdictions with various applicable tax rates and apportionment rules

Deferred corporate income tax assets in respect of deductible temporary differences are recognized to the extent that the realization of the related tax benefit through future taxable profits is probable. For an amount of gross EUR 162 million; tax EUR 29 million (2017: gross EUR 261 million; tax EUR 46 million) relating to Defined benefit plans and Other items the recognition of the deferred corporate income tax asset is dependent on future taxable profits in excess of the profits arising from the reversal of existing taxable temporary differences.

Aegon did not recognize deferred corporate income tax assets in respect of deductible temporary differences relating to Financial assets and Other items for the amount of gross EUR 40 million; tax EUR 8 million (2017: gross EUR 43 million; tax EUR 8 million).

Deferred corporate income tax liabilities have not been recognized for withholding tax and other taxes that would be payable on the unremitted earnings of certain subsidiaries. The unremitted earnings totaled gross EUR 1,770 million; tax EUR 361 million (2017: gross EUR 1,771 million; tax EUR 441 million).

All deferred corporate income taxes are non-current by nature.

44 Other liabilities

	2018	2017
Payables due to policyholders	1,172	1,184
Payables due to brokers and agents	373	385
Payables out of reinsurance	1,327	3,010
Social security and taxes payable	108	125

Income tax payable	2	-
Investment creditors	1,195	1,228
Cash collateral on derivative transactions	3,396	2,335
Cash collateral on securities lended	2,480	3,277
Cash collateral other	49	43
Repurchase agreements	322	1,373
Commercial paper	82	72
Bank overdrafts	-	2
Other creditors	2,947	2,174
At December 31	**13,454**	**15,208**
Current	13,309	14,992
Non-current	146	216

The carrying amounts disclosed reasonably approximate the fair values at year-end, given the predominantly current nature of the other liabilities.

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45 Accruals

	2018	2017
Accrued interest	237	183
Accrued expenses	151	147
At December 31	**388**	**329**

The carrying amounts disclosed reasonably approximate the fair values as at the year-end.

46 Capital management and solvency

Strategic importance

Aegon s approach towards capital management plays a vital role in supporting the execution of its strategy. The key capital management priority is to ensure adequate capitalization to cover Aegon s obligations towards its policyholders and debtholders while providing sustainable dividends to shareholders. This priority is accomplished by allocating capital to products that offer high growth and return prospects. Furthermore, a priority for capital management for several years has been to shift the product portfolio from focusing mostly on capital intensive spread business to diversifying the portfolio to include more capital light fee business.

Management of capital

Disciplined risk and capital management support Aegon s decisions in deploying the capital that is generated in the Company s businesses and that is provided for by investors. Aegon balances the funding of new business growth with the funding required to ensure that its obligations towards policyholders and debtholders are always adequately met, and providing for a sustainable dividend to shareholders.

Aegon s goal for both its operating units and for the Aegon group as a whole is to maintain a strong financial position and to be able to sustain losses from extreme business and market conditions. The company s overall capital management strategy is based on adequate solvency capital, capital quality, and the use of leverage.

Aegon s ERM framework ensures that the Aegon Group and its operating companies are adequately capitalized and that obligations towards policyholders are always adequately met. Firmly embedded in this larger framework, Aegon s capital management framework builds on a set of key pillars: the use of internal target capital management zones, an internal target range for the use of gross financial leverage and, supported by robust risk and capital monitoring processes that timely trigger and escalate interventions if needed to ensure that capital is always being managed towards these internal target ranges, and is prevented from falling below the regulatory minimum capital requirements.

Capital adequacy

The capitalization of the Aegon Group and its operating units is managed in relation to the most stringent of local regulatory requirements, rating agency requirements and/or self-imposed criteria. Aegon manages its Solvency II capital in relation to the required capital. Under Aegon s capital management framework the own funds are managed such that the Group Solvency II ratio remains within the target range of 150% 200% even in an adverse event. The Solvency contribution of Aegon US insurance entities under Deducation & Aggregation (D&A) involves converting 150% Risk-Based Capital Company Action Level into Solvency Required Capital (SCR) and reducing own funds by a 100% RBC Company Action Level requirement to reflect transferability restrictions.

The methodology is subject to annual review.

Minimum solvency requirements

Insurance laws and regulations in local regulatory jurisdictions often contain minimum regulatory capital requirements. For insurance companies in the European Union, Solvency II formally defines a lower capital requirement, being the Minimum Capital Requirement (MCR). An irreparable breach of the MCR would lead to a withdrawal of the Company s insurance license. Similarly, for the US insurance entities the withdrawal of the insurance license is triggered by a breach of the 100% Authorized Control Level (ACL), which is set at 50% of the Company Action Level (CAL).

With the introduction of Solvency II for EEA countries, Aegon views the higher capital requirement, 100% of the SCR, as the level around which EU supervisors will formally require management to provide regulatory recovery plans. For the US insurance entities this is viewed at 100% Company Action Level (CAL).

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During 2018, the Aegon Group and all of its regulated entities that are subject to capital requirements on a solo-level continued to comply with the 100% Solvency II ratio. Aegon Group and all of its regulated entities are continued to be compliant with externally imposed legal capital requirements.

Capital quality

Aegon s capital consists of 3 Tiers as an indication of its quality, with Tier 1 capital ranking highest. It is to be noted that the Group own funds do not include any contingent liability potentially arising from unit-linked products sold, issued or advised on by Aegon in the Netherlands in the past as the potential liability cannot be reliably quantified at this point. Further, the available own funds is an estimate, has not been filed with the regulator and is subject to supervisory review.

The below table provides the composition of Aegon s available own funds across Tiers:

	December 31, 2018	December 31, 2017
Available own funds	Available own funds	Available own funds
Unrestricted Tier 1	12,204	10,428
Restricted Tier 1	3,406	3,540
Tier 2	1,487	1,213
Tier 3	505	448
Total available own funds	**17,602**	**15,628**

As at December 31, 2018, Tier 1 capital accounted for 89% of own funds (2017: 89%), including EUR 2,931 million of junior perpetual capital securities (2017: EUR 3,047 million) and EUR 476 million of perpetual cumulative subordinated bonds (2017: EUR 493 million) which are both classified as grandfathered restricted Tier 1 capital.

As at December 31, 2018, Tier 2 capital accounted for 8% of own funds (2017: 8%), including EUR 716 million of subordinated liabilities, which are issued during 2018 and classified as Solvency II compliant Tier 2 capital. EUR 771 million of fixed floating subordinated notes (2017: EUR 772 million) which are classified as grandfathered Tier 2 capital. Changes in Tier 2 capital compared to previous year is mainly related to the issuance of new capital instruments and the redemptions of existing grandfathered Tier 2 capital instruments (non-cumulative subordinated notes).

The grandfathered restricted Tier 1 and Tier 2 capital instruments are grandfathered such that they are considered as capital under the Solvency II framework for up to 10 years as from January 1, 2016. For the terms and conditions of these grandfathered instruments refer to note 33 and note 34 to the consolidated financial statements.

It is to be noted that the difference between the amounts mentioned above for junior perpetual capital securities and perpetual cumulative subordinated bonds, and those in note 33 and note 34 to the consolidated financial statements, stem from valuation differences between Solvency II (market value) and IFRS rules (refer to note 2.17 and 2.18).

Tier 3 capital as of December 31, 2018 is comprised of deferred tax assets balances related to Solvency II entities.

IFRS equity compares to Solvency II own funds as follows:

	December 31, 2018	December 31, 2017 [1]
Shareholders Equity	19,225	20,288
IFRS adjustments for Other Equity instruments and non controlling interests	3,342	3,813
Group Equity	22,567	24,102
Solvency II revaluations & reclassifications	(6,618)	(10,169)
Transferability restrictions [2]	(1,884)	(1,758)
Excess of Assets over Liabilities	**14,065**	**12,174**
Availability adjustments	4,326	4,147
Fungibility adjustments [3]	(789)	(693)
Available own funds	**17,602**	**15,628**

[1] The 2017 comparative numbers have been updated for a change of the presentation for the subordinated debt

[2] This includes the transferability restriction related to the RBC CAL conversion methodology.

[3] Amongst others, this contains the exclusion of Aegon Bank.

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The Solvency II revaluations and reclassification of EUR 6,618 million negative (2017: EUR 10,169 million negative) mainly stem from the difference in valuation and presentation between IFRS and Solvency II frameworks, and the redemption of non-cumulative subordinated notes. The change in Solvency II revaluations per December 31, 2018 compared to December 31, 2017 is mainly driven by rising interest rates and widening credit spreads during 2018, reducing the revaluation reserves in Aegon US. In addition, Aegon exercised its right to redeem the USD 525 million 8% non-cumulative subordinated notes. The Solvency II revaluations and reclassification can be grouped into three categories:

- Items that are not recognized under Solvency II. The most relevant examples of this category for Aegon include Goodwill, DPAC and other intangible assets (EUR 2,024 million negative, 2017: EUR 2,019 million negative);
- Items that have a different valuation treatment between IFRS and Solvency II. Solvency II is a market consistent framework hence all assets and liabilities are to be presented at fair value while IFRS also includes other valuation treatments in addition to fair value. The most relevant examples of this category for Aegon Group include Loans and Mortgages, Reinsurance Recoverables, Deferred tax assets balances and Technical provisions. The revaluation difference stemming from this category amounted to EUR 2,764 million positive (2017: EUR 2,879 million positive) compared to the IFRS Statement of Financial Position;
- The Net Asset Value of subsidiaries that are included under the Deduction & Aggregation method (on provisional equivalence or Standard Formula basis) in the Group Solvency II results. The revaluation difference stemming from this category amounted to EUR 4,095 million negative (2017: EUR 6,791 million negative) compared to the IFRS Statement of Financial Position;
- Reclassification of subordinated liabilities of EUR 3,262 million negative (2017: EUR 4,237 negative). In 2018, the accounting treatment of subordinated liabilities which were grandfathered by the Dutch Central Bank have changed on the Solvency II balance sheet. These subordinated liabilities include Junior Perpetual Capital Securities (JPCS), Perpetual capital subordinated loans (PCSL), and Fixed Floating Security Notes (FFSN). Under IFRS, JPCS and PCSL are presented as Shareholder s equity, FFSN is presented as liabilities. Previously, they were all reported as equity instruments under Solvency II. From 2018 these grandfathered instruments are reported as subordinated liabilities in the Solvency II balance sheet and no longer included in the excess of assets over liabilities. Availability adjustments have increased by the same amount as available own funds have not changed by this change in presentation. The movement of subordinated liabilities mainly stem from the redemption of non-cumulative subordinated notes

The transferability restrictions reflect the restrictions on US Life Companies DTA and capping of Tier 1 unrestricted own funds as a consequence of the RBC CAL conversion methodology as described above.

The availability adjustments are changes to the availability of own funds of Aegon Group in accordance with Solvency II requirements. Examples include the adjustments for subordinated liabilities, ring-fenced fund, treasury shares and foreseeable dividend.

Finally, the fungibility restrictions limit the availability of own funds on Aegon Group level as prescribed by Supervisory Authorities. These limitations refer to charitable trusts in the Americas for which the local Supervisory Authority could limit the upstream of capital to the Group and Aegon Bank which is under a different regulatory regime but under the same Supervisory Authority and therefore excluded for Solvency II purposes.

Capital leverage

Aegon s total capitalization reflects the capital employed in the business units and consists of shareholders capital and total gross financial leverage. Aegon s gross financial leverage ratio is calculated by dividing total financial leverage by total capitalization. Aegon aims to keep total gross financial leverage within a range of 26% to 30% of total capitalization as measured by the gross financial leverage ratio, and a fixed charge coverage in the range of 6-8x the interest payments on financial leverage.

Aegon defines total financial leverage as debt or debt-like funding issued for general corporate purposes and for capitalizing Aegon s business units. Total financial leverage includes hybrid instruments, in addition to both subordinated and senior debt. Aegon s total capitalization comprises the following components:

- Shareholders equity excluding revaluation reserves based on IFRS as adopted by the EU;
- Non-controlling interests and share options not yet exercised; and
- Total financial leverage.

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The following table shows the composition of Aegon s total capitalization, the calculation of the gross financial leverage ratio and its fixed charge coverage:

	Note	2018	2017
Total shareholders equity based on IFRS as adopted by the EU	32	19,543	20,573
Non-controlling interests, share options and incentive plans not yet exercised	33, SOFP [2]	80	81
Revaluation reserves	32	(3,461)	(4,920)
Adjusted shareholders equity		**16,162**	**15,733**
Junior perpetual capital securities	33	2,808	3,008
Perpetual cumulative subordinated bonds	33	454	454
Non-cumulative subordinated notes (Other equity instruments)	33	-	271
Fixed floating subordinated notes	34	1,389	695
Non-cumulative subordinated notes (Subordinated borrowings)	34	-	69
Trust pass-through securities	35	133	133
Currency revaluation other equity instruments [1]		110	40
Hybrid leverage		**4,895**	**4,669**
Senior debt [3]	39	1,774	2,312
Senior leverage		**1,774**	**2,312**
Total gross financial leverage		**6,669**	**6,982**
Total capitalization		**22,831**	**22,715**
Gross financial leverage ratio [4]		**29.2%**	**30.7%**
Fixed Charge Coverage		**8.2x**	**8.2x**

[1] Other equity instruments that are denominated in foreign currencies are, for purpose of calculating hybrid leverage, revalued to the period-end exchange rate.
[2] Non-controlling interests are disclosed in the statement of financial position.
[3] Senior debt for the gross financial leverage calculation also contains swaps for an amount of EUR (1) million (2017: EUR 31 million).
[4] To align closer to definitions used by peers and rating agencies, Aegon has retrospectively changed the definition of adjusted shareholders equity used in calculating the gross financial leverage ratio. Shareholders equity will no longer be adjusted for the remeasurement of defined benefit plans. All figures, including comparatives, are based on the new definition, unless stated otherwise.

Aegon N.V. is subject to financial covenants as included in a number of its financial agreements (such as issued debentures, credit facilities and ISDA agreements). Under these financial covenants, an event of default may occur if and when any financial indebtedness of any member of the Group is not paid when due, or not paid within any applicable grace period. The financial agreements may also include a cross-default provision which may be triggered if and when any financial indebtedness of any member of the Group is declared to be or otherwise becomes due and payable prior to its specified maturity as a result of an event of default.

All financial agreements are periodically monitored to assess the likelihood of a breach of any financial covenant and the likelihood thereof in the near future. No breach of any such covenant occurred during 2018.

Aegon N.V. is subject to legal restrictions with regard to the amount of dividends it can pay to its shareholders. Under Dutch law, the amount that is available to pay dividends consists of total shareholders equity less the issued and outstanding capital and the reserves required by law. The revaluation account and legal reserves, foreign currency translation reserve (FCTR) and other reserves, cannot be freely distributed. In case of negative balances for individual reserves legally to be retained, no distributions can be made out of retained earnings to the level of these negative amounts. Total distributable items under Dutch law amounted to EUR 13,307 million as at December 31, 2018 (2017: EUR 13,749 million). The following table shows the composition of the total distributable items:

Distributable items [1]	**2018**	**2017**
Equity attributable to shareholders based on IFRS as adopted by the EU	19,543	20,573
Non-distributable items:		
Share capital	(322)	(322)
Statutory reserves [2]	(5,915)	(6,502)
At December 31	**13,307**	**13,749**

[1] Distributable items under Dutch law; note that Solvency II ratios also possibly restricts the distribution of dividends.
[2] Statutory reserves contains legal reserves of both FCTR and group companies and the positive revaluations of the revaluation account.

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The ability of Aegon s subsidiaries, principally insurance companies, to pay dividends to the holding company is constrained by the requirement for these subsidiaries to remain adequately capitalized to the levels set by local insurance regulations and governed by local insurance supervisory authorities. Based on the capitalization level of the local subsidiary, local insurance supervisors are able to restrict and/or prohibit the transfer of dividends to the holding company. In addition, the ability of subsidiaries to pay dividends to the holding company can be constrained by the requirement for these subsidiaries to hold sufficient shareholders equity as determined by law. The capitalization level and shareholders equity of the subsidiaries can be impacted by various factors (e.g. general economic conditions, capital market risks, underwriting risk factors, changes in government regulations, and legal and arbitrational proceedings). To mitigate the impact of such factors on the ability to pay dividends, the subsidiaries hold additional capital in excess of the levels required by local insurance regulations, as reflected in Aegon s target capitalization ranges.

47 Fair value

The estimated fair values of Aegon s assets and liabilities correspond with the amounts that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When available, Aegon uses quoted market prices in active markets to determine the fair value of investments and derivatives. In the absence of an active market, the fair value of investments in financial assets is estimated by using other market observable data, such as corroborated external quotes and present value or other valuation techniques. An active market is one in which transactions are taking place regularly on an arm s length basis. Fair value is not determined based upon a forced liquidation or distressed sale.

Valuation techniques are used when Aegon determines the market is inactive or quoted market prices are not available for the asset or liability at the measurement date. However, the fair value measurement objective remains the same, that is, to estimate the price at which an orderly transaction to sell the asset or to transfer the liability would take place between market participants at the measurement date under current market conditions (i.e. an exit price at the measurement date from the perspective of a market participant that holds the asset or owes the liability). Therefore, unobservable inputs reflect Aegon s own assumptions about the assumptions that market participants would use in pricing the asset or liability (including assumptions about risk). These inputs are developed based on the best information available.

Aegon employs an oversight structure over valuation of financial instruments that includes appropriate segregation of duties. Senior management, independent of the investing functions, is responsible for the oversight of control and valuation policies and for reporting the results of these policies. For fair values determined by reference to external quotation or evidenced pricing parameters, independent price determination or validation is utilized to corroborate those inputs. Further details of the validation processes are set out below.

Valuation of assets and liabilities is based on a pricing hierarchy, in order to maintain a controlled process that will systematically promote the use of prices from sources in which Aegon has the most confidence, where the least amount of manual intervention exists and to embed consistency in the selection of price sources. Depending on asset type the pricing hierarchy consists of a waterfall that starts with making use of market prices from indices and follows with making use of third-party pricing services or brokers.

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Fair value hierarchy

The table below provides an analysis of assets and liabilities recorded at fair value on a recurring basis by level of the fair value hierarchy:

	Level I	Level II	Level III	Total 2018
Assets carried at fair value				
Available-for-sale				
Shares	82	155	241	478
Debt securities	24,652	51,446	1,242	77,340
Money market and other short-term instruments	1,427	4,528	-	5,955
Other investments at fair value	-	409	493	902
	26,160	**56,538**	**1,976**	**84,675**
Fair value through profit or loss				
Shares	217	239	1,226	1,682
Debt securities	1,868	2,028	17	3,913
Money market and other short-term instruments	17	335	-	352
Other investments at fair value	1	1,272	1,376	2,649
Investments for account of policyholders [1]	103,977	87,893	1,871	193,741
Derivatives	53	7,527	35	7,615
Investments in real estate	-	-	2,700	2,700
Investments in real estate for policyholders	-	-	612	612
	106,134	**99,295**	**7,837**	**213,266**
Revalued amounts				
Real estate held for own use	-	-	263	263
	-	**-**	**263**	**263**
Total assets at fair value	**132,294**	**155,833**	**10,077**	**298,204**
Liabilities carried at fair value				
Investment contracts for account of policyholders [2]	-	49,641	206	49,847
Borrowings [3]	-	536	-	536
Derivatives	93	4,648	2,489	7,230
Total liabilities at fair value	**93**	**54,824**	**2,695**	**57,613**

[1] The investments for account of policyholders included in the table above only include investments carried at fair value through profit or loss.
[2] The investment contracts for account of policyholders included in the table above represents only those investment contracts carried at fair value.
[3] Total borrowings on the statement of financial position contain borrowings carried at amortized cost that are not included in the above schedule.

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	Level I	Level II	Level III	Total 2017
Assets carried at fair value				
Available-for-sale				
Shares	51	151	288	490
Debt securities	26,338	52,415	1,447	80,200
Money market and other short-term instruments	1,664	5,026	-	6,690
Other investments at fair value	-	208	583	791
	28,053	**57,800**	**2,318**	**88,170**
Fair value through profit or loss				
Shares	226	232	604	1,062
Debt securities	1,964	2,175	4	4,144
Money market and other short-term instruments	17	102	-	119
Other investments at fair value	1	539	1,255	1,795
Investments for account of policyholders [1]	115,323	76,302	1,784	193,409
Derivatives	68	5,787	57	5,912
Investments in real estate	-	-	2,147	2,147
Investments in real estate for policyholders	-	-	655	655
	117,599	**85,137**	**6,506**	**209,241**
Revalued amounts				
Real estate held for own use	-	-	307	307
	-	**-**	**307**	**307**
Total assets at fair value	**145,652**	**142,937**	**9,130**	**297,718**
Liabilities carried at fair value				
Investment contracts for account of policyholders [2]	-	36,950	219	37,169
Borrowings [3]	-	536	-	536
Derivatives	34	5,251	1,845	7,130
Total liabilities at fair value	**34**	**42,738**	**2,064**	**44,835**

[1] The investments for account of policyholders included in the table above only include investments carried at fair value through profit or loss.

[2] The investment contracts for account of policyholders included in the table above represents only those investment contracts carried at fair value.

[3] Total borrowings on the statement of financial position contain borrowings carried at amortized cost that are not included in the above schedule.

Significant transfers between Level I, Level II and Level III

Aegon s policy is to record transfers of assets and liabilities between Level I, Level II and Level III at their fair values as of the beginning of each reporting period.

The table below shows transfers between Level I and Level II for financial assets and financial liabilities recorded at fair value on a recurring basis.

	Total 2018		Total 2017	
	Transfers Level I to Level II	Transfers Level II to Level I	Transfers Level I to Level II	Transfers Level II to Level I
Assets carried at fair value				
Available-for-sale				
Shares	-	-	1	1
Debt securities	-	-	12	-
Money markets and other short-term instruments	-	-	-	1,664
	-	**-**	**13**	**1,666**
Fair value through profit or loss				
Shares	3	1	124	19
Investments for account of policyholders	-	(4)	12	30
	3	**(3)**	**136**	**49**
Total assets at fair value	**3**	**(3)**	**149**	**1,714**
Investment contracts for account of policyholders	-	-	1	-
Total Liabilities carried at fair value	**-**	**-**	**1**	**-**

Transfers are identified based on transaction volume and frequency, which are indicative of an active market.

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Movements in Level III financial instruments measured at fair value

The following table summarizes the change of all assets and liabilities measured at estimated fair value on a recurring basis using significant unobservable inputs (Level III), including realized and unrealized gains (losses) of all assets and liabilities and unrealized gains (losses) of all assets and liabilities still held at the end of the respective period.

Assets carried at fair value															
Available-for-sale															
Shares	288	-	-	21	(12)	9	(77)	-	10	2	-	-	-	241	-
Debt securities	1,447	-	-	26	2	494	(76)	(452)	51	1	58	(310)	-	1,242	-
Other investments at fair value	583	-	-	(83)	(38)	125	(102)	(21)	25	3	-	-	-	493	-
	2,318	**-**	**-**	**(36)**	**(48)**	**629**	**(255)**	**(473)**	**87**	**6**	**58**	**(310)**	**-**	**1,976**	**-**
Fair value through profit or loss															
Shares	604	-	-	104	-	541	(61)	1	1	36	-	-	-	1,226	105
Debt securities	4	-	-	(25)	-	37	-	-	-	-	-	-	-	17	(24)
Other investments at fair value	1,255	-	-	11	-	332	(307)	-	64	-	94	(72)	-	1,376	3
Investments for account of policyholders	1,784	130	-	76	-	537	(660)	-	3	-	-	-	-	1,871	35
Derivatives	57	-	-	57	-	-	(80)	-	-	-	-	-	-	35	59
Investments in real estate	2,147	-	-	261	-	474	(209)	-	27	-	-	-	-	2,700	202
Investments in real estate for policyholders	655	-	-	5	-	2	(43)	-	(7)	-	-	-	-	612	4
	6,506	**130**	**-**	**490**	**-**	**1,924**	**(1,360)**	**-**	**90**	**36**	**94**	**(72)**	**-**	**7,837**	**383**
Revalued amounts															
Real estate held for own use	307	-	(1)	(19)	(39)	17	(10)	-	7	-	-	-	-	263	5
	307	**-**	**(1)**	**(19)**	**(39)**	**17**	**(10)**	**-**	**7**	**-**	**-**	**-**	**-**	**263**	**5**
	9,130	**130**	**(1)**	**435**	**(87)**	**2,570**	**(1,624)**	**(472)**	**185**	**42**	**151**	**(382)**	**-**	**10,077**	**388**

Total assets at fair value															
Liabilities carried at fair value															
Investment contracts for account of policyholders	219	-	-	(10)	-	7	(14)	-	4	-	-	-	-	206	-
Derivatives	1,845	-	-	613	-	-	-	-	31	-	-	-	-	2,489	613
	2,064	**-**	**-**	**604**	**-**	**7**	**(14)**	**-**	**35**	**-**	**-**	**-**	**-**	**2,695**	**614**

[1] Includes impairments and movements related to fair value hedges. Gains and losses are recorded in the line item Results from financial transactions of the income statement.
[2] Total gains and losses are recorded in line items: Gains/(losses) on revaluation of available-for-sale investments, (Gains)/losses transferred to the income statement on disposal and impairment of available-for-sale investments and Changes in revaluation reserve real estate held for own use of the statement of other comprehensive income.
[3] Total gains/(losses) for the period during which the financial instrument was in Level III.

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Assets carried at fair value													
Available-for-sale													
Shares	393	54	(46)	68	(112)	(35)	(34)	-	-	-	-	288	-
Debt securities	1,966	39	(2)	678	(149)	(890)	(186)	-	203	(211)	-	1,447	-
Other investments at fair value	754	(112)	(109)	194	(48)	(9)	(87)	-	1	-	-	583	-
	3,112	**(19)**	**(158)**	**939**	**(309)**	**(935)**	**(307)**	**-**	**205**	**(211)**	**-**	**2,318**	**-**
Fair value through profit or loss													
Shares	50	(11)	-	583	(18)	-	-	-	-	-	-	604	(11)
Debt securities	6	-	-	-	-	-	(1)	-	-	-	-	4	1
Other investments at fair value	1,257	23	-	378	(350)	-	(162)	-	341	(233)	-	1,255	20
Investments for account of policyholders	1,726	11	-	671	(622)	-	(27)	-	32	(8)	-	1,784	30
Derivatives	108	(33)	-	-	-	-	(2)	(16)	-	-	-	57	(21)
Investments in real estate	1,999	193	-	246	(202)	-	(89)	-	-	-	-	2,147	77
Investments in real estate for policyholders	686	38	-	10	(53)	-	(26)	-	-	-	-	655	38
	5,831	**220**	**-**	**1,889**	**(1,245)**	**-**	**(306)**	**(16)**	**374**	**(241)**	**-**	**6,506**	**134**
Revalued amounts													
Real estate held for own use	332	(2)	8	(3)	(4)	-	(24)	-	-	-	-	307	(3)
	332	**(2)**	**8**	**(3)**	**(4)**	**-**	**(24)**	**-**	**-**	**-**	**-**	**307**	**(3)**
Total assets at fair value	**9,275**	**199**	**(150)**	**2,826**	**(1,558)**	**(935)**	**(638)**	**(16)**	**578**	**(452)**	**-**	**9,130**	**131**
Liabilities carried at fair value													
Investment contracts for account of policyholders	176	7	-	60	(21)	-	(12)	-	10	(2)	-	219	(2)
Derivatives	2,467	(828)	-	-	300	-	(75)	10	-	-	(30)	1,845	(745)
	2,643	**(821)**	**-**	**60**	**279**	**-**	**(87)**	**10**	**10**	**(2)**	**(30)**	**2,064**	**(747)**

[1] Includes impairments and movements related to fair value hedges, Gains and losses are recorded in the line item Results from financial transactions of the income statement.
[2] Total gains and losses are recorded in line items: Gains/(losses) on revaluation of available-for-sale investments, (Gains)/losses transferred to the income statement on disposal and impairment of available-for-sale investments and Changes in revaluation reserve real estate held for own use of the statement of other comprehensive income.
[3] Total gains/(losses) for the period during which the financial instrument was in Level III.

During 2018, Aegon transferred certain financial instruments from Level II to Level III of the fair value hierarchy. The reason for the change in level was that the market liquidity for these securities decreased, which led to a change in market observability of prices. Prior to transfer, the fair value for the Level II securities was determined using observable market transactions or corroborated broker quotes respectively for the same or similar instruments. The amount of assets and liabilities transferred to Level III was EUR 151 million (2017: EUR 588 million). Since the transfer, all such assets have been valued using valuation models incorporating significant non market-observable inputs or uncorroborated broker quotes.

Similarly, during 2018, Aegon transferred EUR 382 million (2017: EUR 454 million) of financial instruments from Level III to other levels of the fair value hierarchy. The change in level was mainly the result of a return of activity in the market for these securities and that for these securities the fair value could be determined using observable market transactions or corroborated broker quotes for the same or similar instruments.

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Valuation techniques and significant unobservable inputs

The table below presents information about the significant unobservable inputs used for recurring fair value measurements for certain Level III financial instruments.

Assets carried at fair value	Valuation technique [1]	Significant unobservable input [2]	December 31, 2018	Range (weighted average)	December 31, 2017	Range (weighted average)
Available-for-sale						
Shares	Net asset value [3]	n.a.	205	n.a.	231	n.a.
	Other	n.a.	36	n.a.	57	n.a.
			241		**288**	
Debt securities	Broker quote	n.a.	985	n.a.	1,034	n.a.
						1.04% 2.72%
	Discounted cash flow	Credit spread	17	3.38%	116	(2.64%)
	Other	n.a.	240	n.a.	297	n.a.
			1,242		**1,447**	
Other investments at fair value						
Tax credit investments	Discounted cash flow	Discount rate	435	6.8%	528	5.8%
Investment funds	Net asset value [3]	n.a.	24	n.a.	31	n.a.
Other	Other	n.a.	34	n.a.	24	n.a.
			493		**583**	
At December 31			**1,976**		**2,318**	
Fair value through profit or loss						
Shares	Other	n.a.	1,226	n.a.	604	n.a.
Debt securities	Other	n.a.	17	n.a.	4	n.a.
			1,243		**609**	
Other investments at fair value						
Investment funds	Net asset value [3]	n.a.	1,334	n.a.	1,246	n.a.
Other	Other	n.a.	42	n.a.	9	n.a.
			1,376		**1,255**	
Derivatives						
Longevity swap	Discounted cash flow	Mortality	33	n.a.	24	n.a.
Other	Other	n.a.	-	n.a.	30	n.a.
			33		**54**	
Real estate						
Investments in real estate	Direct capitalization technique	Capitalization rate	427	4.25% 7.5% (4.4%)	496	3.0% 10.0% (5.9%)
	Appraisal value	n.a.	2,150	n.a.	1,495	n.a.

		Other	n.a.	123		n.a.	155	n.a.
				2,700			**2,147**	
At December 31				**5,352**			**4,065**	
Revalued amounts								
Real estate held for own use	Direct capitalization technique	Capitalization rate		53	8.25%	9.50% (8.9%)	157	6.0% 10.0% (7.9%)
		Appraisal value	n.a.	101		n.a.	115	n.a.
		Other	n.a.	108		n.a.	35	n.a.
At December 31				**263**			**307**	
Total assets at fair value [4]				**7,592**			**6,689**	
Liabilities carried at fair value								
Derivatives								
Embedded derivatives in insurance contracts	Discounted cash flow	Own credit spread		2,484	0.25%	0.40% (0.30%)	1,831	0.2% 0.3% (0.22%)
Longevity swap	Discounted cash flow	Mortality		5		n.a.	10	n.a.
Other	Other		n.a.	-		n.a.	3	n.a.
Total liabilities at fair value				**2,489**			**1,845**	

[1] Other in the table above (column Valuation technique) includes investments for which the fair value is uncorroborated and no broker quote is received.

[2] Not applicable (n.a.) has been included when the unobservable inputs are not developed by the Group and are not reasonably available.

[3] Net asset value is considered the best approximation to the fair value of these financial instruments.

[4] Investments for account of policyholders are excluded from the table above and from the disclosure regarding reasonably possible alternative assumptions. Policyholder assets, and their returns, belong to policyholders and do not impact Aegon s net income or equity. The effect on total assets is offset by the effect on total liabilities. Derivatives exclude derivatives for account of policyholders amounting to EUR 2 million (2017: EUR 3 million).

For reference purposes, the valuation techniques included in the table above are described in more detail on the following pages.

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Effect of changes in significant unobservable assumptions to reasonably possible alternatives

From all significant unobservable inputs, own credit spread as included in the discount rate for embedded derivatives in insurance contracts is considered significant. It is estimated that changing the other significant unobservable inputs to reflect reasonable possible alternatives in valuation would have no significant impact for the Group.

An increase in own credit spread results in lower valuation, while a decrease results in a higher valuation of the embedded derivatives.

The table below presents the impact on a fair value measurement of a change in the own credit spread by 20 basis points included in the discount rate.

	December 31, 2018	Effect of reasonably possible alternative assumptions (+/-)		December 31, 2017	Effect of reasonably possible alternative assumptions (+/-)	
		Increase	Decrease		Increase	Decrease
Financial liabilities carried at fair value						
Embedded derivatives in insurance contracts	2,484	131	(126)	1,831	125	(120)

Fair value information about assets and liabilities not measured at fair value

The following table presents the carrying values and estimated fair values of assets and liabilities, excluding assets and liabilities which are carried at fair value on a recurring basis.

2018	Carrying amount December 31, 2018	Estimated fair value hierarchy Level I	Level II	Level III	Total estimated fair value December 31, 2018
Assets					
Mortgage loans held at amortized cost	36,240	-	1	39,757	39,758
Private loans held at amortized cost	4,103	-	42	4,452	4,494
Other loans held at amortized cost	2,310	13	2,064	233	2,310
Liabilities					

Subordinated borrowings held at amortized cost	1,389	1,355	-	-	1,355
Trust pass-through securities held at amortized cost	133	-	128	-	128
Borrowings held at amortized cost	11,525	1,570	28	10,287	11,885
Investment contracts held at amortized cost	17,825	-	-	18,028	18,028

2017	Carrying amount December 31, 2017	Estimated fair value hierarchy Level I	Level II	Level III	Total estimated fair value December 31, 2017
Assets					
Mortgage loans held at amortized cost	33,562	-	-	38,076	38,076
Private loans held at amortized cost	3,642	-	64	4,117	4,181
Other loans held at amortized cost	2,164	6	1,991	166	2,164
Liabilities					
Subordinated borrowings held at amortized cost	764	791	162	-	953
Trust pass-through securities held at amortized cost	133	-	137	-	137
Borrowings held at amortized cost	13,099	2,116	28	11,355	13,499
Investment contracts held at amortized cost	16,665	-	-	17,031	17,031

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Certain financial instruments that are not carried at fair value are carried at amounts that approximate fair value, due to their short-term nature and generally negligible credit risk. These instruments include cash and cash equivalents, short-term receivables and accrued interest receivable, short-term liabilities, and accrued liabilities. These instruments are not included in the table above.

Fair value measurement

The description of Aegon s methods of determining fair value and the valuation techniques are described on the following pages.

Shares

When available, Aegon uses quoted market prices in active markets to determine the fair value of its investments in shares. For Level III unquoted shares, the net asset value can be considered the best approximation to the fair value. Net asset value is the value of an entity s assets minus the value of its liabilities and may be the same as the book value or the equity value of the entity.

Also for unquoted shares, the fair value may be estimated using other methods, such as observations of the price/earnings or price/ cash flow ratios of quoted companies considered comparable to the companies being valued. Valuations are adjusted to account for company-specific issues and the lack of liquidity inherent in an unquoted investment. Adjustments for lack of liquidity are generally based on available market evidence. In addition, a variety of other factors are reviewed by management, including, but not limited to, current operating performance, changes in market outlook and the third-party financing environment.

Available-for-sale shares include shares in a Federal Home Loan Bank (FHLB) for an amount of EUR 176 million (2017:

EUR 204 million), which are reported as part of the line-item Net asset value. A FHLB has implicit financial support from the United States government. The redemption value of the shares is fixed at par and they can only be redeemed by the FHLB.

Debt securities

The fair values of debt securities are determined by management after taking into consideration several sources of data. When available, Aegon uses quoted market prices in active markets to determine the fair value of its debt securities. As stated previously, Aegon s valuation policy utilizes a pricing hierarchy which dictates that publicly available prices are initially sought from indices and third-party pricing services. In the event that pricing is not available from these sources, those securities are submitted to brokers to obtain quotes, the majority of which are non-binding. As part of the pricing process, Aegon assesses the appropriateness of each quote (i.e. as to whether the quote is based on observable market transactions or not) to determine the most appropriate estimate of fair value.

When broker quotes are not available, securities are priced using internal cash flow modeling techniques. These valuation methodologies commonly use the following inputs: reported trades, bids, offers, issuer spreads, benchmark

yields, estimated prepayment speeds, and/or estimated cash flows.

To understand the valuation methodologies used by third-party pricing services Aegon reviews and monitors the applicable methodology documents of the third-party pricing services. Any changes to their methodologies are noted and reviewed for reasonableness. In addition, Aegon performs in-depth reviews of prices received from third-party pricing services on a sample basis. The objective for such reviews is to demonstrate that Aegon can corroborate detailed information such as assumptions, inputs and methodologies used in pricing individual securities against documented pricing methodologies. Only third-party pricing services and brokers with a substantial presence in the market and with appropriate experience and expertise are used.

Third-party pricing services will often determine prices using recently reported trades for identical or similar securities. The third-party pricing service makes adjustments for the elapsed time from the trade date to the reporting date to take into account available market information. Lacking recently reported trades, third-party pricing services and brokers will use modeling techniques to determine a security price where expected future cash flows are developed based on the performance of the underlying collateral and discounted using an estimated market rate.

Periodically, Aegon performs an analysis of the inputs obtained from third-party pricing services and brokers to ensure that the inputs are reasonable and produce a reasonable estimate of fair value. Aegon s asset specialists and investment valuation specialists consider both qualitative and quantitative factors as part of this analysis. Several examples of analytical procedures performed include, but are not limited to, recent transactional activity for similar debt securities, review of pricing statistics and trends and consideration of recent relevant market events. Other controls and procedures over pricing received from indices, third-party pricing services, or brokers include validation checks such as exception reports which highlight significant price changes, stale prices or unpriced securities. Additionally, Aegon performs back testing on a sample basis. Back testing involves selecting a sample of securities trades and comparing the prices in those transactions to prices used for financial reporting. Significant variances between the price used for financial reporting and the transaction price are investigated to explain the cause of the difference.

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Credit ratings are also an important consideration in the valuation of securities and are included in the internal process for determining Aegon s view of the risk associated with each security. However, Aegon does not rely solely on external credit ratings and there is an internal process, based on market observable inputs, for determining Aegon s view of the risks associated with each security.

Aegon s portfolio of private placement securities (held at fair value under the classification of available-for-sale or fair value through profit or loss) is valued using a matrix pricing methodology. The pricing matrix is obtained from a third-party service provider and indicates current spreads for securities based on weighted average life, credit rating, and industry sector. Each month, Aegon s asset specialists review the matrix to ensure the spreads are reasonable by comparing them to observed spreads for similar bonds traded in the market. Other inputs to the valuation include coupon rate, the current interest rate curve used for discounting and a liquidity premium to account for the illiquid nature of these securities. The liquidity premiums are determined based upon the pricing of recent transactions in the private placements market; comparing the value of the privately offered security to a similar public security. The impact of the liquidity premium for private placement securities to the overall valuation is insignificant.

Aegon s portfolio of debt securities can be subdivided in Residential mortgage-backed securities (RMBS), Commercial mortgage-backed securities (CMBS), Asset-backed securities (ABS), Corporate bonds and Government debt. Below relevant details in the valuation methodology for these specific types of debt securities are described.

Residential mortgage-backed securities, commercial mortgage-backed securities and asset-backed securities

Valuations of RMBS, CMBS and ABS are monitored and reviewed on a monthly basis. Valuations per asset type are based on a pricing hierarchy which uses a waterfall approach that starts with market prices from indices and follows with third-party pricing services or brokers. The pricing hierarchy is dependent on the possibilities of corroboration of the market prices. If no market prices are available, Aegon uses internal models to determine fair value. Significant inputs included in the internal models are generally determined based on relative value analyses, which incorporate comparisons to instruments with similar collateral and risk profiles. Market standard models may be used to model the specific collateral composition and cash flow structure of each transaction. The most significant unobservable input is liquidity premium which is embedded in the discount rate.

Corporate bonds

Valuations of corporate bonds are monitored and reviewed on a monthly basis. The pricing hierarchy is dependent on the possibility of corroboration of market prices when available. If no market prices are available, valuations are determined by a discounted cash flow methodology using an internally calculated yield. The yield is comprised of a credit spread over a given benchmark. In all cases the benchmark is an observable input. The credit spread contains both observable and unobservable inputs. Aegon starts by taking an observable credit spread from a similar bond of the given issuer, and then adjust this spread based on unobservable inputs. These unobservable inputs may include subordination, liquidity and maturity differences. The weighted average credit spread used in valuation of corporate bonds has increased to 3.4% (December 31, 2017: 2.6%).

Government debt

When available, Aegon uses quoted market prices in active markets to determine the fair value of its government debt investments. When Aegon cannot make use of quoted market prices, market prices from indices or quotes from third-party pricing services or brokers are used.

Money market and other short-term investments and deposits with financial institutions

The fair value of assets maturing within a year is assumed to be approximated by their carrying amount adjusted for credit risk where appropriate. Credit risk adjustments are based on market observable credit spreads if available, or management s estimate if not market observable.

Tax credit investments

The Level III fair value of tax credit investments is determined by using a discounted cash flow valuation technique. This valuation technique takes into consideration projections of future capital contributions and distributions, as well as future tax credits and the tax benefits of future operating losses. The present value of these cash flows is calculated by applying a discount rate. In general, the discount rate is determined based on the cash outflows for the investments and the cash inflows from the tax credits and/or tax benefits (and the timing of these cash flows). These inputs are unobservable in the market place. The discount rate used in valuation of tax credit investments has increased to 6.8% (December 31, 2017: 5.8%).

Investment funds: Real estate funds, private equity funds and hedge funds

The fair values of investments held in non-quoted investment funds are determined by management after taking into consideration information provided by the fund managers. Aegon reviews the valuations each month and performs analytical procedures and trending

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analyses to ensure the fair values are appropriate. The net asset value is considered the best valuation method that approximates the fair value of the funds.

Mortgage loans, policy loans and private loans *(held at amortized cost)*

For private loans, fixed interest mortgage loans and other loans originated by the Group, the fair value used for disclosure purposes is estimated by discounting expected future cash flows using a current market rate applicable to financial instruments with similar yield and maturity characteristics. For fixed interest mortgage loans, the market rate is adjusted for expenses, prepayment rates, lapse assumptions (unobservable inputs), liquidity and credit risk (market observable inputs). An increase in expense spread, prepayment rates and/or prepayment assumptions, would decrease the fair value of the mortgage loan portfolio.

The fair value of floating interest rate mortgage loans, policy loans and private placements used for disclosure purposes is assumed to be approximated by their carrying amount, adjusted for changes in credit risk. Credit risk adjustments are based on market observable credit spreads if available, or management s estimate if not market observable.

Derivatives

Where quoted market prices are not available, other valuation techniques, such as option pricing or stochastic modeling, are applied. The valuation techniques incorporate all factors that a typical market participant would consider and are based on observable market data when available. Models are validated before they are used and calibrated to ensure that outputs reflect actual experience and comparable market prices.

Fair values for exchange-traded derivatives, principally futures and certain options, are based on quoted market prices in active markets. Fair values for over-the-counter (OTC) derivative financial instruments represent amounts estimated to be received from or paid to a third party in settlement of these instruments. These derivatives are valued using pricing models based on the net present value of estimated future cash flows, directly observed prices from exchange-traded derivatives, other OTC trades, or external pricing services. Most valuations are derived from swap and volatility matrices, which are constructed for applicable indices and currencies using current market data from many industry standard sources. Option pricing is based on industry standard valuation models and current market levels, where applicable. The pricing of complex or illiquid instruments is based on internal models or an independent third party. For long-dated illiquid contracts, extrapolation methods are applied to observed market data in order to estimate inputs and assumptions that are not directly observable. To value OTC derivatives, management uses observed market information, other trades in the market and dealer prices.

Some OTC derivatives are so-called longevity derivatives. The payout of longevity derivatives is linked to publicly available mortality tables. The derivatives are measured using the present value of the best estimate of expected payouts of the derivative plus a risk margin. The best estimate of expected payouts is determined using best estimate of mortality developments. Aegon determined the risk margin by stressing the best estimate mortality developments to quantify the risk and applying a cost-of-capital methodology. Depending on the duration of the longevity swaps either the projected mortality development or discount rate are the most significant unobservable inputs.

Aegon normally mitigates counterparty credit risk in derivative contracts by entering into collateral agreements where practical and in ISDA master netting agreements for each of the Group s legal entities to facilitate Aegon s right to offset credit risk exposure. Changes in the fair value of derivatives attributable to changes in counterparty credit risk were not significant.

Embedded derivatives in insurance contracts including guarantees

Bifurcated guarantees for minimum benefits in insurance and investment contracts are carried at fair value. These guarantees include Guaranteed minimum withdrawal benefits (GMWB) in the United States and United Kingdom which are offered on some variable annuity products and are also assumed from a ceding company; minimum investment return guarantees on insurance products offered in the Netherlands, including group pension and traditional products; variable annuities sold in Europe. Additionally, Aegon offers guarantees on variable annuities sold through its joint venture in Japan.

Since the price of these guarantees is not quoted in any market, the fair values of these guarantees are based on discounted cash flows calculated as the present value of future expected payments to policyholders less the present value of assessed rider fees attributable to the guarantees. Given the complexity and long-term nature of these guarantees which are unlike instruments available in financial markets, their fair values are determined by using stochastic models under a variety of market return scenarios. A variety of factors are considered, including own credit spread, expected market rates of return, equity and interest rate volatility, correlations of market returns, discount rates and actuarial assumptions. The most significant unobservable factor is own credit spread. The weighted average own credit spread used in the valuations of embedded derivatives in insurance contracts increased to 0.3% (2017: 0.2%).

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The expected returns are based on risk-free rates. Aegon added a premium to reflect the credit spread as required. The credit spread is set by using the Credit default swap (CDS) spreads of a reference portfolio of life insurance companies (including Aegon), adjusted to reflect the subordination of senior debt holders at the holding company level to the position of policyholders at the operating company level (who have priority in payments over other creditors). Aegon s assumptions are set by region to reflect differences in the valuation of the guarantee embedded in the insurance contracts.

Aegon extrapolates yield curves beyond market observable maturities. The discount rates converge linearly in 10 years to an Ultimate Forward Rate of 4.25% from the last liquid point. The uniform last liquid point for all Aegon s major currencies (EUR, USD and GBP) is set at 30 years.

Since many of the assumptions are unobservable and are considered to be significant inputs to the liability valuation, the liability included in future policy benefits has been reflected within Level III of the fair value hierarchy. Refer to note 38 Guarantees in insurance contracts for more details about Aegon s guarantees.

Real estate

Valuations of Level III investments in real estate and real estate held for own use are conducted in full by independent external appraisers at least every three to five years and reviewed at least once a year by qualified internal appraisers to ensure the value correctly reflects the fair value at the reporting date. Appraisals are different for each specific local market, but are based on market guidelines such as International Valuation Standards, Uniform Standards of Professional Appraisal Practice or guidelines issued by the Investment Property Databank. Valuations are mostly based on active market prices, adjusted for any difference in the nature, location or condition of the specific property. If such information is not available, other valuation methods are applied, considering the value that the property s net earning power will support, the value indicated by recent sales of comparable properties and the current cost of reproducing or replacing the property. Discount rates used in the valuation of real estate reflect the risk embedded in the projected cash flows for the asset being valued. Capitalization rates represent the income rate for a real estate property that reflects the relationship between a single year s net operating income expectancy and the total property price or value. For property held for own use, appraisers consider the present value of the future rental income cash flows that could be achieved had the real estate been rented to a third party.

Trust pass-through securities and subordinated borrowings

Trust pass-through securities and subordinated borrowings are either carried at fair value (if they are designated as financial liabilities at fair value through profit or loss) or amortized cost (with fair value being disclosed in the notes to the consolidated financial statements). For the determination of the fair value of these instruments, the level hierarchy as described by IFRS is used. The preferred method of obtaining the fair value of the fair value option bonds is the quoted price (Level I). In case markets are less liquid or the quoted prices are not available, an internal model is used, based on parameters which are market observable (Level II). Aegon uses a discounted cash flow method including yield curves such as deposit rates, floating rates and 3-month swap rates. In addition, Aegon includes own credit spread based on Aegon s credit default swap curve.

Investment contracts

Investment contracts issued by Aegon are either carried at fair value (if they are designated as financial liabilities at fair value through profit or loss) or amortized cost (with fair value being disclosed in the notes to the consolidated financial statements). These contracts are not quoted in active markets and their fair values are determined by using valuation techniques, such as discounted cash flow methods and stochastic modeling or in relation to the unit price of the underlying assets. All models are validated and calibrated. A variety of factors are considered, including time value, volatility, policyholder behavior, servicing costs and fair values of similar instruments.

Similar to embedded derivatives in insurance contracts, certain investment products are not quoted in active markets and their fair values are determined by using valuation techniques. Because of the dynamic and complex nature of these cash flows, stochastic or similar techniques under a variety of market return scenarios are often used. A variety of factors are considered, including expected market rates of return, market volatility, correlations of market returns, discount rates and actuarial assumptions.

The expected returns are based on risk-free rates, such as the current London Interbank Offered Rate (LIBOR) swap rates and associated forward rates, the Overnight Index Swap (OIS) curve or the current rates on local government bonds. Market volatility assumptions for each underlying index are based on observed market implied volatility data and/or observed market performance. Correlations of market returns for various underlying indices are based on observed market returns and their inter-relationships over a number of years preceding the valuation date. Current risk-free spot rates are used to determine the present value of expected future cash flows produced in the stochastic projection process.

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Assumptions on customer behavior, such as lapses, included in the models are derived in the same way as the assumptions used to measure insurance liabilities.

Summary of total financial assets and financial liabilities at fair value through profit or loss

The table that follows summarizes the carrying amounts of financial assets and financial liabilities that are classified as at fair value through profit or loss, with appropriate distinction between those financial assets and financial liabilities held for trading and those that, upon initial recognition, were designated as at fair value through profit or loss.

	2018		2017	
	Trading	Designated	Trading	Designated
Investments for general account	174	8,424	78	7,042
Investments for account of policyholders	-	193,741	-	193,409
Derivatives with positive values not designated as hedges	7,181	-	5,430	-
Total financial assets at fair value through profit or loss	**7,355**	**202,165**	**5,508**	**200,451**
Investment contracts for account of policyholders	-	49,847	-	37,169
Derivatives with negative values not designated as hedges	6,935	-	6,792	-
Borrowings	-	536	-	536
Total financial liabilities at fair value through profit or loss	**6,935**	**50,383**	**6,792**	**37,705**

Investments for general account

The Group manages certain portfolios on a total return basis which have been designated at fair value through profit or loss. This includes portfolios of investments in limited partnerships and limited liability companies (primarily hedge funds) for which the performance is assessed internally on a total return basis. In addition, some investments that include an embedded derivative that would otherwise have required bifurcation, such as convertible instruments, preferred shares and credit linked notes, have been designated at fair value through profit or loss.

Investments for general account backing insurance and investment liabilities, that are carried at fair value with changes in the fair value recognized in the income statement, are designated at fair value through profit or loss. The Group elected to designate these investments at fair value through profit or loss, as a classification of financial assets as available-for-sale would result in accumulation of unrealized gains and losses in a revaluation reserve within equity, while changes to the liability would be reflected in net income (accounting mismatch).

Investments for account of policyholders

Investments held for account of policyholders comprise assets that are linked to various insurance and investment contracts for which the financial risks are borne by the customer. Under the Group s accounting policies these insurance and investment liabilities are measured at the fair value of the linked assets with changes in the fair value recognized in the income statement. To avoid an accounting mismatch the linked assets have been designated as at fair

value through profit or loss.

In addition, the investment for account of policyholders include with profit assets, where an insurer manages these assets together with related liabilities on a fair value basis in accordance with a documented policy of asset and liability management. In accordance with the Group s accounting policies, these assets have been designated as at fair value through profit or loss.

Investment contracts for account of policyholders

With the exception of the financial liabilities with discretionary participating features that are not subject to the classification and measurement requirements for financial instruments, all investment contracts for account of policyholders that are carried at fair value or at the fair value of the linked assets are included in the table above.

Derivatives

With the exception of derivatives designated as a hedging instrument, all derivatives held for general account and held for account of policyholders are included in the table above.

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Borrowings

Borrowings designated as at fair value through profit or loss includes financial instruments that are managed on a fair value basis together with related financial assets and financial derivatives (refer to note 39 Borrowings).

Gains and losses on financial assets and financial liabilities classified at fair value through profit or loss

Gains and losses recognized in the income statement on financial assets and financial liabilities classified as at fair value through profit or loss can be summarized as follows:

	2018		2017	
	Trading	Designated	Trading	Designated
Net gains and (losses)	(4,584)	(7,356)	13,924	5,679

No loans and receivables were designated at fair value through profit or loss.

Changes in the fair value of investment contracts for account of policyholders designated at fair value through profit or loss were not attributable to changes in Aegon s credit spread. There are also no differences between the carrying amounts of these financial liabilities and the contractual amounts payable at maturity (net of surrender penalties).

Refer to note 39 Borrowings for the impact of Aegon s own credit spread on the fair value of the borrowings designated at fair value through profit or loss.

48 Commitments and contingencies

Investments contracted

In the normal course of business, the Group has committed itself through purchase and sale transactions of investments, mostly to be executed in the course of 2019. The amounts represent the future outflow and inflow, respectively, of cash related to these investment transactions that are not reflected in the consolidated statement of financial position.

	2018		2017	
	Purchase	Sale	Purchase	Sale
Real estate	156	66	196	39
Mortgage loans	3,187	67	3,152	69
Private loans	1,224	-	705	-
Other	2,222	-	2,373	-

Aegon has commited itself, through certain subsidiaries, to invest in real estate, private loans, mortgage loans and receivables and investment funds.

Real estate commitments represent the committed pipeline of investments in real estate projects. The sale of real estate relates to properties that are under contract to be sold as per December 31, 2018.

Mortgage loans commitments represent undrawn mortgage loan facility provided and outstanding proposals on mortgages. The sale of mortgage loans relates to pre-announced redemptions on mortgage loans. Private loans represents deals on Aegon s portfolio of private placement securities that Aegon has committed to, but have not yet settled and funded. Other commitments include future purchases of interests in investment funds and limited partnerships.

Future lease payments

	2018			2017		
Future lease payments	Not later than 1 year	1-5 years	Later than 5 years	Not later than 1 year	1-5 years	Later than 5 years
Operating lease obligations	73	144	169	74	143	201
Operating lease rights	50	127	52	53	136	58

The operating lease obligations relate mainly to office space leased from third parties.

The operating lease rights relate to non-cancellable commercial property leases.

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Other commitments and contingencies

	2018	2017
Guarantees	437	483
Standby letters of credit	12	12
Share of contingent liabilities incurred in relation to interests in joint ventures	49	39
Other guarantees	14	16
Other commitments and contingent liabilities	7	32

Guarantees include those guarantees associated with the sale of investments in low-income housing tax credit partnerships in the United States. Standby letters of credit amounts reflected above are the liquidity commitment notional amounts. In addition to the guarantees shown in the table, guarantees have been given for fulfillment of contractual obligations such as investment mandates related to investment funds.

Contractual obligations

In April 2018, affiliates of Transamerica Corporation entered into a series of agreements with affiliates of Tata Consultancy Services Limited (TCS) to administer the Company s US life insurance, voluntary benefits, and annuity business lines. The collaboration enables Transamerica to accelerate the enhancement of its digital capabilities and the modernization of its platforms to service its customers in all lines of business. Over the course of the multi-year contract, Transamerica will pay more than USD 2 billion to TCS. These revenues represent compensation for administering Transamerica s over 10 million policies and are driven by both new business and policies already in force. In addition, this commitment includes remaining transition and conversion charges of approximately USD 100 million (period 2019 2022) as well as administrative, IT and finance service fees which are contingent on TCS meeting specified milestones in the underlying agreement with Transamerica. The agreement also contains a termination clause in which case Transamerica subject to certain limitations agrees to compensate TCS, on a specified schedule, for early termination.

Transamerica Corporation, a wholly-owned subsidiary of Aegon N.V., has provided a parental guarantee to TLIC Riverwood Reinsurance, Inc. (TRRI), an affiliated captive reinsurer, for the cash payments required fulfilling reinsurance payments to Transamerica Life Insurance Company, to the extent that the assets in the captive (TRRI) are not sufficient to cover reinsurance obligations. As of December 31, 2018, this amounted to EUR 1,892 million (2017 EUR: 1,793 million).

In November 2018, Aegon UK entered into an agreement with Atos BPS Ltd (Atos) to service and administer its Existing Business (non-Platform customers). This collaboration builds on the relationship we already have with Atos for our award-winning Protection business and is expected to be effective as of mid-2019. The agreement is a 15-year contract under which Aegon UK will pay Atos to administer around 1.4 million customers, with payments driven by the volume of policies being administered.

At end 2018, outstanding transition and conversion charges are estimated to amount to approximately GBP 108 million, which are expected to be recorded over the next three years, with fixed payments to Atos defined in the agreement and subject to completion of milestones which have been agreed with Aegon UK.

An Aegon N.V. indirect US life subsidiary has a net worth maintenance agreement with its subsidiary Transamerica Life (Bermuda) Ltd, pursuant to which Transamerica Life Insurance Company, a US life insurance subsidiary, will provide capital sufficient to maintain a S&P AA financial strength rating and capital sufficient to comply with the requirements of the countries in which its branches are located.

Aegon N.V. has guaranteed and is severally liable for the following:

Due and punctual payment of payables due under letter of credit agreements applied for by Aegon N.V. as co-applicant with its captive insurance companies that are subsidiaries of Transamerica Corporation and Commonwealth General Corporation. At December 31, 2018, the letter of credit arrangements utilized by captives to provide collateral to affiliates amounted to EUR 3,469 million (2017: EUR 3,025 million); as of that date no amounts had been drawn, or were due under these facilities. Other letter of credit arrangements for subsidiaries amounted to EUR 60 million (2017: EUR 55 million); as of that date no amounts had been drawn, or were due under these facilities;

Due and punctual payment of payables due under letter of credit agreements or guarantees provided for subsidiaries of Transamerica Corporation at December 31, 2018 amounted to EUR 3,164 million (2017: EUR 3,079 million). As of that date no amounts had been drawn, or were due under letter of credit facilities. The guarantees partly related to debt amounted to EUR 1,388 million (2017: EUR 1,322 million) and is included in the Operational funding table in note 39 Borrowings of the consolidated financial statements of the Group in the line USD 1.54 billion Variable Funding Surplus Note ;

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Due and punctual payment of payables by the consolidated group companies Transamerica Corporation, Aegon Funding Company LLC and Commonwealth General Corporation with respect to bonds, capital trust pass-through securities and notes issued under commercial paper programs amounted to EUR 614 million (2017: EUR 585 million); and

Due and punctual payment of any amounts owed to third parties by the consolidated group company Aegon Derivatives N.V. in connection with derivative transactions. Aegon Derivatives N.V. only enters into derivative transactions with counterparties with which ISDA master netting agreements, including collateral support annex agreements, have been agreed. Net (credit) exposure on derivative transactions with these counterparties was therefore limited as of December 31, 2018.

Legal and arbitration proceedings, regulatory investigations and actions

Aegon faces significant risks of litigation as well as regulatory investigations and actions relating to its and its subsidiaries insurance, pensions, retirement administration, securities, investment management, investment advisory and annuities businesses as well as Aegon s corporate compliance, including compliance with employment, sanctions, anti-corruption and tax regulations.

Aegon subsidiaries regularly receive inquiries from local regulators and policyholder advocates in various jurisdictions, including the United States, the Netherlands, and the United Kingdom. In some cases, Aegon subsidiaries have modified business practices in response to inquiries or findings of inquiries. Regulators may seek fines or penalties, or changes to the way Aegon operates.

Insurance companies and their affiliated regulated entities are routinely subject to litigation, investigation and regulatory activity by various governmental and enforcement authorities, individual claimants and policyholder advocate groups involving issues such as, but not limited to, product fees and costs, including transparency and adequacy of disclosure of initial costs, ongoing costs, and costs due on policy surrender as well as changes to costs over time; employment or distribution relationships; operational and internal controls and processes; environmental matters; competition and antitrust matters; data privacy; information security; intellectual property; and anti-money laundering, anti-bribery and economic sanctions compliance.

Government and regulatory investigations may result in the institution of administrative, injunctive or other proceedings and/or the imposition of monetary fines, penalties and/or disgorgement as well as other remedies, sanctions, damages and restitutionary amounts. There can be no assurance that government and regulatory investigations will not have a material and adverse effect on Aegon s reputation, financial position, results of operations or liquidity.

Many of Aegon s products are affected by fluctuations in equity markets as well as interest rate movements, which may prove to be volatile or disappointing to customers. Significant investment risks are often borne by the customer. Disputes and investigations initiated by governmental entities and private parties may lead to orders or settlements including payments or changes to business practices even if Aegon believes the underlying claims are without merit.

The existence of potential claims may remain unknown for long periods of time after the events giving rise to such claims. Determining the likelihood of exposure to Aegon and the extent of any such exposure may not be possible for long periods of time after Aegon becomes aware of such potential claims. Once litigation is initiated, it may be

protracted and subject to multiple levels of appeal.

Aegon cannot predict the effect of litigation, investigations or other actions on its businesses or the insurance industry. In some jurisdictions, plaintiffs may seek recovery of very large or indeterminate amounts under claims of bad faith, resulting in punitive or treble damages. Damages alleged may not be quantifiable or supportable, or may have no relationship to economic losses or final awards. Separate from financial loss, litigation, regulatory action, legislative changes or changes in public opinion may require Aegon to change its business practices, which could have a material adverse impact on Aegon s businesses, results of operations, cash flows and financial position.

Aegon has defended and will continue to defend itself when it believes claims are without merit. Aegon has also settled and will seek to settle certain claims, including through policy modifications, as it believes appropriate. While Aegon intends to resist claims, there can be no assurance that claims brought against Aegon will not have a material adverse impact on its businesses, results of operations, and financial position.

Proceedings in which Aegon is involved

Several US insurers, including Aegon subsidiaries, have been named in class actions as well as individual litigation relating to increases in monthly deduction rates (MDR) on universal life products. Plaintiffs generally allege that the increases were made to recoup past losses rather than to cover the future costs of providing insurance coverage. In one such class action against Aegon s subsidiary pending in the US federal district court for the Central District of California, the parties agreed to settle the case which resulted in a net charge to the income statement for 2018 of USD 166 million. In January 2019, a court approved the aforementioned settlement.

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Over 99% of affected policyholders participated in the settlement. While less than 1% of policyholders opted out, they represent approximately 43% of the value of the settlement fund. The settlement fund was reduced proportionally for opt outs, although Aegon continues to hold a provision for these policyholders. Resolution of this class action is expected to end a number of other related cases, including several other class actions. At this time it is impracticable for Aegon to quantify a range or maximum liability or the timing of the financial impact, if any, of the remaining MDR increase related litigation, as the potential financial impacts are dependent both on the outcomes of court proceedings and future developments in financial markets and mortality. If decided adversely to Aegon, these claims could have a material adverse effect on Aegon s business, results of operations, and financial position.

Unclaimed property administrators and state insurance regulators performed examinations and multi-state examinations of the life insurance industry in the United States, including certain of Aegon s subsidiaries. Aegon subsidiaries, like other major US insurers, entered into resolutions with state treasurers and insurance regulators regarding unclaimed property and claims settlement practices. As of 2018, there was a provision of USD 31 million for unclaimed property obligations, which is management s best estimate of the still-outstanding exposure. The final amount may vary based on subsequent regulatory review.

Aegon s US-based subsidiaries may face employment-related lawsuits from time to time. For example, several US-based Aegon subsidiaries have been named in two purported class actions alleging that the business model inappropriately characterizes distributors as independent contractors instead of employees. Depending on the outcome, these lawsuits, along with similar claims against other companies, as well as regulatory action could necessitate a change in the distribution model and could result in significant settlements or judgments.

A former subsidiary of Transamerica Corporation was involved in a contractual dispute with a Nigerian travel broker that arose in 1976. That dispute was resolved in Delaware court for USD 235 thousand plus interest in 2010. The plaintiff took the Delaware judgment relating to the 1976 dispute to a Nigerian court and alleged that it was entitled to approximately the same damages for 1977 through 1984 despite the absence of any contract relating to those years. The Nigerian trial court issued a judgment in favor of the plaintiff of the alleged actual damages as well as pre-judgment interest of approximately USD 120 million. On appeal this decision was reversed on procedural grounds and remanded back to the trial court which ruled to dismiss the case; however, at this time the case is still subject to appeal. Aegon has no material assets located in Nigeria.

In Poland, owners of unit-linked policies continue to file claims in civil court against Aegon over fees payable upon purchase or surrender of the product. Plaintiffs claim that these fees are not contractually supported. Aegon faces a significant number of these cases. For reasons of commercial necessity as well as at the instigation of the regulatory authorities, Aegon decided to modify the fee structure. As of 2018, a provision of EUR 17 million remains, which represents management s best estimate of the exposure. The final amount may vary based on regulatory developments and the outcome of litigation.

In the Netherlands, unit linked products (beleggingsverzekeringen) have been controversial and the target of litigation since at least 2005. Allegations include excessive cost, unfair terms, inadequate disclosure, and failure to perform as illustrated. Consumer groups have formed to address these issues and initiate mass claims against insurers. Regulators as well as the Dutch Parliament have been involved ever since, with the principal goal of achieving an equitable resolution. Aegon has made improvements across its product lines, including after settlements reached in 2009 with

Stichting Woekerpolis and Stichting Verliespolis. In 2013 Aegon took a charge of EUR 25 million after the Dutch Supreme Court ruled adversely in litigation concerning premium amounts charged in the KoersPlan product. Some of the unit linked products are still involved in ongoing litigation. In September 2014, consumer interest group Vereniging Woekerpolis.nl filed a claim against Aegon in court. The claim related to a range of unit linked products that Aegon sold in the past, including Aegon products involved in the earlier litigation. The claim challenges a variety of elements of these products, on multiple legal grounds, including allegations made previously. In June 2017, the court issued a verdict which upheld the principle that disclosures must be evaluated according to the standards at the time when the relevant products were placed in-force. Most of the claims of Vereniging Woekerpolis.nl were dismissed under this standard, although the court found that Aegon did not adequately disclose certain charges on a limited set of policies. The district court did not decide on the reasonableness of the cost levels and whether the previous compensation arrangements provide sufficient compensation. This court decision has been appealed by both parties. Aegon expects the claims and litigation on unit linked products to continue for the foreseeable future. Developments in similar cases against other Dutch insurers currently before regulators and courts may also affect Aegon. At this time, Aegon is unable to estimate the range or potential maximum liability. There can be no assurances that these matters, in the aggregate, will not ultimately result in a material adverse effect on Aegon s business, results of operations and financial position.

Securities leasing products (aandelenlease producten) have also been the subject of litigation in the Netherlands. Although sales of securities leasing products ended more than a decade ago, litigation relating to these products has resurfaced. In 2016, the Dutch Supreme Court ruled on a case involving a securities leasing product sold by one of Aegon s competitors. It decided that the financial

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institution was liable if a broker (remisier) that advised on the sale of the institution s products was not properly licensed. In July 2016, consumer interest group Platform Aandelenlease filed a claim against Aegon Bank regarding securities leasing product Sprintplan. Allegations include, among other things, a lack of a proper license of the brokers involved. In October 2017, the district court of The Hague ruled in favor of Aegon that the Sprintplan liability had been conclusively determined in earlier proceedings and there were no grounds to hold further collective proceedings. The plaintiff appealed. The case is now pending at the court of appeal of The Hague. In addition, Aegon is involved in claims for compensation and the cancellation or nullification of contracts concerning the Vliegwiel product, a variation on securities leasing products. Currently, proceedings are pending before the Dutch courts and the Complaint Institute for Financial Services (Klachteninstituut Financiële Dienstverlening), with numerous cases having been initiated by Leaseproces B.V. At this time, Aegon is unable to estimate the range or potential maximum liability. There can be no assurances that this matter will not ultimately result in a material adverse effect on Aegon s business, results of operations and financial position.

49 Transfers of financial assets

Transfers of financial assets occur when Aegon transfers contractual rights to receive cash flows of financial assets or when Aegon retains the contractual rights to receive the cash flows of the transferred financial asset, but assumes a contractual obligation to pay the cash flows to one or more recipients in that arrangement.

In the normal course of business Aegon is involved in the following transactions:

- Transferred financial assets that are not derecognized in their entirety:
  - Securities lending; whereby Aegon legally (but not economically) transfers assets and receives cash and non-cash collateral. The transferred assets are not derecognized. The obligation to repay the cash collateral is recognized as a liability. The non-cash collateral is not recognized in the statement of financial position; and Repurchase activities; whereby Aegon receives cash for the transferred assets. The financial assets are legally (but not economically) transferred, but are not derecognized. The obligation to repay the cash received is recognized as a liability.
- Transferred financial assets that are derecognized in their entirety and Aegon does not have a continuing involvement (normal sale);
- Transferred financial assets that are derecognized in their entirety, but where Aegon has a continuing involvement;
- Collateral accepted in the case of securities lending, reverse repurchase agreement and derivative transactions; and
- Collateral pledged in the case of (contingent) liabilities, repurchase agreements, securities borrowing and derivative transactions.

The following disclosures provide details for transferred financial assets that are not derecognized in their entirety, transferred financial asset that are derecognized in their entirety, but where Aegon has a continuing involvement and assets accepted and pledged as collateral.

49.1 Transferred financial assets that have not been derecognized in their entirety

The following table reflects the carrying amount of financial assets that have been transferred to another party in such a way that part or all of the transferred financial assets do not qualify for derecognition. Furthermore, it reflects the carrying amounts of the associated liabilities.

	2018			
	Available-for-sale financial assets		Financial assets at fair value through profit or loss	
	Shares	Debt securities	Debt securities	Investments for account of policyholders
Carrying amount of transferred assets	81	3,310	404	249
Carrying amount of associated liabilities	91	3,396	416	69

	2017			
	Available-for-sale financial assets		Financial assets at fair value through profit or loss	
	Shares	Debt securities	Debt securities	Investments for account of policyholders
Carrying amount of transferred assets	114	5,805	54	384
Carrying amount of associated liabilities	122	5,929	55	93

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293 Notes to the consolidated financial statements **Note 49**

Securities lending and repurchase activities

The table above includes financial assets that have been transferred to another party under securities lending and repurchase activities.

Aegon retains substantially all risks and rewards of those transferred assets, this includes credit risk, settlement risk, country risk and market risk. The assets are transferred in return for cash collateral or other financial assets. Non-cash collateral is not recognized in the statement of financial position. Cash collateral is recorded on the statement of financial position as an asset and an offsetting liability is established for the same amount as Aegon is obligated to return this amount upon termination of the lending arrangement. Cash collateral is usually invested in pre-designated high quality investments. The sum of cash and non-cash collateral is typically greater than the market value of the related securities loaned. Refer to note 49.3 Assets accepted and note 49.4 Assets pledged for an analysis of collateral accepted and pledged in relation to securities lending and repurchase agreements.

49.2 Transferred financial assets that are derecognized in their entirety, but where Aegon has continuing involvement

Aegon has no transferred financial assets with continuing involvement that are derecognized in their entirety as per year-end 2018 and 2017.

49.3 Assets accepted

Aegon receives collateral related to securities lending, reverse repurchase activities and derivative transactions. Non-cash collateral is not recognized in the statement of financial position. To the extent that cash is paid for reverse repurchase agreements, a receivable is recognized for the corresponding amount.

The following tables present the fair value of the assets received in relation to securities lending and reverse repurchase activities:

Securities lending	**2018**	2017
Carrying amount of transferred financial assets	3,718	4,987
Fair value of cash collateral received	2,480	3,277
Fair value of non-cash collateral received	1,356	1,847
Net exposure	**(117)**	**(138)**
Non-cash collateral that can be sold or repledged in the absence of default	1,171	1,550
Non-cash collateral that has been sold or transferred	-	-

Reverse repurchase agreements	**2018**	2017
Cash paid for reverse repurchase agreements	2,195	4,859

Fair value of non-cash collateral received	2,224	4,885
Net exposure	**(29)**	**(25)**
Non-cash collateral that can be sold or repledged in the absence of default	1,740	4,166
Non-cash collateral that has been sold or transferred	-	-

The above items are conducted under terms that are usual and customary to standard securities lending activities, as well as requirements determined by exchanges where the bank acts as intermediary.

In addition, Aegon can receive collateral related to derivative transactions that it enters into. The credit support agreement will normally dictate the threshold over which collateral needs to be pledged by Aegon or its counterparty. Transactions requiring Aegon or its counterparty to post collateral are typically the result of over-the-counter derivative trades, comprised mostly of interest rate swaps, currency swaps and credit swaps. Refer to the credit risk section in note 4 Financial risks for details on collateral received for derivative transactions.

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49.4 Assets pledged

Aegon pledges assets that are on its statement of financial position in securities borrowing transactions, in repurchase transactions, in derivative transactions and against long-term borrowings. In addition, in order to trade derivatives on the various exchanges, Aegon posts margin as collateral.

These transactions are conducted under terms that are usual and customary to standard long-term borrowing, derivative and securities borrowing activities, as well as requirements determined by exchanges where the bank acts as intermediary.

Non-cash financial assets that are borrowed or purchased under agreement to resell are not recognized in the statement of financial position.

To the extent that cash collateral is paid, a receivable is recognized for the corresponding amount. If other non-cash financial assets are given as collateral, these are not derecognized.

The following tables present the carrying amount of collateral pledged and the corresponding amounts.

Assets pledged for general account and contingent liabilities	**2018**	2017
General account (contingent) liabilities	4,844	5,588
Collateral pledged	6,694	6,951
Net exposure	**(1,849)**	**(1,363)**
Non-cash collateral that can be sold or repledged by the counterparty	-	-

Assets pledged for repurchase agreements	**2018**	2017
Cash received on repurchase agreements	322	1,373
Collateral pledged (transferred financial assets)	325	1,370
Net exposure	**(3)**	**3**

As part of Aegon s mortgage loan funding program in the Netherlands, EUR 6 billion (2017: EUR 6.5 billion) has been pledged as security for notes issued (refer to note 39 Borrowings). In addition, in order to trade derivatives on the various exchanges, Aegon posts margin as collateral. The amount of collateral pledged for derivative transactions was EUR 1,399 million (2017: EUR 2,234 million).

50 Offsetting, enforceable master netting arrangements and similar agreements

The following table includes financial instruments that are set off in the statement of financial position. In addition, it includes financial instruments that are subject to a legally enforceable master netting arrangement or similar agreements, not set off in the financial statements. The table provides details relating to the effect, or potential effect, of netting arrangements, including rights to set-off, associated with the entity s recognized financial assets and recognized financial liabilities.

	Gross amounts of recognized financial assets	Gross amounts of recognized financial liabilities set off in the statement of financial position	Net amounts of financial assets presented in the statement of financial position	Related amounts not set off in the statements of financial position		Net amount
Financial assets subject to offsetting, enforceable master netting arrangements and similar agreements				Financial instruments	Cash collateral received (excluding surplus collateral)	
2018						
Derivatives	7,650	-	7,650	4,840	2,689	120
At December 31	**7,650**	**-**	**7,650**	**4,840**	**2,689**	**120**
2017						
Derivatives	5,823	-	5,823	4,973	821	30
At December 31	**5,823**	**-**	**5,823**	**4,973**	**821**	**30**

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	Gross amounts of recognized financial liabilities	Gross amounts of recognized financial assets set off in the statement of financial position	Net amounts of financial liabilities presented in the statement of financial position	Related amounts not set off in the statements of financial position		Net amount
Financial liabilities subject to offsetting, enforceable master netting arrangements and similar agreements				Financial instruments	Cash collateral pledged (excluding surplus collateral)	
2018						
Derivatives	4,734	-	4,734	4,705	7	22
At December 31	**4,734**	**-**	**4,734**	**4,705**	**7**	**22**
2017						
Derivatives	5,185	-	5,185	5,145	2	38
At December 31	**5,185**	**-**	**5,185**	**5,145**	**2**	**38**

Financial assets and liabilities are offset in the statement of financial position when the Group has a legally enforceable right to offset and has the intention to settle the asset and liability on a net basis, or to realize the asset and settle the liability simultaneously.

As shown in the second column there are no financial assets and liabilities offset in 2018 and 2017.

The line Derivatives includes derivatives for general account and for account of policyholder.

Aegon mitigates credit risk in derivative contracts by entering into collateral agreements, where practical, and in ISDA master netting agreements for each of the Aegon s legal entities to facilitate Aegon s right to offset credit risk exposure. The credit support agreement will normally dictate the threshold over which collateral needs to be pledged by Aegon or its counterparty. Transactions requiring Aegon or its counterparty to post collateral are typically the result of over-the-counter derivative trades, comprised mostly of interest rate swaps, currency swaps and credit swaps. These transactions are conducted under terms that are usual and customary to standard long-term borrowing, derivative, securities lending and securities borrowing activities, as well as requirements determined by exchanges where the bank acts as intermediary.

51 Business combinations

Acquisitions

2018

On July 1, 2018, the legal transfer of the BlackRock Life Limited s Defined Contribution and investment platform business to Scottish Equitable plc., a subsidiary of Aegon NV, was completed following the approval of the High Court on June 21, 2018, in accordance with Part VII of the Financial Services and Markets Act 2000.

On July 3, 2018, Aegon agreed to expand its joint venture arrangement with Banco Santander in Spain and will pay an upfront consideration of EUR 215 million and an additional amount of up to EUR 75 million to be paid after 5 years, depending on the performance of the partnership. The consideration will be funded from Holding excess cash. The final terms (including closing and date of payment) of the transaction are subject to due diligence, regulatory approval, several other conditions and to the process of terminating the existing alliances of Banco Popular.

On September 10, 2018, Aegon completed the acquisition of Robidus, a leading income protection service provider in the Netherlands. Under the terms of the agreement, Aegon acquired 94.4% and voting interests of the company with the remainder to be retained by Robidus management team. The total consideration of the acquisition amounted to EUR 103 million. Based on the purchase price allocation the fair value of the net assets amounted to EUR 18 million, resulting in a goodwill of EUR 85 million.

2017

On January 1, 2017, Aegon completed the acquisition of Cofunds Ltd., following regulatory approval. The purchase of the Cofunds Ltd. business was done through a sale and purchase agreement to acquire all the shares and platform assets. The total consideration of the acquisition amounted to GBP 147 million (EUR 171 million). The fair value of the net assets amounted to GBP 99 million (EUR 116 million), of which GBP 25 million (EUR 29 million) related to customer intangibles , resulting in goodwill of GBP 48 million (EUR 56 million). The value of the transferred customer investments under management as per January 1, 2017 amounted to approximately GBP 82 billion (EUR 96 billion) and is not recognized on Aegon s statement of financial position.

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On August 2, 2017, Aegon Poland has received approval by the Polish Financial Supervision Authority to take over the management of the Nordea second-pillar pension fund. The value of the transferred net assets of Nordea to Aegon Poland as per June 30, 2017 amounted to approximately PLN 8.1 billion (EUR 1.9 billion).

2016

On May 3, 2016, Aegon announced it has agreed to buy BlackRock s UK defined contribution (DC) platform and administration business. Under the purchase agreement, Aegon will acquire approximately GBP 12 billion (EUR 15 billion) of assets and 350,000 customers from BlackRock, which serves institutional and retail clients. The transaction was subject to a Part VII transfer of the underlying assets and liabilities to Aegon, which was subject to regulatory and court approval, and has closed in 2018.

On August 11, 2016 Aegon announced the acquisition of Cofunds from Legal & General for GBP 140 million (EUR 164 million). The purchase of the Cofunds Ltd business is done through a sale and purchase agreement to acquire all the shares and platform assets. On January 1, 2017 Aegon completed the acquisition of Cofunds, following regulatory approval.

Divestments/Disposals

2018

On April 3, 2018, Aegon completed the sale of Aegon Ireland plc to Athora Holding Ltd. agreed to on August 9, 2017. The net proceeds of the transaction amounted to GBP 177 million (EUR 202 million). The divestment led to a book loss of GBP 81 million (EUR 93 million), reported in note 17 Other charges. This divestment had no material impact on underlying earnings before tax going forward. Upon disposal, an amount of GBP 31 million (EUR 36 million) related to the foreign currency translation and net foreign investment hedging reserve has been reclassified from Other Comprehensive Income into the income statement.

On August 7, 2018, Aegon agreed to divest the last substantial block of its US life reinsurance business to SCOR Global Life. Under the terms of the agreement, Aegon s Transamerica life subsidiaries reinsured approximately USD 700 million of liabilities through SCOR. The transaction covered the block of life reinsurance business that Transamerica retained after it divested the vast majority of its life reinsurance business to SCOR in 2011 and 2017. The transaction had a one-time benefit of USD 50 million on Transamerica s capital position.

On August 15, 2018, Aegon has agreed to sell its business in Czech Republic and Slovakia for EUR 155 million to NN Group. The business consists mainly of unit linked life insurance coverage, term life products and pension services. Based on the book value as of December 31, 2018, the book gain is expected to amount to approximately EUR 80 million and will be reported in Other income upon completion. As a consequence of this transaction, annual income before tax and underlying earnings before tax will decrease. In 2018, the underlying earnings before tax of the combined operations amounted to EUR 17 million. The transaction has closed early 2019.

Aegon entered into a series of agreements under which it disposed of its Hungarian mortgage business, captured in a separate legal entity. The sale was completed on October 2018, and the result on the sale was not material. This

divestment has no material impact on underlying earnings before tax going forward.

2017

On June 28, 2017, Aegon completed its transaction to divest its two largest run-off businesses in the Americas, the payout annuity business and Bank Owned Life Insurance/Corporate Owned Life Insurance business (BOLI/COLI). Under the terms of the agreement, Aegon s Transamerica life subsidiaries has reinsured USD 14 billion of liabilities. The transaction resulted in a book gain of USD 250 million (EUR 231 million), reported in the line other income in the condensed consolidated income statement. The book gain consisted of a loss on the reinsurance transaction which is more than offset by the reclassification of gains from Other Comprehensive Income following the disposal of assets to fund the transaction.

The loss on the reinsurance transaction amounted to USD 1,813 million (EUR 1,675 million) being the difference of the reinsurance premium paid and the reinsurance asset received related to the insurance liabilities. Upon disposal an amount of USD 979 million (EUR 905 million) and USD 1,018 million (EUR 941 million) respectively related to revaluation reserves and cash flow hedging reserves has been reclassified from Other Comprehensive Income into the income statement. Gains on sale of certain assets carried at amortized cost backing the insurance liabilities amount to USD 94 million (EUR 87 million). Other expenses related to the transaction, including cost of sale, amounted to USD 28 million (EUR 26 million).

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On June 30, 2017, following court approval on the Part VII transfer, the sale of the annuity portfolio to Rothesay Life has been completed. On September 22, 2017, following court approval on the Part VII transfer, the sale of the annuity portfolio to Legal & General has been completed.

On November 1, 2017, Aegon completed the sale of Unirobe Meeùs Groep (UMG), an independent financial advisory group, for a total consideration of EUR 295 million. The divestment led to a book gain of EUR 208 million, which was reported in Other income in the fourth quarter. As a consequence of this transaction annual income before tax and underlying earnings before tax will decrease by approximately EUR 20 million going forward from the 2017 level.

On December 28, 2017, Aegon agreed to divest a block of life reinsurance business and to dissolve a related captive insurance company. Under the terms of the agreement, Aegon s Transamerica life subsidiaries reinsured approximately USD 750 million of liabilities. The transaction covers approximately half of the life reinsurance business that Transamerica retained after it divested the vast majority of its life reinsurance business to SCOR in 2011.

2016

On January 18, 2016 Aegon Nederland N.V. sold its commercial non-life insurance business, which includes the proxy and coinsurance run-off portfolios. This business has an annual premium volume of approximately EUR 90 million. The total insurance liabilities from this business are EUR 334 million while the consideration paid in cash was EUR 302 million. The transaction was subsequently approved by the Dutch Central Bank (De Nederlandsche Bank) and the Dutch Authority for Consumers and Markets (Autoriteit Consument & Markt). Aegon completed the sale on July 1, 2016, which resulted in a gain of EUR 11 million.

On May 13, 2016, Aegon completed the sale of certain assets of Transamerica Financial Advisors, a full service independent broker-dealer and registered investment adviser, following regulatory approval. The consideration received for the sale consisted of USD 49 million (EUR 44 million) cash and USD 14 million (EUR 13 million) of contingent consideration which is subject to a 12 month earn-out period. The transaction resulted in a pre tax gain of USD 58 million (EUR 52 million) recorded in the second quarter of 2016.

In the second quarter of 2016 Aegon sold its UK annuity portfolio in two parts. On April 11, 2016 Aegon announced the sale of around GBP 6 billion of the portfolio to Rothesay Life. On May 23, 2016 Aegon announced the sale of around GBP 3 billion of the portfolio to Legal & General. Aegon incurred a book loss on the transaction before tax of GBP 530 million (EUR 682 million), reported in the line other charges in the consolidated income statement. The transaction resulted in a tax benefit of GBP 41 million (EUR 53 million). Under the terms of the agreements, Aegon reinsured GBP 6.8 billion of liabilities to Rothesay Life and Legal & General, followed by a Part VII transfer[1], which were completed in 2017. The loss on the reinsurance transaction is GBP 1.9 billion (EUR 2.4 billion) being the difference of the reinsurance premium paid and the reinsurance asset received related to the insurance liabilities. Upon disposal an amount of GBP 1.4 billion (EUR 1.8 billion) related to a positive revaluation reserve has been reclassified from Other Comprehensive Income into the income statement. Taking into account the results of the sale of the related bonds leads to abovementioned result on the transaction of GBP 530 million. The related net cash outflow amounted to GBP 647 million (EUR 831 million). Expenses related to the transaction, including cost of sale, amount to GBP 13 million (EUR 16 million).

On December 16, 2016, Aegon completed the sale of 100% of its shares of Aegon Life Ukraine to TAS Group, and exited the Ukrainian market. This transaction has no material impact on the consolidated numbers of Aegon.

[1] An insurance business transfer scheme under Part VII of the United Kingdom Financial Services and Markets Act 2000 allows an insurer to transfer policies as at a fixed time and date to another insurer, along with related contracts with other parties (including reinsurance).

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52 Group companies

Subsidiaries

The principal subsidiaries of the parent company Aegon N.V. are listed by geographical segment. All are wholly owned, directly or indirectly, unless stated otherwise, and are involved in insurance or reinsurance business, pensions, asset management or services related to these activities. The voting power in these subsidiaries held by Aegon is equal to the shareholdings.

Americas

Transamerica Corporation, Wilmington, Delaware (United States);
Transamerica Advisors Life Insurance Company, Little Rock, Arkansas (United States);
Transamerica Casualty Insurance Company, Columbus, Ohio (United States);
Transamerica Financial Life Insurance Company, Harrison, New York (United States);
Transamerica Life Insurance Company, Cedar Rapids, Iowa (United States);
Transamerica Premier Life Insurance Company, Cedar Rapids, Iowa (United States).

The Netherlands

Aegon Bank N.V., The Hague;
Aegon Hypotheken B.V., The Hague;
Aegon Levensverzekering N.V., The Hague;
Aegon PPI B.V., The Hague (until January 1, 2019);
Aegon Schadeverzekering N.V., The Hague;
Aegon Spaarkas N.V., The Hague;
CAPPITAL Premiepensioeninstelling B.V., Groningen (Aegon Cappital B.V. as of January 1, 2019);
Optas Pensioenen N.V., Rotterdam;
TKP Pensioen B.V., Groningen;
Nedasco B.V., Amersfoort;
Robijn Participaties B.V. (Robidus Groep B.V.), Zaandam (until January 2, 2019).

United Kingdom

Aegon Investment Solutions Ltd., Edinburgh;
Scottish Equitable plc, Edinburgh;
Cofunds Limited, London.

Central & Eastern Europe

Aegon Magyarország Általános Biztosító Zártkörűen Működő Részvénytársaság, Budapest (Aegon Hungary Composite Insurance Co.);
Aegon Towarzystwo Ubezpieczeń na Życie Spółka Akcyjna, Warsaw (Aegon Poland Life);
Aegon Powszechne Towarzystwo Emerytaine Spólka Akcyjna, Warsaw (Aegon Poland Pension Fund Management Co.);
Aegon Emeklilik ve Hayat A.Ş., Istanbul (Aegon Turkey);

Aegon Pensii Societate de Administrare a Fondurilor de Pensii Private S.A., Cluj (Aegon Romania Pension Administrator Co.);
Aegon Poji tovna, a.s., Prague (Aegon Czech Life, until January 8, 2019);
Aegon ivotná poist ovňa, a.s., Bratislava (Aegon Slovakia Life, until January 8, 2019);
Aegon, d.s.s., a.s., Bratislava (Aegon Slovakia Pension Management Co., until January 8, 2019).

Spain & Portugal

Aegon España S.A.U. de Seguros y Reaseguros, Madrid (Spain);
Aegon Administracion y Servicios A.I.E., Madrid (Spain);
Aegon Activos A.V., S.A., Madrid (Spain);
Aegon Mediacion, S.L.U, Madrid (Spain).

Asia

Transamerica Life (Bermuda) Ltd., Hamilton (Bermuda).

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Asset Management

Aegon Asset Management Holding B.V., The Hague (The Netherlands);
Aegon Custody B.V., The Hague (The Netherlands);
Aegon Asset Management Pan-Europe B.V., The Hague (The Netherlands);
Kames Capital plc, Edinburgh (United Kingdom);
TKP Investments B.V., Groningen (The Netherlands), (Merged with Aegon Investment Management B.V. as per January 1, 2019);
Aegon USA Investment Management, LLC, Cedar Rapids (United States);
Aegon USA Realty Advisors, LLC, Des Moines (United States);
Aegon Magyarország Befektetési Alapkezelő Zártkörűen Működő Részvénytársaság (Aegon Hungary Asset Management Company ZrtA), Budapest (Hungary);
Aegon Investment Management B.V, The Hague (The Netherlands);

The legally required list of participations as set forth in articles 379 and 414 of Book 2 of the Dutch Civil Code has been registered with the Trade Register in The Hague. Aegon N.V. has issued a statement of liability as meant in article 403 of Book 2 of the Dutch Civil Code for its subsidiary company Aegon Derivatives N.V.

Joint ventures

The principal joint ventures are listed by geographical segment. The voting power in these joint ventures is equal to the shareholdings.

Americas

Akaan-Aegon, S.A.P.I. de C.V., Mexico City (Mexico) (50%).

The Netherlands

AMVEST Vastgoed B.V., Utrecht (50%).

Spain & Portugal

Santander Generales Seguros y Reaseguros, S.A., Madrid (Spain) (51%);
Santander Vida Seguros y Reaseguros, S.A., Madrid (Spain) (51%);
Liberbank Vida y Pensiones, Seguros y Reaseguros, S.A., Oviedo (Spain) (50%);
Aegon Santander Portugal Não Vida Companhia de Seguros S.A., Lisbon (Portugal) (51%);
Aegon Santander Portugal Vida Companhia de Seguros de Vida S.A., Lisbon (Portugal) (51%).

Asia

Aegon Sony Life Insurance Co., Tokyo (Japan) (50%);
Aegon THTF Life Insurance Co., Ltd., Shanghai (China) (50%);
SA Reinsurance Ltd, Hamilton (Bermuda) (50%);
Aegon Life Insurance Co. ltd (India) (49%).

Asset Management

Aegon Industrial Fund Management Co., Ltd, Shanghai (China) (49%).

Refer to note 26 Investments in joint ventures for further details on these investments.

Investments in associates

The principal investments in associates are listed by geographical segment. The voting power in these associates is equal to the shareholdings.

Americas

Mongeral Aegon, Seguros e Previdencia S.A., Rio de Janeiro (Brazil) (50%).

Asset Management

La Banque Postale Asset Management, Paris (France) (25%).

Refer to note 27 Investments in associates for further details on these investments.

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53 Related party transactions

In the normal course of business, Aegon enters into various transactions with related parties. Parties are considered to be related if one party has the ability to control or exercise significant influence over the other party in making financial or operating decisions. Related parties of Aegon include, amongst others, its associates, joint ventures, key management personnel and the defined benefit and contribution plans. Transactions between related parties have taken place on an arm s length basis. Transactions between Aegon and its subsidiaries that are deemed related parties have been eliminated in the consolidation and are not disclosed in the notes.

Related party transactions include, among others, transactions between Aegon N.V. and Vereniging Aegon.

On May 18, 2018, Vereniging Aegon exercised its options rights to purchase in aggregate 1,489,200 common shares B at fair value of a common share B (being 1/40th of the market value of a common share in the capital of the Company at the time of issuance) to mitigate dilution caused the issuance of shares on May 18, 2018, in connection with the Long Term Incentive Plans for senior management.

On December 19, 2017 Aegon N.V. repurchased 13,042,592 common shares B from Vereniging Aegon for the amount of EUR 1,725,169.73 based on 1/40th of the Value Weight Average Price of the common shares of the five trading days preceding this transaction. The repurchase of common shares B was executed to align the aggregate shareholding of Vereniging Aegon in Aegon N.V. with its special cause voting rights of 32.6% following the completion of the Share Buy Back Program, initiated by Aegon N.V. in October 2017 to neutralize the dilutive effect of the distribution of final dividend 2016 in stock and interim dividend 2017 in stock.

On June 23, 2017, Vereniging Aegon exercised its options rights to purchase in aggregate 13,042,612 common shares B at fair value of a common share B (being 1/40th of the market value of a common share in the capital of the Company at the time of issuance) to mitigate dilution caused by Aegon s issuance of shares on June 23, 2017, being the final dividend 2016 in the form of stock dividend.

On May 19, 2017, Vereniging Aegon exercised its options rights to purchase in aggregate 1,979,260 common shares B at fair value of a common share B (being 1/40th of the market value of a common share in the capital of the Company at the time of issuance) to mitigate dilution caused the issuance of shares on May 19, 2017, in connection with the Long Term Incentive Plans for senior management.

On June 6, 2016 Aegon N.V. repurchased 17,324,960 common shares B from Vereniging Aegon for the amount of EUR 1,968,332, based on 1/40th of the Value Weight Average Price of the common shares of the 5 trading days preceding this transaction. The repurchase of common shares B was executed to align the aggregate shareholding of Vereniging Aegon in Aegon N.V. with its special cause voting rights of 32.6%.

On May 19, 2016 Aegon N.V. repurchased 13,450,835 common shares from Vereniging Aegon for the amount of EUR 58 million being the Value Weight Average Price of the common shares of the 5 trading days preceding this transaction, as part of the EUR 400 million Share Buy Back program, initiated by Aegon N.V. in January 2016 to neutralize the dilutive effect of the cancellation of Aegon N.V. s preferred shares in 2013. Also the amount of EUR 58 million is 14.5% of EUR 400 million, which percentage is equal to the percentage of shares held by Vereniging

Aegon in the total number of outstanding and voting shares Aegon N.V. at the time of this transaction.

Remuneration of members of the Management Board

The Management Board, which assists the Executive Board in pursuing Aegon s strategic goals, is formed by members of the Executive Board, the CEOs of Aegon USA, Aegon Continental Europe, Aegon UK, Aegon Asset Management, the Chief Risk Officer, the Chief Technology Officer, the Global Head HR and the General Counsel. In April 2017, the Management Board decreased in size by one member as a result of the retirement of the CEO of Aegon Central & Eastern Europe.

The total remuneration for the members of the Management Board over 2018 was EUR 22.6 million (2017: EUR 19.8 million; 2016: EUR 18.6 million), consisting of EUR 8.4 million (2017: EUR 7.4 million; 2016: EUR 7.0 million) fixed compensation, EUR 8.7 million variable compensation awards (2017: EUR 7.8 million; 2016: EUR 6.4 million), EUR 0.9 million (2017: EUR 0.9 million; 2016: EUR 1.9 million) other benefits and EUR 4.5 million (2017: EUR 3.7 million; 2016: EUR 3.4 million) pension premiums. Amounts are reflective of time spent on the Management Board.

Expenses as recognized under IFRS in the income statement for variable compensation and pensions differ from the variable compensation awards and pension premiums paid due to the accounting treatment under respectively IFRS 2 and IAS 19. IFRS expenses related to variable compensation amounted to EUR 6.9 million (2017: EUR 6.3 million; 2016: EUR 6.0 million) and

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EUR 4.3 million (2017: EUR 3.7 million; 2016: EUR 3.2 million) for pensions. Total IFRS expenses for the members of the Management Board over 2018 were EUR 20.5 million (2017: EUR 18.3 million; 2016: EUR 18.7 million). The amount is reflective of time spent on the Management Board.

Additional information on the remuneration and share-based compensation of members of the Executive Board and the remuneration of the Supervisory Board is disclosed in the sections below (all amounts in EUR 000, except where indicated otherwise).

Remuneration of members of the Executive Board

The information below reflects the compensation and various related expenses for members of the Executive Board. Mr. Rider was appointed to the Executive Board for a term of four years by the shareholders on May 19, 2017 as CFO. Amounts and numbers are disclosed for the period Mr. Rider has been part of the Executive Board. Under the current remuneration structure, certain compensation elements are paid out over a number of years, or in the case of shares, vest over a number of years. This remuneration structure has made it more relevant to present compensation and benefit amounts allocated during a certain performance year instead of what was received in a certain year.

Fixed compensation

In EUR thousand	**2018**	2017	2016
Alex Wynaendts	1,295	1,269	1,269
Matt Rider [1]	918	560	-
Darryl Button	-	-	933
Total fixed compensation	**2,213**	**1,829**	**2,202**

[1] Mr. Rider was appointed as CFO and member of Aegon s Executive Board per May 19, 2017. Fixed compensation is disclosed for the period that Mr. Rider has been part of the Executive Board. The base salary of Mr Rider in 2017 was EUR 900 on an annualized basis.

Conditional variable compensation awards

In EUR thousand	**2018**	2017	2016
Alex Wynaendts	1,062	1,147	1,044
Matt Rider [1]	760	499	-
Darryl Button [2]	-	-	747
Total conditional variable compensation awards	**1,822**	**1,646**	**1,791**

[1] Mr. Rider was appointed as CFO and member of Aegon s Executive Board per May 19, 2017. Conditional variable compensation is disclosed for the period that Mr. Rider has been part of the Executive Board. The conditional variable compensation award of Mr Rider in 2017 was EUR 802 on an annualized basis.

[2] Mr. Button stepped down as CFO and member of Aegon s Executive Board on December 1, 2016. Conditional variable compensation is disclosed for the period that Mr. Button has been part of the Executive Board and are reflective of his time with Aegon until December 1, 2016. Amounts are based on USD, converted to EUR, based on annual average exchange rates. Expenses recognized under IFRS accounting treatment in the income statement for Mr. Button for 2016 amount to EUR 1,237.

The amounts in the table represent the conditional variable compensation awards earned during the related performance year. Expenses recognized under IFRS accounting treatment in the income statement for conditionally awarded cash and shares differ from the awards. For the performance year 2018 and previous performance years, expenses under IFRS for Mr. Wynaendts amounted to EUR 962 (2017: EUR 1,092; 2016: EUR 956). For Mr. Rider the expenses under IFRS amounted to EUR 545 (2017: EUR 293).

2018

Over the performance year 2018, Mr. Wynaendts was awarded EUR 1,062 in total conditional variable compensation. Mr. Rider was awarded EUR 760.

The variable compensation award is split 50/50 in cash payments and an allocation of shares. Of the variable compensation related to performance year 2018, 40% is payable in 2018. Accordingly, Mr. Wynaendts and Mr. Rider will receive a cash payment of EUR 212 and EUR 152 respectively. The number of shares to be made available in 2019 relating to performance year 2018 is 39,314 and 28,110 for Mr. Wynaendts and Mr. Rider respectively. The vested shares, minus the number of shares to cover for the payment of any applicable taxes, social security premiums and possible other deductions by the government due for which the company holds a withholding obligation in connection with the vesting of the shares, are subject to a three year holding period, before they are at the disposal of the Executive Board members.

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The remaining part of variable compensation award for the performance year 2018 (60%), for Mr. Wynaendts EUR 319 and 58,968 shares and for Mr. Rider EUR 228 and 42,162 shares, is to be paid out in equal portions in 2018, 2019 and 2020, subject to ex-post assessments, which may result in downward adjustments and may be subject to additional conditions being met. Any payout will be split 50/50 in a cash payment and vesting of shares. The vested shares, minus the number of shares to cover for the payment of any applicable taxes, social security premiums and possible other deductions by the government due for which the Company holds a withholding obligation in connection with the vesting of the shares, are subject to a three year holding period, before they are at the disposal of the Executive Board members.

2017

Over the performance year 2017, Mr. Wynaendts was awarded EUR 1,147 in total conditional variable compensation. Mr. Rider was awarded EUR 499.

The variable compensation award is split 50/50 in cash payments and an allocation of shares. Of the variable compensation related to performance year 2017, 40% is payable in 2018. Accordingly, Mr. Wynaendts and Mr. Rider will receive a cash payment of EUR 229 and EUR 100 respectively. The number of shares to be made available in 2018 relating to performance year 2017 is 43,732 and 19,017 for Mr. Wynaendts and Mr. Rider respectively. The vested shares, minus the number of shares to cover for the payment of any applicable taxes, social security premiums and possible other deductions by the government due for which the Company holds a withholding obligation in connection with the vesting of the shares, are subject to a three year holding period, before they are at the disposal of the Executive Board members.

The remaining part of variable compensation award for the performance year 2017 (60%), for Mr. Wynaendts EUR 344 and 65,598 shares and for Mr. Rider EUR 150 and 28,522 shares, is to be paid out in equal portions in 2019, 2020 and 2021, subject to ex-post assessments, which may result in downward adjustments and may be subject to additional conditions being met. Any payout will be split 50/50 in a cash payment and vesting of shares. The vested shares, minus the number of shares to cover for the payment of any applicable taxes, social security premiums and possible other deductions by the government due for which the Company holds a withholding obligation in connection with the vesting of the shares, are subject to a three year holding period, before they are at the disposal of the Executive Board members.

Mr. Button has not been awarded variable compensation.

2016

Over the performance year 2016, Mr. Wynaendts was awarded EUR 1,044 in total conditional variable compensation. Mr. Button was awarded EUR 747.

The variable compensation award is split 50/50 in cash payments and an allocation of shares. Of the variable compensation related to performance year 2016, 40% is payable in 2017. Accordingly, Mr. Wynaendts and Mr. Button will receive a cash payment of EUR 209 and EUR 149 respectively. The number of shares to be made available in 2017 relating to performance year 2016 is 40,722 and 29,614 for Mr. Wynaendts and Mr. Button

respectively. The vested shares, minus the number of shares to cover for the payment of any applicable taxes, social security premiums and possible other deductions by the government due for which the Company holds a withholding obligation in connection with the vesting of the shares, are subject to a three year retention (holding) period, before they are at the disposal of the Executive Board members.

The remaining part of variable compensation award for the performance year 2016 (60%), for Mr. Wynaendts EUR 313 and 61,083 shares and for Mr. Button EUR 224 and 44,424 shares, is to be paid out in equal portions in 2018, 2019 and 2020, subject to ex-post assessments, which may result in downward adjustments and may be subject to additional conditions being met. Any payout will be split 50/50 in a cash payment and vesting of shares. The vested shares, minus the number of shares to cover for the payment of any applicable taxes, social security premiums and possible other deductions by the government due for which the Company holds a withholding obligation in connection with the vesting of the shares, are subject to a three year holding period, before they are at the disposal of the Executive Board members.

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The table below illustrates all the conditionally awarded cash and shares of the members of the Executive Board, and the years in which each component will be paid out and/or vest, subject to the conditions as mentioned:

	Conditional granted performance related remuneration	Timing of vesting, subject to targets and conditions						
Shares by reference period		2016	2017	2018	2019	2020	2021	2022
Alex Wynaendts								
2007	9,253 [8]	9,253	-	-	-	-	-	-
2012[1]	32,555	32,555	-	-	-	-	-	-
2013[2]	41,962	20,981	20,981	-	-	-	-	-
2014[3]	37,268	13,552	13,552	10,164 [10]	-	-	-	-
2015[4]	75,549	30,219	15,110	15,110	15,110	-	-	-
2016[5]	101,805	-	40,722	20,361	20,361	20,361	-	-
2017[6]	109,330	-	-	43,732	21,866	21,866	21,866	-
2018[7]	98,282	-	-	-	39,314	19,656	19,656	19,656
Total number of shares [9]	**506,004**	**106,560**	**90,365**	**89,367**	**96,651**	**61,883**	**41,522**	**19,656**
Matt Rider								
2017[6]	47,539	-	-	19,015	9,508	9,508	9,508	-
2018[7]	70,272	-	-	-	28,110	14,054	14,054	14,054
Total number of shares [9]	**117,811**	**-**	**-**	**19,015**	**37,618**	**23,562**	**23,562**	**14,054**
Darryl Button								
2013[2]	19,144	9,572	9,572	-	-	-	-	-
2014[3]	25,956	8,652	8,652	8,652	-	-	-	-
2015[4]	59,054	23,621	11,811	11,811	11,811	-	-	-
2016[5]	74,038	-	29,614	14,808	14,808	14,808	-	-
Total number of shares [9]	**178,192**	**41,845**	**59,649**	**35,271**	**26,619**	**14,808**	**-**	**-**

Jan J. Nooitgedagt								
2012[2]	22,370	22,370	-	-	-	-	-	-
2013[3]	17,652	8,826	8,826	-	-	-	-	-
Total number of shares [9]	**40,022**	**31,196**	**8,826**	**-**	**-**	**-**	**-**	**-**

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	Conditional granted performance related remuneration	Timing of vesting, subject to targets and conditions						
Cash (in EUR)		2016	2017	2018	2019	2020	2021	2022
Alex Wynaendts								
2012	101,768	101,768	-	-	-	-	-	-
2013	206,326	103,163	103,163	-	-	-	-	-
2014	251,155	91,329	91,329	68,497 [10]	-	-	-	-
2015	461,305	184,522	92,261	92,261	92,261	-	-	-
2016	522,060	-	208,824	104,412	104,412	104,412	-	-
2017	573,550	-	-	229,420	114,710	114,710	114,710	-
2018	531,219	-	-	-	212,490	106,243	106,243	106,243
Total cash	**2,647,383**	**480,782**	**495,577**	**494,590**	**523,873**	**325,365**	**220,953**	**106,243**
Matt Rider								
2017	249,390	-	-	99,756	49,878	49,878	49,878	-
2018	379,823	-	-	-	151,931	75,964	75,964	75,964
Total cash	**629,213**	**-**	**-**	**99,756**	**201,809**	**125,842**	**125,842**	**75,964**
Darryl Button								
2013	93,534	46,767	46,767	-	-	-	-	-
2014	180,072	60,024	60,024	60,024	-	-	-	-
2015	392,155	156,862	78,431	78,431	78,431	-	-	-
2016	373,369	-	149,347	74,674	74,674	74,674	-	-
Total cash	**1,039,130**	**263,653**	**334,569**	**213,129**	**153,105**	**74,674**	**-**	**-**
Jan J. Nooitgedagt								
2012	69,929	69,929	-	-	-	-	-	-
2013	86,792	43,396	43,396	-	-	-	-	-
Total cash	**156,721**	**113,325**	**43,396**	**-**	**-**	**-**	**-**	**-**

[1] The number of shares is based on a volume weighted average price of EUR 3.126. After vesting a 3 year holding period applies to shares vested.

[2] The number of shares is based on a volume weighted average price of EUR 4.917. After vesting a 3 year holding period applies to shares vested.

[3] The number of shares is based on a volume weighted average price of EUR 6.739. After vesting a 3 year holding period applies to shares vested.

[4] The number of shares is based on a volume weighted average price of EUR 6.106. After vesting a 3 year holding period applies to shares vested.
[5] The number of shares is based on a volume weighted average price of EUR 5.128. After vesting a 3 year holding period applies to shares vested.
[6] The number of shares is based on a volume weighted average price of EUR 5.246. After vesting a 3 year holding period applies to shares vested.
[7] The number of shares is based on a volume weighted average price of EUR 5.405. After vesting a 3 year holding period applies to shares vested.
[8] During the vesting period, dividend payments on these shares are deposited in blocked savings accounts on behalf of the executive members. For active members of the Executive Board 50% of the shares vested in 2012 and 50% vested in 2016.
[9] The shares that were allocated, vested with the acceptance of the Annual Accounts at the AGM in the year of vesting. The vesting price (in EUR) was: 4.5020 on 20 May 2016, 4.4230 on 19 May 2017 and 5.848 on 18 May 2018.
[10] In line with the Aegon Group Global Remuneration Framework, it was agreed to adjust Mr Wynaendt s 2014 variable compensation award downwards by 3,388 shares and EUR 22,832 to reflect the outcome of a regulatory matter relating to the company.

Other benefits

In EUR thousand	**2018**	2017	2016
Alex Wynaendts	195	165	178
Matt Rider [1]	46	59	-
Darryl Button [2]	-	-	739
Total other benefits	**240**	**224**	**917**

[1] Mr. Rider was appointed as CFO and member of Aegon s Executive Board per May 19, 2017. Other benefits are disclosed for the period that Mr. Rider has been part of the Executive Board. The other benefits for Mr Rider in 2017 was EUR 95 on an annualized basis.
[2] Mr. Button stepped down as CFO and member of Aegon s Executive Board on December 1, 2016. Other benefits are disclosed for the period that Mr. Button has been part of the Executive Board and are reflective of his time with Aegon December 1, 2016. These benefits also included expenses related to his expatriation and commuter assignment from the United States to the Netherlands, borne by the Group.

Other benefits include non-monetary benefits (e.g. company car), social security contributions by the employer, and tax expenses borne by the Group.

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Pension contributions

In EUR thousand	**2018**	2017	2016
Alex Wynaendts [1]	1,681	1,670	1,631
Matt Rider [2]	367	224	-
Darryl Button [3]	-	-	375
Total pension contributions	**2,048**	**1,894**	**2,006**

[1] The increase Mr. Wynaendts fixed compensation in 2016 and 2018 resulted in a back service liability of EUR 1,361 and EUR 340 respectively. The 2016 back service liability is expensed over 2016-2019 (2018: EUR 442; 2017: EUR 432; 2016: EUR 416).

[2] Mr. Rider was appointed as CFO and member of Aegon s Executive Board per May 19, 2017. Pension contributions are disclosed for the period that Mr. Rider has been part of the Executive Board.

[3] Mr. Button stepped down as CFO and member of Aegon s Executive Board on December 1, 2016. Pension contributions are disclosed for the period that Mr. Button has been part of the Executive Board and are reflective of his time with Aegon until December 1, 2016. Expenses recognized under IFRS accounting treatment in the income statement for Mr. Button for 2016 amount to EUR 375 (2015: EUR 215).

Pension contributions reflect the expenses related to the pension accrual over the financial year disclosed in the table, excluding back service charges.

The amounts as presented in the table are the pension contributions in the related book year. The 2016-2018 contributions for Mr. Wynaendts to the Aegon pension funds reflect the increase to his fixed salary in 2016 and 2018, as well as the current low interest rates. Under IFRS, the service cost as recognized in the income statement related to the defined benefit obligation of Mr. Wynaendts amounted to EUR 1,952 (2017: EUR 1,733; 2016: EUR 1,666). Service cost for Mr. Rider amounted to EUR 379 (2017: 175; 2016: nil).

Total

The total amount of remuneration, consisting of the fixed compensation, conditional variable compensation awards, other benefits and pension contributions, for Mr. Wynaendts related to 2018 was EUR 5,015 (2017: EUR 4,683; 2016: EUR 4,538) and for Mr. Rider EUR 2,091 (2017: EUR 1,342). The total remuneration for the members of the Executive Board over 2018 was EUR 7.1 million (2017: EUR 6.0 million; 2016: EUR 7.3 million). Total expenses recognized under IFRS accounting treatment in the income statement for Mr. Wynaendts related to 2018 was EUR 4,403 (2017: EUR 4,258; 2016: EUR 4,086) and for Mr. Rider EUR 1,887 (2017: 1,088; 2016: nil). Total IFRS expenses for the members of the Executive Board over 2018 was EUR 6.3 million (2017: EUR 5.3 million; 2016: 8.0 million). As a result of the termination of the Board membership of Mr. Button in 2016, an additional Dutch employer wage tax was estimated at EUR 1,394 in 2016. In 2017 it turned out that based on the actual situation and the expected value of the deferred compensations no additional Dutch employer wage tax will be due.

Interests in Aegon N.V. held by active members of the Executive Board

Shares held in Aegon at December 31, 2018 by Mr. Wynaendts amount to 494,779 (2017: 448,601) and by Mr. Rider to 20,462 (2017: nil). Mr. Rider was appointed as CFO and member of Aegon s Executive Board per May 19, 2017. The shares held in Aegon mentioned above do not exceed 1% of total outstanding share capital at the reporting date. At the reporting date no loans with Aegon or outstanding balances such as guarantees or advanced payments exist for either Mr. Wynaendts or Mr. Rider.

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Remuneration of active and retired members of the Supervisory Board

In EUR	**2018**	2017	2016
William L. Connelly (as of May 19, 2017)	119,000	60,125	-
Robert W. Dineen	100,500	104,000	115,000
Mark A. Ellman (as of May 19, 2017)	103,000	70,125	-
Ben J. Noteboom	86,000	101,500	109,000
Ben van der Veer	101,000	106,000	109,000
Corien M. Wortmann-Kool	103,000	100,750	90,000
Dona D. Young	120,500	115,500	113,000
Total for active members	**733,000**	**658,000**	**536,000**
Irving W. Bailey, II (up to May 20, 2016)	-	-	53,625
Shemaya Levy (up to May 19, 2017)	-	40,375	95,250
Robert J. Routs (up to May 18, 2018)	47,625	134,000	140,000
Dirk P.M. Verbeek (up to May 18, 2018)	28,750	100,000	111,000
Total remuneration	**809,375**	**932,375**	**935,875**
VAT liable on Supervisory Board remuneration	169,969	195,799	196,534
Total	**979,344**	**1,128,174**	**1,132,409**

Aegon s Supervisory Board members are entitled to the following:

- A base fee for membership of the Supervisory Board. No separate attendance fees are paid to members for attendance at the regular Supervisory Board meetings (2018: 7 meetings; 2017: 7 meetings; 2016: 8 meetings);
- An attendance fee of EUR 3,000 for each extra Board meeting attended, be it in person or by video and/or telephone conference;
- A committee fee for members on each of the Supervisory Board s Committees;
- An attendance fee for each Committee meeting attended, be it in person or through video and/or telephone conference; and
- An additional fee for attending meetings that require intercontinental travel between the Supervisory Board member s home location and the meeting location.

Not included in the table above is a premium for state health insurance paid on behalf of Dutch Supervisory Board members. There are no outstanding balances such as loans, guarantees or advanced payments.

Common shares held by Supervisory Board members

Shares held in Aegon at December 31	2018	2017
Robert W. Dineen	10,000	10,000

Ben J. Noteboom	23,500	23,500
Ben van der Veer	1,450	1,450
Dirk P.M. Verbeek	1,011	1,011
Dona D. Young	13,260	13,260
Total	**49,221**	**49,221**

Shares held by Supervisory Board members are only disclosed for the period for which they have been part of the Supervisory Board.

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54 Events after the reporting period

On January 8, 2019, Aegon announced the completion of the sale of its businesses in Czech Republic and Slovakia. The businesses consists mainly of unit linked life insurance coverage, term life products and pension services. The proceeds of the sale amount to EUR 155 million and the book gain amounts to approximately EUR 80 million. As a consequence of the transaction, annual income before tax and underlying earnings before tax will decrease. In 2018, the underlying earnings before tax of the combined operations amounted to EUR 17 million.

Aegon ceded businesses to a subsidiary of Scottish Re Group. In January 2018, Scottish Re Group announced a sale and restructuring plan and commenced Chapter 11 (reorganization) procedures for some of its subsidiaries. In December 2018, the Delaware Department of Insurance began also oversight procedures of the Scottish Re Group subsidiary SRUS with whom Aegon is a counterparty for some of its reinsurance activities. On March 1, 2019, the Delaware Department of Insurance requested SRUS to be placed in rehabilitation. The Company s management closely monitors the current developments but is not yet able to assess whether its outstanding reserves and receivables will be recoverable. The reserves and receivables of Aegon to Scottish Re Group at December 31, 2018 are less than EUR 100 million.

The Hague, the Netherlands, March 21, 2019

Supervisory Board	Executive Board
William L. Connelly	Alexander R. Wynaendts
Robert W. Dineen	Matthew J. Rider
Mark A. Ellman	
Ben J. Noteboom	
Ben van der Veer	
Corien M. Wortmann-Kool	
Dona D. Young	

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Income statement of Aegon N.V.

For the year ended December 31

Amounts in EUR million	Note	2018	2017
Income			
Investment Income	3	77	83
Total revenues		**77**	**83**
Results from financial transactions	4	(1)	56
Total income		**76**	**139**
Charges			
Commissions and expenses	5	82	82
Interest charges and related fees	6	118	100
Total charges		**200**	**182**
Income before tax		**(124)**	**(43)**
Income Tax	7	2	1
Income after tax		(122)	(42)
Net income/(loss) group companies		832	2,511
Net income/(loss)		**710**	**2,469**

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Statement of financial position of Aegon N.V.

As at December 31

Before profit appropriation, amounts in EUR million	Note	2018	2017
Non-current assets			
Financial fixed assets			
Shares in group companies	8	22,168	23,117
Loans to group companies	9	2,487	2,690
		24,655	25,807
Current assets			
Receivables			
Receivables from group companies	10	35	36
Other receivables	10	137	146
Other current assets	11	137	74
Accrued interest and rent		16	8
		325	264
Cash and cash equivalents			
Cash and cash equivalents		1,231	1,068
Total assets		26,211	27,139
Shareholders equity			
Share capital	12	322	322
Paid-in surplus	13	7,486	7,731
Revaluation account	13	3,565	5,017
Legal reserves foreign currency translation reserve	13	130	(401)
Legal reserves in respect of group companies	13	1,326	1,122
Retained earnings, including treasury shares	13	7,536	5,696
Remeasurement of defined benefit plans of group companies	13	(1,850)	(1,669)
Net income/(loss)	13	710	2,469
		19,225	20,288
Other equity instruments	14	3,320	3,794
Total equity		22,546	24,082
Provisions			
Deferred tax liability		10	89

		10	89
Non-current liabilities			
Subordinated borrowings	15	1,389	764
Long-term borrowings	16	1,292	1,801
		2,681	2,565
Current liabilities	17		
Short term deposits		82	73
Loans from group companies		9	62
Payables to group companies		582	123
Other current liabilities		271	125
Accruals and deferred income		31	22
		975	405
Total liabilities		**3,666**	**2,970**
Total equity and liabilities		**26,211**	**27,139**

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Notes to the financial statements

1 General information

Aegon N.V., incorporated and domiciled in the Netherlands, is a public limited liability company organized under Dutch law and recorded in the Commercial Register of The Hague registered under number 27076669 and with its registered address at Aegonplein 50, 2591 TV, The Hague, the Netherlands. Aegon N.V. serves as the holding company for the Aegon Group and has listings of its common shares in Amsterdam and New York.

Aegon N.V. (or the Company) and its subsidiaries (Aegon or the Group) have life insurance and pensions operations in more than 20 countries in the Americas, Europe and Asia and are also active in savings and asset management operations, accident and health insurance, general insurance and to a limited extent banking operations. Headquarters are located in The Hague, the Netherlands. The Group employs over 26,000 people worldwide (2017: over 28,000).

2 Significant accounting policies

The financial statements have been prepared in accordance with accounting principles in the Netherlands as embodied in Part 9 of Book 2 of the Netherlands Civil Code. In accordance with 2:362.8 of the Dutch Civil Code, the Company s financial statements are prepared based on the accounting principles of recognition, measurement and determination of profit, as applied in the consolidated financial statements. These principles also include the classification and presentation of financial instruments, being equity instruments or financial liabilities.

The group companies are stated at their net asset value, determined on the basis of the consolidated accounting policies as applied in the consolidated financial statements of the Group. For details on the accounting policies applied for the group companies refer to the consolidated financial statements.

Revaluation account includes unrealized gains and losses on available-for-sales assets and the positive changes in value that have been recognized in net income/(loss) relating to investments (including real estate) and which do not have a frequent market listing.

Legal reserves in respect of group companies include net increases in net asset value of subsidiaries and associates since their first inclusion, less any amounts that can be distributed without legal restrictions.

A reference is made to Note 2 Significant accounting policies of the consolidated financial statements for the description of the accounting policies applied.

3 Investment income

	2018	2017
Interest income from intercompany loans	66	65

Interest income from derivatives	11	18
Total Investment Income	**77**	**83**

4 Results from financial transactions

	2018	2017
Results from financial transactions comprise:		
Net fair value change of derivatives	(8)	56
Net foreign currency gains and (losses)	3	-
Net fair value change on borrowings and other financial liabilities	4	-
Total	**(1)**	**56**

Net fair value change of derivatives mostly comprises of Fair value changes on derivatives that are designated as economic hedges for which no hedge accounting is applied.

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5 Commissions and expenses

	2018	2017
Employee expenses	83	80
Administration expenses	79	78
Cost sharing to group companies	(80)	(76)
Total	**82**	**82**

6 Interest charges and related fees

	2018	2017
Subordinated borrowings	63	34
Borrowings	55	62
Other	-	4
Total	**118**	**100**

7 Income tax

	2018	2017
Current Tax		
Current Tax	2	1
Income tax for the period (income)/charge	**2**	**1**
Reconciliation between standard and effective tax		
Income before tax	(124)	(43)
Tax on income on Dutch corporate income tax rate	31	11
Differences due to the effect of:		
Non deductible expenses	(5)	(11)
Adjustments prior year	(24)	-
Total	**2**	**1**

8 Shares in group companies

	2018	2017
At January 1	23,117	22,219
Capital contributions and acquisitions	97	1,006
Divestments and capital repayments	(23)	(698)
Dividend received	(702)	(120)
Net income/(loss) for the financial year	831	2,511
Revaluations	(1,154)	(1,799)
At December 31	**22,168**	**23,117**

For a list of names and locations of the most important group companies, refer to note 52 Group companies of the consolidated financial statements of the Group. The legally required list of participations as set forth in article 379 of Book 2 of the Netherlands Civil Code has been registered with the Commercial Register of The Hague.

9 Loans to group companies

	2018	2017
At January 1	2,690	4,123
Additions/(repayments)	(333)	(990)
Other changes	131	(443)
At December 31	**2,487**	**2,690**
Current	60	439
Non-current	2,427	2,251

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The other changes in Loans to group companies mainly relate to currency exchange rate fluctuations.

10 Receivables

Receivables from group companies and other receivables have a maturity of less than one year. Other receivables include an income tax receivable of EUR 88 million (2017: EUR 130 million).

Aegon N.V., together with certain of its subsidiaries, is part of a tax grouping for Dutch corporate income tax purposes. The members of the fiscal unit are jointly and severally liable for any taxes receivable or payable by the Dutch tax grouping.

11 Other current assets

Other current assets include derivatives with positive fair values of EUR 134 million (2017: EUR 70 million).

12 Share capital

Issued and outstanding capital	2018	2017
Common shares	251	251
Common shares B	70	70
Total share capital	**322**	**322**

Common shares	2018	2017
Authorized share capital	720	720
Number of authorized shares (in million)	6,000	6,000
Par value in cents per share	12	12

Common shares B	2018	**2017**
Authorized share capital	360	360
Number of authorized shares (in million)	3,000	3,000
Par value in cents per share	12	12

All issued common shares and common shares B each have a nominal value of EUR 0.12 and are fully paid up. Repayment of capital can only be initiated by the Executive Board, is subject to approval of the Supervisory Board and must be resolved by the General Meeting of Shareholders. Moreover, repayment on common shares B needs approval of the related shareholders. Refer to Other information for further information on dividend rights.

Vereniging Aegon, based in The Hague, the Netherlands, holds all of the issued and outstanding common shares B.

On May 18, 2018, Vereniging Aegon exercised its options rights to purchase in aggregate 1,489,200 common shares B at fair value of a common share B (being 1/40th of the market value of a common share in the capital of the Company at the time of issuance) to mitigate dilution caused the issuance of shares on May 18, 2018, in connection with the Long Term Incentive Plans for senior management.

On December 19, 2017, Aegon N.V. repurchased 13,042,592 common shares B from Vereniging Aegon for the amount of EUR 1,725,169.73 based on 1/40th of the Value Weight Average Price of the common shares of the five trading days preceding this transaction. The repurchase of common shares B was executed to align the aggregate shareholding of Vereniging Aegon in Aegon N.V. with its special cause voting rights of 32.6% following the completion of the Share Buy Back Program, initiated by Aegon N.V. in October 2017 to neutralize the dilutive effect of the distribution of final dividend 2016 in stock and interim dividend 2017 in stock.

On June 23, 2017, Vereniging Aegon exercised its options rights to purchase in aggregate 13,042,612 common shares B at fair value of a common share B (based on 1/40th of the market value of a common share in the capital of the Company at the time of issuance) to mitigate dilution caused by Aegon s issuance of shares on June 23, 2017, being the final dividend 2016 in the form of stock dividend.

On May 19, 2017, Vereniging Aegon exercised its options rights to purchase in aggregate 1,979,260 common shares B at fair value of a common share B (based on 1/40th of the market value of a common share in the capital of the Company at the time

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of issuance) to mitigate dilution caused the issuance of shares on May 19, 2017, in connection with the Long Term Incentive Plans for senior management.

The following table shows the movement during the year in the number of common shares and common shares B:

	Common shares		Common shares B	
	Number of shares (thousands)	Total amount	Number of shares (thousands)	Total amount
At January 1, 2017	**2,074,549**	**249**	**585,022**	**70**
Dividend	21,099	3	-	-
At December 31, 2017	**2,095,648**	**251**	**585,022**	**70**
Dividend	-	-	-	-
At December 31, 2018	**2,095,648**	**251**	**585,022**	**70**

The following table shows the weighted average number of common shares and common shares B:

	Weighted average number of common shares (thousands)	Weighted average number of common shares B (thousands)
2017	**2,080,792**	**585,022**
2018	**2,095,648**	**585,022**

The shares repurchased by Aegon N.V. during the share-buy-back programs to undo the dilution caused by the distribution of dividend in stock, although included in the issued and outstanding number of shares, are excluded from the calculation of the weighted average number of shares.

Long-term incentive plans

For detailed information on the Long Term Incentive Plans refer to note 14 Commissions and expenses to the consolidated financial statements of the Group.

Board remuneration

Detailed information on remuneration of active and retired members of the Executive Board including their share plans, remuneration of active and retired members of the Supervisory Board along with information about shares held in Aegon by the members of the Boards is included in note 53 Related party transactions to the consolidated financial statements of the Group.

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13 Shareholders equity

At January 1, 2018	322	7,731	5,017	(401)	1,122	6,022	(1,669)	(325)	2,469	20,288
Net income 2017 retained	-	-	-	-	-	2,469	-	-	(2,469)	-
Net income 2018	-	-	-	-	-	-	-	-	710	710
Total net income/(loss)	**-**	**-**	**-**	**-**	**-**	**2,469**	**-**	**-**	**(1,759)**	**710**
Foreign currency translation differences and movement in foreign investment hedging reserves	-	-	-	531	-	-	(32)	-	-	499
Changes in revaluation subsidiaries	-	-	(1,459)	-	-	-	-	-	-	(1,459)
Remeasurement of defined benefit plans of group companies	-	-	-	-	-	-	(150)	-	-	(150)
Changes and transfer to legal reserve	-	-	7	-	204	(202)	-	-	-	9
Other	-	-	-	-	-	(3)	-	-	-	(3)
Other comprehensive income/(loss)	**-**	**-**	**(1,452)**	**531**	**204**	**(205)**	**(182)**	**-**	**-**	**(1,105)**
Shares issued	-	-	-	-	-	-	-	-	-	-
Dividend common shares	-	(244)	-	-	-	(329)	-	-	-	(573)
Dividend withholding tax reduction	-	-	-	-	-	1	-	-	-	1
Treasury shares	-	-	-	-	-	26	-	(12)	-	14
Coupons and premium on convertible core capital securities and coupon on perpetual securities, net of tax	-	-	-	-	-	(113)	-	-	-	(113)
Repurchased and sold own shares	-	-	-	-	-	-	-	-	-	-
At December 31, 2018	**322**	**7,486**	**3,565**	**130**	**1,326**	**7,872**	**(1,850)**	**(337)**	**710**	**19,225**

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316 Notes to the financial statements of Aegon N.V. **Note 13**

At January 1, 2017	319	7,873	5,450	1,316	1,169	5,966	(1,820)	(190)	437	20,520
Net income 2016 retained	-	-	-	-	-	437	-	-	(437)	-
Net income 2017	-	-	-	-	-	-	-	-	2,469	2,469
Total net income/(loss)	**-**	**-**	**-**	**-**	**-**	**437**	**-**	**-**	**2,032**	**2,469**
Foreign currency translation differences and movement in foreign investment hedging reserves	-	-	-	(1,717)	-	-	102	-	-	(1,615)
Changes in revaluation subsidiaries	-	-	(461)	-	-	-	-	-	-	(461)
Remeasurement of defined benefit plans of group companies	-	-	-	-	-	-	49	-	-	49
Changes and transfer to legal reserve	-	-	28	-	(47)	(1)	-	-	-	(20)
Other	-	-	-	-	-	12	-	-	-	12
Other comprehensive income/(loss)	**-**	**-**	**(433)**	**(1,717)**	**(47)**	**11**	**151**	**-**	**-**	**(2,035)**
Shares issued	3	-	-	-	-	-	-	-	-	3
Dividend common shares	-	(142)	-	-	-	(296)	-	-	-	(438)
Dividend withholding tax reduction	-	-	-	-	-	2	-	-	-	2
Treasury shares	-	-	-	-	-	30	-	(136)	-	(106)
Coupons and premium on convertible core capital securities and coupon on perpetual securities, net of tax	-	-	-	-	-	(131)	-	-	-	(131)
Repurchased and sold own shares	-	-	-	-	-	4	-	-	-	4
At December 31, 2017	**322**	**7,731**	**5,017**	**(401)**	**1,122**	**6,022**	**(1,669)**	**(325)**	**2,469**	**20,288**

The balance of the revaluation account, which includes revaluation reserves for real estate and investments that do not have a frequent market listing, consisted of EUR 4,459 million (2017: EUR 5,380 million) of items with positive revaluation and of EUR 895 million (2017: EUR 363 million) of items with negative revaluation.

The revaluation account and legal reserves, foreign currency translation reserve and other, can not be freely distributed. In case of negative balances for individual reserves legally to be retained, no distributions can be made out of retained earnings to the level of these negative amounts.

Certain of Aegon s subsidiaries, principally insurance companies, are subject to restrictions on the amounts of funds they may transfer in the form of cash dividends or otherwise to their parent companies. There can be no assurance that these restrictions will not limit or restrict Aegon in its ability to pay dividends in the future.

On the reporting date, Aegon N.V., and its subsidiaries held 62,562,070 of its own common shares (2017: 65,650,650) with a nominal value of EUR 0.12 each. Most of the shares have been purchased to neutralize the dilution effect of issued share dividend and to hedge share based payment plans for executives and employees. Aegon N.V. held 13,856,480 of its own common shares B (2017:15,345,680) with a nominal value of 0.12 each.

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317 Notes to the financial statements of Aegon N.V. **Note 13**

Movements in the number of treasury common shares held by Aegon N.V. were as follows:

	2018		2017	
	Number of shares (thousands)	Amount	Number of shares (thousands)	Amount
At January 1	64,488	314	47,473	178
Transactions in 2018:				
Sale: transactions, average price EUR 3,76	(3,070)	(12)		
Sale: 1 transaction, average price EUR 4.62	(21,954)	(101)		
Purchase: 1 transaction, average price EUR 5.34	21,954	117		
Sale: 1 transaction, average price EUR 5.09	(24,134)	(123)		
Purchase: 1 transaction, average price EUR 5.43	24,134	131		
Transactions in 2017:				
Sale: transactions, average price EUR 3.44			(4,085)	(14)
Sale: 1 transaction, average price EUR 3.68			(26,916)	(99)
Sale: 1 transaction, average price EUR 3.77			(3,849)	(14)
Purchase: 1 transaction, average price EUR 5.09			51,865	263
At December 31	**61,418**	**326**	**64,488**	**314**

Movements in the number of treasury common shares B held by Aegon N.V. were as follows:

	2018		2017	
	Number of shares (thousands)	Amount	Number of shares (thousands)	Amount
At January 1	15,346	2	17,325	2
Transactions in 2018:				
Sale: 1 transaction, average price EUR 0.11	(1,489)	-		
Transactions in 2017:				
Sale: 1 transaction, average price EUR 0.11			(1,979)	-
Sale: 1 transaction, average price EUR 0.11			(13,043)	(1)
Purchase: 1 transaction, average price EUR 0.13			13,043	2
At December 31	**13,856**	**2**	**15,346**	**2**

As part of their insurance and investment operations, subsidiaries within the Group also hold Aegon N.V. common shares, both for their own account and for account of policyholders. These shares have been treated as treasury shares and are included at their consideration paid or received.

	2018		2017	
	Number of shares (thousands)	Total amount	Number of shares (thousands)	Total amount
Common shares				
Held by Aegon N.V.	61,418	326	64,488	314
Held by subsidiaries	1,144	9	1,163	9
Common shares B				
Held by Aegon N.V.	13,856	2	15,346	2
At December 31	**76,419**	**337**	**80,996**	**325**

The consideration for the related shares is deducted from or added to the retained earnings.

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14 Other equity instruments

	Junior perpetual capital securities	Perpetual cumulative subordinated bonds	Share options and incentive plans [1)]	Non-cumulative subordinated notes	Total
At January 1, 2018	3,008	454	61	271	3,794
Shares granted	-	-	16	-	16
Shares vested	-	-	(19)	-	(19)
Securities redeemed	(200)	-	-	(271)	(471)
At December 31, 2018	**2,808**	**454**	**58**	**-**	**3,320**
At January 1, 2017	3,008	454	65	271	3,797
Shares granted	-	-	26	-	26
Shares vested	-	-	(30)	-	(30)
At December 31, 2017	**3,008**	**454**	**61**	**271**	**3,794**

[1] Share options and incentive plans include the shares and options granted to personnel which are not yet vested.

Junior perpetual capital securities	Coupon rate	Coupon date, as of	Year of next call	2018	2017
USD 500 million	6.50%	Quarterly, December 15	2019	424	424
USD 250 million	floating LIBOR rate [1]	Quarterly, December 15	2019	212	212
USD 500 million	floating CMS rate [2]	Quarterly, July 15	2019	402	402
USD 1 billion	6.375%	Quarterly, June 15	2019	821	821
EUR 950 million	floating DSL rate [3]	Quarterly, July 15	2019	950	950
EUR 200 million	6.0%	Annually, July 21	Called in 2018	-	200
At December 31				**2,808**	**3,008**

[1] The coupon of the USD 250 million junior perpetual capital securities is reset each quarter based on the then prevailing three-month LIBOR yield plus a spread of 87.5 basis points, with a minimum of 4%.

[2] The coupon of the USD 500 million junior perpetual capital securities is reset each quarter based on the then prevailing ten-year US dollar interest rate swap yield plus a spread of ten basis points, with a maximum of 8.5%.

[3] The coupon of the EUR 950 million junior perpetual capital securities is reset each quarter based on the then prevailing ten-year Dutch government bond yield plus a spread of ten basis points, with a maximum of 8%.

The interest rate exposure on some of these securities has been swapped to a three-month LIBOR and/or EURIBOR based yield.

The securities have been issued at par. The securities have subordination provisions, rank junior to all other liabilities and senior to shareholders equity only. The conditions of the securities contain certain provisions for optional and required coupon payment deferral and, in situations under Aegon s control, mandatory coupon payment events. Although the securities have no stated maturity, Aegon has the right to call the securities for redemption at par for the first time on the coupon date in the years as specified, or on any coupon payment date thereafter.

Perpetual cumulative subordinated bonds	Coupon rate	Coupon date	Year of next call	**2018**	2017
EUR 203 million	4.260% [1, 4]	Annual, March 4	2021	203	203
EUR 114 million	1.506% [2, 4]	Annual, June 8	2025	114	114
EUR 136 million	1.425% [3, 4]	Annual, October 14	2028	136	136
At December 31				**454**	**454**

[1] The coupon of the EUR 203 million bonds was originally set at 7.125% until March 4, 2011. Subsequently, the coupon has been reset at 4.26% until March 4, 2021.

[2] The coupon of the EUR 114 million bonds was originally set at 8% until June 8, 2005. Subsequently, the coupon has been reset at 4.156% until June 8, 2015 and 1.506% until June 8, 2025.

[3] The coupon of the EUR 136 million bonds was originally set at 7.25% until October 14, 2008. Subsequently, the coupon has been reset at 5.185% until October 14, 2018 and 1.425% until October 14, 2028.

[4] If the bonds are not called on the respective call dates and after consecutive period of ten years, the coupons will be reset at the then prevailing effective yield of ten-year Dutch government securities plus a spread of 85 basis points.

The bonds have the same subordination provisions as dated subordinated debt. In addition, the conditions of the bonds contain provisions for interest deferral.

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Although the bonds have no stated maturity, Aegon has the right to call the bonds for redemption at par for the first time on the coupon date in the year of next call.

Non-cumulative subordinated notes	Coupon rate	Coupon date, as of	Year of next call	2018	2017
USD 525 million	8%	Quarterly, February 15	Called in 2018	-	271
At December 31				-	271

With effect May 15, 2018, Aegon has exercised its right to redeem USD 525 million non-cumulative subordinated notes, subsequently leading to their redemption. The securities had a stated maturity of 30 years, however, Aegon had the right to call the securities for redemption at par on any coupon payment date.

The non-cumulative subordinated notes were initially issued on February 7, 2012, in aggregate principal amount of 8.00%, due 2042, in an underwritten public offering in the United States registered with the US Securities and Exchange Commission.

The securities were subordinated and ranked senior to the junior perpetual capital securities, equally with the perpetual cumulative subordinated bonds and fixed floating subordinated notes, and junior to all other liabilities. The conditions of the securities contained certain provisions for optional and required cancellation of interest payments.

These notes were recognized as compound financial instruments and separated into an equity component and a liability component. Prior to redemption, the equity component had a book value of EUR 271 million (2017: EUR 271 million), subordinated borrowings amounted to EUR 68 million (2017: EUR 69 million) and a deferred tax liability amounting to EUR 89 million (2017: EUR 92 million).

Refer to note 15 Subordinated borrowings for details of the component classified as subordinated borrowings.

15 Subordinated borrowings

	Coupon rate	Coupon date	Year of next call	2018	2017
Fixed floating subordinated notes					
EUR 700 million	4%	Annually, April 25	2024	696	695
USD 800 million	5.5%	Semi-annualy, April 11	2028	693	-
Non-cumulative subordinated notes					
USD 525 million	8%	Quarterly, February 15	Called in 2018	-	69
At December 31				1,389	764

The newly issued subordinated debt securities of USD 800 million issued on April 11, 2018 have a fixed coupon of 5.5% until the first call date and floating thereafter with a margin including a 100 basis points step-up. The securities are first callable on April 11, 2028 and maturing on April 11, 2048.

These securities are subordinated and rank senior to the junior perpetual capital securities, equally with the perpetual cumulative subordinated bonds and junior to all other liabilities. The conditions of the securities contain certain provisions for optional and required deferral of interest payments. There have been no defaults or breaches of conditions during the period.

In 2017, subordinated borrowings included a liability of EUR 69 million relating to the USD 525 million non-cumulative subordinated notes issued on February 7, 2012. The liability component of the non-cumulative subordinated notes related to the redemption amount was derecognised subsequent to Aegon exercising its redemption rights in May 2018.

For further information on the non-cumulative subordinated notes and their subordination refer to note 14 Other equity instruments.

The fair value of these loans amounted to EUR 1,355 million (2017: EUR 953 million).

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16 Long-term borrowings

	2018	2017
Remaining terms less than 1 year	78	500
Remaining terms 1 5 years	496	82
Remaining terms 5 10 years	-	495
Remaining terms over 10 years	717	724
At December 31	**1,292**	**1,801**

Long-term borrowings decreased by EUR 509 million to EUR 1,292 million compared to December 31, 2017, mainly related to the repayment of EUR 500 million 0% senior unsecured notes on August 30, 2018.

The repayment periods of borrowings vary from within one year up to a maximum of 21 years. The interest rates vary from 1.000% to 6.625% per annum. The market value of the long-term borrowings amounted to EUR 1,649 million (2017: EUR 2,198 million).

17 Current liabilities

Loans from and payables to group companies have a maturity of less than one year. Other current liabilities includes derivatives with negative fair values of EUR 164 million (2017: EUR 97 million).

18 Commitments and contingencies

Aegon N.V. has guaranteed and is severally liable for the following:

Due and punctual payment of payables due under letter of credit agreements applied for by Aegon N.V. as co-applicant with its captive insurance companies that are subsidiaries of Transamerica Corporation and Commonwealth General Corporation. At December 31, 2018, the letter of credit arrangements utilized by captives to provide collateral to affiliates amounted to EUR 3,469 million (2017: EUR 3,025 million); as of that date no amounts had been drawn, or were due under these facilities. Other letter of credit arrangements for subsidiaries amounted to EUR 60 million (2017: EUR 55 million); as of that date no amounts had been drawn, or were due under these facilities;

Due and punctual payment of payables due under letter of credit agreements or guarantees provided for subsidiaries of Transamerica Corporation at December 31, 2018 amounted to EUR 3,164 million (2017: EUR 3,079 million) as of that date no amounts had been drawn, or were due under letter of credit facilities. The guarantees partly related to debt amounted to EUR 1,388 million (2017: EUR 1,322 million) and is included in the Operational funding table in note 39 Borrowings of the consolidated financial statements of the Group in the line USD 1.54 billion Variable Funding Surplus Note ;

Due and punctual payment of payables by the consolidated group companies Transamerica Corporation, Aegon Funding Company LLC and Commonwealth General Corporation with respect to bonds, capital trust pass-through securities and notes issued under commercial paper programs amounted to EUR 614 million (2017: EUR

585 million); and

Due and punctual payment of any amounts owed to third parties by the consolidated group company Aegon Derivatives N.V. in connection with derivative transactions. Aegon Derivatives N.V. only enters into derivative transactions with counterparties with which ISDA master netting agreements including collateral support annex agreements have been agreed; net (credit) exposure on derivative transactions with these counterparties was therefore limited as of December 31, 2018.

19 Number of employees

There were no employees employed by Aegon N.V. in 2018 (2017: nil).

20 Auditor s remuneration

	Total remuneration of the group		Of which PricewaterhouseCoopers Accountants N.V. (NL)	
	2018	2017	**2018**	2017
Audit fees	37	42	12	13
Audit-related fees	2	3	-	1
Total	**39**	**46**	**12**	**14**

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21 Events after the reporting period

On January 8, 2019, Aegon announced the completion of the sale of its businesses in Czech Republic and Slovakia. The businesses consists mainly of unit linked life insurance coverage, term life products and pension services. The proceeds of the sale amount to EUR 155 million and the book gain amounts to approximately EUR 80 million. As a consequence of the transaction, annual income before tax and underlying earnings before tax will decrease. In 2018, the underlying earnings before tax of the combined operations amounted to EUR 17 million.

22 Proposal for profit appropriation

At the Annual General Meeting of Shareholders on May 17, 2019, the Executive Board will, absent unforeseen circumstances, propose a final dividend for 2018 of EUR 0.15 per common share and EUR 0.00375 per common share B. The final dividend will be paid in cash or stock at the election of the shareholder. The value of the stock dividend will be approximately equal to the cash dividend.

If the proposed dividend is approved by shareholders, Aegon shares will be quoted ex-dividend on May 21, 2019, for the shares listed on the New York Stock Exchange and on May 21, 2019, for shares listed on Euronext. The record date for the dividend will be May 22, 2019. Shareholders can elect to receive a dividend in cash or in shares during the dividend election period, which will run from May 28, 2019 up to and including June 14, 2019. The dividend will be payable as of June 21, 2019.

In order to reflect the prevailing market price of Aegon N.V. common shares fully within the indication provided, the number of dividend coupons that give entitlement to a new common share of EUR 0.12 (nominal value) will be determined on June 14, 2019 after 5.30 p.m. (CET), based on the average share price on Euronext Amsterdam in the five trading days from June 10, 2019 up to and including June 14, 2019.

	2018	2017
Final dividend on common shares	307	286
Earnings to be retained	403	2,183
Net income attributable to owners of Aegon N.V.	**710**	**2,469**

The Hague, the Netherlands, March 21, 2019

Supervisory Board

William L. Connelly
Robert W. Dineen
Mark A. Ellman
Ben J. Noteboom

Executive Board

Alexander R. Wynaendts
Matthew J. Rider

Ben van der Veer
Corien M. Wortmann-Kool
Dona D. Young

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Other information

Profit appropriation

Appropriation of profit will be determined in accordance with the articles 31 and 32 of the Articles of Association of Aegon N.V. The relevant provisions are as follows:

1. The General Meeting of Shareholders will adopt the Annual Accounts;
2. If the adopted profit and loss account shows a profit, the Supervisory Board may decide, upon the proposal of the Executive Board, to set aside part of the profit to augment and/or form reserves;
3. The profits remaining after application of 2 above shall be put at the disposal of the General Meeting of Shareholders. The Executive Board, subject to the approval of the Supervisory Board, shall make a proposal for that purpose. A proposal to pay a dividend shall be dealt with as a separate agenda item at the General Meeting of Shareholders;
4. The Executive Board may, subject to the approval of the Supervisory Board, make one or more interim distributions to the holders of common shares and common shares B;
5. Distributions are made in accordance with the principle set forth in article 4 of the Articles of Association of Aegon N.V. that the financial rights of a common share B are one fortieth (1/40th) of the financial rights of a common share;
6. The Executive Board may, subject to the approval of the Supervisory Board, decide that a distribution on common shares and common shares B shall not take place as a cash payment but as a payment in common shares. Alternatively, it may decide that holders of common shares and common shares B shall have the option to receive a distribution as a cash payment and/or as a payment in common shares, out of the profit and/or at the expense of reserves, provided that the Executive Board is designated by the General Meeting to issue shares. Subject to the approval of the Supervisory Board, the Executive Board shall also determine the conditions applicable to the aforementioned choices; and
7. The Company s policy on reserves and dividends shall be determined and can be amended by the Supervisory Board, upon the proposal of the Executive Board. The adoption and each amendment of the policy on reserves and dividends thereafter, shall be discussed and accounted for at the General Meeting of Shareholders under a separate agenda item.

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323 Other information **Major shareholders**

Major shareholders

General

As of December 31, 2018, Aegon s total authorized share capital consisted of 6,000,000,000 common shares with a par value of EUR 0.12 per share and 3,000,000,000 common shares B with a par value of EUR 0.12 per share. At the same date, there were 2,095.648,244 common shares and 585,022,160 common shares B issued. Of the issued common shares, 61,418,167 common shares and 13,856,480 common shares B were held by Aegon as treasury shares and 1,143,903 treasury shares were held by its subsidiaries.

All of Aegon s common shares and common shares B are fully paid and not subject to calls for additional payments of any kind. All of Aegon s common shares are registered shares. Holders of shares of New York registry hold their common shares in the registered form issued by Aegon s New York transfer agent on Aegon s behalf. Shares of New York registry and shares of Netherlands registry are exchangeable on a one-to-one basis and are entitled to the same rights, except that cash dividends are paid in US dollars on shares of New York registry.

As of December 31, 2018, 251 million common shares were held in the form of New York Registry shares. As of December 31, 2018, there were approximately 16,231 record holders of Aegon s New York Registry shares resident in the United States.

Vereniging Aegon

Vereniging Aegon is the continuation of the former mutual insurer AGO. In 1978, AGO demutualized and Vereniging AGO became the only shareholder of AGO Holding N.V., which was the holding company for its insurance operations. In 1983, AGO Holding N.V. and Ennia N.V. merged into Aegon N.V. Vereniging AGO initially received approximately 49% of the common shares (reduced gradually to less than 40%) and all of the preferred shares in Aegon N.V., giving it voting majority in Aegon N.V. At that time, Vereniging AGO changed its name to Vereniging Aegon.

The purpose of the Association is a balanced representation of the direct and indirect interests of Aegon N.V. and of companies with which Aegon N.V. forms a group, of insured parties, employees, shareholders and other related parties of these companies. Influences that threaten the continuity, independence or identity of Aegon N.V., in conflict with the aforementioned interests will be resisted as much as possible.

In accordance with the 1983 Amended Merger Agreement, Vereniging Aegon had certain option rights on preferred shares to prevent dilution of voting power as a result of share issuances by Aegon N.V. This enabled Vereniging Aegon to maintain voting control at the General Meeting of Shareholders of Aegon N.V. In September 2002, Aegon N.V. effected a capital restructuring whereby Vereniging Aegon, among others, sold 206,400,000 common shares to Aegon N.V. for the amount of EUR 2,064,000,000; Vereniging Aegon contributed these as additional paid-in capital on the then existing Aegon N.V. preferred shares. As a result of this capital restructuring, Vereniging Aegon s beneficial ownership interest in Aegon N.V. s common shares decreased from approximately 37% to approximately 12% and its beneficial ownership interest in Aegon N.V. s voting shares decreased from approximately 52% to approximately 33%.

On May 9, 2003, Aegon s shareholders approved certain changes to Aegon s corporate governance structure. Preferred shares with a nominal value of EUR 0.12 were converted into 211,680,000 new class A preferred shares with a nominal value of EUR 0.25, and class B preferred shares were created with a nominal value of EUR 0.25 each. No class B preferred shares were issued at that time. The voting rights pertaining to the preferred shares were adjusted accordingly to 25/12 vote per preferred share. However, in May 2003, Aegon N.V. and Vereniging Aegon entered into a Preferred Shares Voting Agreement, pursuant to which Vereniging Aegon agreed to exercise one vote only per preferred share, except in the event of a Special Cause , as defined below.

In May 2003, Aegon N.V. and Vereniging Aegon amended the option arrangements under the 1983 Amended Merger Agreement so that, in the event of an issuance of shares by Aegon N.V., Vereniging Aegon could purchase as many class B preferred shares as would enable Vereniging Aegon to prevent or correct dilution to below its actual percentage of voting shares, to a maximum of 33%.

On February 15, 2013, Aegon N.V. and Vereniging Aegon entered into an agreement to simplify the capital structure of Aegon and to cancel all of Aegon s preferred shares, of which Vereniging Aegon was the sole owner. The execution of this agreement was subject to the approval of the General Meeting of Shareholders of Aegon N.V. This approval was granted at the Annual General Meeting of Shareholders on May 15, 2013.

The simplified capital structure entailed, but was not limited to, the amendment of the Articles of Association of Aegon N.V., including the conversion of all outstanding 329,773,000 preferred shares A and B, with a nominal value of EUR 0.25 each, into 120,713,389

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common shares and 566,313,695 common shares B, with a nominal value of EUR 0.12 each. The financial rights attached to a common share B were determined at 1/40th of the financial rights attached to a common share.

The simplified capital structure also entailed the amendment of the Voting Rights Agreement between Aegon N.V. and Vereniging Aegon, known as the Preferred Shares Voting Agreement before May 2013. As a matter of Dutch corporate law, the shares of both classes offer equal full voting rights, as they have equal nominal values (EUR 0.12). The amended Voting Rights Agreement ensures that under normal circumstances, i.e. except in the event of a Special Cause, Vereniging Aegon will no longer be able to exercise more votes than is proportionate to the financial rights represented by its shares. This means that in the absence of a Special Cause Vereniging Aegon may cast one vote for every common share it holds and one vote only for every 40 common shares B it holds. As Special Cause qualifies the acquisition of a 15% interest in Aegon N.V., a tender offer for Aegon N.V. shares or a proposed business combination by any person or group of persons, whether individually or as a group, other than in a transaction approved by the Executive Board and the Supervisory Board. If, in its sole discretion, Vereniging Aegon determines that a Special Cause has occurred, Vereniging Aegon will notify the General Meeting of Shareholders and retain its right to exercise the full voting power of one vote per common share B for a limited period of six months.

The simplified capital structure also included an amendment to the 1983 Amended Merger Agreement between Aegon N.V. and Vereniging Aegon. Following this 2013 amendment, Vereniging Aegon s call option relates to common shares B. Vereniging Aegon may exercise its call option to keep or restore its total stake at 32.6%, irrespective of the circumstances which cause the total shareholding to be or become lower than 32.6%.

In the years 2003 through 2012, 118,093,000 class B preferred shares were issued under these option rights and in the years 2013 through 2015 Vereniging Aegon purchased in aggregate 18,708,465 common shares B under its call option right.

On May 19, 2016, Aegon N.V. repurchased 13,450,835 common shares from Vereniging Aegon for the amount of EUR 58,000,000, being the Value Weight Average Price of the common shares of the five trading days preceding this transaction, as part of the EUR 400 million Share Buy Back program, initiated by Aegon N.V. in January 2016 to neutralize the dilutive effect of the cancellation of Aegon N.V. s preferred shares in 2013.

On June 6, 2016, Aegon N.V. repurchased 17,324,960 Common Shares B from Vereniging Aegon for the amount of EUR 1,968,332, based on 1/40th of the Value Weight Average Price of the common shares of the 5 trading days preceding this transaction. The repurchase of common shares B was executed to align the aggregate shareholding of Vereniging Aegon in Aegon N.V. with its special cause voting rights of 32.6%.

On May 19, 2017, Vereniging Aegon exercised its options rights to purchase in aggregate 1,979,260 common shares B at fair value of a common share B (being 1/40th of the market value of a common share in the capital of the Company at the time of issuance) to mitigate dilution caused the issuance of shares on May 19, 2017, in connection with the Long Term Incentive Plans for senior management.

On June 23, 2017, Vereniging Aegon exercised its options rights to purchase in aggregate 13,042,612 common shares B at fair value of a common share B (being 1/40th of the market value of a common share in the capital of the Company at the time of issuance) to mitigate dilution caused by Aegon s issuance of shares on June 23, 2017, being

the final dividend 2016 in the form of stock dividend.

On December 19, 2017, Aegon N.V. repurchased 13,042,592 Common Shares B from Vereniging Aegon for the amount of EUR 1,725,169.73 based on 1/40th of the Value Weight Average Price of the common shares of the five trading days preceding this transaction. The repurchase of common shares B was executed to align the aggregate shareholding of Vereniging Aegon in Aegon N.V. with its special cause voting rights of 32.6% following the completion of the Share Buy Back Program, initiated by Aegon N.V. in October 2017 to neutralize the dilutive effect of the distribution of final dividend 2016 in stock and interim dividend 2017 in stock.

On May 18, 2018, Vereniging Aegon exercised its options rights to purchase in aggregate 1,489,200 common shares B at fair value of a common share B (being 1/40th of the market value of a common share in the capital of the Company at the time of issuance) to mitigate dilution caused the issuance of shares on May 18, 2018, in connection with the Long Term Incentive Plans for senior management.

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Development of shareholding in Aegon N.V.

Number of shares held by Vereniging Aegon	Common	Common B
At January 1, 2018	279,236,609	569,676,480
Exercise option right common shares B May 2018	-	1,489,200
At December 31, 2018	**279,236,609**	**571,165,680**

Accordingly, at December 31, 2018, the voting power of Vereniging Aegon under normal circumstances amounted to approximately 14.33%, based on the number of outstanding and voting shares (excluding issued common shares held in treasury by Aegon N.V.). In the event of a Special Cause, Vereniging Aegon s voting rights will increase, currently to 32.6%, for up to six months.

At December 31, 2018, the General Meeting of Members of Vereniging Aegon consisted of seventeen members. The majority of the voting rights is with the fifteen members who are not employees or former employees of Aegon N.V. or one of the Aegon Group companies, nor current or former members of the Supervisory Board or the Executive Board of Aegon N.V. The other two members are from the Executive Board of Aegon N.V.

Vereniging Aegon has an Executive Committee consisting of seven members, five of whom are not, nor have ever been, related to Aegon, including the Chairman and the Vice-Chairman. The other two members are also member of the Executive Board of Aegon N.V. Resolutions of the Executive Committee, other than regarding the amendment of the Articles of Association of Vereniging Aegon, are made with an absolute majority of the votes. When a vote in the Executive Committee results in a tie, the General Meeting of Members has the deciding vote. Regarding the amendment of the Articles of Association of Vereniging Aegon, a special procedure requires a unanimous proposal from the Executive Committee, thereby including the consent of the representatives of Aegon N.V. at the Executive Committee. This requirement does not apply in the event of a hostile change of control at the General Meeting of Shareholders of Aegon N.V., in which event Vereniging Aegon may amend its Articles of Association without the cooperation of Aegon N.V. Furthermore, the two members of the Executive Board of Aegon N.V., who are also members of the Executive Committee, have no voting rights on several decisions that relate to Aegon N.V., as set out in the Articles of Association of Vereniging Aegon.

Other major shareholders

In this section below where reference is made to any filings with the Dutch Autoriteit Financiële Markten or the SEC the terms capital issued and votes are used as defined in the Wet op het Financieel Toezicht.

To Aegon s knowledge based on the filings made with the Dutch Autoriteit Financiële Markten, Dodge & Cox International Stock Fund, BlackRock, Inc. and Franklin Resources, Inc. hold a capital or voting interest in Aegon of 3% or more.

Based on its last filing with the Dutch Autoriteit Financiële Markten as at June 20, 2018, Dodge & Cox International Stock Fund stated to hold 131,792,024 common shares, which represent 4.9% of the issued capital and votes as at

December 31, 2018.

On February 14, 2019, Dodge & Cox s filing with the US Securities and Exchange Commission (SEC) shows that Dodge & Cox holds 237,992,105 common shares, representing 8.9% of the issued and outstanding capital as at December 31, 2018, and has voting rights for 232,925,689 shares, representing 8.7% of the votes as at December 31, 2018.

Based on its filing with the Dutch Autoriteit Financiële Markten as at March 27, 2018, BlackRock, Inc. stated to hold 112,661,670 shares, representing 4.2% of the issued capital as at December 31, 2018 and 131,979,873 voting rights, representing 4.9% of the votes as at December 31, 2018.

On February 4, 2019, BlackRock, Inc. s filing with the US Securities and Exchange Commission (SEC) shows that BlackRock holds 122,040,092 common shares, representing 4.6% of the issued capital as at December 31, 2018, and has voting rights for 106,522,921 shares, representing 4.0% of the votes as at December 31, 2018.

Based on its filing with the Dutch Autoriteit Financiële Markten as at June 10, 2015, Franklin Resources, Inc. (FRI), a US based investment management firm, stated to hold 81,510,408 shares, representing 3.0% of the issued capital and of the votes as of December 31, 2018.

On January 25, 2019, the filing of Franklin Resources, Inc. (FRI) with the SEC shows that FRI holds 61,141,668 common shares and voting rights, representing 2.3% of the issued and outstanding capital, as of December 31, 2018.

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Other financial information

Schedules to the financial statements

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Schedule I Summary of Investments other than Investments in Related Parties as at December 31, 2018
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Schedule II Income Statement (Loss) for the years ended December 31, 2018, 2017 and 2016
Schedule II Condensed Cash Flow Statement for the years ended December 31, 2018, 2017 and 2016
Schedule II Dividends from and Capital Contributions to Business Units for the years ended December 31, 2018, 2017 and 2016
Schedule III Supplementary Insurance Information for the years ended December 31, 2018, 2017 and 2016
Schedule IV Reinsurance for the years ended December 31, 2018, 2017 and 2016
Schedule V Valuation and Qualifying Accounts for the years ended December 31, 2018, 2017 and 2016

Schedule I

Summary of investments other than investments in related parties

As at December 31, 2018 Amounts in million EUR	Cost[1]	Fair value	Book value
Shares:			
Available-for-sale	451	478	478
Fair value through profit or loss	1,554	1,682	1,682
Bonds:			
Available-for-sale and held-to-maturity:			
US government	6,973	7,449	7,449
Dutch government	4,908	6,040	6,040
Other government	11,293	11,957	11,957
Mortgage backed	6,275	6,557	6,557
Asset backed	4,948	4,958	4,958
Corporate	39,770	40,379	40,379
Money market investments	5,955	5,955	5,955
Other	919	902	902
Subtotal	**81,039**	**84,196**	**84,196**
Bonds:			

Fair value through profit or loss	3,901	3,913	3,913
Other investments at fair value through profit or loss	2,325	3,002	3,002
Mortgages	36,240	39,758	36,240
Private loans	4,103	4,494	4,103
Deposits with financial institutions	141	141	141
Policy loans	1,973	1,973	1,973
Other	196	196	196
Subtotal	**42,653**	**46,562**	**42,653**
Real estate:			
Investments in real estate		2,700	2,700
Total		**142,534**	**138,625**

[1] Cost is defined as original cost for available-for-sale shares and amortized cost for available-for-sale and held-to-maturity bonds

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327 Other financial information **Schedule II**

Schedule II

Condensed financial information of registrant

Statement of financial position of Aegon N.V.

As at December 31

Before profit appropriation, amounts in EUR million	2018	2017
Non-current assets		
Financial fixed assets		
Shares in group companies	22,168	23,117
Loans to group companies	2,487	2,690
	24,655	25,807
Current assets		
Receivables		
Receivables from group companies	35	36
Other receivables	137	146
Other current assets	137	74
Accrued interest and rent	16	8
	325	264
Cash and cash equivalents		
Cash and cash equivalents	1,231	1,068
Total assets	**26,211**	**27,139**
Shareholders equity		
Share capital	322	322
Paid-in surplus	7,486	7,731
Revaluation account	3,565	5,017
Legal reserves foreign currency translation reserve	130	(401)
Legal reserves in respect of group companies	1,326	1,122
Retained earnings, including treasury shares	7,536	5,696
Remeasurement of defined benefit plans of group companies	(1,850)	(1,669)
Net income/(loss)	710	2,469
	19,225	20,287
Other equity instruments	3,320	3,794

Total equity	**22,546**	**24,081**
Provisions		
Deferred tax liability	10	89
	10	89
Non-current liabilities		
Subordinated borrowings	1,389	764
Long-term borrowings	1,292	1,801
	2,681	**2,565**
Current liabilities		
Short term deposits	82	73
Loans from group companies	9	62
Payables to group companies	582	123
Other current liabilities	271	125
Accruals and deferred income	31	22
	975	**405**
Total liabilities	**3,666**	**2,970**
Total equity and liabilities	**26,211**	**27,139**

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328 Other financial information **Schedule II**

Condensed income statement of Aegon N.V.

For the year ended December 31

Amounts in EUR million	2018	2017	2016
Net income/(loss) group companies	832	2,511	533
Other income/(loss)	(122)	(42)	(96)
Net income/(loss)	**710**	**2,469**	**437**

Condensed cash flow statement of Aegon N.V.

For the year ended December 31

Amounts in EUR million	2018	2017	2016
Income/(loss) before tax	**708**	**2,468**	**411**
Adjustments	(291)	(3,676)	(231)
Net cash flows from operating activities	**418**	**(1,208)**	**180**
Dividends and capital repayments of subsidiaries, associates and joint ventures	824	700	895
Other	(1)	(1)	(2)
Net cash flows from investing activities	**822**	**700**	**893**
Issuance of treasury shares	-	2	-
Purchase of treasury shares	(248)	(266)	(623)
Issuance and repurchase of borrowings	294	1,429	604
Repayment of perpetuals	(200)	-	-
Repayment of non-cumulative subordinated note	(443)	-	-
Dividends paid	(328)	(294)	(306)
Coupons on perpetual securities	(136)	(138)	(140)
Coupons on non-cumulative subordinated notes	(14)	(37)	(38)
Net cash flows from financing activities	**(1,076)**	**696**	**(503)**
Net increase/(decrease) in cash and cash equivalents	**165**	**188**	**570**

Five-year schedule of maturities of debt

As at December 31

Amounts in million EUR	2018 Subordinated borrowings	2018 Long-term Borrowings	2017 Subordinated borrowings	2017 Long-term Borrowings
Remaining terms less than 1 year	-	78	-	500
Remaining terms 1 2 years	-	-	-	82
Remaining terms 2 3 years	-	-	-	-
Remaining terms 3 4 years	-	-	-	-
Remaining terms 4 5 years	-	496	-	-
Remaining terms longer than 5 years	1,389	717	764	1,219
At December 31	**1,389**	**1,292**	**764**	**1,801**

Dividends from and capital contributions to business units

Aegon received EUR 1.4 billion of dividends from its business units during 2018, mainly from Americas, the Netherlands, United Kingdom, Asset Management, Central & Eastern Europe and Spain & Portugal. Aegon spent EUR 0.1 billion on capital contributions.

Aegon received EUR 1.8 billion of dividends from its business units during 2017, mainly from Americas, United Kingdom, Asset

Management, Central & Eastern Europe and Spain & Portugal. Capital contributions of EUR 1.1 billion were paid to Aegon s businesses, mainly to the Netherlands.

Aegon received EUR 1.1 billion of dividends from its business units during 2016 from the Americas, asset management, Central & Eastern Europe and Spain & Portugal. Aegon spent EUR 0.2 billion on capital contributions.

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Schedule III

Supplementary insurance information

Column A Segment Amounts in million EUR	Column B Deferred policy acquisition costs	Column C Future policy benefits	Column D Unearned premiums	Column E Other policy claims and benefits	Column F Premium revenue
2018					
Americas	8,816	166,644	5,125	2,100	8,403
The Netherlands	66	60,011	62	934	1,987
United Kingdom	859	76,254	16	5	7,539
Central & Eastern Europe	74	1,714	31	85	638
Spain & Portugal	1	768	-	17	147
Asia	665	6,064	106	16	600
Holding and other activities	-	12	2	-	2
Total	**10,480**	**311,467**	**5,341**	**3,158**	**19,316**
2017					
Americas	8,188	171,122	5,241	1,982	9,383
The Netherlands	76	62,446	61	932	2,208
United Kingdom	903	65,052	14	6	9,635
Central & Eastern Europe	70	1,910	23	86	628
Spain & Portugal	1	796	-	15	155
Asia	490	4,969	100	15	816
Holding and other activities	-	16	8	-	1
Total	**9,729**	**306,311**	**5,447**	**3,036**	**22,826**
2016					
Americas	8,958	185,654	5,625	2,151	9,433
The Netherlands	84	63,526	59	977	2,491
United Kingdom	996	69,505	11	6	9,924
Central & Eastern Europe	71	1,905	18	75	578
Spain & Portugal	1	799	-	12	148
Asia	832	5,558	105	22	882
Holding and other activities	-	16	4	-	(2)
Total	**10,942**	**326,964**	**5,822**	**3,244**	**23,453**

The numbers included in Schedule III are based on IFRS and excludes the proportionate share in Aegon s joint ventures and Aegon s associates.

Deferred policy acquisition costs also include deferred costs of reinsurance.

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Amounts in million EUR	Column G Net investment income	Column H Benefits, claims and losses	Column I Amortization of deferred policy acquisition costs	Column J Other operating expenses	Column K Premiums written
2018					
Americas	3,120	7,767	720	3,219	6,069
The Netherlands	2,263	3,546	20	806	1,960
United Kingdom	1,346	9,218	101	604	7,299
Central & Eastern Europe	48	396	49	216	625
Spain & Portugal	29	165	-	98	140
Asia	225	231	24	91	550
Asset Management	-	-	-	151	-
Holding and other activities	5	6	-	127	10
Total	**7,035**	**21,331**	**914**	**5,311**	**16,653**
2017					
Americas	3,362	8,585	552	2,953	6,387
The Netherlands	2,173	4,430	19	925	2,192
United Kingdom	1,516	11,796	111	646	9,266
Central & Eastern Europe	49	416	54	207	614
Spain & Portugal	31	153	-	93	150
Asia	203	153	33	95	778
Asset Management	-	-	-	159	-
Holding and other activities	5	5	-	76	8
Total	**7,338**	**25,537**	**770**	**5,155**	**19,395**
2016					
Americas	3,711	8,913	576	3,438	6,824
The Netherlands	2,133	3,726	24	967	2,477
United Kingdom	1,661	12,618	148	518	9,331
Central & Eastern Europe	45	395	59	185	568
Spain & Portugal	36	143	-	90	143
Asia	196	130	31	111	927
Asset Management	-	-	-	138	-
Holding and other activities	6	3	-	66	7
Total	**7,788**	**25,929**	**837**	**5,513**	**20,277**

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Schedule IV

Reinsurance

Amounts in million EUR	Gross amount	Ceded to other companies	Assumed from other companies	Net amount	% of amount assumed to net
For the year ended December 31, 2018					
Life insurance in force	874,423	708,242	512,735	678,915	76%
Premiums					
Life insurance	15,526	2,500	1,443	14,470	10%
Non-life insurance	2,330	163	16	2,183	1%
Total premiums	**17,856**	**2,663**	**1,459**	**16,653**	**9%**
For the year ended December 31, 2017					
Life insurance in force	863,686	709,326	525,201	679,561	77%
Premiums					
Life insurance	18,324	3,214	1,628	16,738	10%
Non-life insurance	2,849	217	25	2,657	1%
Total premiums	**21,174**	**3,431**	**1,653**	**19,395**	**9%**
For the year ended December 31, 2016					
Life insurance in force	986,854	851,003	648,147	783,999	83%
Premiums					
Life insurance	18,687	2,932	1,713	17,468	10%
Non-life insurance	3,046	244	7	2,808	0%
Total premiums	**21,734**	**3,176**	**1,719**	**20,277**	**8%**

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Schedule V

Valuation and qualifying accounts

Amounts in million EUR	**2018**	2017	2016
Balance at January 1	213	215	249
Addition charged to earnings	35	40	5
Amounts written off and other changes	(70)	(37)	(40)
Currency translation	1	(5)	1
Balance at December 31	**179**	**213**	**215**
The provisions can be analyzed as follows:			
Mortgages	19	48	40
Other loans	118	116	97
Receivables	41	48	79
Total	**179**	**213**	**215**

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333 Auditor s report on the Annual Report on Form 20-F

Auditor s report on the Annual Report on Form 20-F

Report of Independent Registered Public Accounting Firm

To: the Supervisory Board and Shareholders of Aegon N.V.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated statement of financial position of Aegon N.V. and its subsidiaries (the Company) as of December 31, 2018 and 2017, and the related consolidated income statement, statement of comprehensive income, statement of changes in equity and cash flow statement for each of the three years in the period ended December 31, 2018, including the related notes and schedules to the financial statements of summary of investments other than investments in related parties as of December 31, 2018, of condensed financial information of Aegon N.V. as of December 31, 2018 and 2017 and for the three years in the period ended December 31, 2018, of supplementary insurance information as of December 31, 2018, 2017 and 2016, of reinsurance for the years ended December 31, 2018, 2017 and 2016 and of valuation and qualifying accounts as of December 31, 2018, 2017 and 2016 appearing under the section Other Financial Information (collectively referred to as the consolidated financial statements). We also have audited the Company s internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018 in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control Integrated Framework (2013) issued by the COSO.

Basis for Opinions

The Company s management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management s Annual Report on internal control over financial reporting. Our responsibility is to express opinions on the Company s consolidated financial statements and on the Company s internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company s internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets

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of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ G.J. Heuvelink RA

PricewaterhouseCoopers Accountants N.V.

Amsterdam, the Netherlands

March 21, 2019

We have served as the Company s auditor since 2014.

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Overview of Americas

Aegon Americas operates under the Transamerica brand in the United States, and has operations in Brazil and Mexico and a small operation in Canada.

Aegon in the US

Transamerica is one of the leading life insurance organizations in the United States, and the largest of Aegon s operating units worldwide. Its businesses in the US serve customers in all fifty states and the District of Columbia, and employ approximately 7,500 people. Most Aegon companies in the United States operate under the Transamerica brand, which stands for the pursuit of financial and physical well-being: Wealth + Health. Its companies have existed since the mid-19th century, and its primary offices are in Cedar Rapids, Iowa; Denver, Colorado and Baltimore, Maryland with additional offices located throughout the United States.

Through its subsidiaries and affiliated companies, Aegon provides a wide range of life insurance, long-term care insurance, and voluntary benefits including supplemental health insurance, retirement plans, recordkeeping and advisory services, annuities and other long-term savings and investment products all solutions and services that help customers achieve financial security and a healthy lifestyle throughout their lives.

Aegon employs a variety of distribution channels to help customers access its products and services as suits their needs. These include Workplace and Individual, Brokerage, Closely-Affiliated, and the Transamerica Advice Center distribution channels.

Aegon in Brazil

Aegon has a 50% interest in Mongeral Aegon Seguros e Previdência S.A. (hereafter referred to as Mongeral Aegon), Brazil s third largest independent (i.e. non-bank affiliated) life insurer. To further capture growth prospects in Brazil, Mongeral Aegon and Bancoob (Banco Cooperativo do Brasil) established Sicoob Seguradora de Vida e Previdência, a life insurance and pensions company dedicated to providing life insurance and pension products within the Sicoob system. As of December 2018, Aegon Brazil had 550 employees.

Aegon in Mexico

Aegon has a joint venture with Administradora Akaan S.A. de C.V. called Akaan-Aegon S.A.P.I. de C.V.. The Mexico City-based operating company, Akaan Transamerica, launched a series of mutual funds in October 2017, targeting family offices, high net worth individuals, and institutions. As of December 31, 2018, Aegon Mexico had 25 employees.

Organizational structure

Aegon USA

Aegon USA was formed in 1989, when Aegon brought all of its operating companies in the United States together under a single financial services holding company: Aegon USA, LLC. On December 31, 2015, Aegon USA, LLC was merged into Transamerica Corporation, which is the holding company for the US operations. Business is conducted through its various subsidiaries. The use of the term Aegon USA throughout this business overview refers to the operating subsidiaries and joint ventures in the United States and Latin America, collectively or individually, through which Aegon conducts business. Aegon USA has operating licenses in every US state, in addition to the District of Columbia, Puerto Rico, the US Virgin Islands and Guam.

Aegon USA s primary insurance subsidiaries are:

- Transamerica Life Insurance Company;
- Transamerica Financial Life Insurance Company;
- Transamerica Advisors Life Insurance Company;
- Transamerica Premier Life Insurance Company; and
- Transamerica Casualty Insurance Company.

Aegon USA is a functionally organized firm that aims to meet customers needs and create a consistent, positive experience for customers, business partners and employees. Aegon USA is structured in such a way as to provide relevant customer solutions that are easy to understand, and that address the full range of customers financial protection and savings needs at every stage of life as they save, invest, protect and create retirement income. Moreover, Aegon USA s structure enables it to leverage Transamerica s brand strength, expertise and capabilities in order to fulfill Aegon s purpose of helping people achieve a lifetime of financial security.

The business lines operated through one or more of Aegon USA s life insurance companies include: life insurance, accident & health insurance, mutual funds, variable annuities, fixed annuities, retirement plans, stable value solutions, and Latin America. The business

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lines, described in greater detail below, represent groups of products and services that Aegon USA offers through a number of distribution methods and sales channels. Products are also offered and distributed through one or more of Aegon USA s licensed insurance or brokerage subsidiary companies.

On January 11, 2018, Transamerica announced that it had entered into an agreement with Tata Consultancy Services (TCS) to administer the company s US insurance and annuity business lines. The partnership enables Transamerica to accelerate the enhancement of its digital capabilities and the modernization of its platforms to service its customers in all lines of business. With a transfer of over 2,000 Transamerica employees, TCS will support the administration of Transamerica s life insurance, annuity, supplemental health insurance and workplace voluntary benefits products (both for inforce and new business based on a transition timeline), taking on over 10 million policies.

Effective October 1, 2018, Aegon merged its Arizona-based variable annuity captive with Transamerica Life Insurance Company (TLIC), subject to customary regulatory approval. The merger of this company into TLIC is in response to the National Association of Insurance Commissioners (NAIC) recently proposed improvements to the existing variable annuity capital framework. As a result of the merger of two legal entities, Aegon realized a one-time benefit to capital generation of approximately USD 1 billion in the second half of 2018. This benefit was offset by the impact of tax reform on the RBC ratio in the second half of 2018.

Overview of sales and distribution channels

Aegon USA s distribution channels are organized so as to meet customer needs and offer solutions to the third-party distributors that provide guidance to Aegon USA customers. Each channel is focused on a number of primary target market segments, which fall under four main distribution categories: Workplace and Individual, Brokerage, Closely-Affiliated and the Transamerica Advice Center.

Workplace and Individual solutions

Aegon USA offers retirement plans, rollover individual retirement accounts (IRAs), life insurance (universal life, whole life, and term life), supplemental health products (critical illness, cancer, hospital indemnity, supplemental medical expense, short-term disability, vision, and dental policies), accident products, and stable value solutions to consumers through the employer segment, also known as the Workplace solutions segment.

In addition, Aegon USA offers annuities, investments (mutual funds and Exchange Traded Funds (ETF)), life insurance and long-term care insurance products through partnerships with independent broker-dealers (banks, wirehouses, and independent financial planners). Annuity and investment products are also offered through institutions, including large broker-dealer research and advisory platforms, and large registered investment advisers. Together these comprise the Individual solutions segment.

While Aegon USA s wholesalers are dedicated to one business line, they work closely together to refer financial professionals across Aegon USA s multiple business lines in order to create deeper partnerships with these professionals and become even more relevant in the financial lives of customers.

Brokerage

Aegon USA offers protection products (life insurance, supplemental health insurance and long-term care insurance products) through third-party distribution outlets known as Brokerage General Agents or Independent Marketing Organizations . These are typically non-registered products sold through independent insurance agents. This channel offers life insurance (term life, universal life, variable universal life, index universal life and whole life insurance), long-term care insurance and supplemental health products and services through approximately 51,000 independent brokerage distributors and financial institutions that target the affluent, emerging affluent and middle markets. These products are designed for family protection, business needs and legacy planning.

Closely-Affiliated

One of Aegon USA s closely-affiliated distribution groups, Transamerica Financial Network, provides advice and guidance to individuals to meet their protection and investment needs. With over 50,000 licensed associates on the World Financial Group platform, approximately 3,300 of whom are registered representatives of a broker-dealer and/or investment advisers (with Transamerica Financial Advisors Inc.), together with 1,700 agents and directors (Transamerica Agency Network), Transamerica Financial Network offers insurance, annuities, mutual funds, retirement plans and managed accounts to individuals. This channel provides the same life and health products as the brokerage channel, with a focus on the middle and emerging affluent markets.

Advice Center

Aegon USA distributes directly to customers through the Transamerica Advice Center. The Advice Center provides advice, guidance and education to retirement plan participants, building loyalty and strengthening Transamerica s relationships with these customers. With

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over 250 licensed advisors and educators, the Advice Center provides IRAs, annuities, life insurance, and Managed Advice to retirement plan participants, helping these customers achieve a lifetime of financial security.

Overview of business lines

Life

Aegon USA offers a comprehensive portfolio of protection solutions to customers in a broad range of market segments. Products offered include term life, universal life, variable universal life, index universal life and whole life insurance.

Term life insurance

Term life insurance provides protection for a stated period of time. Benefits are paid to policy beneficiaries in the event of the death of the insured during a specified period. Living benefit riders that provide accelerated benefits for critical illnesses or chronic conditions are available on term insurance.

Universal life insurance

Universal life insurance is flexible permanent life insurance that offers death benefit protection together with the potential for cash value accumulation. After the first few years, there is usually no set premium. The policyholder can adjust the frequency and amount of premium payments, as long as sufficient premiums are paid to cover charges in the month that follows, which are called monthly deductions . In determining the monthly deduction rate to apply to a specific policy plan, Aegon USA may take a wide number of factors into account that impact the cost of providing the insurance, including but not limited to: interest rates, investment earnings, mortality, persistency, premium funding levels, capital and reserve requirements, taxes, and other expenses associated with such a plan. Any changes in the monthly deduction rate reflect Aegon USA s current expectations with respect to future policy performance. At any time, the policy owner is able to see the maximum monthly deduction rate that can be charged. Some versions of this product have secondary guarantees. These maintain life insurance coverage when cash value is insufficient, as long as the customer pays a specified minimum premium.

Variable universal life insurance

Variable universal life insurance is permanent life insurance that offers both a death benefit and cash value accumulation potential with financial market participation. The premium amount for variable universal life insurance is flexible and within contract limits may be changed by the policyholder. Coverage amount may change as well. The investment feature usually includes sub-accounts, which provide exposure to investments, such as stocks and bonds. This exposure increases cash value return potential, but also the risk of additional premium requirements or lower coverage amounts in comparison with a traditional, non-variable life insurance policy.

Index universal life insurance

Index Universal Life (IUL) insurance provides permanent death benefit protection and cash value accumulation with flexible premium payments. What distinguishes it from other types of permanent life insurance is the way in which interest earnings are credited. Net premiums may be allocated to either a fixed account or indexed accounts. Indexed accounts credit interest based in part on the performance of one or more market indices. The credited interest is based on the index, but with a floor and a cap. IUL offers both market-paced growth potential in the indexed accounts and downside protection. It is an appealing alternative to regular Universal Life for which interest is credited at a fixed rate and Variable Universal Life, in which the cash value is directly exposed to ups and downs of the market. Long-term care riders that provide benefits if policyholders are unable to perform two or more specific activities of daily living or develop a severe cognitive impairment, and other living benefit riders that provide accelerated death benefits for critical illnesses or chronic conditions, are available on IUL.

Whole life insurance

Whole life insurance provides permanent death benefit protection, provided that the required premiums are paid, while accumulating cash values based on statutory requirements. Premiums are generally fixed and usually payable over the life of the policy.

Accident & health

Aegon USA offers supplemental health insurance and long-term care insurance.

Supplemental health insurance

Supplemental health insurance products include accidental death and dismemberment, accidental injury, cancer, critical illness, disability, hospital indemnity, Medicare Supplement, retiree medical, and supplemental medical expense indemnity. Medicare Part D prescription drug plan coverage previously offered by Aegon USA was discontinued at the end of 2018.

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A number of these products provide policyholders with lump sum or specified payments if such policyholders are hospitalized, injured, or diagnosed with a critical illness. Others pay benefits for specific medical expenses and treatments, or cover deductibles, co-payments and co-insurance amounts not covered by other health insurance. Medical stop-loss insurance offered to employers to protect against catastrophic losses under self-funded health plans was discontinued during 2018 and is in a wind-down phase.

Long-term care insurance

Long-term care (LTC) insurance products provide benefits to policyholders that require qualified LTC services as they are unable to perform two or more specific activities of daily living or develop a severe cognitive impairment. LTC insurance helps protect against the high cost of LTC services, and it may also help families better manage the financial, health and safety issues associated with LTC. The LTC product is offered as a standalone product or as a rider to certain life insurance products.

Mutual funds

Mutual funds are professionally managed investment vehicles comprised of pooled money invested by numerous and different individuals or institutions. Such funds are invested in various underlying security types such as stocks, bonds, money market instruments and other securities. Transamerica offers mutual funds that are focused on several different asset classes, including US equity, global/international equity, fixed income, money markets and alternative investments, as well as asset allocation and target date funds with combined equity and fixed income strategies. Transamerica mutual funds utilize the portfolio management expertise of asset managers across the industry in a sub-advised platform, using managers both affiliated with and not affiliated with Aegon. These managers are subject to a rigorous selection and monitoring due diligence process conducted by Transamerica Asset Management.

Exchange Traded Funds (ETFs) are a pooled investment vehicle for individual and institutional investors that combine some of the features of a mutual fund with the flexibility of allowing investors to trade throughout the day on an exchange. Transamerica offers a suite of managed risk passive exchange-traded funds that seek to track the S&P Managed Risk 2.0 Indices under the brand name DeltaShares. The Managed Risk strategy is applied to US Large Cap, Mid Cap, Small Cap, International Developed Equity and Emerging Market Equity Indices.

Variable annuities

Variable annuities allow the policyholder to accumulate assets for retirement on a tax-deferred basis and to participate in equity or bond market performance. Additional insurance guarantees, also referred to as riders, can be added to variable annuities, including guaranteed minimum death benefits (GMDBs) and guaranteed living benefits (GLBs). GMDBs provide a guaranteed benefit in the event of death. GLBs are intended to provide a measure of protection against market risk while the annuitant is alive. Different forms of GLBs are offered, such as guaranteeing an income stream for life and/or guaranteeing principal protection.

Fixed annuities

Fixed annuities allow the policyholder to accumulate assets for retirement on a tax-deferred basis through periodic interest crediting and principal protection. Aegon USA has de-emphasized traditional fixed deferred annuities, and is not actively marketing new sales. The traditional fixed deferred annuity book is, according to plan, continuing to reduce over time. Aegon USA actively offers a fixed-index annuity that may credit interest based, in part, on the percentage change in the value of the selected index account option(s) at the start and end of the crediting period. A fixed account option is also available. Additional guarantees, also referred to as riders, can be added to fixed-index annuities, including GLBs.

Retirement plans and IRAs

Comprehensive and customized retirement plan services are offered to employers across the entire spectrum of defined benefit, defined contribution, non-qualified deferred compensation, and multiple employer plans (MEPs). Services are also offered to individuals rolling over funds from other qualified retirement funds or Individual Retirement Accounts (IRAs).

Retirement plan services, including administration, recordkeeping and related services are offered to employers of all sizes and to plans across all market segments. Aegon USA also partners with plan advisors and third-party administrators to serve their customers. Transamerica Retirement Solutions is a top ten defined contribution record-keeper in the United States based on plan participants.

Plan sponsors have access to a wide array of investment options. Depending on the product chosen by the plan sponsor, unrestricted access to the entire universe of publicly-available investments can be offered. Certain smaller plans have access to an array of hundreds of investment choices from more than 40 investment advisory companies.

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Tools are provided to help plan participants monitor their retirement accounts and engage in behavior to stay on track towards a funded retirement. Managed Advice® is a managed account option that plan sponsors can make available to participants that provides investment advice to participants using the plan s line-up.

For individual plan participants in transition due to a job loss or change or planned retirement, services are offered through the Transamerica Advice Center, which includes a team of experienced registered representatives, investment advisor representatives, and licensed insurance agents. Services and products include IRAs, advisory services, annuities and access to other financial insurance products and resources.

Stable Value Solutions

Synthetic Guaranteed Investment Contracts (GICs) are offered primarily to tax-qualified institutional entities such as 401(k) plans and other retirement plans. A synthetic GIC wrapper is offered around fixed-income invested assets, which are owned by the plan and managed by the plan or a third-party money manager hired by the plan. A synthetic GIC is typically issued with an evergreen maturity and may be terminated under certain conditions. Such a contract helps to reduce fluctuations in the value of the wrapped assets and provides book value withdrawals for plan participants, while ensuring that investment fund conditions are met.

Latin America

Aegon s businesses in Latin America are comprised of a 50% interest in Mongeral Aegon Seguros e Previdência S.A., a Brazilian independent life insurer, and a joint venture with Administradora Akaan S.A. de C.V., which created and operates Akaan Transamerica in Mexico.

Mongeral Aegon s insurance activities include pension product distribution, individual and group life insurance products, mutual fund management, and administrative services. To further capture growth prospects in Brazil, Mongeral Aegon and Bancoob (Banco Cooperativo do Brasil) established Sicoob Seguradora de Vida e Previdência, a life insurance and pensions company dedicated to providing life insurance and pension products via the Sicoob system. The joint venture began operations on March 1, 2017, and distributes products through Sicoob, the largest cooperative financial system in the country, with over 3.2 million associates and 2,340 points of service. Bancoob is a private commercial bank owned by the credit cooperative entities affiliated with the Sicoob system. This agreement represents a key expansion of distribution for Mongeral Aegon, which already serves over 2 million customers nationwide through over 4,000 brokers.

Akaan Transamerica offers a wide variety of Mexican and International mutual funds as well as diversified global investment solutions. In addition to the wide variety of investment products, Akaan Transamerica offers integrated investment solutions for individuals and companies based on their financial needs.

Run-off businesses

On June 28, 2017, Aegon completed the divestment of its two largest US run-off businesses, the payout annuity business and the Bank Owned/Corporate Owned Life Insurance business (BOLI/COLI) to Wilton Re. The transaction was in line with the Company s stated strategic objective to reduce the amount of capital allocated to its run-off

businesses.

Payout annuities are a form of immediate annuity purchased to provide periodic payments on an agreed schedule, in general to provide settlements of legal claims, product liability, pension payouts or other payment structured settlement. New sales of payout annuities were discontinued in 2003. BOLI/COLI products are purchased as an efficient way for banks and corporations to finance long-term employee benefit liabilities. The bank or corporation insures key employees, and is the owner and beneficiary of the policies. New sales of BOLI/COLI were discontinued in 2010.

Institutional spread-based business

This business was put into run-off in 2009. The primary products included Guaranteed Investment Contracts (GICs), funding agreements and medium-term notes (MTNs). GICs were generally issued to tax qualified plans, while funding agreements and MTNs were typically issued to non-tax qualified institutional investors.

GICs and funding agreements are spread-based products issued on a fixed-rate or floating-rate basis. They provide customers with a guarantee of principal and a specified rate of return. Contracts issued in foreign currencies were converted at issuance to US dollars through swap agreements when the contracts were issued to eliminate currency risk.

Before 2009, Aegon USA utilized consolidated special purpose entities to issue MTNs that are backed by funding agreements. The proceeds of each note series were used to purchase a funding agreement from an Aegon USA insurance company, which was

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used to secure that particular series of notes. The payment terms of any particular series substantially matched the payment terms of the funding agreement that secured that series.

Life reinsurance

In August 2011, Aegon completed the effective divestment of its life reinsurance business with the exception of certain selected blocks of business. The retained businesses comprise primarily variable annuity guarantee business.

On December 28, 2017, Aegon divested a block of life reinsurance business that covered approximately half of the life reinsurance business Transamerica retained after it divested the vast majority of its life reinsurance business to SCOR Global Life in 2011. Under the terms of the agreement, Aegon s Transamerica life subsidiaries will cede approximately USD 750 million of liabilities to SCOR Global Life. As part of the transaction, the Company dissolved a related captive insurance company in place to finance redundant reserves, generally referred to as regulation XXX term life insurance reserves, and redeemed operational leverage supporting that captive.

In addition, on August 7, 2018, Aegon agreed to divest the last substantial block of its life reinsurance business to SCOR Global Life after it divested the vast majority of its reinsurance business to SCOR Global Life in 2011 and 2017. This transaction is consistent with Aegon s stated strategic objective to reduce the amount of capital allocated to its run-off businesses. Under the terms of the agreement, Aegon s Transamerica life subsidiaries will reinsure approximately USD 700 million of liabilities through SCOR Global Life. As a result of the transaction, Aegon will significantly reduce the size of a related captive insurance company and the related letter of credit facility in place to finance redundant reserves, generally referred to as regulation XXX term life insurance reserves.

Competition

The US marketplace is highly competitive. Aegon USA s competitors include other large insurance carriers, in addition to certain banks, securities brokerage firms, investment advisors, and other financial intermediaries marketing insurance products, annuities and mutual funds. Aegon USA leverages long-term relationships with many institutions to offer them product lines such as life insurance, variable annuities, mutual funds, defined contribution and defined benefit retirement plans.

In individual life insurance, leading competitors include AIG, Lincoln National, Nationwide, Prudential Financial, Pacific Life, Voya Financial, and John Hancock. Mutual of Omaha is the primary competitor for sales of individual long-term care insurance through the brokerage channel. Competitors for supplemental health include a wide range of companies and company types based on the nature of the coverage including Aflac, Allstate, MetLife, and Unum and Colonial Life.

Aegon USA s primary competitors in the variable annuity market are AIG, AXA Equitable, Jackson National, Lincoln National, Nationwide and Prudential Financial.

The largest competitors in the mutual fund market include American Funds, Fidelity, Vanguard, JP Morgan Funds and T. Rowe Price.

In the institutional segment of the defined contribution market, Aegon USA s main competitors are Fidelity, TIAA, Empower, Prudential Financial, MassMutual, Principal Financial, Charles Schwab, and Lincoln National. Aegon USA s main competitors in the defined benefit segment are MassMutual, New York Life, Principal Financial and Prudential Financial. In the emerging market segment and the multiple employer plan segment, Aegon USA s main competitors are Fidelity, Empower, Voya Financial, John Hancock, Principal Financial and MassMutual.

In the market for synthetic GICs, Transamerica s largest competitors are Prudential Financial, MetLife, Voya and AIG.

Regulation and supervision

Aegon USA s insurance companies and the business they conduct in the US are regulated primarily at the state level, as carried out by various state insurance regulators. Some activities, products and services are also subject to federal regulation.

State Insurance Regulation

Aegon USA s largest insurance companies are domiciled in the State of Iowa, and the Iowa Insurance Division exercises principal regulatory jurisdiction over those companies. This regulation includes implementation and enforcement of standards of solvency, adequacy of reserves and capital, and reinsurance.

The Aegon USA insurance companies are licensed as insurers and are regulated in each US state and jurisdiction in which they conduct insurance business. The extent of such regulation varies, but has a shared purpose in terms of the protection of policy and contract

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holders. The insurance regulators in each state carry out their mission by providing oversight in the broad areas of market conduct and financial solvency regulation.

In the areas of licensing and market conduct, states grant or revoke licenses to transact insurance business, regulate trade, advertising and marketing practices, approve policy forms and certain premium rates, review and approve products and certain rates prior to sale, address consumer complaints, and perform market conduct examinations on both a regular and targeted basis.

In the area of financial regulation, state regulators implement and supervise statutory reserve and capital requirements, including minimum risk-based capital solvency standards. Insurance companies are also subject to extensive reporting, investment limitations, and required approval of significant transactions. State regulators, by law, conduct extensive financial examinations every three to five years.

State regulators have the authority to impose a variety of punitive measures, including revoking licenses, for failure to comply with applicable regulations. All state insurance regulators are members of the National Association of Insurance Commissioners (NAIC), a non-regulatory association that works to achieve uniformity and efficiency of insurance regulation across the United States and US territories.

Recent regulatory enhancements include increased reporting of holding company activities, increased transparency and uniformity for certain captive reinsurance transactions, and requirements for companies to conduct an Own Risk and Solvency Assessment (ORSA). Aegon USA is subject to NAIC Actuarial Guidelines 48 and 49, which became fully effective in 2015 and 2016 respectively, and is also subject to Principle-based reserving requirements for life insurance, which must be implemented by January 1, 2020.

Emerging state issues that may impact Aegon USA include consideration of changes to accounting and actuarial requirements for variable annuities (VA), which may reduce insurers needs and abilities to deploy and cede specified risks to variable annuity captives. Aegon USA uses a captive for certain variable annuity business in order to facilitate effective hedging. Other current initiatives include a project to update capital charges for asset default risk, longevity risk and operational risk. A project to develop a group capital calculation is underway in the NAIC that could impact how captives are treated from a capital perspective. Long-term care is currently regulated by states as health insurance, although both state regulators and federal agencies are examining the current environment for the long-term care industry, which may lead to a more predictable regulatory regime for premium adjustments, and facilitate the development of new and innovative products. In 2017, the NAIC approved amendments to the Life and Health Insurance Guaranty Association Model Act. Among other things, the amendments will bring health maintenance organizations (HMO) into the life and health guaranty association system and adjust guaranty fund assessments for future long-term care-related insolvencies so that 50% of such assessments will come from life/annuity accounts, with the other 50% from the combined health/HMO accounts. These amendments must be adopted into law in each state before becoming effective in each such state. To date, approximately 12 states have adopted the amended model.

Federal Regulation of Financial Services and Health Insurance

Although the insurance business is primarily regulated at the state level, many federal laws and initiatives impact the insurance sector in such areas as the regulation of financial services, derivatives, retirement plans, securities products,

health care, taxes, data security and privacy. Regulation of financial services has increased as a result of the Dodd Frank Act, which also created the Federal Insurance Office (FIO) and the Office of Financial Research (OFR). The FIO is authorized to review the insurance market in the US and report to Congress, and the OFR conducts research in financial services, including insurance, in support of such oversight. In addition, the FIO is authorized to establish US insurance policy in international matters. The Federal Reserve Board also has authority to establish capital standards for systemically significant insurers, and insurers that own a federally insured bank or thrift, and to participate in the establishment of international insurance capital standards for Internationally Active Insurance Groups (IAIGs) and globally systemically significant insurers (G-SIIs). In the area of data security and privacy, there has been increased scrutiny at a state, federal and international level following a number of high-profile data breaches and data exploitation events at various companies. As a result, numerous regulators and legislators at every level are proposing or have already passed additional legal requirements with regard to information security, data breach response and privacy.

In addition to financial services products, the Patient Protection and Affordable Care Act (ACA), enacted in 2011, changed the regulation of a number of supplemental health insurance products. Efforts to completely repeal the ACA have been ineffective, and states remain skeptical about broadening supplemental health insurance products. Aegon USA anticipates little by way of regulation that will affect its supplemental products, with the exception of IRS taxation of pre-tax group products.

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Securities Regulation

A number of Aegon USA subsidiaries are subject to regulation under the federal securities laws administered by the Securities and Exchange Commission (SEC) and aspects of states securities and other laws. Variable insurance policies, certain annuity contracts and registered investment management companies (mutual funds) offered by Aegon USA are subject to regulation under the federal securities laws administered by the SEC and aspects of states securities laws. Certain separate accounts of Aegon USA insurers that offer variable life insurance and certain annuities and interests under these annuity and insurance policies are registered and subject to SEC regulation. The distribution and sale of these and other securities by affiliate and non-affiliate broker-dealers are regulated by the SEC and the Financial Industry Regulatory Authority (FINRA). A number of Aegon USA companies are also registered as investment advisors and subject to SEC regulation or operate under registrations or exemptions from registration as commodity pool operators or Commodities Trading Advisers, regulated by the Commodities Futures Trading Commission and the National Futures Association.

Aegon USA also owns or manages other investment vehicles that are exempt from registration but may be subject to other requirements of those laws, such as anti-fraud provisions and the terms of applicable exemptions.

On April 18, 2018, the SEC issued a proposal to create a best interest standard of conduct applicable to broker-dealers and associated persons. Broker-dealers are currently required to make suitable recommendations, while investment advisors are regulated as fiduciaries, and thus required to put customer interests above their own. The SEC s proposed Regulation Best Interest (the SEC proposed rule) would require broker-dealers and associated persons to adhere to a best interest standard in providing advice, as well as to mitigate, or eliminate in certain cases, conflicts of interest. The SEC proposed rule would also require additional disclosures to customers. In addition, some states, including New York and Nevada, have enacted or proposed an enhanced standard of care for insurance agents and securities brokers registered in their states. Finally, the NAIC has proposed the addition of a best interest standard of care for the sale of variable annuities in its model law. The likelihood or impact of any proposed regulation cannot be determined at this time.

The financial services industry continues to operate under heightened scrutiny and increased regulation in various jurisdictions. Such scrutiny and regulations have included matters relating to conflicts of interest, cash and non-cash compensation arrangements, suitability of sales (especially to seniors), misleading sales practices, unclaimed property reporting, revenue sharing, investment management and valuation issues involving mutual funds and life insurance separate accounts and their underlying funds, sales, investments and oversight processes related to retail investors saving for retirement, variable annuity buyout offers, and share classes in mutual funds and variable annuities. Aegon USA, like other businesses in the financial services industry, is routinely examined and receives requests for information from the SEC, FINRA, state regulators and others in connection with examinations and investigations of its own companies and third-party or unaffiliated insurers, broker-dealers, investment advisers, investment companies and service providers relating to certain historical and current practices with respect to these and other matters. Some of those inquiries have led to investigations, which remain open, or have resulted in fines, corrective actions or restitution. Aegon USA continues to cooperate with these regulatory agencies. In certain instances, Aegon USA modified business practices in response to those inquiries or findings. Certain Aegon USA companies have paid, or have been informed that the regulators may seek, restitution, disgorgement, fines or other monetary penalties or changes in the way that business is conducted. The impact of any such fines or other monetary penalties is not

expected to have a material impact on Aegon USA s financial position.

Regulation of Retirement Plans and IRAs

Aegon USA administers and provides recordkeeping, investment and insurance services and products used to fund defined contribution plans, such as 401(k), 403(b), multiple employer and 457 plans, in addition to defined benefit plans, IRAs, 529 plans and other savings vehicles. Aegon USA also administers benefits distributed on termination of defined benefit plans. These products and services are generally subject to the Employee Retirement Income Security Act (ERISA) (certain government and church plans are exempt from ERISA) and the federal Internal Revenue Code of 1986, as amended (the Code) for which the US Department of Labor (DOL) and the US Department of the Treasury (Treasury) have regulatory jurisdiction, respectively.

Legislation to enhance the retirement security of Americans, and in particular, through workplace retirement plans, is being considered in Congress. The legislation would facilitate the use of multiple employer plans (MEPs), of which Aegon USA is a leading provider, as well as expand the safe harbor for automatic enrollment in plans, and reduce the burden of offering annuities either as an in-plan investment option or as the form of distribution from a plan. In addition, on August 31, 2018, the President issued an Executive Order directing Treasury and the DOL to issue regulations or guidance to make it easier for small businesses to establish retirement plans, including through facilitation of multiple employer plans. Many states have also sought to open their plans to non-government workers who do not have access to an employer retirement savings plan.

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Tax Treatment of Insurance Companies and their Products and Plans

Although the insurance business is regulated at state level, the US federal income tax treatment of life insurers, life insurance, pension and annuity products is governed by the US federal tax code. The Tax Cuts and Jobs Act, signed into law on December 22, 2017, made significant changes to the federal tax code, generally effective as of January 1, 2018. Along with other changes, the new law lowered the corporate tax rate to 21%, eliminated the corporate alternative minimum tax, changed interest deductibility limitations (including by adding a new limitation on the deductibility of business interest expense) and moved the US to a partial territorial system of international business taxation. In addition, the new law introduced a base erosion anti-abuse tax (BEAT), which may be imposed on companies that make significant deductible payments to their non-US affiliates. With respect to life insurance, pension and annuity contracts, among other changes, the Tax Cuts and Jobs Act reduced the tax deduction for life insurance reserves, limited the dividends received deduction for separate account products such as variable annuities, and increased the capitalization rates of acquisition costs for life insurance products and extended the amortization period for such deferred acquisition costs. It did not, however, make any significant changes to the tax incentives for life insurance, pensions or other retirement savings products.

The impact of the tax law changes do not significantly favor one life insurance product or structure to the detriment of another.

Aegon USA expects a recurring annual benefit to net underlying earnings from the tax rate reduction to 21 percent, with only small offsets for other permanent items, such as the limited dividends received deduction. Similarly, Aegon USA expects a recurring annual benefit to capital generation from the lower tax rate, with only partial offsets for the other permanent items and the timing provisions that generally accelerate taxable income, the increased capitalization and slower amortization of deferred acquisition costs. However, these benefits are more than offset by the increase in required capital arising from the lower corporate tax rate. Thus, the overall impact of the Tax Cuts and Jobs Act on Aegon USA s businesses and results of operations should be slightly negative.

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Overview of the Netherlands

Aegon has operated for more than 170 years in the Netherlands, where it is a leading provider of life insurance and pensions, and employs approximately 3,100 people. Aegon the Netherlands is headquartered in The Hague, and its other main offices are in Amsterdam, Leeuwarden and Groningen.

Organizational structure

Aegon the Netherlands operates through a number of brands, including Knab, TKP Pension, Optas and Robidus, and is itself one of the most widely recognized brands in the Dutch financial services sector.

Aegon the Netherlands primary subsidiaries are:

- Aegon Bank N.V.;
- Aegon Hypotheken B.V.;
- Aegon Levensverzekering N.V.;
- Aegon PPI B.V. (until January 1, 2019);
- Aegon Schadeverzekering N.V.;
- Aegon Spaarkas N.V.;
- CAPPITAL Premiepensioeninstelling B.V. (Aegon Cappital B.V. as of January 1, 2019);
- Optas Pensioenen N.V.;
- TKP Pensioen B.V.;
- Nedasco B.V.;
- Robijn Participaties B.V. (Robidus Groep B.V. until January 2, 2019).

Within the organization structure, Aegon is aiming for less complexity with a merger. Aegon PPI B.V. merged into CAPPITAL Premiepensioeninstelling B.V. as per 1 January 2019. The latter subsequently changedits name into Aegon Cappital B.V. In addition, Robijn Participaties B.V. was acquired through Salus Holding B.V., a private limited liability company incorporated by Aegon Nederland N.V. in 2018. Robijn Participaties B.V. has been merged into Salus Holding B.V. as per 2 January 2019.

Aegon the Netherlands has four lines of business:

- Life;
- Non-life;
- Banking; and
- Service Business.

Overview of sales and distribution channels

Aegon the Netherlands uses a variety of distribution channels to help customers assess the products and services appropriate for their needs. In general, all business lines use the intermediary channel, which focuses on independent brokers in different market segments in the Netherlands.

In recent years, Aegon the Netherlands has invested heavily in its direct online channel to achieve an enhanced digital self-service. Aegon usually distributes most of its products and services through intermediaries. Its own advisory channel, Aegon Advies B.V., is growing rapidly, as is the frequency with which advice is provided to customers. Distribution channels such as online and the contact centers generate leads for Aegon Advies B.V..

Aegon Bank uses the direct channel primarily for savings, whereas Aegon Schadeverzekering uses an online channel and independent brokers to sell its products. Aegon s online bank, Knab, helps its customers to make smart decisions by providing them with a clear overview of their finances, and advises them pro-actively on products and services that can help them achieve their financial goals, such as through giving mortgage advice and offering a range of insurance solutions.

For wholesale clients, Aegon has an integrated sales organization for pension and income products servicing corporate clients and advisors.

On September 11, 2018, Aegon completed the acquisition of Robidus Group, including the independent broker division.

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Overview of business lines

Life

Pensions

Aegon the Netherlands provides full-service pension solutions, administration-only services and life or disability insurances to company and industry pension funds, large companies and owners of small and medium-sized companies and employees.

Separate account group contracts are large group contracts that have an individually-determined asset investment strategy underlying the pension contract. For older generation products, a guarantee consists of profit sharing with a contractual interest rate of 3% or 4%. At present, the contracts offered to clients hold a guarantee of 3% or market interest rate, and Aegon the Netherlands always relates guarantee costs to the current market interest rate. If profit sharing turns into a loss, the minimum guarantee becomes effective, but the loss in any given year is carried forward to be offset against future surpluses. In general, the guarantee is such that the pension benefit payment is guaranteed and profit sharing offers potential upside via indexation. Some large group contracts also receive part of the technical results for mortality risk and disability risk. The contract period for these types of contracts is typically five years, and the tariffs, cost loadings and risk premiums are generally fixed over this period.

Aegon the Netherlands also offers products for small and medium-sized companies, both defined benefit and defined contribution products on a subscription basis. These products reduce complexity and enable Aegon to adapt the tariffs, cost loadings and risk premiums annually. In addition, customers have the opportunity to decide on an annual basis as to whether they wish to continue with their subscription.

The defined benefit subscription product is an all-in product with guaranteed benefits. The expected profit for the customer and anticipated investment returns are taken into account in the pricing of the product, and customers may contribute funds for future pension increases to a separate account. For the defined contribution subscription product all investment risk and longevity risk is borne by the policyholders. The product is managed in a separate business entity (as described below), rather than on Aegon Leven s balance sheet.

An increasing number of customers is becoming more interested in these low-cost and flexible subscription products. This has resulted in a significant movement from separate account and other 5-year contracts to 1-year subscription products. More specifically, customers are increasingly interested in defined contribution products not managed on the Aegon Leven balance sheet. This means that Aegon Leven now primarily manages premium paying DB products, annuities (as explained below), and existing DB and DC books, while most of the new business flows to other Aegon entities.

Defined benefit group contracts or defined benefit subscriptions both provide a guarantee on the benefits paid. The longevity risk therefore lies with Aegon the Netherlands.

Most of Aegon the Netherlands pensions are sold through sales and account management and Aegon s intermediary channel.

Customers include individuals, company and industry pension funds, and small, medium and large corporations. Aegon the Netherlands is one of the country s leading pension providers.

For the majority of company and industry customers, Aegon the Netherlands provides a full range of pension products and services.

Endowment insurance

Endowment insurance includes several products that accumulate a cash value. Premiums are paid at inception or over the term of the contract.

Accumulation products pay benefits on the policy maturity date, subject to survival of the insured. Most policies also pay death benefits should the insured pass away during the term of the contract. Death benefits may be stipulated in the policy or depend on the gross premiums paid to date. Premiums and amounts insured are established at inception of the contract. The amount insured can be increased as a result of profit sharing, if provided for under the terms and conditions of the product.

Minimum interest guarantees exist for all generations of accumulation products written, except for universal life products, for which premiums are invested solely in equity funds. Older generation products contained a 4% guarantee when sold. In 1999, the guarantee for new products decreased to 3%; and in 2013, the guarantee on new products was reduced to 0%.

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Various profit-sharing mechanisms exist. Bonuses are either paid in cash (usually for a pension, as described below) or used to increase the sum insured. A common form of profit sharing is to set bonus levels by reference to external indexes based on pre-defined portfolios of Dutch government bonds. The bonds included in the portfolios have different remaining maturities and interest rates. Together they are considered an approximation of the long-term rate of return on high-quality Dutch financial investments.

Term and whole life insurance

Term life insurance pays out death benefits should the insured pass away during the term of the contract. Whole life insurance pays out death benefits in the event of death, regardless of when this occurs. Premiums and amounts insured are established at inception of the contract and are guaranteed. The amount insured may be adjusted at the request of the policyholder. Term life insurance policies do not include profit-sharing mechanisms. Part of the whole life insurance portfolio has profit-sharing features, which are based on external indexes or the return of related assets.

Annuity insurance

Annuity insurance includes older products with both an accumulation and payout phase, with guaranteed interest rates and profit sharing for which no new business is written. The most active products in this category are, however, simple payout annuities and variable annuities. These products are clearly linked to defined contribution schemes in which participants build up their capital, and purchase an annuity at the pension date. Participants can choose between a guaranteed annuity, where all risks are borne by Aegon, or a variable annuity, where all risks are borne by the participant including investment risk and longevity. Given that a significant shift has been observed towards defined contribution schemes, these annuities are a natural driver of growth as they provide a solution for the payout phase.

Traditional Variable unit-linked products

This category consists of traditional unit-linked business with guarantees. These products are managed on the Aegon Leven balance sheet and are non-selling.

Non-life

Non-life accident and health protection insurance

Aegon the Netherlands offers disability and sick leave products to employers that cover disability and sick leave payments for employees not covered by social security and for which employers bear the risk. In addition, for some forms of disability, employers can choose to use the social security system with related premiums or opt out and seek private insurance. Private insurance may lead to lower premiums and Aegon offers solutions for this.

For individuals, Aegon the Netherlands offers a disability product mainly targeted at the growing self-employed market. Product options were extended during 2018 and this product is expected to be a driver of future growth.

Aegon accident and health products are distributed mainly through the intermediary channel. Some of these products are a natural fit with pension products, and are therefore also promoted to pension intermediaries.

Non-life Property and Casualty

Aegon the Netherlands has focused exclusively on retail lines in general insurance, with products providing cover for property, motor, travel, legal aid and casualty claims. The ambition for the P&C retail segment is to provide the best digital servicing in the Dutch market by 2022, while building long-lasting relationships with customers.

Aegon the Netherlands primarily offers its non-life insurance products through the intermediary channel, where service concepts are in place for high-value intermediaries. Through the service concepts, Aegon provides (non-financial) incentives for intermediaries to help their customers in the optimal way, while also protecting the health of the supply chain by stimulating performance at sustainable levels for customers, intermediaries and insurer. In addition to the intermediary market, Aegon the Netherlands develops digital and online capabilities, as distribution is slowly shifting towards the direct market. This market includes sales via Aegon s own website and agents, and via aggregator websites.

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Banking

Savings

Aegon Bank N.V. aims to achieve its vision and ambition through two business units: Aegon Bank and Knab.

Aegon Bank focuses on the income and housing markets, together with seeking to reinforce the Aegon Netherlands-wide pensions offering. Customers are increasingly having to make provision for their current and future income and wealth since the government changed the rules for pension provisions.

The bank offers simple and high quality products. These include both savings products focused on security, and investment products focused on a suitable risk/return profile that fits the customer s need and risk appetite. Processes are designed in such a way as to provide the maximum benefit to customers, and customer service is based on the principles of easy access, speed, first time right, convenience, insight and understanding.

Aegon Bank s focus is on customers whose income and wealth is in the middle-market, in line with Aegon the Netherlands s target group. Products are distributed directly to Aegon s customers. For more complex advice products, independent financial advisers continue to be a very important distribution channel for Aegon Bank. Aegon Bank s activities mainly focus on Banksparen products . Banksparen is a tax-deferred savings product in which amounts are deposited in a locked bank account. The amount saved is available after a certain period of time for specific purposes such as for a supplementary pension or paying off a mortgage.

Knab

Knab aims to be the most customer-oriented financial platform in the Netherlands, by informing customers about their personal financial situation and enabling them to achieve their financial goals. If therefore reflects the core of Aegon s purpose, offering customers both insight and an overview of their finances through its financial planning tools and alerts. As an online bank, Knab offers payment-accounts, savings and a basic investment product.

Investment contracts

Investment contracts are investment products that offer returns and generate fee income from the performance of the investments.

Services Business

Mortgage loans

At present, Aegon the Netherlands mostly offers annuity mortgages . Before 2013, Aegon the Netherlands also offered interest-only, unit-linked and savings mortgage loans, and is continuing to do so for existing mortgage loans that are being renegotiated. Mortgage loans are partly funded externally. Besides residential mortgage-backed securities in Saecure Aegon s Dutch residential mortgage-backed securities program and private placements the Aegon Mortgage fund is the main source of external funding. For this business, Aegon originates the mortgage loans fully for account

of third parties and remains the service provider for these mortgage loans.

PPI

Aegon the Netherlands has two regulated pension premium institutions (PPIs): Aegon PPI B.V.; and Cappital Premiepensioeninstelling B.V., which will be merged and operate under the combined entity Aegon Cappital B.V. in 2019. These PPIs are low-cost providers of defined contribution pension schemes offered through intermediary advisors. Together they form the largest pension premium institution in the Netherlands, and therefore benefit considerably from economies of scale. The low interest rate environment and aging society is expected to result in a continued shift in customer preference for defined contribution schemes.

PPIs cannot bear any investment or insurance risks on their offerings due to regulatory requirements. The schemes can, however, include disability or life insurance, which are offered by partners Aegon Levensverzekering N.V., Aegon Schadeverzekering N.V. and Elips Life AG, for which the PPI s act as an intermediary. All other positive or negative risks, such as investment risk and longevity risk, are attributed to the participants in the scheme.

Aegon PPI offers defined contribution pension schemes in a standardized subscription based model to small and medium enterprises. The model enables employers to choose from a variety of contribution tables and franchises, while remaining flexible for regulatory changes, such as changes in pension age or fiscal contribution tables. Savings premiums are invested in life cycle funds by Aegon Investment Management B.V..

Cappital PPI offers tailor-made contribution pension schemes to large corporations and industry pension funds. Its size and expertise enables it to offer customized pension solutions to its customers. Savings premiums are invested in life cycle funds by TKP Investments B.V..

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The combined entity Aegon Cappital B.V. offers further scalability, and puts Aegon in an optimal position to benefit from the rise of defined contribution pension schemes.

Knab Advies & Bemiddeling

As an adviser and broker, Knab Advies & Bemiddeling it offers online advice and comparison ofn car-insurance and home-related insurances. As a mortgage broker, Knab provides advices on more than 30 different mortgage-labels.

Knab services two segments: private customers and as well the business-customers, mainly focusing on the self-employed segment. Products are distributed and managed through its own digital channels, and specifically for mortgages remote -advice specifically for mortgages is offered through its own advisors.

The focus is on creating value through easy-to-use products, for a good price, and easy (online) onboarding, thereby creating offering excellent customer service and achieving a high net promoter score NPS (NPS)with customers with excellent service.

TKP, Robidus and Nedasco

TKP Pensioen specializes in pension administration for company and industry pension funds, and also provides defined contribution plans to corporate and institutional clients. Aegon offers defined contribution plans for small and medium-sized companies, and CAPPITAL offers the same plans for large companies. Aegon PPI and Cappital will merge to form Aegon Cappital, the largest premium pension institution in the Netherlands. Formal decision-making is in progress, with completion expected in the second half of 2019.

On December 22, 2015, legislation was passed that enables companies to set up an Algemeen Pensioen Fonds (General Pension Fund). On June 20, 2016, Aegon received approval from the Dutch Central Bank (DNB) to launch the first such fund called Stap (a separate legal entity), together with TKPI B.V.. Stap is a pension pooling vehicle that enables separate financial administration for multiple pension plans from multiple employers. This vehicle enables smaller pension schemes to benefit from economies of scale and to comply with complex pension regulations, meaning that a greater percentage of the employees pension premium is invested, and that employers and participants receive the same high quality of service as a traditional pension plan. The fiduciary investments for Stap are carried out by TKP Investments B.V. which has merged with Aegon Investment Management B.V. as per January 1, 2019.

Aegon acquired Robidus from the investment company Avedon Capital Partners on September 11, 2018. Robidus advises corporations on the risks and associated costs under Dutch social security legislation, and provides corporations and insurance companies with solutions as to how to manage these issues, including outsourcing services. It operates as an independent organization within Aegon, and the acquisition gives Robidus both more room to invest and access to the broad expertise within Aegon.

Subsidiary Nedasco is a fast-growing intermediary service provider that is mainly active in non-life business domains.

Competition

Aegon the Netherlands has strong competition in all markets from insurers, banks, investment companies and pension funds. Its main competitors are Achmea, ASR, NN Group and Vivat.

The company has been a key player in the total life market for many years, and was ranked second in 2017 based on gross premium income. The life insurance market in the Netherlands comprises pensions and life insurance. The top five companies in the Netherlands by gross premium income accounted for almost 85% (Individual Life and Pension) of total premium income in 2017 in the insurance market. Following the merger of NN group and Delta Lloyd, Aegon the Netherlands is the second largest insurance company in the pensions market. Aegon the Netherlands is one of many insurers in the non-life market, where in 2017, ten companies accounted for 80% of the total premium income. In terms of premium income, Aegon the Netherlands non-life market share is around 3%, making it the ninth largest company in the market.

In the mortgage loans market, Aegon the Netherlands held a market share of approximately 9% based on new sales in 2017 (and 7% in 2016), making it the fourth largest mortgage loan provider in the market. Rabobank, ING Bank and ABN AMRO are the largest mortgage loan providers in the market, and competition is increasing from foreign competitors and capital from pension funds.

Aegon the Netherlands share is growing in the market for Dutch household savings. In 2017, its market share was approximately 3%, which is relatively small in comparison to banks such as Rabobank, ING and ABN AMRO.

Various legal and regulatory changes have had an impact on demand for insurance products in the Dutch market. This is especially true in the life insurance market, where the tax deductibility of certain products has been reduced, leading to a shift to bank-saving

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products. Moreover, volatility in economic and financial markets has meant that customers are more reluctant to commit themselves to long-term contracts. These changes have resulted in more competition, greater focus on competitive prices, improved customer service and retention, and product innovation.

In the pensions market, pension funds have faced pressure on their coverage ratios, in addition to increased regulatory and administrative requirements. In response, they have sought to reduce risks by insuring all or parts of their business. This represents an opportunity for pension insurers, and Aegon is one of the leading providers of these solutions.

The defined contribution (PPI) market is set to grow significantly due to the shift from defined benefit plans to defined contribution plans and the demand for transparent and cost-effective pension products. As a result, significant economies of scale will be required to effectively serve this market, and the number of providers is expected to shrink within a few years. Aegon the Netherlands has identified this market as an opportunity for growth and intends to invest in maintaining its leadership position.

Regulation and supervision

General

Regulation of the financial sector in the Netherlands is included in the Financial Supervision Act (Wet op het financieel toezicht or Wft). The Wft embeds the cross-sectorial functional approach within the Dutch supervisory system. The supervision of financial institutions pursuant to the Wft rests with the DNB and the Dutch Authority for the Financial Markets (AFM).

The DNB is responsible for prudential supervision, while the AFM supervises the conduct of business of financial institutions, and the conduct of business on financial markets. The aim of the DNB s prudential supervision is to ensure the solidity of financial institutions and contribute to the stability of the financial sector. With regard to banks, the DNB undertakes its supervisory role, in particular with respect to prudential supervision, together with the European Central Bank (ECB).

The AFM s conduct of business supervision focuses on ensuring orderly and transparent financial market processes, integrity in relations between market parties, and due care in the provision of services to customers.

The Dutch supervisory authorities have a number of formal tools to exercise their supervisory tasks. These tools include the authority to request information, if this is necessary for the purpose of prudential supervision, and the power to issue formal instructions to financial institutions, to impose fines, or to publish sanctions. The DNB, as prudential supervisory authority, can, under certain circumstances, require a recovery plan, a short-term financing plan, appoint a trustee, draw up a transfer plan or (ultimately) withdraw the license of a financial institution.

Financial supervision of insurance companies

The Solvency II framework consists of an EU Directive and has consequently been transposed into the Dutch Financial Supervision Act. A large part of the Level II Solvency II rules are, however, also set out in EU regulations,

which apply directly in EU member states, and as a consequence have not been implemented into national legislation, such as in the Decree on Prudential Rules under the Wft (Besluit prudentiële regels Wft).

The following insurance entities of Aegon the Netherlands are subject to prudential supervision of the DNB:

- Aegon Levensverzekering N.V.;
- Aegon Schadeverzekering N.V.;
- Aegon Spaarkas N.V.; and
- Optas Pensioenen N.V.

An insurance company is neither permitted to conduct both life insurance and non-life insurance business within a single legal entity (with the exception of reinsurance), nor to carry out both insurance and banking activities within the same legal entity. Within Aegon the Netherlands, Aegon Levensverzekering N.V., Aegon Spaarkas N.V. and Optas Pensioenen N.V. conduct life insurance activities. Aegon Schadeverzekering N.V. conducts non-life insurance activities. Prudential supervision is exercised by the home state supervisory authority (DNB in the Netherlands). Insurance companies in the Netherlands may conduct their activities on a cross-border basis or through a branch office based on the mutual recognition of (prudential) supervision in the EU (the so-called European passport). Aegon the Netherlands does not have material cross-border insurance business or business conducted through branch offices elsewhere in the EU.

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Solvency II

Aegon the Netherlands uses a PIM to calculate the solvency position of its insurance activities under Solvency II. The calculation includes the use of the volatility adjustment (VA), but does not include the use of any transitional measures. In 2018 the Dynamic VA model has been updated for Aegon the Netherlands and the updated Dynamic VA model uses an asset-only model approach to quantify required capital for spread risk. The initial internal model of Aegon the Netherlands was approved on November 26, 2015, by the supervisor, the DNB, as part of the Internal Model Application Process. The combined Solvency II position of the activities of Aegon the Netherlands, including Aegon Bank, on December 31, 2018, is estimated to be 181% (2017: 199%). This decrease is mainly driven by one-time items, including the lowering of the UFR by 15 basis points to 4.05%, impact of tax changes in the Netherlands and changes to the assumptions regarding mortgages, mortality rates and lapses for individual life policies. This negative impact is partly offset by favorable market impacts mainly due to decreasing interest rates combined with widening of the EIOPA VA, and narrowed mortgage spread. The solvency position of the banking activities are calculated using the CRR/CRD IV framework. As at December 31, 2018, the factor of LAC DT is set at 75%, unchanged from 2017. The Solvency II capital ratio of the Group and Aegon the Netherlands does not include any contingent liability potentially arising from unit-linked products sold, issued or advised on by Aegon in the Netherlands in the past, as the potential liability cannot be reliably quantified at this point.

Dutch Act on Recovery & Resolution for Insurers

On January 1 2019, the Dutch Act on Recovery & Resolution for Insurers (R&R Act) came into force in the Netherlands, replacing the previously applicable intervention regime for insurance companies in the Netherlands faced with financial difficulties.

The R&R Act has introduced a revised regulatory framework for recovery and resolution of Dutch insurance and reinsurance companies and provides for a range of measures to be taken by these companies and the Dutch Central Bank ex ante, in order for these insurance and reinsurance companies to be prepared for recovery in circumstances where it no longer meets the required solvency requirements and for orderly resolution, in circumstances where it is failing or is likely to fail.

The R&R Act introduces a requirement for Dutch insurance companies and reinsurance companies, such as the Dutch insurance and reinsurance subsidiaries in the Aegon Group, to draw up and maintain an *ex ante* recovery plan, that should allow these entities, when faced with financial problems, to take measures to recover their solvency ratio and continue to operate in going concern. In addition, the Dutch Central Bank, in its capacity as national resolution authority in *gone concern* circumstances (as opposed to its role as supervisory authority in *going concern*) is required to draw up and maintain a resolution plan, which should provide for the orderly resolution of the Dutch insurance and reinsurance entities in the group, or the group, to avoid unnecessary damage to policyholders and beneficiaries and to provide an alternative to ordinary bankruptcy proceedings.

The R&R Act allows DNB to require a Dutch insurance or reinsurance company or a group in certain circumstances, to remove, ex ante, impediments to effective resolution of a Dutch insurance or reinsurance undertaking, such as the revision of financing arrangements, the reduction of exposures, the transfer of assets, the termination or limitation of business activities, or the prohibition to start certain business activities, change the legal or operational structure of the

group, or securing certain critical business lines.

The R&R Act allows DNB to intervene in situations where a Dutch insurer or reinsurer, where it is failing or is likely to fail, as defined in the R&R Act. The powers under the R&R Act may also extend to the level of the Group and to entities, other than in insurance or reinsurance entities in the Netherlands, that are part of the group, such as Aegon N.V.. The powers include the transfer of the undertaking to a third party, the transfer to a bridge institution and the transfer of certain specific assets and/or liabilities. In addition, a bail-in tool is introduced, that allows for the write-off or conversion of rights of creditors, including policyholders and beneficiaries, while respecting the principle that they should not be worse off through resolution, including the application of the bail-in tool, than they would in ordinary insolvency proceedings.

Financial supervision of credit institutions

As of November 4, 2014, Aegon Bank N.V. has been subject to indirect supervision by the ECB under the new European system of banking supervision, the Single Supervisory Mechanism (SSM), which comprises the European Central Bank and the relevant national authorities of participating EU Member States. The SSM is one of the elements of the Banking Union. The ECB may give instructions to the DNB in respect of Aegon Bank N.V. or even assume direct supervision over the prudential aspects of the Aegon Bank N.V. s business. Pursuant to the banking supervision by the DNB, Aegon Bank N.V. is (among others) required to file monthly regulatory reports and an audited Annual Report.

Credit institutions are subject to regulatory requirements. These include (among others) capital and liquidity requirements, the requirement to maintain a certain leverage ratio, governance and reporting requirements in line with the requirements of EU Directive 2013/36/EU (CRD IV) and EU Regulation 575/2013 (CRR).

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CRD IV and the CRR are the European Union s translation of the Basel III accord for prudential supervision of credit institutions and investment firms. The CRR is binding for all EU member states and became effective on January 1, 2014. CRD IV is an EU directive, and is required to be implemented into local legislation. CRD IV has been implemented in the Netherlands by means of amending the Financial Supervision Act (Wet op het financieel toezicht, the Wft) on August 1, 2014. The application in full of all measures under CRD IV (including any national implementation thereof in the Netherlands) has to be completed before January 1, 2019.

The CRR has been applied across all EU member states since January 1, 2014. The CRD IV and CRR frameworks include requirements with respect to capital adequacy, and introduce requirements with respect to increased capital against derivative positions, the introduction of two supplementary buffers (a capital conservation buffer and a counter-cyclical buffer), a new liquidity framework (liquidity coverage ratio and net stable funding ratio and a leverage ratio. The leverage ratio is defined as Tier-1 capital divided by a measure of non-risk weighted assets. If Basel III is followed under CRD IV, the leverage ratio may not fall below 3%, although uncertainty still remains as to the exact percentage and the scope of the leverage ratio under CRD IV. With respect to the percentage, the Dutch government has announced that it wishes to implement a leverage ratio of at least 4% for large Dutch banks, which does not apply to Aegon Bank N.V.. The ultimate aim of Basel III/CRD IV is to reduce leverage in order to bring institutions unweighted assets more in line with their Tier-1 capital. The capital requirements include qualitative in addition to quantitative requirements.

Capital of the highest quality, Common Equity Tier 1, forms a substantial part of the capital of a credit institution. Additional Tier 1 capital forms the rest of the Tier 1 capital. In addition, the capital of a credit institution may be composed of Tier 2 capital, which is of a lesser quality than Tier 1 capital.

EU Directive 2014/59/EU (the Banking Recovery and Resolution Directive, BRRD) and Regulation 806/2014 on the Single Resolution Mechanism (the SRM Regulation) form the European framework for recovery and resolution for (among others) ailing banks, certain investment firms and their holding companies. The BRRD was implemented in the Netherlands on November 26, 2015, by means of an amendment of the Wft (the BRRD Implementation Act). The SRM Regulation was adopted on July 15, 2014. Those parts of the SRM Regulation that deal with recovery and resolution entered into force on January 1, 2016.

The BBRD provides for early intervention measures that may be imposed by the national competent authority in respect of Aegon Bank N.V. in the event that its financial condition is deteriorating. These early intervention measures could pertain, among others, to a change of its legal or operational structure, the removal of (individuals within) senior management or the management body, or the appointment of a temporary administrator to work together with or replace such (individual within) senior management or management body. The national resolution authority may also under certain circumstances decide to write down or convert relevant capital instruments, including Common Equity Tier 1, Additional Tier 1 and Tier 2 instruments, in a specific order.

Were Aegon Bank N.V. to fail or be likely to fail and the other resolution conditions were also met, the national resolution authority would be able to place Aegon Bank N.V. under resolution. As part of the resolution scheme to be adopted by the national resolution authority it may decide to apply certain resolution tools and exercise its powers pursuant to the implemented BRRD in order to give effect to such resolution tools. In addition, the SRM Regulation and the BRRD Implementation Act introduce the bail-in tool which gives the national resolution authority the power

to write down or convert into equity certain debt and other liabilities of the institution.

Pursuant to the SRM Regulation and the BRRD Implementation Act, banks are required at all times to meet a minimum amount of own funds and eligible liabilities (MREL), expressed as a percentage of the total liabilities and own funds. The competent resolution authority will set a level of minimum MREL on a bank-by-bank basis based on assessment criteria due to be set out in technical regulatory standards.

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Overview of United Kingdom

Aegon in the UK (hereafter referred to as Aegon UK) is leading financial services provider that offers advisors, employers and individuals a range of pension, investment and protection products through its online platform. It employs over 3,000 people and its main offices are in Edinburgh, London, Peterborough, Hove and Witham.

Organizational structure

Aegon UK plc is Aegon s holding company in the United Kingdom. It was registered as a public limited company at the beginning of December 1998. The leading operating subsidiaries, which all operate under the Aegon brand, are:

- Aegon Investment Solutions Ltd.;
- Scottish Equitable plc;
- Cofunds Ltd.

Acquisitions and disposals

Aegon UK s business strategy is focused on developing the business as the leading platform savings, investments and pensions provider in the market and has made a number of strategic changes in order to align its business model with its strategy.

Since 2016, Aegon UK has completed the divestment of its own annuity portfolio to Rothesay Life and Legal & General. These transactions were consistent with its ambition to free up capital from non-core businesses, and its capital position improved as a result of the transactions. Aegon UK has approximately GBP 0.7 billion annuity liabilities remaining through an inward reinsurance transaction.

In 2016, Aegon UK announced an agreement to acquire BlackRock s UK defined contribution (DC) platform and administration business, strengthening its position as a leading player in the UK workplace market, adding Master Trust and Investment Only capability, as well as assets under administration of around GBP 16 billion. This transaction finalized in July 2018.

On January 1, 2017, Aegon UK completed the acquisition of Cofunds. The transaction demonstrates Aegon s commitment to the retail platform market. Intermediaries that use Cofunds have been upgraded to an enhanced version of Aegon s platform, with approximately 79,000 customers upgraded in December 2017 and approximately 400,000 customers in May 2018. In addition, Aegon UK has also completed the re-platorming of the institutional business acquired as part of the Cofunds transaction.

On April 3, 2018, Aegon completed the sale of Aegon Ireland plc to Athora Holding Ltd., the holding company of the European operations of Athene Holding Ltd. Aegon Ireland provided both unit linked guarantees and offshore bond product in the UK.

The combination of the acquisitions and Aegon s program to upgrade existing customers to the digital solutions platform have enabled Aegon to create the largest UK platform with approximately GBP 128 billion assets under administration, and provide broad expertise across the savings, investments and pensions markets.

Overview of sales and distribution channels

In the United Kingdom, Aegon has two main distribution channels: retail and workplace intermediaries. These are supported by Aegon UK s customer capability, which offers employees and advisor clients a market-leading portal to view and manage their money. Aegon UK s award-winning platform supports these channels in an integrated way, making it easier for customers to move between products and channels. In addition, Aegon offers an institutional trading platform that underpins other UK retail platforms.

Retail channel

Aegon UK offers a comprehensive proposition to intermediaries and strategic partners underpinned by technology that drives efficiency and supports the profitability of advisor s businesses.

Aegon Retirement Choices (ARC) helps advisors and their customers save for the long term and manage the transition from work to retirement. ARC uses leading-edge digital technology to deliver an intuitive method of saving for the long term, including retirement, taking income in retirement, such as the on-platform drawdown product, and dealing with changing circumstances. It also provides valuable online reporting and lifestyle tools that enable advisors to demonstrate their professionalism and display their charges for advice in a transparent way. In addition to the Self Invested Pension Plan which provides a range of pre-and post-retirement

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investment options for high-net-worth customers (including insured funds and a wide range of open-ended investment companies) Individual Savings Accounts and General Investment Accounts are also offered.

Aegon UK offers two distinct versions of the proposition targeted at distinct market segments:

- A fund wrap service, which includes multiple wrapper choices, fully open architecture fund choice and digital advisor/customer self-service access; and
- One Retirement , a standalone pension accumulation and drawdown product, designed to be a single-point solution for customers that do not have a broader set of needs.

The acquisition of Cofunds made Aegon UK the UK s leading fund supermarket , adding approximately GBP 80 billion of assets, predominantly in ISAs and GIAs, complementing Aegon UK s core pension expertise. The modernization of the Cofunds business by migrating it on to Aegon s market-leading technology has seen Aegon UK emerge with a market-leading position among intermediary platforms.

Workplace channel

Aegon is building and diversifying its workplace distribution capability to cover a range of intermediaries from Independent Financial Advisors (IFAs) to large Employee Benefit Consultants (EBCs). Services that Aegon UK offers include:

- Workplace Aegon Retirement Choices , a comprehensive pension proposition that manages workplace pensions for employers in a seamless and streamlined way, enabling them to offer employees a choice of savings wrappers;
- Employers auto-enrolment obligations, which are supported through Aegon s SmartEnrol capability;
- Support for the governance of the workplace pension scheme, which is offered through the sophisticated analytics of Aegon s Smart Governance;
- Employee access to Retiready, which enables employers to cater for all levels of employee investment knowledge and confidence, in addition to moving with their employees throughout their working life; and
- TargetPlan , Aegon UK s dedicated offering for large employers. This offers both a Trust, Master Trust and Contract-based version underpinned by Aegon s market-leading employee engagement services.

Following the completion of the BlackRock Part VII transfer, Aegon is now aiming to use its proposition breadth to build towards being the largest workplace pension platform in the UK. This will combine Aegon s traditional strengths in employee engagement and online services with BlackRock s experience tailoring solutions to meet the distinct needs of larger employers.

Customer capability

Aegon s digital retirement planning service is designed to help customers understand how on track they are for the retirement they want, and to support them in taking action. Answering a few simple questions gives customers a Retiready score out of 100, showing how ready they are for retirement.

Retiready is focused on both existing Aegon UK customers that no longer have an advisor and members of group pension schemes. The majority of customers receive the service having been upgraded from Aegon UK s existing business, thereby allowing longstanding customers to benefit from the advantages of a modern digital pension.

Retiready customers have access to a number of tools to help them better engage with and manage their retirement savings. Since inception, approximately 400,000 customers, with assets of around GBP 7.8 billion, have been upgraded to Aegon UK s new proposition.

As part of the Cofunds migration, Aegon UK is redeveloping its digital customer portal. This aims to offer an industry-leading customer experience, with the service then being rolled out to all customers.

Aegon UK also participates in the institutional market in 2 distinct areas where capability is provided to other parties who provide policy administration to the end client:

- An institutional trading platform which powers 28 of the UK s leading end customer platforms (e.g. SEI, AJ Bell) and manages a total of GBP 52 billion assets; and
- An investment only proposition for pension schemes which provides access to insured funds for c160 clients representing GBP 7 billion assets under administration.

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Overview of business Lines

Aegon UK was reorganized in 2016 to Digital Solutions and Existing Business , which have separate leadership teams.

The Digital Solutions business is responsible for Aegon UK s new digital platform propositions sold through Retail Advisor and

Workplace channels, together with the protection lines. The majority of new assets going forward will be accumulated in this business. In addition, where appropriate, Aegon UK is upgrading customers from its Existing Business to Digital Solutions to ensure an enhanced customer experience, a more engaged relationship, and lower cost to serve.

The Existing Business is responsible for older products that are no longer actively marketed to new customers. However, new assets are accumulated as customers pay into existing policies, or as new employees join older workplace schemes. These propositions include older style group pensions, individual pensions and with-profits policies. In November 2018 Aegon UK announced an extension to its partnership with Atos with a 15 year contract to service and administer the Existing Business. This builds on the existing relationship which has seen Atos successfully administer 450,000 Digital Solutions protection policies since 2016.

Products

Aegon UK s main product focus is on savings, investments, pensions and protection products.

Savings, Investments & Pensions

Aegon UK provides a full range of personal and corporate pensions and saving-related products. These include:

- Individual Saving Accounts;
- General Investment Account;
- Flexible personal pensions;
- Self-invested personal pensions;
- Group personal pensions;
- Group Self-invested personal pensions;
- Mastertrust;
- Investment Only capability for workplace pension schemes; and
- Institutional Trading Platform.

Protection products

Aegon UK offers a range of products for individual customers, including life cover, critical illness and income protection available through financial advisers. The target market is wealthier customers over the age of 40, where Aegon UK s underwriting expertise helps it to provide a customer-centric proposition. This also provides a strong overlap with the target customers for Aegon Retirement Choices, giving opportunities to leverage sales and promotional activity. In addition, Aegon UK offers a range of protection products for small- to medium-sized companies that wish to insure key personnel.

Traditional Pensions

Traditional Pensions include a variety of individual and corporate pensions and with-profits products. These products are not actively marketed, but have a large number of existing customers.

Competition

There are a diverse range of competitors in the markets in which Aegon UK operates, and market dynamics are continuing to evolve. While competition can be seen partly in terms of product features and benefits, it is also increasingly played out in terms of establishing Aegon UK s proposition as the primary or secondary platform used by intermediaries to manage their clients assets, or as a preferred partner for EBCs advising corporate clients.

Aegon UK s competitors include traditional insurance companies, investment platforms and asset managers, with a key competitive dimension being the degree to which companies see their growth coming from extending into distribution or asset management versus building scale in administration.

Regulation and supervision

All relevant Aegon UK companies based in the United Kingdom are regulated by the Prudential Regulation Authority (PRA) and/ or the Financial Conduct Authority (FCA).

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The PRA is responsible for the prudential regulation of deposit takers, insurers and major investment firms. The FCA is responsible for regulating firms conduct in retail and wholesale markets. It is also responsible for the prudential regulation of those firms that do not come under the PRA s remit.

The Aegon Master Trust will be subject to regulatory oversight by the Pensions Regulator following industry changes to authorise Master Trusts and implement revised regulatory powers.

The UK vote to leave the European Union (EU) on June 23, 2016, has implications for the UK. Much financial regulation currently applicable in the UK derives from EU legislation. This regulation will remain in force until any changes are made, which will be a matter for the UK government and the UK Parliament. Aegon UK must therefore continue to comply with UK law, including those that derive from EU law and continue with implementation plans for legislation that is anticipated to come into effect. The FCA has acknowledged that the longer term impacts of the decision to leave the EU on the overall regulatory framework for the UK will depend, in part, on the relationship that the UK seeks with the EU in the future.

Financial supervision of insurance companies

The European Union Insurance Directives referred to collectively as Solvency II are incorporated into UK law. The Solvency II directives came into effect on January 1, 2016. The directives are based on the home country control principle, i.e. an insurance company with a license issued by the regulatory authorities in its home country is allowed to conduct business in any country of the European Union, either directly or through a branch. Separate licenses are required for each branch of the insurance company where it conducts business. The regulatory body that issued the license (the PRA in the UK) is responsible for monitoring the solvency of the insurer.

Every life insurance company licensed by and/or falling under the supervision of the PRA must file audited regulatory reports on at least an annual basis. These reports, primarily designed to enable the PRA to monitor the solvency of the insurance company, include a (consolidated) balance sheet, a (consolidated) income statement, a breakdown of the Solvency Capital Requirements, extensive actuarial information, and detailed information regarding the investments of the insurance company. The PRA s regulatory reporting is based on a single entity focus, and is designed to highlight risk assessment and risk management.

Solvency II

Under Solvency II, life insurance companies are required to maintain certain levels of shareholders equity in accordance with EU directives, and have to hold the level of capital required to withstand a 1 in 200 shock on a 1-year value at risk basis.

Since the introduction of Solvency II on January 1, 2016, Aegon has been using a Partial Internal Model (PIM) to calculate the solvency position of its insurance activities in the United Kingdom. The internal model was approved in December 2015, by the PRA as part of the Internal Model Application Process, with an additional Major Model Change approved in July 2017, which added Currency Risk and Operational Risk into the Internal Model.

In addition, Aegon uses the matching adjustment in the calculation of the technical provisions for its annuities, and uses the volatility adjustment in the calculation of the technical provisions for the With-Profits business with investment guarantees. Following the sale of the majority of its annuity business in 2016, Aegon no longer uses the transitional measures on technical provisions.

CRD IV

The Capital Requirements (Country by Country Reporting) Regulations 2013 (CRD IV) came into force on January 1, 2014. These require credit institutions and investment firms, as defined within the directive, which are regulated under CRD IV, to disclose annually, specifying by Member State and by third country in which it has an establishment, the following information on a consolidated basis for the financial year :

- Name, nature of activities and geographical location;
- Turnover;
- Number of employees on a full time equivalent basis;
- Profit or loss before tax, and tax on profit or loss;
- Public subsidies received.

Cofunds Ltd and Aegon Investment Solutions Ltd are regulated by the FCA and maintain a capital framework in line with CRD IV. The information required by the legislation is published on Aegon s websites.

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Overview of Central & Eastern Europe

In 2018 Aegon had operations in the Central & Eastern European (CEE) countries of the Czech Republic, Hungary, Poland, Romania, Slovakia, and Turkey. It first entered the Central & Eastern European market in 1992 with the purchase of a majority stake in Hungary s former state-owned insurance company, Állami Biztosító. Aegon Hungary is Aegon s leading business in Central & Eastern Europe. In line with its strategic objective to optimize its portfolio and capital allocation across its businesses, in 2018 Aegon agreed to sell its subsidiaries in Czech Republic and Slovakia. The transaction was subject to customary regulatory approvals and was closed on January 8, 2019.

Organizational structure

Aegon s main subsidiaries in Central & Eastern Europe are:

- Aegon Magyarország Általános Biztosító Zártkörűen Működő Részvénytársaság (Aegon Hungary Composite Insurance Co.);
- Aegon Towarzystwo Ubezpieczeń na Życie Spółka Akcyjna (Aegon Poland Life);
- Aegon Powszechne Towarzystwo Emerytalne Spółka Akcyjna (Aegon Poland Pension Fund Management Co.);
- Aegon Emeklilik ve Hayat A.Ş. (Aegon Turkey).;
- Aegon Pensii Societate de Administrare a Fondurilor de Pensii Private S.A (Aegon Romania Pension Administrator Co.).

Overview of sales and distribution channels

Aegon operates through a number of different sales channels in Central & Eastern Europe. Aegon Hungary Insurance is a composite insurance entity and owns several subsidiaries that also operate in the financial services sector. The Group s products are therefore marketed via a broad range of channels, the most important of which are tied agents and insurance brokers, in addition to bank partners, call centers, key account managers and its online channel. In Poland, unit-linked and different types of traditional life insurance products are distributed by tied agents and broker partners, while in Romania these types of products are distributed mainly by bank partners. In Turkey, the most important sales channels are insurance brokers and tied agents, in addition to bank partners, which distribute savings and term life insurance products. In the Czech Republic and in Slovakia, which were sold in January 2019, Aegon distributed mostly unit-linked and term life insurance policies with the help of broker sales partners.

Overview of business lines

Life & Savings

Aegon s companies in Central & Eastern Europe offer a range of life insurance and personal protection products. These include traditional life and unit-linked products, the latter of which cover all types of life insurance, including pension, endowment and savings.

Traditional general account life insurance mainly consists of index-life products that are not unit-linked, but have guaranteed interest rates, in addition to group life and preferred term life products.

Preferred life is an individual term life insurance product that offers insurance protection. The product distinguishes between whether an individual is a smoker or non-smoker, and uses standard and preferred pricing dependent on the respective health of customers.

Group life contracts are renewable each year and carry optional accident and health cover.

In Hungary, Aegon offers a wide range of life insurance products: including term life, whole life, group life insurance, accidental life and traditional saving type products, in addition to unit-linked policies, which are frequently accompanied with riders. These riders provide customers in addition to the main coverage with additional financial support in the event of, for instance: having an accident, becoming disabled, or being hospitalized. Aegon is a significant market player in Hungary in the unit-linked segment.

In Poland, Aegon focuses on unit-linked as well as traditional life products. In line with local regulatory and market developments, the products marketed have been modified in recent years.

In Romania, Aegon undertakes life insurance business via a branch of Aegon Poland Life Insurance Company. The Romanian branch sells unit-linked, term life and endowment insurance policies.

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In Turkey, Aegon provides only traditional life insurance products, the most important of which are pure term life with several riders, term life with premium refund on maturity, and saving-type endowment products. Aegon s insurance portfolio is growing significantly in Turkey due to the country s high growth rate.

In both the Czech Republic and Slovakia, Aegon focused on the unit-linked segment, in addition to offering term life products and offering a wide range of riders that cover, among others, accidental death, disability, critical illness risks, and providing a daily hospitalization allowance to insured clients.

Also in Hungary, up until the end of September 2018 Aegon Hungary Home Savings and Loan Association provided a saving product combined with a preferential loan option, which is subsidized by the state during the saving period. In accordance with Aegon s strategy on October 1, 2018 Aegon Hungary Home Savings and Loan Association suspended its sales activities.

As a further step to rationalize Aegon s geographical footprint and focus its resources on its key markets, on August 16, 2018, Aegon announced it had agreed to sell its life insurance business lines in the Czech Republic and Slovakia to NN Group. This transaction was subject to customary regulatory approvals, and was closed on January 8, 2019.

Mortgage loans

Aegon Hungary first offered mortgage loans to retail customers in 2006 via Aegon Hungary Mortgage Finance Co., a subsidiary of Aegon Hungary Composite Insurance Company. After its launch, the mortgage loan business was affected by several legislative changes.

On March 17, 2014, Aegon Hungary Mortgage Finance Company suspended the acceptance of new loan applications for an indefinite period of time.

On June 4, 2018, Aegon agreed to sell its performing mortgage loan portfolio to Raiffeisen Bank Zrt., member of the Raiffeisen Bank International Group. This was followed by the sale of Aegon Hungary Mortgage Finance Co. to Intrum Justitia Zrt., being the Hungarian subsidiary of Intrum Justitia AB, the Swedish public company engaged in credit management. The transaction was subject to customary regulatory approval, and was closed on October 8, 2018.

Pensions

Aegon s pension business in Central & Eastern Europe was impacted by reforms to the pension system in several countries in the region during recent years. In 2018 Aegon was active in the (formerly mandatory) private pension market in Slovakia, Poland and Romania. In the voluntary pension market, Aegon was active in Hungary, Turkey and Romania.

As of December 31, 2018, Aegon managed the savings of 3.1 million pension fund members in Central & Eastern Europe. In terms of assets under management, Aegon s private pension funds in Poland, Slovakia and Romania, and its voluntary pension fund in Hungary, are significant market players in the respective countries. In terms of numbers of

members, Aegon has a significant market presence in Poland, Romania, and Hungary.

On September 1, 2017 Aegon took over the management of Nordea s Pillar 2 pension fund in Poland. The deal brought economies of scale and helped further improve the quality of services that Aegon provides to its customers. The merger of the two funds created the fourth largest Pillar 2 pension fund in the market.

Aegon s private pension business in Slovakia, together with its life insurance operation in the market, was sold to NN Group on January 8, 2019.

Non-life

Aegon Hungary offers non-life cover (mainly household and car insurance, in addition to some wealth and liability industrial risk and travel insurance). Aegon is the leading insurance company in the Hungarian household market. In recent years, margins on non-life insurance in Hungary have been attractive. Moreover, household insurance provides considerable opportunities for the cross-selling of life insurance.

As part of Aegon s regional expansion, Aegon Hungary has operated branch offices selling household insurance policies in Slovakia since 2010 and in Poland since 2011.

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Competition

In 2017, Aegon was the third largest life insurance provider in Hungary, based on annual standardized premium income, and the third largest provider in the non-life insurance market. In Turkey, Aegon was ranked fifth in the life insurance market based on written premium at the end of 2018. Aegon is a less significant market participant in Poland, Slovakia, the Czech Republic and Romania.

Aegon was ranked third in terms of both the number of participants and managed assets in 2017 in the voluntary pension fund market in Hungary. Aegon was ranked fifth in terms of managed assets in December 2018 and also fifth in terms of number of participants in November 2018 in the Slovakian private pension market. Based on November 2018 data, Aegon was ranked fourth in terms of both the number of participants and managed assets in Poland. In September 2018, Aegon was the fourth largest provider in the Romanian mandatory private pension market, both in terms of net assets under management and number of participants.

Regulation and supervision

In the European Union, a single insurance company may only be licensed for and conduct either a life insurance business or a non-life insurance business; not both. In Hungary, however, insurance companies established before 1995 are exempt from this rule. This exemption therefore applies to Aegon Hungary, which is a composite insurance company.

State supervision and oversight of the insurance industry is conducted by the following bodies and institutions:

- The Central Bank of Hungary (MNB);
- National Bank of Slovakia (NBS);
- Czech National Bank (CNB);
- Polish Financial Supervisory Authority (KNF);
- Authority for Financial Supervision (ASF) (Romania); and
- Undersecretariat of Treasury (Turkey).

The authorities mentioned above promote consumer protection and have the right to investigate prudential activities and conduct, financial position and solvency, and compliance with all relevant laws.

In addition to legal regulation, insurance companies are members of a number of self-regulatory groups in their respective countries. These self-regulatory groups are the main forums for discussion among insurance companies. Their specialized departments (for example, actuarial, financial, and legal) meet periodically.

Solvency II

The Solvency IIinsurance solvency regime, became effective in European Economic Area (EEA) countries on January 1, 2016. Aegon s EU-domiciled entities in Central & Eastern Europe use the Standard Formula to calculate the solvency position of their insurance activities. The activities in Turkey have been included through Deduction & Aggregation on a Solvency II Standard Formula basis.

The foundation and operations of voluntary pension funds are regulated in Hungary by the country s Voluntary Mutual Pension Funds Act (XCVI. 1993). Activity in this area is also supervised by the MNB. Slovakia s pension market is regulated by the Pension Asset Management Companies and Respective Notices Act (43/2004). The private pension business is under the supervision of the National Bank of Slovakia (NBS). In Romania, the private and voluntary pension system is regulated and supervised by the Authority for Financial Supervision (ASF). The mandatory pension system is subject to the Privately Administered Pension Funds Act (411/2004) and the voluntary pension system is subject to the Voluntary Pension Law (204/2006), both complemented by individual regulations (as secondary legislation). In Poland, this activity is supervised by the KNF and governed by the Organization and Operation of Pension Funds Act. In Turkey, the voluntary pension funds are under the supervision of the Undersecretariat of Treasury and the companies are subject to Individual Retirement Saving and Investment System Law No. 4632.

In Hungary, the Credit Institutions and Financial Enterprises Act (2013) stipulates the foundation, operation and reporting obligations of the country s financial institutions. Just like Aegon Hungary Composite Insurance Company, Aegon Hungary Home Savings and Loan Association is also under the supervision of MNB, as was Aegon Hungary Mortgage Finance Company before it was sold to and renamed by Intrum.

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Overview of Spain & Portugal

Aegon entered the Spanish insurance market in 1980. In recent years, Aegon s activities in Spain have developed through distribution partnerships with Spanish banks.

Aegon Spain Holding BV (hereafter referred to as Aegon Spain) operates in Spain through Aegon España S.A.U. de Seguros y Reaseguros. In addition, Aegon Spain operates in Spain through long-term partnerships with Banco Santander S.A. (offering both life and general insurance products) and Liberbank, S.A. (offering life products).

Aegon Spain also operates in Portugal through a long-term partnership with Banco Santander, S.A., offering both life and general insurance products.

Aegon Administracion y Servicios A.I.E., a separate legal entity, provides administration and operations services to all Aegon companies in Spain and Portugal, including joint ventures with third parties.

Organizational structure

Aegon s main subsidiaries and affiliates in Spain & Portugal are:

- Aegon España S.A.U. de Seguros y Reaseguros;
- Aegon Administracion y Servicios A.I.E.;
- Aegon Activos A.V, S.A.;
- Aegon Mediación, S.L.U.;
- Santander Generales Seguros y Reaseguros S.A. (51%);
- Santander Vida Seguros y Reaseguros S.A. (51%);
- Liberbank Vida y Pensiones, Seguros y Reaseguros, S.A. (50%);
- Aegon Santander Portugal Não Vida-Companhia de Seguros S.A. (51%);
- Aegon Santander Portugal Vida-Companhia de Seguros de Vida S.A. (51%).

Overview of sales and distribution channels

Aegon Spain´s subsidiaries and affiliates distribute their insurance products nationwide through partner branches and its own sales network. The main distribution channel in the Spanish market is bancassurance, which accounts for 69% of life sales, with brokers and direct customers accounting for 23% and 8% of the total respectively. Overall, the bancassurance channel accounts for 26% of the Spanish household market.

In the Portuguese market, where all business is written through the bancassurance channel with approximately 61% of pure life risk premiums, where credit-related policies mostly related to mortgages play a significant role and 39% of non-life insurance premiums (mainly Household and Accidents).

Aegon Spain and Banco Santander

Since June 4, 2013, Aegon Spain and Banco Santander S.A. have partnered to distribute a number of insurance products in Spain. Banco Santander S.A. is the largest financial institution in Spain, with over 4,600 branches

nationwide.

Aegon Spain s agreement with Banco Santander S.A. initially concerned pure life risk and general insurance products (accident, home and commercial multi-risk insurance, and critical illness). These products are developed through two insurance entities: Santander Vida for pure life risk products and health; and Santander Generales for general insurance products. Aegon Spain and Banco Santander are both shareholders of these entities: Aegon Spain s share in each entity is 51%; and Banco Santander S.A. owns the remaining 49%. On December 28, 2016, Aegon Spain and Banco Santander further extended their partnership agreement to distribute health insurance products developed by Santander Vida, with sales commencing in 2017. Furthermore, Santander Generales began offering funeral insurance on July 7, 2017.

Since December 31, 2014, Aegon Spain and Banco Santander Totta, S.A., a Portuguese insurance company that is part of the Santander International group, have partnered to distribute a number of insurance products. The partnership concerns the distribution of pure life risk and general insurance products (accident, home and commercial multi-risk insurance, and health) through over 500 branches nationwide the largest network of its kind in the country. These products are developed through two insurance entities: Aegon Santander Portugal Vida, for pure life risk products; and Aegon Santander Portugal Não Vida, for general insurance products. Aegon

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Spain and Banco Santander Totta, S.A. are both shareholders of these entities: Aegon Spain has a 51% share in each entity and Banco Santander Totta, S.A.´s group owns the remaining 49%.

On December 21, 2015, Banco Santander Totta, S.A. announced that it had acquired Banco Internacional de Funchal (Banif). On December 5, 2016, Aegon Spain and Santander Totta reached an agreement in order to add Banif´s retail and corporate network consisting of 174 branches and 370,000 clients to the current distribution network of Aegon Santander Portugal Vida and Aegon Santander Portugal Não Vida.

On July 2, 2018, Aegon Spain and Banco Santander signed an agreement to further expand its successful partnership in Spain. The expansion covers term life and selected lines of non-life insurance following Banco Santander s acquisition of the Banco Popular franchise in 2017 as well as the acquisition of the term life portfolio of Banco Popular. The transaction will close following the acquisition of the former insurance partner business by Banco Santander.

On December 21, 2018, Aegon Spain and Banco Santander signed an agreement to further expand its partnership in Portugal. The expansion covers term life and selected lines of non-life insurance following Banco Santander s acquisition of the Banco Popular franchise in 2017 as well as the acquisition of the term life and selected lines of non-life insurance portfolios of Banco Popular. The transaction is expected to close following the technological migration of the portfolios in 2019.

Aegon Spain and Liberbank

Liberbank, S.A. has a presence nationwide, with a special focus on retail markets in a number of Spanish regions (Asturias, Cantabria, Castilla La Mancha and Extremadura). Liberbank Vida y Pensiones, Seguros y Reaseguros, S.A. currently distributes its products through nearly 475 Liberbank, S.A. branches. Aegon Spain and Liberbank S.A. are both shareholders of Liberbank Vida y Pensiones, Seguros y Reaseguros, S.A.. Aegon s share in this entity is 50%, and Liberbank, S.A. owns the remaining 50%.

Aegon Spain own network

Aegon Spain s own network offers life insurance, health insurance, pension products and mutual funds. It uses two main distribution channels: its own network of brokers and agents for the products of its full subsidiaries, which comprises 90% of the total; and a direct channel, which comprises 10% of the total.

In 2018, Aegon Spain implemented an efficiency plan in order to its streamline its core activities. The project, which focused on transforming the health insurance business and simplifying operational processes and improving efficiency in general. A substantial number of positions was restructured on the basis of a social plan. New expenses control tools and processes were implemented in order to make savings last in time. Aegon Spain also ceased the activities of its subsidiary Aegon Activos A.V. S.A., mainly distributing mutual funds.

Overview of business lines

Aegon Spain focuses primarily on retail customers. It offers individual life, pensions, general insurance, accident and health products through different distribution channels, including its own channels (agents, brokers and direct), together with bancassurance products through its joint venture partnerships with Liberbank S.A. and Banco Santander Group, the latter of which in both Spain & Portugal.

Life insurance & Pensions

Aegon Spain s life insurance business comprises both individual and group protection and savings products, with individual products forming the larger part of the business.

Protection business includes primarily life, accident and disability cover, and products can be complemented with critical illness, income protection and other riders. Customers saving needs are serviced by Aegon Spain through its targeted offering of universal life, unit-linked and pension funds. Both savings and protection products are distributed through the channels mentioned above. In addition, Aegon Spain distributes mutual funds from third parties.

General insurance

Aegon Spain has been offering general insurance products since 2013 through its joint venture with Banco Santander. The offering focuses mainly on household protection and funeral insurance products.

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Health

Health insurance is offered by Aegon Spain in Spain through its own network of brokers and agents, direct channels, and

Santander s network of branches. Medical expense coverage for doctor visits, diagnoses, hospitalization, dental and other health covers are offered through a broad network of medical partners across the country.

The gross premium written contribution in 2018 for each of Aegon Spain s business lines was 51% for life insurance, 23% for accident and health insurance, and 26% for general insurance.

Competition

The Spanish insurance market is highly competitive. For Aegon Spain s traditional life, unit-linked variable life and pension products, the major competitors are retail bank-owned insurance companies. The life market is dominated by Grupo VidaCaixa, with a 28% market share, and Zurich, with a 9% market share, followed by Mapfre, with a 8% market share. Aegon Spain s market share is less than 1%.

For Aegon Spain s health and general insurance products, the main competitors are both foreign and local companies. Grupo Mutua Madrileña leads the non-life insurance market with a 14% market share, followed by Mapfre with a 14% market share, and Allianz with a 7% market share. The non-life market is more fragmented than the life one. Aegon Spain s multi-risk business line is responsible for non-life and has a market share of less than 1%.

With respect to the life insurance Portuguese market, Fidelidade and Ocidental Vida are the main players with a combined market share in 2018 of 56% (based on issued premiums of insurance contracts and deposits of financial products).

In the non-life, Fidelidade is also the main player with a market share of 26%, followed by a new company named Seguradoras Unidas with 16%. Seguradoras Unidas is the result of a merger of several insurance companies, including Tranquilidade and Açoreana.

Regulation and supervision

Insurance companies in Spain are required to report on a quarterly basis to the Dirección General de Seguros y Fondos de Pensiones (DGSFP), the regulatory authority for the Spanish insurance industry. Spanish regulations incorporate all requirements from the relevant EU directives.

The regulatory authority for the Portuguese insurance industry is the Autoridade de Supervisão de Seguros e Fundos de Pensões (ASF). Insurance companies are required to report to the ASF on a monthly basis (issued premiums and claims costs per line of business) and more extensively on a quarterly basis. Portuguese regulations also incorporate all requirements from the relevant EU directives.

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Overview of Asia

Aegon Asia operates through three major joint ventures in India, Japan and the People s Republic of China (hereafter referred to as China), in addition to several wholly-owned subsidiaries, including Aegon s businesses in Hong Kong and Singapore that serve the high-net-worth segment.

Organizational structure

Aegon s main operating companies in Asia (including Aegon s ownership percentages) are:

- Aegon THTF Life Insurance Co. Ltd. (50%);
- Aegon Life Insurance Co. Ltd. (49%);
- Aegon Sony Life Insurance Co. Ltd. (50%);
- SA Reinsurance Ltd. (50%); and
- Transamerica Life (Bermuda) Ltd. (100%).

Joint ventures

Aegon operates in China through a joint venture with Tsinghua Tongfang Co. Ltd (THTF) called Aegon THTF Life Insurance Co. Ltd. (Aegon THTF). Aegon THTF is licensed to sell both life insurance and accident and health products in China. Since 2003, the company has expanded its network of offices and business in China. Having established 13 branches, its geographic presence has access to a potential market of over 656 million people, primarily in the coastal provinces of eastern China.

Aegon has been operating in India through its joint venture life insurance company, Aegon Life Insurance Co. Ltd (Aegon Life), since 2008, and its current joint venture partner is Bennett, Coleman & Co. Ltd. (BCCL). The joint venture follows a digitally focused direct-to-consumer strategy.

Since 2009, Aegon has been operating in Japan through a joint venture with Sony Life, one of Japan s leading insurance companies, named Aegon Sony Life Insurance Co., Ltd. (Aegon Sony Life). The primary focus of Aegon Sony Life is variable annuity sales in Japan. Aegon and Sony Life also jointly established a reinsurance company, SA Reinsurance Ltd. (SARe), to provide Aegon Sony Life with greater flexibility in the pricing and design of its annuity products. Launched in 2010 and based in Bermuda, SARe manages the guaranteed benefit risks of Aegon Sony Life s products.

Wholly-owned subsidiaries

The Transamerica companies have over 100 years of history. This long tradition continues in Asia when Transamerica opened its first sales office in Shanghai over 80 years ago in 1933. Transamerica Life (Bermuda) Ltd. (TLB) was established in 2005 and its full-service branches opened in Hong Kong and Singapore in 2006.

Aegon Insights is a marketing, distribution and administration services business operating in the Asia-Pacific region with new business discontinued since 2017 due to change in consumer preferences. The Aegon Insights business, currently maintains operations in Australia, Hong Kong, Indonesia, Japan and Thailand to serve existing customers.

Overview of sales and distribution

In China, Aegon THTF follows a multi-channel distribution strategy. Current distribution channels include agency, brokerage, banks, direct marketing, group and digital.

In India, Aegon Life now distributes its products predominantly via its e-sales channels, utilizing its own website and e-commerce partners, as well as its own direct sales force.

Aegon Sony Life in Japan has two distribution channels: the Sony Life Planner channel (operated by Sony Life), with over 5,100 agents; and the bank distribution channel, which consists predominately of mega banks and regional banks.

TLB distributes its products to high-net-worth consumers through relationships with local and international brokers, as well as through bancassurance channels.

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Overview of business lines

High-net-worth businesses

TLB s main products consist of USD denominated Universal Life and USD denominated Term Life Insurance plans for the high-net-worth market segment. Universal Life products are TLB s key products to meet the needs of high-net-worth individuals, supporting estate planning by providing life protection, while also helping to preserve and accumulate wealth. In addition to the Universal Life products, Term Life products are also offered with financial protection at a guaranteed level rate for up to 30 years.

Aegon Insights

Aegon Insights primarily worked with local insurers to develop marketing, distribution and administration solutions tailored to the needs of specific markets and customers. With changes in consumer preferences, the ongoing focus is on exploring opportunities in the emerging digital distribution landscape, in addition to continuing to provide services to existing customers. Revenue is primarily generated through reinsurance arrangements and fee income from marketing services, product distribution and administration. During 2017, Aegon made the strategic decision to discontinue Aegon Insights outbound telemarketing businesses.

Strategic partnerships

In China and India, Aegon provides a broad range of life insurance products including unit-linked, universal life, and traditional life products. Aegon also offers variable annuities in Japan through Aegon Sony Life.

In China, Aegon THTF s agency, broker, and direct marketing channels primarily offer its flagship whole-life critical illness products. Other products, such as participating annuity and endowment (via agency), whole life insurance products (via brokers) and personal accident (via direct marketing) are, however, also offered through these channels. Regular premium critical illness, whole-life insurance, traditional or participating annuity and single premium annuity are the key products offered in the bancassurance channel, while the digital channel is currently focused on offering protection products. Aegon THTF also offers non-life products (primarily consisting of short-term accident and short-term health products) through all channels. Non-life sales are, however, concentrated in the group channel, where the main products are group medical policies.

In India, Aegon Life offers term life plans, traditional participating and non-participating savings products, and unit-linked life insurance plans through the direct sales force and e-sales channels.

In Japan, Aegon Sony Life offers variable annuities in JPY, USD and AUD. These products typically provide a guaranteed minimum death benefit, together with a lifetime withdrawal benefit and an accumulation benefit with or without a minimum guarantee.

Since 2010, SARe has assumed the risk on all minimum guarantees offered on Aegon Sony Life s variable annuity products.

Aegon also makes investments in digital distribution platforms in the Asia region to expand distribution capabilities.

Competition

China: Aegon THTF

As of November 30, 2018, there were 91 life insurance companies in the market, including 63 domestic life companies and 28 foreign life insurers. Based on total premium income, Aegon THTF ranked fifty-fifth among life insurance companies and fifteenth among foreign life companies in China. Aegon THTF s market share among foreign-invested companies was 1.64% in terms of total premium.

India: Aegon Life

There were 24 licensed life insurers in India at the end of December 2018. While the state-owned Life Insurance Corporation of India continues to maintain a dominant share of new business premiums (April 2018 to December 2018), private sector companies have shown double-digit growth to obtain more than 58% of the individual recurring new business premiums written. Aegon Life India ranked twenty-third according to individual recurring premiums (April 2017 to December 2018).

Japan: Aegon Sony Life

There are seven active companies in Japan s variable annuities market. In 2018, Aegon Sony Life ranked second in terms of market share behind Dai-ichi Frontier Life, followed by Nippon Life and Credit Agricole Life.

Hong Kong and Singapore: TLB

TLB s main competitors in Hong Kong and Singapore have traditionally been the global providers in the high-net-worth market, such as HSBC Life, Manulife Bermuda, and Sun Life Bermuda. The local subsidiaries of both Sun Life and Manulife, in addition to domestic

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insurers such as AIA, Great Eastern Life, Singapore Life, Generali, AXA, and FWD, are however increasingly developing very competitive offerings for the same market segment.

Regulation and supervision

China: Aegon THTF

The insurance industry in China is regulated by the China Banking and Insurance Regulatory Commission (CBIRC). During 2018, the CBIRC s main focus was on strengthening weak links, tightening supervision, deepening reforms, accelerating opening-up of the sector and joint supervision. Consequently, The CBIRC increased supervision on liquidity risks, solvency risks, product risks, sales practices and anti-money laundering. It also reformed regulations around foreign investment and selling insurance online.

India: Aegon Life

Indian life insurance companies are regulated by the Insurance Regulatory and Development Authority of India (IRDAI).

The IRDAI regulates, promotes and encourages the orderly growth of insurance and reinsurance businesses in India. Established by the government of India, it safeguards the interests of the country s insurance policyholders.

The IRDAI is active in introducing new regulations that focus on protecting policyholders interests and exploring avenues to support growth in the industry. Steps initiated by the IRDAI during 2018 included the issuance of regulations with regards to Insurance brokers and corporate governance guidelines on key managerial persons. IRDAI has also issued circulars that provide additional information about Insurance repositories and electronic issuance of insurance policies, point of sale guidelines, transfer of unclaimed amount by policyholders to senior citizen fund and a roadmap towards risk based supervision of insurance sector.

Japan: Aegon Sony Life

The Financial Services Agency (FSA) is the government agency that supervises all insurance companies in Japan. New products and major product amendments are filed with, and approved by, the FSA, in addition to general policy provisions, statements of business procedure, and pricing and valuation.

The FSA published the Principles for Customer-Oriented Business Conduct to help accumulation of personal financial assets. In addition, the FSA also updated its guideline to enhance risk management by risk-based approach in March 2018, particularly to address issues around anti-money laundering and terrorism financing.

Hong Kong, Singapore and Bermuda: TLB

TLB is incorporated in Bermuda and regulated by the Bermuda Monetary Authority, the integrated regulator of the financial services sector in Bermuda. TLB s Asia branches are registered and licensed in Hong Kong and Singapore. The insurance industry in Hong Kong was until June 26, 2017, regulated by the Office of the Commissioner of

Insurance (OCI). Changes to the Insurance Companies Ordinance in 2015 provided for the establishment of a new independent insurance authority (IA, which came into operation and started regulating insurance companies in June 2017). The IA is expected to take over the regulation of insurance intermediaries from the three Self-Regulatory Organizations (SROs) through a statutory licensing regime in mid-2019.

The insurance industry in Singapore is regulated by the Monetary Authority of Singapore (MAS). The MAS is an integrated regulator that oversees all banks, insurers, capital market intermediaries and financial advisors in Singapore.

Asia: Aegon Insights

A broad range of regulations apply to Aegon Insights activities. Depending on the precise nature of the activities undertaken and the form of business entity used in the jurisdictions in which Aegon Insights operates, relevant regulations include: marketing/ consultancy business licensing rules, insurance laws, and personal data protection laws. In addition, various regulators also keep oversight of activities undertaken by entities licensed by Aegon Insights. These regulators include the FSA in the Japan, the Office of Insurance Commission in Thailand, the Australian Securities & Investments Commission in Australia, and the Confederation of Insurance Brokers in Hong Kong. Aegon Insights keeps abreast of all relevant changes or proposed changes to regulations in all of its markets.

Solvency II

Solvency II requirements became effective for Aegon Group as of January 1, 2016. Aegon s Asian insurance activities are included in the Aegon Group Solvency II ratio through Deduction & Aggregation. For TLB and Japan, Deduction & Aggregation is applied using available and required capital as per the local capital regime. The regulatory regime of Bermuda and Japan were granted full provisional equivalence on December 7, 2015.

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Overview of Aegon Asset Management

Aegon Asset Management is an active investment manager that uses its investment management expertise to help people achieve a lifetime of financial security.

Organizational structure

Aegon Asset Management is a provider of investment management expertise to institutional and private investors around the world. It has offices in the United States, the Netherlands, the United Kingdom, Hong Kong, Japan, Germany, Hungary and Spain. It operates under three main brands:

- Aegon Asset Management specializes in providing clients with a range of high-quality investment solutions across asset classes, including fixed income, equities, real estate, absolute return, liability-driven, and multi-asset and balance sheet solutions. A long and successful history of partnership with Aegon s insurance businesses has enabled Aegon Asset Management to establish experienced investment teams, a solid asset base and proven long-term records;
- Kames Capital is a UK-based asset management company that provides fixed income, equities, real estate and multi-asset solutions to both UK and international clients; and
- TKP Investments is a Netherlands-based fiduciary manager that is recognized for its manager selection and tailored advice on balance sheet solutions for the pension market.

In addition, Aegon Asset Management operates two key strategic partnerships:

- In China, Aegon Asset Management owns 49% of Aegon Industrial Fund Management Company (AIFMC), a Shanghai-based asset manager that offers mutual funds, segregated accounts and advisory services; and
- In France, Aegon Asset Management owns 25% of La Banque Postale Asset Management. La Banque Postale Asset Management offers a comprehensive range of investment strategies to French institutional clients, and to private investors through La Banque Postale group s retail banking network.

Aegon Asset Management s main operating entities are Aegon USA Investment Management LLC, Aegon USA Realty Advisors LLC, Aegon Investment Management B.V. (the Netherlands), Kames Capital plc (United Kingdom) and Aegon Hungary Asset Management Company Zrt. Depending on regulatory requirements and the local business environment, boards of local operating entities may include oversight through independent non-executive directors.

Strategic direction and global oversight of business performance is executed by the Global Board of Aegon Asset Management, which has both global and local roles and responsibilities. This Board is supported by the Governance Risk & Compliance Committee and the Human Resources Committee, together with a Global Strategic Change Committee. Members of the Global Board are appointed by Aegon N.V.. The Risk Advisory Committee and Remuneration Committee support Aegon s oversight of Aegon Asset Management.

As of January 1, 2018, the activities of Aegon Investment Management B.V. and Kames Capital plc have been governed by a joint European Executive Committee. The-day-to-day management of these two entities is delegated to the European Executive Committee. The statutory boards of Aegon Investment Management B.V. and Kames Capital plc remain ultimately responsible for the entities, and have the duty to oversee the delegated authorities. As part of this integration in Europe, Aegon Asset Management plans to merge the operating entities Aegon Investment Management

B.V. and TKP Investments B.V. on January 1, 2019. The brand TKPI and services offered thereunder will continue to exist.

The Target Operating Model program (TOM), which started in January 2018, is a multi-year initiative that will upgrade operational capabilities in Europe and the US in support of Aegon Asset Management s wider business strategy. The TOM addresses four key themes (capability convergence, data as a service, pace of change and governance) and will deliver a robust data infrastructure, streamlined and upgraded global systems, and operational efficiencies that will enable Aegon Asset Management to become more responsive to changing client needs.

Overview of sales and distribution channels

Aegon Asset Management uses a variety of sales and distribution channels in the Americas, Europe and Asia. These include, among others: affiliated companies, direct to institutional clients, independent investment advisors, investment consultants, joint ventures and third-party investment platforms.

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Overview of business lines

Aegon Asset Management has three distinct business lines.

General account business consists of funds held on the balance sheet of Aegon insurance companies to meet policyholder liabilities typically when the insurer has given the policyholder a guarantee. These assets are managed to match the insurers liabilities. As a rule, general account assets are managed in a closed architecture structure, and the main asset classes are fixed income and mortgage loans. Furthermore, Aegon Asset Management manages Aegon s general account derivatives book of Aegon the Netherlands.

The majority of third-party business sourced through affiliates consists of funds sold by Aegon insurers through which the policyholder s return is determined by the investment return of the fund. These funds have various legal structures, and are usually managed against a benchmark or peer group target. The main asset classes include fixed income, equities, real estate, mortgage loans and alternatives. In the United States and the United Kingdom, a significant element of Affiliate Sales is conducted on an open architecture basis, where Aegon Asset Management competes with external fund managers.

For third-party business sourced externally, Aegon Asset Management distributes its investment strategies directly to its clients. The wholesale businesses typically sell collective investment vehicles (mutual funds) to customers through wholesale distributors and independent intermediaries. The main asset classes are fixed income and equities, and the funds are usually managed against a benchmark or peer group target. The institutional businesses typically sell tailored services to large corporations or pension funds. Aegon Asset Management employs a full range of asset classes, and manages the funds against objectives, targets and risk profiles agreed with clients. Aegon Asset Management offers both absolute and relative return products. Via its brand TKPI, Aegon Asset Management offers fiduciary services and manager selection propositions targeted at institutional investors.

Competition

Aegon Asset Management competes with other asset management companies to acquire business from open-architecture Aegon insurance units and third parties.

In the United States, Aegon Asset Management focuses on offering investors fixed income, balance sheet solutions and real estate-related strategies. It works directly with pension funds, endowments and foundations as well as investment consultants within the institutional market. In the wholesale market, Aegon Asset Management works as a sub-advisor with its insurance company affiliates and other partners in order to offer competitive and relevant strategies for its client base. It also works with consultants and other partners to offer products to third-party institutions. Primary competitors in the United States include AllianceBernstein, BlackRock, Invesco, JP Morgan, Legg Mason, Principal, PIMCO and Prudential.

In the Netherlands, Aegon Asset Management provides a wide range of investment strategies and solutions to institutional and wholesale clients, and through its affiliated insurance company to retail clients. In the third-party institutional market, it competes with domestic and global asset managers as well as with fiduciary and balance sheet managers. Competition continues to be strong in the institutional market due to both the ongoing consolidation of

pension funds and the growing service requirements of pension fund clients. Primary competitors in the Netherlands include BlackRock, JP Morgan, Nationale Nederlanden Investment Partners, Robeco and Kempen.

In the United Kingdom, Aegon Asset Management focuses on offering investors fixed income, equities, real estate, multi-asset, absolute return and ethical investments. It serves institutional clients and their advisors, and is active in the wholesale market. Primary competitors in the UK include Ashmore, BlackRock, Henderson Global Investors and Standard Life Aberdeen.

In mainland China, Aegon Industrial Fund Management Company focuses on Chinese equity, fixed income, and money market strategies. It competes against a wide range of locally-based asset managers including Alibaba s Yuebao fund China Universal Asset Management, E Fund Management, Fullgoal Fund Management, and Yinhua Fund Management.

In France, La Banque Postale Asset Management competes for private investors through La Banque Postale s retail banking network, with a focus on new multi-asset strategies. In the institutional market, it also offers strategies from Aegon Asset Management businesses in order to compete with large local asset managers and specialized international competitors. In France, primary competitors include Amundi Asset Management, AXA Investment Management, BNP Paribas Investment Partners and Natixis Global Asset Management.

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Regulation and supervision

Regulation of asset management companies in general differs to that of insurers. Aegon Asset Management s global holding company, Aegon Asset Management Holding B.V., is regulated by the Dutch Central Bank (DNB) as a financial holding company according to the Dutch Financial Supervision Act (Wft). Local operating entities are regulated by their local regulators, most notably the Dutch Authority for the Financial Markets (AFM) (conduct of business supervision) and the DNB (prudential supervision) for Dutch-based entities, the Financial Conduct Authority (FCA) for Kames Capital, and the Securities & Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC) for the US-based entities. Kames Capital is also regulated by the SEC for its activities in the US market. From a regulatory perspective, the asset management activities of the US-based entities of Aegon Asset Management in the United States do not fall under the responsibility of Aegon Asset Management Holding B.V., as these entities are subsidiaries of Transamerica Corporation.

MiFID II

MIFID II requirements became effective for Aegon Asset Management as of January 3, 2018, and the Company adheres to the regulation. In line with most of its peers, the European Aegon Asset Management entities (Aegon Investment Management B.V., Kames Capital plc and TKP Investments B.V.) have decided in principle to pay external research costs by their own means.

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Risk factors Aegon N.V.

Aegon faces numerous risks, some of which may arise from internal factors, such as inadequate compliance systems and operational change management. Others may arise from external factors, such as developments in financial markets, the business and/or political environment, economic trends, politics and regulations. These risks, whether internal or external, may materially and adversely affect the Company´s operations, its earnings, the value of its investments, the sale of certain products and services or its ability to fulfil its obligations in respect of securities issued or guaranteed by it. The market price of Aegon securities could decline due to any of the risks described in this section and investors could lose some or all of the value of their investments. Additional risks of which Aegon is not presently aware could also materially and adversely affect its operations and share price. The business of an international financial services group such as Aegon is inherently exposed to risks that may only become apparent with the benefit of hindsight. The next two sections provide a description of risk factors relating to Aegon´s businesses and Aegon s securities, including its common shares, of which Aegon is aware and that it considers material. The order in which the risk factors are presented is not indicative of their likelihood of occurrence or the potential magnitude of their financial consequences.

Risks relating to Aegon s business

The following covers risk factors that may affect Aegon´s businesses and operations, as well as risk factors that are particularly relevant to Aegon in periods of significant economic uncertainty. Additional risks to which Aegon is subject include, but are not limited to, the factors mentioned under Forward-looking statements , and the risks of Aegon s businesses described elsewhere in this Annual Report.

Disruptions in the global financial markets and general economic conditions may affect, and could have materially adverse effects on Aegon´s businesses, results of operations, cash flows and financial condition.

Aegon s results of operations and financial condition may be materially affected from time to time by uncertainty, fluctuations or negative trends in general economic conditions, such as economic growth, levels of unemployment, consumer confidence, inflation and interest rate levels in the countries in which Aegon operates. The global financial crisis has shown that financial markets can experience extreme volatility and disruption.

Any disruptions or downturns in the global financial markets or general economic conditions may result in reduced demand for Aegon s products as well as impairments and reductions in the value of the assets in Aegon s general account, separate account, and company pension schemes, among other assets. Aegon may also experience a higher incidence of claims and unexpected policyholder behavior such as unfavorable changes in lapse rates. Aegon s policyholders may choose to defer or stop paying insurance premiums, which may impact Aegon s businesses, results of operations, cash flows and financial condition, and Aegon cannot predict with any certainty if or when such actions may occur.

Governmental action in the United States, the Netherlands, the United Kingdom, the European Union and elsewhere to address any of the above may impact Aegon s businesses. Aegon cannot predict the effect that these or other government actions as well as actions by the European Central Bank (ECB) or the Federal Reserve may have on the financial markets or on Aegon s businesses, results of operations, cash flows and financial condition.

Declines in value and defaults in Aegon s debt securities, private placements and mortgage loan portfolios held in Aegon s general and separate accounts, or the failure of certain counterparties, may adversely affect Aegon s profitability and shareholders equity.

Credit risk is the risk of loss resulting from the default by, or failure to meet contractual obligations of issuers and counterparties. Aegon also considers credit risk to include spread risk, that is, the value of a bond declines due to a general widening of credit spreads. For general account products, Aegon typically bears the risk for investment performance equaling the return of principal and interest. Aegon is exposed to credit risk on its general account fixed-income portfolio (debt securities, mortgages and private placements), over-the-counter (OTC) derivatives and reinsurance contracts. In addition, financial institutions acting as a counterparty on derivatives may not fulfil their obligations. Default by issuers and counterparties on their financial obligations may be due to, among other things, bankruptcy, lack of liquidity, market downturns or operational failures, and the collateral or security they provide may prove inadequate to cover their obligations at the time of the default. Losses in excess of predicted losses due to any such default or series of defaults by issuers or counterparties may have a material adverse effect on Aegon s results of operations and financial position.

Additionally, Aegon is indirectly exposed to credit risk on the investment portfolios underlying separate account liabilities. Changes to credit risk can result in separate account losses, which increase the probability of future loss events. In the United States and

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the Netherlands separate account products can include guarantees which protect policyholders against some or all of the downside risks in their separate account portfolio. Reduced separate account values also decrease fee income and may accelerate deferred policy acquisition costs (DPAC) amortization. Reconsideration of assumptions might also affect the DPAC amortization schedule. These factors may have a material adverse effect on Aegon s results of operations and financial position.

Aegon s investment portfolio contains, among other investments, Dutch government bonds, US Treasury, agency and state bonds, other government issued securities and corporate bonds. Especially in a weak economic environment Aegon may incur significant investment impairments due to defaults and overall declines in the capital markets. Further, excessive defaults or other reductions in the value of these securities and loans may have a materially adverse effect on Aegon s businesses, results of operations, cash flows and financial condition.

A decline in equity markets may adversely affect Aegon´s profitability and shareholders´ equity, sales of savings and investment products, and the amount of assets under management.

Aegon and its customers run the risk that the market value of its equity investments declines. Exposure to equity markets exists in both assets and liabilities. Asset exposure exists through direct equity investment where Aegon bears all or most of the volatility in returns and investment performance risk. Equity market exposure is also present in policyholders accounts for insurance and investment contracts (such as variable annuities, unit-linked products and mutual funds) where funds are invested in equities. Although most of the risk remains with the policyholder, guarantees within certain products may transfer some or all of this risk to Aegon. Lower investment returns also reduce the asset management fee that Aegon earns on the asset balance in these products and prolonged investment under-performance may cause existing customers to withdraw funds and potential customers not to grant investment mandates.

Some of Aegon s insurance and investment contract businesses have minimum return or accumulation guarantees, which require Aegon to establish reserves to fund these future guaranteed benefits when equity market returns do not meet or exceed these guarantee levels. Aegon s reported results under International Financial Reporting Standards, are also at risk if returns are not sufficient to allow amortization of DPAC, which may impact the reported net income as well as shareholders equity. Volatile or poor market conditions may also significantly reduce the demand for some of Aegon s savings and investment products, which may lead to lower sales and net income.

Interest rate volatility or sustained low interest rate levels may adversely affect Aegon´s profitability and shareholders´ equity.

Aegon is exposed to interest rate risk as both its assets and liabilities are sensitive to movements in long- and short-term interest rates as well as to changes in the volatility of interest rates.

During periods of decreasing interest rates or sustained low interest rates, as experienced in recent years, Aegon may not be able to preserve margins due to the existence of minimum interest rate guarantees and minimum guaranteed crediting rates provided in policies. Also, investment earnings may be lower because the interest earnings on new fixed-income investments are likely to have declined with the market interest rates. A prolonged low interest rate environment may also result in a lengthening of maturities of the policyholder liabilities from initial estimates, due to

lower policy lapses and longer duration of annuities.

In-force life insurance and annuity policies may be relatively more attractive to consumers due to built-in minimum interest rate guarantees, resulting in increased premium payments on products with flexible premium features and a higher percentage of insurance policies remaining in force year-to-year. The majority of assets backing the insurance liabilities are invested in fixed-income securities.

Aegon manages its investments and derivative portfolio, considering a variety of factors, including the relationship between the expected duration of its assets and liabilities. However, if interest rates remain low, the yield earned upon reinvesting interest payments from current investments, or from their sale or maturation, may decline. Reinvestment at lower yields may reduce the spread between interest earned on investments and interest credited to some of Aegon s products and accordingly net income may decline. In addition, borrowers may prepay or redeem fixed maturity investments or mortgage loans in Aegon s investment portfolio in order to borrow at lower rates. Aegon can lower crediting rates on certain products to offset the decrease in spread. However, its ability to lower these rates may be limited by contractually guaranteed minimum rates or competition.

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Depending on economic developments, interest rates for securities with shorter maturities may remain at low or even negative levels for a prolonged period. In such an environment, an anchored expectation of low inflation or deflation could further push down the longer end of the interest rate curve which could have significant implications for Aegon s operations and financial results.

The profitability of Aegon s spread-based businesses depends in large part upon the ability to manage interest rate risk, credit spread risk and other risks inherent in the investment portfolio. Aegon may not be able to successfully manage interest rate risk, credit spread risk and other risks in the investment portfolio or the potential negative impact of those risks.

The sensitivity of Aegon s net income and shareholders equity to a change in interest rates is provided in the notes to the consolidated statements, note 4 Financial risks, section Interest rate risk of Aegon s Annual Report 2018.

Rapidly rising interest rates may adversely affect Aegon s profitability and available liquidity

In periods of rapidly increasing interest rates, policy loans, surrenders and withdrawals may and usually do increase. Premiums in flexible premium policies may decrease as policyholders seek investments with higher perceived returns. This activity may result in cash payments by Aegon requiring the sale of invested assets at a time when the prices of those assets are affected adversely by the increase in market interest rates. This may result in realized investment losses.

These cash payments to policyholders also result in a decrease in total invested assets and net income. Early withdrawals may also require accelerated amortization of DPAC, which in turn reduces net income. Hedging against interest rate movements may change these effects significantly. Hedging programs are in place that are designed to manage the risks within the limits defined as part of the financial risk management policies within Aegon Group s risk strategy. The actual impact of the hedging programs is dependent on the effectiveness of the design of those programs as well as real time movements of financial markets. If hedging programs are not effective, Aegon s results of operation, cash flow and financial position could be materially and adversely affected.

In general, if interest rates rise, there will be unrealized losses on assets carried at fair value that will be recorded in other comprehensive income (available-for-sale investments) or as negative income (investments at fair value through profit or loss) under IFRS. This is inconsistent with the IFRS accounting on much of Aegon s liabilities, where corresponding economic gains from higher interest rates do not affect shareholders equity or income in the shorter term. Over time, the short-term reduction in shareholders equity and income due to rising interest rates would be offset in later years, all else being equal.

Increased withdrawals and the need to post margin in relation to interest rate swaps when rates rise rapidly will put a strain on Aegon s available liquidity. Aegon s liquidity risk strategy tests this scenario to ensure that there is sufficient liquidity available now to withstand a rapid rise in rates.

Aegon may not manage risks associated with the reform and replacement of benchmark rates effectively.

The reform and expected replacement of IBORs (Interbank Offered Rates) such as Euribor, Eonia and LIBOR with alternative benchmark rates introduces a number of risks for Aegon, its clients, and the financial services industry more widely. This includes, but is not limited to:

- Legal risks, as changes required to documentation for new and existing transactions may be required;
- Financial risks, arising from any changes in the valuation of financial instruments linked to benchmark rates;
- Pricing risks, as changes to benchmark indices could impact pricing mechanisms on some instruments;
- Operational risks, due to the potential requirement to adapt informational technology systems, trade reporting infrastructure and operational processes; and
- Conduct risks, relating to communication with potential impact on customers, and engagement during the transition period.

Various supranational institutions, central banks, regulators, benchmark administrators and industry working groups play a role in the benchmark reform and the preparation for the replacement of IBORs. At this moment there is still a lot of uncertainty around a timetable and mechanisms for implementation. Accordingly, it is not currently possible to determine whether, or to what extent, any such changes would affect Aegon. However, the implementation of alternative benchmark rates may have a material adverse effect on Aegon s business, financial condition, customers and operations.

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Fluctuations in currency exchange rates may affect Aegon´s reported results of operations.

As an international group, Aegon is subject to foreign currency translation risk. Foreign currency exposure also exists when policies are denominated in currencies other than Aegon s functional currency. Currency risk in the investment portfolios backing insurance and investment liabilities are managed using asset liability matching principles. Assets allocated to equity are kept in local currencies to the extent shareholders equity is required to satisfy regulatory and Aegon s self-imposed capital requirements. Therefore, currency exchange rate fluctuations may affect the level of Aegon s consolidated shareholders equity as a result of translation of the equity of Aegon s subsidiaries into euro, Aegon s reporting currency. Aegon holds the remainder of its capital base (capital securities, subordinated and senior debt) in various currencies in amounts that are targeted to correspond to the book value of Aegon s business units. This balancing is intended to mitigate currency translation impacts on equity and leverage ratios. Aegon may also hedge the foreign exchange component of expected dividends from its principal business units that maintain their equity in currencies other than the euro.

To the extent the foreign exchange component of expected dividends is not hedged or actual dividends vary from expected, Aegon s net income and shareholders equity may fluctuate. As Aegon has significant business segments in the Americas and in the United Kingdom, the principal sources of exposure from currency fluctuations are from the differences between the US dollar and the euro and between the UK pound and the euro. Aegon may experience significant changes in net income and shareholders equity because of these fluctuations.

The sensitivity of Aegon s net income and shareholders equity to foreign exchange translation risk is provided in the notes to the financial statements, note 4 Financial risks, section Currency exchange risks of Aegon s Annual Report 2018.

Illiquidity of certain investment assets may prevent Aegon from selling investments at fair prices in a timely manner.

Aegon must maintain sufficient liquidity to meet short term cash demand under normal circumstances, as well as in crisis situations. Liquidity risk is inherent in much of Aegon s businesses. Each asset purchased and liability sold has unique liquidity characteristics. Some liabilities can be surrendered, while some assets, such as privately placed loans, mortgage loans, real estate and limited partnership interests, are to some degree illiquid. In depressed markets, Aegon may be unable to sell or buy significant volumes of assets at quoted prices.

Any security Aegon issues in significant volume may be issued at higher financing costs if funding conditions are impaired.

The necessity to issue securities can be driven by a variety of factors, for instance Aegon may need liquidity for operating expenses, debt servicing and the maintenance of capital levels of insurance subsidiaries. Although Aegon manages its liquidity position for extreme events, including greatly reduced liquidity in capital markets, if these conditions were to persist for an extended period of time, Aegon may need to sell assets substantially below prices at which they are currently recorded to meet its insurance obligations.

Aegon makes use of (bilateral and syndicated) credit facilities to support repayment of amounts outstanding under Aegon s commercial paper programs and to serve as additional sources of liquidity. An inability to access these credit facilities, for example due to non-compliance with conditions for borrowing or the default of a facility provider under stressed market circumstances, could have an adverse effect on Aegon s ability to meet liquidity needs and to comply with contractual and other requirements.

Many of Aegon s derivatives transactions require Aegon to grant collateral against declines in the fair value of these contracts. Volatile financial markets may significantly increase requirements to grant collateral and adversely affect its liquidity position. Further, a downgrade of Aegon s credit ratings may also result in additional collateral requirements.

Underwriting risk relates to the products sold by Aegon insurance entities. The underwriting process requires, among others, the setting of assumptions. Aegon s reported results of operations and financial condition may be affected by differences between actual claims experience and underwriting and reserve assumptions both due to incurred gains/losses and from potential changes in best estimate assumptions that are used to value insurance liabilities.

There is a risk that the pricing of Aegon s products turns out to be inadequate if the assumptions used for pricing do not materialize. Aegon s earnings depend significantly upon the extent to which actual claims experience is consistent with the assumptions used in setting the prices for Aegon s products and the extent to which the established technical provisions for insurance liabilities, both IFRS and Solvency II reporting, prove to be sufficient. If actual claims experience is less favorable than the underlying assumptions used in establishing such liabilities, Aegon s income would be reduced. Furthermore, if less favorable claims experience became sustained, Aegon may be required to change its best estimate assumptions with respect to future experience, potentially increasing the technical

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provisions for insurance liabilities, which may reduce Aegon s income and solvency ratio. In addition, certain acquisition costs related to the sale of new policies and the purchase of policies already in force have been recorded as assets on the balance sheet and are being amortized into income over time. If the assumptions relating to the future profitability of these policies (such as future claims, investment income and expenses) are not realized, the amortization of these costs may be accelerated and may require write-offs should there be an expectation that the costs are not fully recoverable. This may have a materially adverse effect on Aegon s results of operations and financial condition.

Sources of underwriting risk include policyholder behavior (such as lapses or surrender of policies), policy claims (such as mortality and morbidity) and expenses. For some product lines, Aegon is at risk if policy lapses increase, as sometimes Aegon is unable to fully recover up-front sales expenses despite the presence of commission recoveries or surrender charges and fees. In addition, some policies have embedded options which at times are more valuable to the client if they stay (lower lapses) or leave (higher lapses), which may result in losses to Aegon s businesses. Aegon sells certain types of policies that are at risk if mortality or morbidity increases, such as term life insurance and accident insurance. Aegon also sells certain other types of policies, such as annuity products, that are at risk if mortality decreases (longevity risk). For example, certain current annuity products, as well as products sold in previous years, have seen their profitability deteriorate as longevity assumptions have been revised upward. If the trend toward increased longevity persists, Aegon s annuity products may continue to experience adverse effects due to longer expected benefit payment periods. Aegon is also at risk if expenses are higher than assumed.

The sensitivity of Aegon s net income and shareholders equity to changes in various underwriting risks is provided in the notes to the consolidated financial statements, note 36 Insurance contracts of Aegon s Annual Report 2018.

Valuation of Aegon´s investments, allowances and impairments is subjective, and discrepant valuations may adversely affect Aegon´s results of operations and financial condition.

The valuation of many of Aegon s financial instruments is based on methodologies, estimations and assumptions that are subject to different interpretations. Changes to investment valuations may have a materially adverse effect on Aegon s results of operations and financial condition. In addition, the determination of the amount of allowances and impairments taken on certain investments and other assets is subjective and based on assumptions, estimations and judgments that may not reflect or correspond to Aegon s actual experience any of which may materially impact Aegon s results of operations or financial position.

Among other things, changes in assumptions, estimations, judgments or in actual experience may require Aegon to accelerate the amortization of DPAC and value of business acquired, establish a valuation allowance against deferred income tax assets, or to recognize impairment of other assets, any of which may materially adversely affect Aegon s results and financial condition.

Certain of Aegon s products have guarantees that may adversely affect its results, financial condition or liquidity.

Certain products, particularly Aegon s variable annuity products and defined benefit pension business in the Netherlands, include death benefit guarantees, guarantees of minimum surrender values or income streams for stated

periods or for life, which may be in excess of account values. These guarantees are designed, among other things, to protect policyholders against downturns in equity markets and interest rates. As a result, a drop in the value of underlying assets or more volatile markets could result in an increase in the valuation of Aegon s liabilities associated with these products. An increase in these liabilities may decrease its net income. Aegon uses a variety of hedging and risk management strategies to mitigate these risks. However, these strategies may not be fully effective and hedging instruments may not fully offset the costs of guarantees or may otherwise be insufficient in relation to its obligations. Estimates and assumptions Aegon makes in connection with hedging activities may fail to fully reflect or correspond to the actual (longer term) exposure in respect of guarantees. Further, unexpected policyholder behavior may cause Aegon s hedging to be less effective. The factors set forth above could have a material adverse effect on its results of operations, financial condition or liquidity.

Aegon may be unable to manage Aegon´s risks successfully through derivatives.

Aegon is exposed to changes in the fair value of its investments, the impact of interest rate, equity markets and credit spread changes, currency fluctuations and changes in mortality and longevity. Aegon uses common financial derivative instruments, such as swaps, options, futures and forward contracts to hedge some of the exposures related to both investments backing insurance products and Company borrowings. Aegon may not be able to manage the risks associated with these activities successfully through the use of derivatives. In addition, a counterparty may fail to honor the terms of its derivatives contracts with Aegon. Clearing members and clearing houses may terminate their derivatives contracts with Aegon. Aegon s inability to manage risks successfully through

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derivatives, a counterparty s failure to honor Aegon s obligations or the systemic risk that failure is transmitted from counterparty to counterparty may each have a material adverse effect on Aegon s businesses, results of operations and financial condition.

Aegon uses the London Clearing House (LCH) as a central counterparty to clear most of its derivatives transactions. In December 2018, the European Commission declared the system of supervision in the United Kingdom to be equivalent to that of the European Union for 12 months following Brexit. If following this period LCH has not been granted recognition as a third country central counterparty by the European Securities Market Authority (ESMA), new and existing derivatives cleared through LCH and executed by EU27 entities, may not comply with EMIR regulations. If this situation materializes then it is possible that existing trades will have to be terminated and replaced by new trades to be cleared by an authorized clearing house located in the EU27. This could lead to additional costs and may impair the effectiveness of Aegon s hedging programs.

Inaccuracies in econometric, financial or actuarial models, or differing interpretations of underlying methodologies, assumptions and estimates, could have a significant adverse effect on Aegon s business, results of operations and financial condition.

Aegon uses econometric, financial and actuarial models to measure and manage multiple types of risk, to price products and to establish and assess key valuations and report financial results. All these functions are critical to Aegon s operations. If these models, their underlying methodologies, assumptions and estimates, or their implementation and monitoring prove to be inaccurate, this could have a significant adverse effect on Aegon s business, financial condition and results.

Many of Aegon s business units offer investment products that utilize quantitative models, algorithms or calculations that could experience errors or prove to be incorrect, incomplete or unsuccessful resulting in losses for clients who have invested in such products and possible regulatory actions and/or litigation against Aegon and/or its affiliates.

Aegon s business units may utilize quantitative models, algorithms or calculations (whether proprietary or supplied by third parties) (Models) or information or data supplied by third parties (Data) for the management of, or to assist in the management of, investment products offered to clients. Examples of such investment products include volatility controlled funds, mutual funds, separately managed accounts, and other types of advisory accounts. Models and Data are used to construct sets of transactions and investments, to provide risk management insights, and may be used to assist in hedging investments. If Models and Data prove to be incorrect or incomplete, any decisions made, in whole or part, in reliance thereon expose the investment product to additional risks. For example, by utilizing Models or Data, certain investments may be bought at prices that are too high, certain other investments may be sold at prices that are too low, or favorable opportunities may be missed altogether. Similarly, any hedging based on faulty Models and Data may prove to be unsuccessful. The applicable investment product bears the risk that Models or Data used will not be successful and the product may not achieve its investment objective.

Models can be predictive in nature. The use of predictive Models has inherent risks. For example, such Models may incorrectly forecast future behavior, leading to potential losses on a cash flow and/or a mark-to-market basis. In addition, in unforeseen or certain low-probability scenarios (often involving a market disruption of some kind), such

Models may produce unexpected results, which can result in losses for an investment product. Furthermore, the success of relying on or otherwise using Models depends on a number of factors, including the validity, accuracy and completeness of the Model s development, implementation and maintenance, the Model s assumptions, factors, algorithms and methodologies, and the accuracy and reliability of the supplied historical or other Data.

Models rely on, among other things, correct and complete Data inputs. If incorrect Data is entered into even a well-founded Model, the resulting information will be incorrect. However, even if Data is input correctly, Model prices may differ substantially from market prices, especially for securities with complex characteristics. Investments selected with the use of Models may perform differently than expected as a result of the design of the Model, inputs into the Model or other factors. There can be no assurance that the use of Models will result in effective investment decisions for an investment product. Additionally, if investment products offered by Aegon s affiliates experience Model errors or use erroneous Data, this could result in regulatory actions and/or litigation brought against Aegon and/or its affiliates.

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Aegon may be required to increase its technical provisions and/or hold higher amounts of regulatory capital as a result of changes in the regulatory environment or changes in rating agency analysis, which may decrease Aegon s returns on its products.

Prudential regulatory requirements such as with respect to the calculation of technical provisions, capital requirements, the eligibility of own funds and the regulatory treatment of investments may change, resulting in increased technical provisions, higher amounts of regulatory capital, more stringent requirements with respect to investments and/or the qualification of own funds. Aegon cannot predict specific proposals that might be adopted, or what impact, if any, such proposals or, if enacted, such laws, may have on its businesses, results of operations, or financial condition. For example, the European Union, the National Association of Insurance Commissioners (NAIC) in the US or US state regulators may adopt revisions to applicable risk-based capital formulas and local regulators in other jurisdictions in which Aegon s subsidiaries operate may increase their capital requirements.

Prudential regulatory requirements may not only apply to the individual entities in the group, but may additionally apply at sub-group or group level. Important examples of such requirements are Solvency II group supervision, as well as consolidated requirements resulting from the Capital Requirements Directive (CRD) and Capital Requirements Regulation (CRR), as applied to groups containing undertaking bank and/or asset management activities.

The manner in which such requirements are applied to groups like Aegon, has an impact on the group s capital position, as well as on the availability of capital at group level and changes thereto may have an impact, depending on the nature of the change, on Aegon s competitive position to competitors that are not subject to these or similar requirements at group level. As an example, as part of the Solvency II group calculation, Aegon uses, at group level, a specific methodology for its US insurance and reinsurance subsidiaries, in addition to the requirements these subsidiaries are subject to under their local prudential regime. This methodology is approved by Aegon s group supervisor, De Nederlandsche Bank N.V. (DNB), but remains subject to annual review. For further detail on this methodology, we refer to the section Regulation and supervision of Aegon s Annual Report 2018. Changes to this methodology might have an impact on Aegon s capital position, as calculated under Solvency II group requirements and/or the manner in which DNB otherwise exercises group supervision on Aegon (such as more stringent requirements with respect to intra-group transactions, risk concentrations and reporting).

Furthermore, Aegon and the Aegon Group may be impacted by further changes to the capital adequacy requirements it is subject to as a result of the development of the Insurance Capital Standard (ICS) as part of the Common Framework for the Supervision of Internationally Active Insurance Groups (ComFrame) (a set of international regulatory standards focusing on the effective group-wide supervision of internationally active insurance groups (IAIGs)). For further detail on this development, we refer to the section Regulation and supervision of Aegon s Annual Report 2018.

In addition, since November 3, 2015, Aegon has been classified as a Global Systematically Important Insurer (G-SII). While the qualification is reviewed by the Financial Stability Board (FSB) yearly, the FSB, in consultation with the International Association of Insurance Supervisors (IAIS) and national authorities, decided not to publish a new list of G-SIIs for 2017 or 2018. The policy measures set out in the FSB s 2016 communication on G-SIIs will continue to apply to the firms listed in the 2016 communication.

In November 2018, the International Association of Insurance Supervisors (IAIS) published a consultation document for a holistic Framework for Systemic Risk in the Insurance Sector. As expressed in the consultation document, IAIS is of the view that the implementation of a holistic framework should remove the need for an (annual) G-SII identification by the FSB and national authorities and be replaced by an enhanced set of policy measures and supervisory powers of intervention that might be applied to a broader set of insurers than are currently on the FSB-list. For further detail on this development, we refer to the section Regulation and supervision of Aegon s Annual Report 2018.

In this respect, the development of ComFrame as well as any additional requirements or standards applicable to either systemic entities or activities could lead to enhanced capital requirements applicable to IAIGs, even if the FSB-list will be discontinued. This could adversely affect Aegon s ability to compete with other insurers that are not subject to those capital requirements. These requirements may lead Aegon to engage in transactions that affect capital, constrain Aegon s ability to pay dividends or repurchase its own shares. Furthermore, such requirements may constrain Aegon s ability to provide guarantees and increase the cost to Aegon of offering certain products resulting in price increases, discontinuance of offering of certain products or reducing the amount of risk Aegon takes on. Aegon may consider structural and other business alternatives in light of requirements or standards applicable with respect to systemic entities or activities, of which the impact on shareholders cannot be predicted.

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In addition to requirements imposed directly through regulatory requirements and/or supervisory authorities rating agencies may incorporate higher capital thresholds into their quantitative analyses, thus requiring additional capital for Aegon s regulated subsidiaries in order for Aegon Group and/or its regulated subsidiaries to maintain their desired credit ratings.

In the United States, the NAIC is seeking to better align the Risk-Based Capital charges with the appropriate risk level for invested assets. This may lead to higher risk-based charges for such assets.

Furthermore, the NAIC model regulation Valuation of Life Insurance Policies , (commonly known as Regulation XXX), requires insurers in the United States to establish additional statutory reserves for term life insurance policies with long-term premium guarantees. In addition, Actuarial Guideline XXXVIII, (commonly known as AG38), which is intended to clarify Regulation XXX, requires insurers to establish additional statutory reserves for certain universal life insurance policies with secondary guarantees. Virtually all of Aegon s newly issued term and universal life insurance products in the United States are affected by Regulation XXX and AG38, respectively.

Subsequently, the NAIC adopted regulations to monitor and provide transparency for insurer-affiliated captive reinsurers. Captive reinsurance structures have been used to manage economically redundant reserves for term and secondary guarantee universal life policies. Since the January 1, 2017 enactment of US principle-based reserves for new business, new captive reinsurance structures are no longer required for new issuances of these term and secondary guarantee universal life products and the Company does not anticipate entering into any new captive reinsurance arrangements for such products. The new reserves requirements for US life insurance products are intended by regulators to represent a more economically supported view of the resources required to honor the promises to policyholders. For existing business held in a captive, Aegon may continue to be subject to the risks of adverse publicity and changes in regulations related to captive reinsurance.

Aegon utilizes affiliated captive insurance companies to manage risks of various insurance policies, including universal life with secondary guarantees and level term life insurance. Through these structures, Aegon finances certain required regulatory reserves at a lower cost. To the extent that state insurance departments restrict Aegon s use of captives and regulatory reserve requirements remain unchanged, this could increase costs, limit the ability to write these products in the future or lead to increased prices to consumers on those products. The NAIC continues to consider changes to corporate governance and insurers use of captives. Due to the uncertainty of the proposals it is not possible to provide an estimate of the effects at this time.

Regulatory restrictions and failure to comply with regulations may impact Aegon s ability to do business, its financial position or financial results.

Aegon and its subsidiaries are subject to laws and regulations in numerous jurisdictions in some cases including enforcement and supervision by different regulators with overlapping jurisdictions. Aegon may not be able to comply fully with, or obtain appropriate exemptions from, the wide variety of laws and regulations applicable to insurance companies, holding companies, groups of insurance companies and/or other financial undertakings and/or financial conglomerates. Failure to comply with or to obtain appropriate exemptions under any applicable laws and regulations may result in restrictions on Aegon s ability to do business in one or more of the jurisdictions in which Aegon operates and may result in fines and other sanctions, which may have a materially adverse effect on Aegon s businesses,

financial position or results of operations.

Restrictions on underwriting criteria and the use of data may affect Aegon s ability to do business, its financial position or financial results.

Some countries impose restrictions on particular underwriting criteria, such as gender, or use of genetic test results, for determination of premiums and benefits of insurance products. To date, Aegon has not observed negative financial or business impact due to these restrictions. However, future restrictions could adversely impact Aegon s operations or financial results. Further developments in underwriting, such as automation and use of additional data, may also be affected by future regulatory developments regarding privacy and use of personal data.

A downgrade in Aegon´s ratings may increase policy surrenders and withdrawals, adversely affect relationships with distributors, and negatively affect Aegon´s results.

Claims-paying ability and financial strength ratings are factors in establishing the competitive position of insurers. A rating downgrade (or a change in outlook indicating the potential for such a downgrade) of Aegon or any of its rated insurance subsidiaries may, among other things, materially increase the number of policy surrenders and withdrawals by policyholders of cash values from their policies.

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These withdrawals may require the sale of invested assets, including illiquid assets, at a price that may result in realized investment losses. These cash payments to policyholders would result in a decrease in total invested assets and a decrease in net income. Among other things, early withdrawals may also cause Aegon to accelerate amortization of deferred policy acquisition costs (DPAC), reducing net income.

Aegon has experienced downgrades and negative changes to its outlook in the past, and may experience rating and outlook changes in the future. A downgrade or potential downgrade, including changes in outlook, may result in higher funding costs and/or affect the availability of funding in the capital markets. In addition, a downgrade may adversely affect relationships with broker-dealers, banks, agents, wholesalers and other distributors of Aegon s products and services, which may negatively impact new sales and adversely affect Aegon s ability to compete. A downgrade of Aegon s credit ratings will have an effect of increased fees on credit facilities and may result in higher funding costs on future long-term debt funding transactions and may affect its ability to obtain reinsurance contracts at reasonable prices or at all.

Aegon cannot predict what actions rating agencies may take, or what actions Aegon may take in response to the actions of rating agencies. As with other companies in the financial services industry, Aegon s ratings may be downgraded at any time and without notice by any rating agency.

Changes in government regulations in the countries in which Aegon operates may affect profitability.

Aegon s regulated businesses, such as insurance, banking and asset management, are subject to comprehensive regulation and supervision, specific to these businesses. The primary purpose of such regulation is to protect clients of these operating companies,

(e.g. policyholders), rather than holders of Aegon shares, capital securities and debt instruments. Changes in existing laws and regulations may affect the way in which Aegon conducts its businesses, the profitability of its businesses and the products offered. Additionally, the laws or regulations adopted or amended from time to time may be more restrictive or may result in higher costs than currently is the case, such as regarding the calculation of capital needs, storage, processing and transmission of personal and other information, treatment of own funds, rules or guidance with respect to the modelling of insurance, investment and other risks.

Regulatory changes include or may include capital standards and prudential standards for non-bank companies deemed to be systemically important financial institutions (SIFIs) that are more stringent than the standards applicable to non-SIFIs. While as indicated above, Aegon was designated in 2015 by the FSB as a G-SII, Aegon has not been designated a SIFI in the United States. In addition, US state insurance regulators are developing group capital standards. The scope of application of these standards has not yet been determined. The current US administration announced plans to review aspects of the Dodd-Frank Act. This review may result in changes in laws and regulations that may impact US or global operations.

Other initiatives, such as the development of International Capital Standards (ICS) by the International Association of Insurance Supervisors, may lead to regulations that would increase capital needs and other requirements that would, if not adopted in whole or in part in the relevant markets in which Aegon is active, not be applicable to all insurance and reinsurance carriers and create an uneven competitive playing field.

In the Netherlands, the Dutch Central Bank provided guidance with regard to assumptions underlying Aegon s factor for the loss absorbing capacity of deferred taxes (LAC-DT). Reduction of this factor would impact the Group Solvency II ratio. The factor of LAC-DT is taken into account in Aegon the Netherlands Solvency II ratio, and remained unchanged at 75%. The factor is reassessed quarterly. The Solvency II sensitivity for a 25-percentage point change in the factor is given in the section Capital and liquidity management of Aegon s Annual Report 2018. The treatment of LAC-DT under the Solvency II framework is also one of the elements of the Solvency II review and resulted in some changes with respect to the internal governance requirements regarding the determination of the LAC-DT. A further review of the Solvency II framework has recently commenced. While details on possible changes are yet unknown, the outcomes of this review (referred to as the Solvency II 2020 review) and potential changes to the relevant regulations, guidelines or opinions, or their application by national supervisory authorities may have an impact on the determination of the LAC-DT that may be taken into account by Aegon going forward.

In the United States, the Patient Protection and Affordable Care Act (PPACA) appears to be stable with the change in control of the US House of Representatives. But there may be additional changes in laws and regulations that may impact the US health insurance industry. The extent to which employers or individuals may discontinue their purchase of supplemental health insurance products as a result of any such changes may significantly impact Aegon USA s supplemental health insurance products business. The extent of any such changes or the corresponding impact on Aegon USA s supplemental health insurance business cannot be determined at this time.

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The United States Department of Labor (DOL) issued a Conflict of Interest or Fiduciary rule in April 2016 (the DOL Rule) which substantially broadened the definition of fiduciary with respect to retirement savings and investment plans and products (qualified assets). The final rule, which was to fully take effect on July 1, 2019, was vacated in its entirety by the Fifth Circuit Court of Federal Appeals on July 21, 2018.

Aegon believes the court s invalidation of the DOL Rule will not materially impact prospective sales of Aegon America s retirement plan and annuity businesses. However, any new DOL proposal or promulgation of a heightened standard of care by the SEC, NAIC or any state may have a material adverse impact on Aegon America s business.

For example, on July 18, 2018, the New York Department of Financial Services (NYDFS) amended Regulation 187 which adopts a best interest standard in the sale of life insurance and annuities.

The NYDFS regulation could have a material adverse impact on annuity sales; however, the bigger impact could be with life sales by firms conducting business in the state. It is expected that other states will propose similar regulations impacting the sale of annuities and life insurance products.

In addition, in April 2018, the SEC proposed a Best Interest standard of conduct regulation applicable to broker-dealers and their registered representatives. The proposed regulation requires additional disclosures to clients and imposes heightened mitigation requirements with respect to conflicts of interest. In addition to the proposed Regulation Best Interest, the SEC proposed the use of a written relationship disclosure with investment advisor clients and an interpretation of the standard of conduct applicable to investment advisors.

Changes in pension and employee benefit regulation, social security regulation, financial services regulation, taxation and the regulation of securities products and transactions may adversely affect Aegon s ability to sell new policies or claims exposure on existing policies. For example, in Hungary, the mandatory pension business has been nationalized and therefore Aegon in Hungary has liquidated its mandatory pension business. Similarly, in December 2013, the Polish Parliament approved legislation to overhaul the existing state pension system, which was a reason for Aegon to write down its intangible assets.

In general, changes in laws and regulations may materially increase Aegon s direct and indirect compliance costs and other ongoing business expenses and have a materially adverse effect on Aegon s businesses, results of operations or financial condition.

An abandonment of the euro currency by one or more members of the European Monetary Union may affect Aegon s results of operations in the future.

It is possible that the euro may be abandoned as a currency in the future by countries that have already adopted its use. This may lead to the re-introduction of individual currencies in one or more European Monetary Union member states, or in more extreme circumstances, the dissolution of the European Monetary Union. It is not possible to predict the effect on the European and global economies of a potential dissolution of the European Monetary Union or the exit of one or more European Union member states from the European Monetary Union. Any such event may have a materially adverse effect on Aegon s future financial condition and results of operations.

The United Kingdom (UK) leaving the European Union (Brexit), may affect Aegon s results and financial condition.

On June 23, 2016 the United Kingdom voted in a national referendum to withdraw from the European Union. With continuing uncertainty on if and in what form a Brexit-deal will be reached and approved, the implications of Brexit remain unclear, with respect to the European integration process, the relationship between the UK and the European Union, and the impact on economies and businesses. Aegon is prepared for all outcomes, including the worst case scenario. For this purpose, Aegon has assessed the risks and possible contingency measures specifically related to a hard Brexit (no-deal) scenario. Despite these efforts, Aegon could be adversely impacted by unexpected developments and market developments such as increased exchange rate movements of the UK pound versus the euro and higher financial market volatility in general due to increased uncertainty, any of which could reduce the value or results of Aegon s operations. Aegon could also be adversely impacted should Brexit result in the UK moving away from agreed and implemented EU legislation like, but not limited to, Solvency II regulations.

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Risks of application of intervention measures may adversely affect Aegon s business, results of operations and financial position.

On January 1, 2019, the Dutch Act on Recovery & Resolution for Insurers (R&R Act) came into force in the Netherlands, replacing the previously applicable intervention regime for insurance companies in the Netherlands faced with financial difficulties. The R&R Act allows DNB to intervene in situations where a Dutch insurer or reinsurer, is faced with financial difficulties. The powers under the R&R Act may also extend to the level of the Group and to entities, other than in insurance or reinsurance entities in the Netherlands, which are part of the group, such as Aegon N.V..

In addition, the R&R Act will allow DNB to require a Dutch insurance or reinsurance company or a group to remove, ex ante, impediments to effective resolution of a Dutch insurance or reinsurance undertaking (such as the revision of financing arrangements, the reduction of exposures, the transfer of assets, the termination or limitation of business activities, or the prohibition to start certain business activities, change the legal or operational structure of the group, or securing certain critical business lines). The use of this tool may adversely affect Aegon s business, results of operations and financial position.

Furthermore, to parts of the Aegon Group, in particular Aegon Bank N.V., the framework of the EU Directive on the recovery and resolution of credit institutions and investments firms (the Bank Recovery and Resolution Directive) is applicable. The Bank Recovery and Resolution Directive also contains provisions that, in certain specific circumstances, where both Aegon Bank N.V. and Aegon N.V. fail or are likely to fail, could be applied to mixed financial holding companies such as Aegon N.V., including the right of bail-in of creditors.

Lastly, under Part 6 of the Dutch Financial Supervision Act, the Dutch Minister of Finance may intervene immediately, when the stability of the financial system is threatened by the situation of a financial institution, in which case legal or statutory provisions, applicable to the financial institution, might be surpassed. The intervention measures available to the Minister of Finance, include in particular the right to expropriate assets of the financial institution, as well as securities and/or other financial instruments issued by or with the cooperation of the financial instruments. The exercise of this power may significantly impact the rights of the owners or holders of these assets, securities and/or financial instruments.

There is a risk that the possible exercise of powers, or any perceived exercise of powers, by DNB or the Ministry of Finance could have a material adverse effect on the performance by the failing institution, including Aegon, of its obligations (of payment or otherwise) under contracts of any form, including the expropriation, write-off, write-down or conversion of securities such as shares and debt obligations issued by the failing institution. The R&R Act, as well as the regime of the Bank Recovery and Resolution Directive is described in more detail in the section Regulation and supervision of Aegon s Annual Report 2018.

Legal and arbitration proceedings and regulatory investigations and actions may adversely affect Aegon s business, results of operations and financial position.

Aegon faces significant risks of litigation as well as regulatory investigations and actions relating to its and its subsidiaries insurance, pensions, retirement administration, securities, investment management, investment advisory

and annuities businesses as well as Aegon s corporate compliance, including compliance with employment, sanctions, anti-corruption and tax regulations.

Aegon subsidiaries regularly receive inquiries from local regulators and policyholder advocates in various jurisdictions, including the United States, the Netherlands, and the United Kingdom. Regulators may seek fines or penalties, or changes to the way Aegon operates. In some cases, Aegon subsidiaries have modified business practices in response to inquiries.

Insurance companies and their affiliated regulated entities are routinely the subject of litigation, investigation and regulatory activity by various governmental and enforcement authorities, individual claimants and policyholder advocate groups, involving issues such as, but not limited to, employment or distribution relationships; operational and internal controls and processes; disclosures; environmental matters; competition and antitrust matters; data privacy; information security; intellectual property; and anti-money laundering, anti-bribery and economic sanctions compliance.

Government and regulatory investigations may result in the institution of administrative, injunctive or other proceedings and/ or the imposition of monetary fines, penalties and/or disgorgement as well as other remedies, sanctions, damages and restitutionary amounts. There can be no assurance that government and regulatory investigations will not have a material and adverse effect on Aegon s reputation, financial position, and results of operations or liquidity.

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Many of Aegon s products are affected by fluctuations in equity markets as well as interest rate movements, which may prove to be volatile or disappointing to customers. Significant investment risks are often borne by the customer. The existence of potential claims may remain unknown for long periods of time after the events giving rise to such claims. Determining the likelihood of exposure to Aegon and the extent of any such exposure may not be possible for long periods of time after Aegon becomes aware of such potential claims. Once litigation is initiated, it may be protracted and subject to multiple levels of appeal.

Aegon cannot predict the effect of litigation, investigations or other actions on its businesses or the insurance industry. In some jurisdictions, plaintiffs may seek recovery of very large or indeterminate amounts under claims of bad faith, resulting in punitive or treble damages. Damages alleged may not be quantifiable or supportable or may have no relationship to economic losses or final awards. Separate from financial loss, litigation, regulatory action, legislative changes or changes in public opinion may require Aegon to change its business practices, which could have a material adverse impact on Aegon s businesses, results of operations, cash flows and financial position.

Insurance companies and their affiliated regulated entities are also routinely subject to litigation, investigation and governmental review concerning product fees and costs, including transparency and adequacy of disclosure of initial costs, ongoing costs, and costs due on policy surrender as well as changes to costs over time. Disputes and investigations initiated by governmental entities and private parties may lead to orders or settlements including payments or changes to business practices even if Aegon believes the underlying claims are without merit. Several US insurers, including Aegon subsidiaries, have also been named in class actions as well as individual litigation relating to increases in monthly deduction rates (MDR) on universal life products. Plaintiffs generally allege that the increases were made to recoup past losses rather than to cover the future costs of providing insurance coverage. In one such class action against Aegon s subsidiary pending in the US federal district court for the Central District of California, the parties agreed to settle the case. In January 2019, a court approved the aforementioned settlement. While less than 1% of policyholders opted out, they represent approximately 43% of the value of the settlement fund. In the first individual case against Aegon s subsidiary to reach trial (in 2017), a jury found that the increase was improper.

In addition, insurance companies and their affiliated regulated entities may face lawsuits that threaten their business models. For example, several US-based Aegon subsidiaries have been named in two purported class actions alleging that the business model inappropriately characterizes distributors as independent contractors instead of employees. Depending on the outcome, these lawsuits, along with similar claims against other companies, as well as regulatory action could necessitate a change in the distribution model and could result in significant settlements or judgments.

In the Netherlands, unit linked products (*beleggingsverzekeringen*) have been controversial and the target of litigation since 2005. Allegations include excessive cost, unfair terms, inadequate disclosure, and failure to perform as illustrated. Consumer groups have formed to address these issues and initiate mass claims against insurers. Regulators as well as the Dutch Parliament have been involved ever since, with the principal goal of achieving an equitable resolution. Aegon has made improvements across its product lines, including after settlements reached in 2009 with Stichting Woekerpolis and Stichting Verliespolis. In 2013 Aegon took a charge of EUR 25 million after the Dutch Supreme Court ruled adversely in litigation concerning premium amounts charged in the KoersPlan product. Some of the unit linked products are still involved in ongoing litigation. In September 2014, consumer interest group Vereniging Woekerpolis.nl filed a claim against Aegon in court. The claim related to a range of unit linked products

that Aegon sold in the past, including Aegon products involved in the earlier litigation. In June 2017, the court issued a verdict which upheld the principle that disclosures must be evaluated according to the standards at the time when the relevant products were placed in-force. Most of the claims of Vereniging Woekerpolis.nl were dismissed under this standard, although the court found that Aegon did not adequately disclose certain charges on a limited set of policies. The district court did not decide on the reasonableness of the cost levels and whether the previous compensation arrangements provide sufficient compensation. This court decision has been appealed by both parties. Aegon expects the claims and litigation, whether collective or on an individual basis and in court or through alternative dispute resolution mechanisms, on unit linked products to continue for the foreseeable future. Developments in similar cases against other Dutch insurers currently before regulators and courts may also affect Aegon.

Lawsuits have also been brought against providers of securities leasing products (aandelenlease producten). Although sales of securities leasing products ended more than a decade ago, litigation relating to these products has resurfaced. In 2016, the Dutch Supreme Court ruled on a case involving a securities leasing product sold by one of Aegon s competitors. It decided that the financial institution was liable if a broker (remisier) that advised on the sale of the institution s products, was not properly licensed. In July 2016, consumer interest group Platform Aandelenlease filed a mass claim against Aegon Bank regarding securities leasing product Sprintplan. Allegations include, among other things, a lack of a proper license of the brokers involved. In October 2017, the district court of The Hague ruled in favor of Aegon that the Sprintplan liability had been conclusively determined in earlier proceedings and there were no grounds to hold further collective proceedings. The plaintiff appealed. The case is now pending at the court of appeal

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of The Hague. In addition, Aegon is involved in claims for compensation and the cancellation or nullification of contracts concerning the Vliegwiel product, a variation on securities leasing products. Currently, proceedings are pending before the Dutch courts and the Complaint Institute for Financial Services (Klachteninstituut Financiële Dienstverlening), with numerous cases having been initiated by Leaseproces B.V.

There can be no assurances that these matters will not ultimately result in a material adverse effect on Aegon s business, results of operations and financial position.

For additional information on proceedings in which Aegon is involved, refer to the notes to the consolidated financial statements, note

48 Commitments and contingencies of Aegon s Annual Report 2018.

Aegon s risk management policies and processes may leave the Company exposed to unidentified or unanticipated risk events, adversely affecting its businesses, results and financial condition.

Aegon has devoted significant resources to the implementation and maintenance of a comprehensive enterprise risk management framework in all aspects of the business. Nevertheless, its risk measurements make use of historic and public data that may be inaccurate or may not predict future exposures. Further, operational and legal risks involve high volumes of transactions and are affected by frequent changes in Aegon s businesses and their environments, and the risk management framework may not evolve at the same pace. As a result, there is a chance that risks present in its business strategies and initiatives may not be fully identified, monitored and managed.

Local statutes and regulators may limit the aggregate amount of dividends payable by Aegon´s subsidiaries and Aegon N.V., thereby limiting Aegon´s ability to make payments on debt obligations.

Aegon s ability to make payments on debt obligations and pay some operating expenses is dependent upon the receipt of dividends from subsidiaries. Some of these subsidiaries have regulatory restrictions that can limit the payment of dividends. In addition, local regulators, acting to represent the interests of local policyholders, are taking an increasingly restrictive stance with respect to permitting dividend payments, which may affect Aegon s ability to satisfy its debt obligations or pay its operating expenses.

Changes in accounting standards may affect Aegon´s reported results, shareholders´ equity and dividend.

Since 2005, Aegon s financial statements have been prepared and presented in accordance with IFRS. Any future changes in these accounting standards may have a significant impact on Aegon s reported results, financial condition and shareholders equity. This includes the level and volatility of reported results and shareholders equity. New accounting standards that are likely to have a significant impact on Aegon s reported results, financial condition and shareholders equity include but are not limited to IFRS 9 Financial Instruments and IFRS 17 Insurance Contracts.

Further details are provided in the notes to the consolidated financial statements, note 2 Significant accounting policies of Aegon s Annual Report 2018.

Tax law changes may adversely affect Aegon´s profitability, as well as the sale and ownership of Aegon´s products.

Aegon is subject to the substance and interpretation of tax laws in all countries in which Aegon operates or invests. Tax risk is the risk associated with changes in tax laws, or the interpretation of tax laws, later jurisprudence or case law, or the introduction of new taxes or tax laws. This tax risk includes for example the risk of changes in tax rates, changes in loss carry-over rules and new rules restricting the tax deductibility of interest expenses.

Tax risk also includes the risk of consequences arising from failure to comply with procedures required by tax authorities. Failure to manage tax risks may lead to increased tax charges, including financial or operating penalties. This tax risk may have a direct materially adverse effect on Aegon s profits, capital and financial condition.

Any changes in tax laws, interpretation of tax laws, later jurisprudence or case law, or the introduction of new taxes or tax laws in all countries in which Aegon operates or invests, which affects Aegon s products, may also have a materially adverse effect on Aegon s businesses, results of operations, capital and financial condition.

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Most insurance products enjoy certain tax advantages, particularly in the United States, the United Kingdom and the Netherlands, which permit the tax deferred accumulation of earnings on the premiums paid by the holders of annuities and life insurance products under certain conditions and within certain limits. Taxes on this inside build-up of earnings may not be payable at all and, if payable, generally are due only when the earnings are actually paid.

Legislators have from time to time, considered possible legislation that may make Aegon s products less attractive to consumers, including legislation that would reduce or eliminate the deferral of taxation on the accretion of value within certain annuities and life insurance products. This may have an impact on insurance products and sales.

Legislators also consider from time to time tax law changes that may increase the amount of taxes due by Aegon or may even introduce new taxes. In the US, effective January 1, 2018, the Tax Cuts and Jobs Act made significant changes to the computation of tax reserves, capitalized policy acquisition costs and the dividends received deduction available to life insurance companies, increasing the amount of tax that Aegon is required to pay. However, effective January 1, 2018 the Tax Cuts and Jobs Act also lowered US corporate tax from 35% to 21%, reducing the amount of tax that Aegon is required to pay.

Competitive factors may adversely affect Aegon´s market share.

Competition in Aegon s business segments is based on service, product features, price, commission structure, financial strength, claims paying ability, ratings and name recognition. Aegon faces intense competition from a large number of other insurers, as well as non-insurance financial services companies such as banks, broker-dealers and asset managers, for individual customers, employers, other group customers, agents and other distributors of insurance and investment products. Consolidation in the global financial services industry can enhance the competitive position of some of Aegon s competitors by broadening the range of their products and services, and increasing their distribution channels and their access to capital. In addition, development of alternative distribution channels for certain types of insurance and securities products, including using digital technologies and platforms, may result in increasing competition as well as pressure on margins for certain types of products. Traditional distribution channels are also challenged by the ban on sales- based commissions in some countries. These competitive pressures may result in increased pricing pressures on a number of products and services, particularly as competitors seek to win market share. This may harm Aegon s ability to maintain or increase profitability

Adverse market and economic conditions can be expected to result in changes in the competitive landscape. Financial distress experienced by financial services industry participants as a result of weak economic conditions and newly imposed regulation may lead to acquisition opportunities. Aegon s ability or that of Aegon s competitors to pursue such opportunities may be limited due to lower earnings, reserve increases, capital requirements or a lack of access to debt capital markets and other sources of financing. Such conditions may also lead to changes by Aegon or Aegon s competitors in product offerings and product pricing that may affect Aegon and Aegon s relative sales volumes, market shares and profitability. Additionally, the competitive landscape in which Aegon operates may be affected by government-sponsored programs or actions taken in response to, for instance, dislocations in financial markets.

Aegon may be unable to adapt to and apply new technologies.

New technologies are transforming the insurance industry. New technologies include, but are not limited to, communication channels, automation, artificial intelligence, data analytics and blockchain. These technologies are changing the way insurance is distributed and sold. They are also changing the way insurers manage their businesses and the skills they need in their workforces. Furthermore, the new technologies are influencing customer and consumer demands. Technology makes it easier to move into new markets. This increases competition, not just among peers, but also from new competitors and disruptors. Inability to adapt quickly enough to and apply these new technologies may impact Aegon s competitive position, and its ability to maintain profitability, and may adversely affect Aegon s future financial condition and results of operations.

Aegon may experience difficulties in distributing and marketing products through its current and future distribution channels.

Although Aegon distributes its products through a wide variety of distribution channels, Aegon s ability to market its products could be affected if key relationships are interrupted. Distributors may elect to reduce or terminate their distribution relationship with Aegon due to adverse developments in its business. Further, key distribution partners may also merge, change their business models in ways that affect how Aegon s products are sold, or new distribution channels could emerge and adversely impact the effectiveness of its current distribution efforts.

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When Aegon s products are distributed through unaffiliated firms, Aegon may not always be able to monitor or control the manner of their distribution despite its significant training and compliance programs. If Aegon s products would be distributed by such firms in an inappropriate manner, or to customers for whom they are unsuitable, Aegon may suffer reputational and other harm to its business.

The default of a major market participant may disrupt the markets and may affect Aegon s business, financial condition, liquidity, operations and prospects.

The failure of a sufficiently large and influential financial institution, or other market participant including a government issuer, may disrupt securities markets or clearing and settlement systems in Aegon s markets. This may cause market declines or volatility. Such a failure may lead to a chain of defaults that may adversely affect Aegon and Aegon s contract counterparties. In addition, such a failure may impact future product sales as a potential result of reduced confidence in the insurance industry. The default of one or more large international financial institutions, which may result in disruption or termination of their cash, custodial and/ or and administrative services, may also have a material adverse impact on Aegon s ability to run effective treasury and asset management operations.

Even the perceived lack of creditworthiness of a government or financial institution (or a default by any such entity) may lead to market- wide liquidity problems and losses or defaults by Aegon or by other institutions. This risk is sometimes referred to as systemic risk and may adversely affect financial intermediaries, such as clearing members or futures commissions merchants, clearing houses, banks, securities firms and exchanges with which Aegon interacts on a daily basis and financial instruments of governments which Aegon invests in. Systemic risk could have a material adverse effect on Aegon s ability to raise new funding and on its business, financial condition, results of operations, liquidity and/or prospects. In addition, such distress or failure could impact future product sales as a potential result of reduced confidence in the financial services industry.

Aegon may be unable to retain personnel who are key to the business.

As a global financial services enterprise, Aegon relies, to a considerable extent, on the quality of local management and personnel in the various countries in which Aegon operates. The success of Aegon s operations is dependent, among other things, on Aegon s ability to attract and retain highly qualified professional personnel. Competition for key personnel in most countries in which Aegon operates is intense. Aegon s ability to attract and retain key personnel, in particular senior officers, experienced portfolio managers, mutual fund managers and sales executives, is very much dependent on the competitiveness of the compensation package for employees in the market in which it competes. As a part of the governmental response in Europe and, to a certain extent, the United States to the financial crisis in 2008, there have been various legislative initiatives that have sought to give guidance or regulate the structure of remuneration for personnel, in particular senior management, with a focus on performance-related remuneration and limiting severance payments. With differences in interpretation of these regulations by local regulators on how the guidelines need to be applied, as well as to the question of whether they apply to insurance industries at all, these restrictions create an uncertain playing field and may adversely affect Aegon s ability to compete for qualified employees, as well as Aegon s ability to transfer employees between regions.

Reinsurers to which Aegon has ceded risk may fail to meet their obligations.

Aegon s insurance subsidiaries cede premiums to other insurers under various agreements that cover individual risks, group risks or defined blocks of business, on a co-insurance, yearly renewable term, excess or catastrophe excess basis. The purpose of these reinsurance agreements is to spread the risk and minimize the effect of losses. The amount of each risk retained depends on an evaluation of the specific risk, which is subject, in certain circumstances, to maximum limits based on the characteristics of coverage. Under the terms of the reinsurance agreements, the reinsurer agrees to reimburse for the ceded amount in the event a covered claim is paid. However, Aegon s insurance subsidiaries remain liable to their policyholders for ceded insurance if any reinsurer fails to meet the obligations assumed by it. A bankruptcy or insolvency or inability of any of Aegon s reinsurance counterparties to satisfy its obligations may have a materially adverse effect on Aegon s financial position and results of operations. Refer to Schedule IV of Aegon s Annual Report 2018 for a table showing life insurance in force amounts and premiums on a direct, assumed and ceded basis.

Reinsurance may not be available, affordable or adequate to protect Aegon against losses.

As part of Aegon s overall risk and capital management strategy, Aegon purchases reinsurance for certain risks underwritten by Aegon s various business segments. Market conditions beyond Aegon s control determine the availability and cost of the reinsurance protection Aegon purchases. In addition, interpretations of terms and conditions may differ over time as contracts extend for decades.

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Accordingly, Aegon may be forced to incur additional expenses for reinsurance or may not be able to obtain or enforce sufficient reinsurance on acceptable terms, which may adversely affect Aegon s ability to write future business and realize planned value for current business.

Aegon may have difficulty managing its expanding operations, and Aegon may not be successful in acquiring new businesses or divesting existing operations.

In recent years, Aegon has made a number of acquisitions and divestitures around the world and it is possible that Aegon may make further acquisitions and divestitures in the future. Growth by acquisition involves risks that may adversely affect Aegon s operating results and financial condition. These include: the potential diversion of financial and management resources from existing operations; difficulties in assimilating the operations, technologies, products and personnel of the acquired company; significant delays in completing the integration of acquired companies; the potential loss of key employees or customers of the acquired company; potential losses from unanticipated litigation and tax and accounting issues. In addition, expansion into new and emerging markets may involve heightened political, legal and regulatory risks, such as discriminatory regulation, nationalization or expropriation of assets, price controls and exchange controls.

Aegon s acquisitions may result in additional indebtedness, costs, contingent liabilities and impairment expenses related to goodwill and other intangible assets. Divestitures of existing operations may result in Aegon assuming or retaining certain contingent liabilities. Aegon may not be able to divest assets within the time or at the price planned. All of these factors may adversely affect Aegon s businesses, results of operations and financial condition. Future acquisitions may also have a dilutive effect on the ownership and voting percentages of existing shareholders. There can be no assurance that Aegon will successfully identify suitable acquisition candidates or that Aegon will properly value acquisitions made. Aegon is unable to predict whether or when any prospective acquisition candidate will become available, or the likelihood that any acquisition will be completed once negotiations have commenced.

Aegon may not be successful in managing its exposure to climate risk and adequately adapting investment portfolios for the transition to a low-carbon economy

Climate change is a long-term risk associated with high uncertainty regarding timing, scope and severity of potential impacts. The risks for insurers can be grouped into physical risks and transition risks. Physical risks relate to losses from climate trends (i.e. changing weather patterns and sea level rise) and climate events (i.e. extreme weather and natural disasters). These physical risks impact property & casualty (P&C) insurance, but also life insurance, for instance through higher than expected mortality rates. Losses can also follow from credit risk and collateral linked to the mortgage portfolio. Aegon is exposed to mortality risk and mortgage underwriting risks and has limited exposure to P&C risk, including catastrophic risk. Beyond insured losses from physical climate damages, climate change can increase uninsured damages and losses and may have disrupting and cascading effects on the wider economy and across the financial system. The second category of risks is associated with the transition to a low-carbon economy. These transition risks can affect the value of assets and impact the investments portfolios of insurers. Furthermore, it cannot be ruled out that Aegon itself is unable to adjust to environmental and sustainability goals. The transition risks are determined by largely uncertain factors such as policy and regulatory changes, political, social and market dynamics and technological innovations. Linked to both the physical and the transition risks, there could be litigation and reputational risks following from not fully considering or responding to the impacts of climate change, or not

providing appropriate disclosure of current and future risks. The risks can relate both to Aegon and the companies in which it invests.

Aegon takes actions on all mentioned aspects of climate risks. Aegon seeks to reduce its exposure to the physical risks through risk selection, risk monitoring, and purchasing reinsurance. Furthermore, Aegon assesses and takes action on the transition risks of climate change with respect to its businesses and through its responsible investment activities and disclosures. More details on Aegon s responsible investment and climate change activities can be found in the strategy section of this annual report. Despite these actions and given the significant uncertainties related to climate change and the long-term nature of the issue, it cannot be ruled out that climate change may lead to losses to Aegon s businesses, the investment portfolios it manages and to its corporate reputation.

Catastrophic events, which are unpredictable by nature, may result in material losses and abruptly and significantly interrupt Aegon´s business activities.

Aegon s operating results and financial position may be adversely affected by volatile natural and man-made disasters such as hurricanes, windstorms, earthquakes, terrorism, riots, fires and explosions, pandemic disease and other catastrophes. Over the past several years, changing weather patterns and climatic conditions have added to the unpredictability and frequency of natural disasters

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in certain parts of the world and created additional uncertainty as to future trends and exposure. Generally, Aegon seeks to reduce its exposure to these events through individual risk selection, monitoring risk accumulation, and purchasing reinsurance. However, such events may lead to considerable financial losses to Aegon s businesses. Furthermore, natural disasters, terrorism, civil unrest, military actions and fires may disrupt Aegon s operations and result in significant loss of property, key personnel and information about Aegon and its clients. If its business continuity plans have not included effective contingencies for such events, Aegon may experience business disruption and damage to corporate reputation and financial condition for a substantial period of time.

Aegon regularly develops new financial products to remain competitive in its markets and to meet the expectations of its customers. If customers do not achieve expected returns on those products, Aegon may be confronted with legal claims, advocate groups and negative publicity.

Aegon may face claims from customers, both individual claimants as well as policyholder advocate groups, and negative publicity if Aegon s products result in losses or fail to result in expected gains, regardless of the suitability of products for customers or the adequacy of the disclosure provided to customers by Aegon and by the intermediaries who distribute Aegon s products. New products that are less well understood and that have less of a historical performance track record may be more likely to be the subject of such claims. Any such claims may have a materially adverse effect on Aegon s results of operations, corporate reputation and financial condition.

Aegon may not be able to protect its intellectual property and may be subject to infringement claims.

Aegon relies on a combination of contractual rights with third parties and copyright, trademark, patent and trade secret laws to establish and protect Aegon s intellectual property. Third parties may infringe on or misappropriate Aegon s intellectual property, and it is possible that third parties may claim that Aegon has infringed on or misappropriated their intellectual property rights. Any resulting proceedings in which Aegon would have to enforce and protect its intellectual property, or defend itself against a claim of infringement of a third-party s intellectual property, may require significant effort and resources and may not prove successful. As a result of any proceeding in which Aegon would have to enforce and protect its intellectual property, Aegon may lose intellectual property protection, which may have a materially adverse effect on Aegon s businesses, results of operations, financial condition and Aegon s ability to compete. As a result of any proceeding in which Aegon would have to defend itself against a claim of infringement of a third-party s intellectual property, Aegon may be required to pay damages and provide injunctive relief, which may have a materially adverse effect on Aegon s businesses, results of operations and financial condition.

Inadequate or failed processes or systems, human factors or external events may adversely affect Aegon´s profitability, reputation or operational effectiveness.

Operational risk is inherent in Aegon s businesses and may manifest itself in many ways, including business interruption, poor vendor performance, information systems malfunctions or failures, regulatory breaches, cyber intrusions, failure to protect data, processing errors, modeling errors, and/or internal and external fraud. These events may result in financial loss, harm Aegon s reputation, or hinder Aegon s operational effectiveness. Further, employee error, unethical behavior and/or misconduct may be difficult to detect and prevent under all circumstances and may result in significant losses.

Operational risk is part of the business environment in which Aegon operates, and is inherent in Aegon s size and complexity, as well as Aegon s geographic diversity, and the scope of the businesses Aegon operates. Aegon s risk management activities cannot anticipate every circumstance, and economic and financial outcome, or the specifics and timing of such outcomes. Furthermore, if the contractual arrangements put in place with any third-party service providers are terminated, including contractual arrangements with providers of information technology, administrative or investment management services, Aegon may not be able to find an alternative provider on a timely basis or on equivalent terms. Aegon may incur significant losses due to these types of risks.

As Aegon continues to focus on reducing expenses necessary to support its business, a key part of its operating strategy has been to outsource certain services that are important to its business. Aegon outsources certain information technology, finance and actuarial services, investment management services and policy administration operations to third-party providers and may do so increasingly in the future. If Aegon fails to maintain an effective outsourcing strategy or if third-party providers do not provide the core administrative, operational, financial, and actuarial services Aegon requires and anticipates, or perform as contracted, such as compliance with applicable laws and regulations, or suffer a cyber-attack or other security or privacy breach, Aegon may not realize the productivity improvements or cost efficiencies or customers might experience lower service levels. In addition, Aegon may not be able to find an adequate alternate provider, and instead experience financial loss, reputational harm, operational difficulties, increased costs, a loss of business and other negative consequences, all of which could have a material adverse effect

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on Aegon s results of operations. In addition, Aegon s reliance on third-party providers does not relieve Aegon of its responsibilities and requirements. Any failure or negligence by such third-party providers in carrying out their contractual duties may result in Aegon being subjected to liability and litigation. Any litigation relating to such matters could be costly, time-consuming, and the outcome would be uncertain. Moreover, any adverse publicity arising from such litigation, even if the litigation is not successful, could adversely affect Aegon s reputation and distribution of its products. Finally, Aegon s ability to receive services from third-party providers based in different countries might be impacted by political instability, cultural differences, regulatory requirements or policies inside or outside of the countries within which Aegon has operations. As a result, Aegon s ability to conduct its business might be adversely affected.

Aegon´s operations support complex transactions and are highly dependent on the proper functioning of information technology and communication systems. Any failure of Aegon´s information technology or communications systems may result in a material adverse effect on Aegon´s results of operations and corporate reputation.

Any failure of or gap in the systems and processes necessary to support complex transactions and avoid systems failure, fraud, information security failures, processing errors, cyber intrusion, loss of data and breaches of regulation may lead to a materially adverse effect on Aegon s results of operations and corporate reputation. In addition, Aegon must commit significant resources to maintain and enhance its existing systems in order to keep pace with applicable regulatory requirements, industry standards and customer preferences. If Aegon fails to maintain secure and well-functioning information systems, Aegon may not be able to rely on information for product pricing, compliance obligations, risk management and underwriting decisions. In addition, Aegon cannot assure investors or consumers that interruptions, failures or breaches in security of these processes and systems will not occur, or if they do occur, that they can be timely detected and remediated. The occurrence of any of these events may have a materially adverse effect on Aegon s businesses, results of operations and financial condition.

A computer system failure or security breach may disrupt Aegon´s business, damage Aegon´s reputation and adversely affect Aegon´s results of operations, financial condition and cash flows.

Aegon relies heavily on computer and information systems and internet and network connectivity to conduct a large portion of its business operations. This includes the need to securely store, process and transmit confidential information, including personal information, through a number of complex systems. In many cases this also includes transmission and processing to or through commercial customers, business partners and third-party service providers. The introduction of new technologies, computer system failures, cyber-crime attacks or security or privacy breaches may materially disrupt Aegon s business operations, damage Aegon s reputation, result in regulatory and litigation exposure, investigation and remediation costs, and materially and adversely affect Aegon s results of operations, financial condition and cash flows.

The information security risk that Aegon faces includes the risk of malicious outside forces using public networks and other methods, including social engineering and the exploitation of targeted offline processes, to attack Aegon s systems and information. It also includes inside threats, both malicious and accidental. For example, human error and lack of sufficiently automated processing can result in improper information exposure or use. Aegon also faces risk in this area due to its reliance in many cases on third-party systems, all of which may face cyber and information security

risks of their own. Third-party administrators or distribution partners used by Aegon or its subsidiaries may not adequately secure their own information systems and networks, or may not adequately keep pace with the dynamic changes in this area. Potential bad actors that target Aegon and its applicable third parties may include, but are not limited to, criminal organizations, foreign government bodies, political factions, and others.

In recent years information security risk has increased sharply due to a number of developments in how information systems are used by companies such as Aegon, but also by society in general. Threats have increased as criminals and other bad actors become more organized and employ more sophisticated techniques. At the same time companies increasingly make information systems and data available through the internet, mobile devices or other network connections to customers, employees and business partners, thereby expanding the attack surface that bad actors can exploit.

Large, global financial institutions such as Aegon have been, and will continue to be subject to information security attacks for the foreseeable future. The nature of these attacks will also continue to be unpredictable, and in many cases may arise from circumstances that are beyond Aegon s control. If Aegon fails to adequately invest in defensive infrastructure, technology and processes or to effectively execute against its information security strategy, it may suffer material adverse consequences.

To date the highest impact information security incidents that Aegon has experienced are believed to have been the result of e-mail phishing attacks targeted at Aegon s business partners and commercial customers. This in turn led to unauthorized use of valid Aegon website credentials to engage in fraudulent transactions and improper data exfiltration. Additionally, Aegon has also faced other

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types of attacks, including but not limited to other types of phishing attacks and distributed denial of service (DDoS) attacks. Although to Aegon s knowledge these events have thus far not been material in nature, Aegon management believes that significant investment will be required to establish and maintain adequate information security systems that are capable of addressing the possibility of these types of attacks, as well as for the possibility of more significant and sophisticated information security attacks, in the future. There is no guarantee that the measures that Aegon takes will be sufficient to stop all types of attacks or mitigate all types of information security or privacy risks.

Aegon maintains cyber liability insurance to help decrease the impact of cyber-attacks and information security events, subject to the terms and conditions of the policy, however such insurance may not be sufficient to cover all applicable losses that Aegon may suffer.

A breach of data privacy or security obligations may disrupt Aegon s business, damage Aegon s reputation and adversely affect financial conditions and results of operations.

Pursuant to applicable laws, various government agencies and independent administrative bodies have established numerous rules protecting the privacy and security of personal information and other confidential information held by Aegon. For example, certain of our businesses are subject to laws and regulations enacted by U.S. federal and state governments, the E.U. or other non-U.S. jurisdictions and/or enacted by various regulatory organizations relating to the privacy and/or security of the information of customers, employees or others. Effective May 25, 2018, the General Data Protection Regulation (GDPR) took effect in the E.U. Compared to the previous directive, the GDPR, among other things, increased compliance obligations, impacted our businesses collection, processing and retention of personal data and reporting of data breaches, and provides for significantly increased penalties for non-compliance. The New York Department of Finance Services (NYDFS), pursuant to its cybersecurity regulation, requires financial institutions regulated by the NYDFS, including certain Aegon subsidiaries, to, among other things, satisfy an extensive set of minimum cyber security requirements, including but not limited to governance, management, reporting, policy, technology and control requirements. Numerous other U.S. laws also impose various information security and privacy related obligations with respect to various Aegon subsidiaries operating in the U.S., including but not limited to the Gramm-Leach-Bliley Act and related state laws (GLBA), and the Health Insurance Portability and Accountability Act (HIPAA), among many others. Other legislators and regulators with jurisdiction over our businesses are considering potential enhanced information security risk management and privacy rules and regulations. A number of Aegon s subsidiaries are also subject to contractual restrictions with respect to the information of our clients and business partners. Aegon, and numerous of its systems, employees and business partners have access to, and routinely process, the personal information of consumers. Aegon relies on various processes and controls to protect the confidentiality, integrity and availability of personal information and other confidential information that is accessible to, or in the possession of, Aegon, its systems, employees and business partners. It is possible that an Aegon employee, business partner or system could, intentionally or unintentionally, inappropriately disclose or misuse personal or confidential information. Aegon s data or data in its possession could also be the subject of an unauthorized cyber intrusion or cybersecurity attack. If Aegon fails to maintain adequate processes and controls or if Aegon or its business partners fail to comply with relevant laws and regulations, policies and procedures, misappropriation or intentional or unintentional inappropriate disclosure or misuse of personal information or other confidential information could occur. Such control inadequacies or non-compliance could cause disrupted operations and misstated or unreliable financial data, materially damage Aegon s reputation or lead to increased regulatory scrutiny or civil or criminal penalties or litigation, which, in turn, could have a material adverse

effect on Aegon s business, financial condition and results of operations. In addition, Aegon analyzes personal information and customer data to better manage its business, subject to applicable laws and regulations and other restrictions. It is possible that additional regulatory or other restrictions regarding the use of such techniques may be imposed. Additional privacy and security obligations have been imposed by various governments with jurisdiction over Aegon or its subsidiaries in recent years, and more such obligations are likely to be imposed in the near future. Such restrictions and obligations could have material impacts on Aegon s business, financial conditions and/or results of operations.

Judgments of US courts may not be enforceable against Aegon in Dutch courts.

There is no treaty between the United States and the Netherlands providing for the reciprocal recognition and enforcement of judgments (other than arbitration awards) in civil and commercial matters. Judgments of US courts, including those predicated on the civil liability provisions of the US federal securities laws, may not be enforceable in Dutch courts. Therefore, Aegon s investors that obtain a judgment against Aegon in the United States may not be able to require Aegon to pay the amount of the judgment unless a competent court in the Netherlands gives binding effect to the judgment. It may, however, be possible for a US investor to bring an original action in a Dutch court to enforce liabilities against Aegon, Aegon s affiliates, directors, officers or any expert named therein who resides outside the United States, based upon the US federal securities laws.

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Risks relating to Aegon s common shares

Aegon´s share price could be volatile and could drop unexpectedly, and investors may not be able to resell Aegon´s common shares at or above the price paid.

The price at which Aegon s common shares trade is influenced by many factors, some of which are specific to Aegon and

Aegon s operations, and some of which are related to the insurance industry and equity markets in general. As a result of these factors, investors may not be able to resell their common shares at or above the price paid for them. In particular, the following factors, in addition to other risk factors described in this section, may have a material impact on the market price of Aegon s common shares:

- Investor perception of Aegon as a company;
- Actual or anticipated fluctuations in Aegon s revenues or operating results;
- Announcements of intended acquisitions, disposals or financings, or speculation about such acquisitions, disposals or financings;
- Changes in Aegon s dividend policy, which may result from changes in Aegon s cash flow and capital position;
- Sales of blocks of Aegon s shares by significant shareholders, including Vereniging Aegon;
- A downgrade or rumored downgrade of Aegon s credit or financial strength ratings, including placement on credit watch;
- Potential litigation involving Aegon or the insurance industry in general;
- Changes in financial estimates and recommendations by securities research analysts;
- Fluctuations in capital markets, including foreign exchange rates, interest rates and equity markets;
- The performance of other companies in the insurance sector;
- Regulatory developments in the United States, the Netherlands, the United Kingdom, and other countries in which Aegon operates;
- International political and economic conditions, including the effects of terrorist attacks, military operations and other developments stemming from such events, and the uncertainty related to these developments;
- News or analyst reports related to markets or industries in which Aegon operates; and
- General insurance market conditions.

Aegon and its significant shareholders may offer additional common shares in the future, and these and other sales may adversely affect the market price of the outstanding common shares.

Aegon may decide to offer additional common shares in the future, for example, to strengthen Aegon s capital position in response to regulatory changes or to support an acquisition.

In 2016, Vereniging Aegon entered into a three year term and revolving facilities agreement with a consortium of banks. In 2018, this agreement was extended to 2021. Under this agreement, Aegon s common shares in the possession of Vereniging Aegon are pledged to the consortium of banks. If Vereniging Aegon were to default under the facilities agreement in force at that time, the lenders may dispose of Aegon s common shares held by them as collateral in order to satisfy amounts outstanding.

An additional offering of common shares by Aegon, the restructuring of Aegon s share capital, the sales of common shares by significant shareholders or by lenders to Vereniging Aegon, or the public perception that an offering or such sales may occur, may have an adverse effect on the market price of Aegon s common shares.

As of December 31, 2018, there were 2,095,648,244 common shares and 585,022,160 common shares B issued. Of these, Vereniging Aegon held 279,236,609 common shares and 571,165,680 common shares B. All of Aegon s outstanding common shares are freely tradable, and all shareholders, including large shareholders such as Vereniging Aegon, are free to resell their common shares at any time.

Vereniging Aegon, Aegon´s major shareholder, holds a large percentage of the voting shares and therefore has significant influence over Aegon´s corporate actions.

Vereniging Aegon holds 32.6% of the voting shares. For details on the shareholding of Vereniging Aegon its developments, the Amended 1983 Merger Agreement and the Voting Rights Agreement please see the section Major shareholders on pages 323-325.

Following the 1983 Amended Merger Agreement between Aegon N.V. and Vereniging Aegon Vereniging Aegon has a call option on common shares B. which Vereniging Aegon may exercise to keep or restore its total stake at 32.6%, irrespective of the circumstances which cause the total shareholding to be or become lower than 32.6%.

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As a matter of Dutch corporate law, common shares and common shares B offer equal full voting rights, as they have equal nominal values (EUR 0.12). The financial rights attached to a common share B are 1/40th of the financial rights attached to a common share. The Voting Rights Agreement between Aegon N.V. and Vereniging Aegon ensures that under normal circumstances, i.e. except in the event of a Special Cause, Vereniging Aegon will no longer be able to exercise more votes than is proportionate to the financial rights represented by its shares. This means that in the absence of a Special Cause Vereniging Aegon will cast one vote for every common share it holds and one vote only for every 40 common shares B. It is at the sole discretion of Vereniging Aegon if a Special Cause has occurred. A Special Cause includes the acquisition of a 15% interest in Aegon N.V., a tender offer for Aegon N.V. shares or a proposed business combination by any person or group or persons, whether individually or as a group, other than in a transaction approved by the Executive Board and the Supervisory Board. In the event of a Special Cause, Vereniging Aegon s voting rights will increase to 32.6% for up to six months. Consequently, Vereniging Aegon may have substantial influence on the outcome of corporate actions requiring shareholder approval.

Currency fluctuations may adversely affect the trading prices of Aegon´s common shares and the value of any cash distributions made.

Since Aegon s common shares listed on Euronext Amsterdam are quoted in euros and Aegon s common shares listed on NYSE New York are quoted in US dollars, fluctuations in exchange rates between the euro and the US dollar may affect the value of Aegon s common shares. In addition, Aegon declares cash dividends in euros, but pays cash dividends, if any, on Aegon s shares of New York registry in US dollars based on an exchange rate set the business day following the shareholder meeting approving the dividend. As a result, fluctuations in exchange rates may affect the US dollar value of any cash dividends paid.

Convertible securities (or other securities that permit or require Aegon to satisfy its obligations by issuing common shares) that Aegon may issue could influence the market price for Aegon´s common shares.

In the future, Aegon may issue convertible securities or other securities that permit or require Aegon to satisfy obligations by issuing common shares. Those securities would likely influence, and be influenced by, the market for Aegon s common shares.

For example, the price of Aegon s common shares may become more volatile and may be depressed by investors anticipation of the potential resale in the market of substantial amounts of Aegon s common shares received at maturity or otherwise. Aegon s common shares may also be depressed by the issue of common shares upon mandatory conversion of any convertible securities or by the acceleration of any convertible securities (or other such securities) that Aegon has issued by investors who view such convertible securities (or other such securities) as a more attractive means of participation in Aegon s equity. Negative results may also be produced by hedging or arbitrage trading activity that may develop involving such convertible securities (or other such securities) and Aegon s common shares. Any such developments may negatively affect the value of Aegon s common shares.

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Compliance with regulations

Iran Threat Reduction and Syria Human Rights Act

Section 219 of the Iran Threat Reduction and Syria Human Rights Act of 2012 requires Aegon to disclose whether Aegon N.V. or any of its affiliates has engaged during the calendar year in certain Iran-related activities, including any transaction or dealing with the Government of Iran that is not conducted pursuant to a specific authorization of the U.S. government. The amounts in this section are reported in EUR 1 or GBP 1.

In the UK and the Netherlands, Aegon maintained a limited number of plans that are reportable under Section 219. The non-U.S. based subsidiaries of Aegon N.V. do operate in compliance with applicable laws and regulations of the various jurisdictions where they conduct business.

Aegon UK has six UK resident customers who have one active Individual Pension Plan (IPP) and are UK-based employees of a British registered charity that appears on the SDN (Specially Designated Nationals) List with the identifier [SDGT] (Specially Designated Global Terrorist); the charity makes contributions to the pensions. The customers are not SDNs; the charity does not own, benefit from, or have control over the pensions. All payments have been paid in UK Sterling from a UK bank account. The pensions are managed in line with applicable legislation and regulation in the UK and the charity is not subject to sanctions in the UK or EU. The relationships are under close ongoing review. IPP #1 has a value of GBP 10,365 as at January 30, 2019, and regular monthly contributions of GBP 69.41 are being received into this policy. IPP #2 has a value of GBP 4,410 as at January 30, 2019, and regular monthly contributions of GBP 18.61 are being received. IPP #3 has a value of GBP 199,455 as at January 30, 2019, and regular monthly contributions of GBP 527.91 are being received. IPP #4 has a value of GBP 8,622 as at January 30, 2019, and no further contributions are being received. IPP #5 has a value of GBP 43,012 as at January 30, 2019, and no further contributions are being received. IPP #6 has a current value of GBP 8,131 as at January 30, 2019, and no further contributions are being received. The related annual net profit arising from these contracts, which is difficult to calculate with precision, is estimated to be no greater than GBP 8,219.

In the Netherlands, Aegon Levensverzekering N.V. has one Dutch resident customer who is a party subject to U.S. sanctions for whom two active IPPs and one individual life investment linked insurance policy are held. This person is on the Foreign Sanctions Evaders List (FSE List) with Regard to Syria and is listed on the SDN and Blocked Persons List. The FSE List includes persons sanctioned pursuant to E.O. 13608 and are identified with the program tags [FSE-IR] and [FSE-SY]. The customer is not subject to sanctions in the Netherlands or EU.

IPP #1 and #2 are lifelong annuity plans which start at the retirement age of 65 (January 2023). The annual pension benefits as of January 1, 2023 for policy #1 will be EUR 560.64 gross per year and for #2 EUR 34.11 gross per year. The contributions into these policies ended in the 1980 s. The related annual net profit arising from these two contracts is negligible.

The individual life investment linked insurance policy has a value of EUR 65,640 as at January 1, 2019, and regular monthly contributions of EUR 198.60 are being received; all contributions have been paid in Euros from a Dutch bank account. The policy is managed in line with applicable legislation and regulation in the Netherlands; the individual is not subject to sanctions in the Netherlands or EU. The end date of this policy is February 1, 2023. The related annual

net profit arising from this contract, which is difficult to calculate with precision, is estimated to be EUR 500 per year.

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Property, plant and equipment

In the United States, Aegon owns many of the buildings that the Company uses in the normal course of its business, primarily as offices. Aegon owns 14 offices located throughout the United States with a total square footage of 2 million. Aegon also leases space for various offices located throughout the United States under long-term leases with a total square footage of 1 million. Aegon s principal offices are located in Little Rock, AR; Denver, CO; Cedar Rapids, IA; St. Petersburg, FL; Atlanta, GA; Louisville, KY; Baltimore, MD; Harrison, NY; Exton, PA; and Plano, TX.

Other principal offices owned by Aegon are located in The Hague, the Netherlands and Budapest, Hungary. Aegon owns its headquarters and leases other offices in the Netherlands (Amsterdam, Leeuwarden and Groningen), in the United Kingdom and in Spain under long-term leases. Aegon believes that its properties are adequate to meet its current needs.

Employees and labor relations

At the end of 2018, Aegon had 26,543 employees. Approximately 33% are employed in the Americas, 37% in Europe, 24% in Asia and 6% in Asset Management. Note that employees of the Holding are included in Europe.

All of Aegon s employees in the Netherlands, other than senior management, are covered by the collective labor agreement of Aegon NL. Aegon, the unions and the Dutch Central Works Council are working closely together in the co-creation steering group to come to new agreements. The current collective agreement has a duration of three years. Aegon has experienced no significant strike, work stoppage or labor dispute in recent years.

Under Dutch law, members of the Central Works Council responsible for Aegon in the Netherlands are elected by Aegon the Netherlands employees. The Central Works Council has certain defined powers at the level of the Dutch subsidiary company Aegon Nederland N.V., including the right to make non-binding recommendations for appointments to its Supervisory Board and the right to enter objections against proposals for appointments to that Supervisory Board.

A break-down of the number of employees is provided below:

	2018	2017	2016
Americas	8,824	10,951	11,943
The Netherlands	3,938	3,460	4,794
United Kingdom	3,135	3,435	2,673
Central & Eastern Europe	2,318	2,337	2,317
Spain & Portugal	519	610	600
Asia	6,344	6,025	5,579

Asset Management	1,464	1,500	1,474
	26,543	**28,318**	**29,380**
Of which Aegon s share of employees in joint ventures and associates	6,854	6,497	5,944

See note 14 Commissions and expenses of the Notes to the consolidated financial statements of this Annual Report for a description of employee expenses.

Dividend policy

Under Dutch law and Aegon s Articles of Association, holders of Aegon s common shares are entitled to dividends paid out of the profits remaining, if any, after the creation of a reserve account. Aegon s Executive Board may determine the dividend payment date and the dividend record date for the common shares, which may vary for the various kinds of registered shares. Aegon s Executive Board, with the approval of Aegon s Supervisory Board, may also determine the currency or currencies in which the dividends will be paid. Aegon may make one or more interim distributions to the holders of common shares.

Aegon aims to pay out a sustainable dividend to allow equity investors to share in Aegon s performance, which can grow over time if Aegon s performance so allows. After investment in new business to generate organic growth, capital generation

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in Aegon s operating subsidiaries is available for distribution to the holding company, while maintaining a capital and liquidity position in the operating subsidiaries in line with Aegon s capital management and liquidity risk policies.

Aegon uses cash flows from its operating subsidiaries to pay holding expenses, including funding costs. The remaining cash flow is available to execute Aegon s strategy and to fund dividends on its shares, subject to maintaining holding company targeted capital. Depending on circumstances, future prospects and other considerations, Aegon s Executive Board may elect to deviate from this target. Aegon s Executive Board will also take capital position, financial flexibility, leverage ratios and strategic considerations into account when declaring or proposing dividends on common shares.

Under normal circumstances, Aegon would expect to declare an interim dividend when announcing Aegon s first half year results and to propose a final dividend at the Annual General Meeting of Shareholders for approval. Dividends would normally be paid in cash or stock at the election of the shareholder. The relative value of cash and stock dividends may vary. Stock dividends paid may, subject to capital management and other considerations, be repurchased in order to limit dilution.

When determining whether to declare or propose a dividend, Aegon s Executive Board has to balance prudence versus offering an attractive return to shareholders, for example in adverse economic and/or financial market conditions. Also, Aegon s operating subsidiaries are subject to local insurance regulations which could restrict dividends to be paid to the Company. There is no requirement or assurance that Aegon will declare and pay any dividends.

Holders of common shares historically have been permitted to elect to receive dividends, if any, in cash or in common shares. For dividends, which holders may elect to receive in either cash or common shares, the value of the stock alternative may differ slightly from the value of the cash option. Aegon pays cash dividends on shares of New York registry in US dollars through Citibank, N.A., Aegon s NYSE paying agent, based on the foreign exchange reference rate (WM/Reuters closing spot exchange rate fixed at 5.00 pm Central European Summer Time (CEST)) on the US-ex dividend day.

The offer and listing

The principal market for Aegon s common shares is Euronext Amsterdam, where they are listed under the symbol AGN . Aegon s common shares are also listed on NYSE New York under the symbol AEG .

On Euronext Amsterdam only Euronext registered shares may be traded, and on NYSE New York only New York Registry Shares may be traded.

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Memorandum and Articles of Association

Aegon is registered under number 27076669 in the Commercial Register of the Chamber of Commerce and Industries for Haaglanden, The Hague, the Netherlands.

Certain provisions of Aegon s current Articles of Association are discussed below.

Objects and purposes

The objects of Aegon are to incorporate, acquire and alienate shares and interests in, to finance and grant security for commitments of, to enter into general business relationships with, and to manage and grant services to legal entities and other entities, in particular those involved in the insurance business, and to do all that is connected therewith or which may be conducive thereto, all to be interpreted in the broadest sense; and
In achieving the aforesaid objects due regard shall be taken, within the scope of sound business operations, to provide fair safeguards for the interests of all the parties directly or indirectly involved in Aegon.

Provisions related to directors

For information with respect to provisions in the Articles of Association relating to members of the Supervisory Board and Executive Board, refer to the Governance section (see pages 42-65).

Description of Aegon s capital stock

Aegon has two types of shares: common shares (par value EUR 0.12) and common shares B (par value EUR 0.12).

Common characteristics of the common shares and common shares B

All shares are in registered form;
All shares have dividend rights except for those shares (if any) held by Aegon as treasury stock. Dividends which have not been claimed within five years lapse to Aegon;
Each currently outstanding share is entitled to one vote except for shares held by Aegon as treasury stock. There are no upward restrictions;
However, under normal circumstances, i.e. except in the event of a Special Cause, based on the Voting Rights Agreement[1], Vereniging Aegon will no longer be able to exercise more votes than is proportionate to the financial rights represented by its shares. This means that in the absence of a Special Cause, Vereniging Aegon may cast one vote for every common share it holds and one vote only for every 40 common shares B it holds. As Special Cause qualifies the acquisition of a 15% interest in Aegon N.V., a tender offer for Aegon N.V. shares or a proposed business combination by any person or group of persons, whether individually or as a group, other than in a transaction approved by the Executive Board and the Supervisory Board. If, in its sole discretion, Vereniging Aegon determines that a Special Cause has occurred, Vereniging Aegon will notify the General Meeting of Shareholders and retain its right to exercise the full voting power of one vote per common share B for a limited period of six months;
All shares have the right to participate in Aegon s net profits. Net profits is the amount of profits after contributions, if any, to a reserve account;

In the event of liquidation, all shares have the right to participate in any remaining balance after settlement of all debts;
The General Meeting of Shareholders may, at the proposal of the Executive Board, as approved by the Supervisory Board, resolve to reduce the outstanding capital either by (i) repurchasing shares and subsequently canceling them, or (ii) by reducing their nominal share value;
There are no sinking fund provisions;
All issued shares are fully paid-up; so there is no liability for further capital calls; and
There are no provisions discriminating against any existing or prospective holder of shares as a result of such shareholder owning a substantial number of shares.

Differences between common shares and common shares B

The common shares are listed; the common shares B are not listed;
The financial rights attaching to a common share B are one-fortieth (1/40th) of the financial rights attaching to a common share; and
A repayment on common shares B needs approval of the holders of common shares B.
A transfer of common shares B requires approval of the Supervisory Board of Aegon N.V.

[1] The Voting Rights Agreement is published on Aegon s corporate website.

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Actions necessary to change the rights of shareholders

A change to the rights of shareholders would require an amendment to the Articles of Association. The General Meeting of Shareholders (Annual General Meeting or extraordinary General Meeting) may only pass a resolution to amend the Articles of Association pursuant to a proposal of the Executive Board with the approval of the Supervisory Board. The resolution requires a majority of the votes cast at the meeting in order to pass. The actual changes to the text of the Articles of Association will be executed by a civil law notary.

Furthermore, a resolution of the General Meeting of Shareholders to amend the Articles of Association which has the effect of reducing the rights attributable to holders of a specific class shall be subject to the approval of the meeting of holders of such class.

Conditions under which meetings are held

Annual General Meetings and extraordinary General Meetings of Shareholders shall be convened by public notice. Notice must be given no later than 42 days prior to the date of the meeting. The notice must contain a summary agenda and indicate the place where the complete agenda together with the documents pertaining to the agenda may be obtained. The agenda is also sent to shareholders registered with the Company Register. New York Registry shareholders or their brokers receive a proxy solicitation notice.

For admittance to and voting at the meeting, shareholders must produce evidence of their shareholding as of the record date. The Dutch law determines that the record date is 28 days prior to the General Meeting of Shareholders. Shareholders must notify Aegon of their intention to attend the meeting.

Limitation on the right to own securities

There are no limitations, either under the laws of the Netherlands or in Aegon s Articles of Association, on the rights of non-residents of the Netherlands to hold or vote Aegon common shares or common shares B.

Provisions that would have the effect of delaying a change of control

A resolution of the General Meeting of Shareholders to suspend or dismiss a member of the Executive Board or a member of the Supervisory Board, other than pursuant to a proposal by the Supervisory Board, shall require at least two-thirds of the votes cast representing more than one-half of the issued capital.

In the event a Special Cause occurs (such as the acquisition of 15% of Aegon s voting shares, a tender offer for Aegon s shares or a proposed business combination by any person or group of persons, whether individually or as a group, other than in a transaction approved by the Executive Board and Supervisory Board), Vereniging Aegon will be entitled to exercise its full voting rights of one vote per each common share B for up to six months per Special Cause, thus increasing its current voting rights to 32.6%.

Threshold above which shareholder ownership must be disclosed

There are no such provisions in the Articles of Association. Dutch law requires public disclosure with the Authority for Financial Markets with respect to the ownership of listed shares when the following thresholds are met: 3%, 5%, 10%, 15%, 20%, 25%, 30%, 40%, 50%, 60%, 75% and 95%.

Material differences between Dutch law and US law with respect to the items above

Reference is made to the paragraph Differences in company law practices for domestic companies included in the Corporate Governance section of this Annual Report (see page 46).

Special conditions governing changes in the capital

There are no conditions more stringent than what is required by law.

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Material contracts

There are no material contracts.

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Exchange controls

There are no legislative or other legal provisions currently in force in the Netherlands or arising under Aegon s Articles of Association restricting remittances to holders of Aegon s securities that are not resident in the Netherlands. Cash dividends payable in euros on Aegon s common shares may be officially transferred from the Netherlands and converted into any other convertible currency.

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Taxation

This chapter contains the following two sections:

i Certain netherlands tax consequences for holders of shares

ii Taxation in the United States

i Certain Netherlands tax consequences for holders of shares

The following section outlines certain material Netherlands tax consequences of the acquisition, holding, redemption and disposal of Aegon common shares, but does not purport to be a comprehensive description of all Netherlands tax considerations that may be relevant. This section is intended as general information only and each prospective investor should consult a professional tax adviser with respect to the tax consequences of an investment in Aegon common shares.

This section is based on tax legislation, published case law, treaties, regulations and published policy, in each case as in force as of the date hereof, and it does not take into account any developments or amendments thereof after that date whether or not such developments or amendments have retroactive effect.

This section does not address the Netherlands corporate and individual income tax consequences for:

i. Investment institutions *(fiscale beleggingsinstellingen)*;
ii. Pension funds, exempt investment institutions *(vrijgestelde beleggingsinstellingen)* or other entities that are exempt from Netherlands corporate income tax;
iii. Corporate holders of Aegon common shares, the shareholding of which qualifies for the participation exemption *(deelnemingsvrijstelling)* of the Netherlands Corporate Income Tax Act 1969 *(Wet op de vennootschapsbelasting 1969)* or would qualify for the participation exemption had the corporate holders of the Aegon common shares been resident in the Netherlands. Generally speaking, a shareholding is considered to qualify as a participation for the participation exemption if it represents an interest of 5% or more of the nominal paid-up share capital;
iv. Holders of Aegon common shares holding a substantial interest *(aanmerkelijk belang)* or deemed substantial interest *(fictief aanmerkelijk belang*) in Aegon and holders of Aegon common shares of whom a certain related person holds a substantial interest in Aegon. Generally speaking, a substantial interest in Aegon arises if a person, alone or, where such person is an individual, together with his or her partner (statutory defined term), directly or indirectly, holds or is deemed to hold (i) an interest of 5% or more of the total of capital issued by Aegon or 5% or more of the issued capital of a certain class of Aegon shares, (ii) rights to acquire, directly or indirectly, such interest or (iii) certain profit-sharing rights in Aegon;
v. Persons to whom the Aegon common shares and the income from the Aegon common shares are attributed based on the separated private assets *(afgezonderd particulier vermogen)* provisions of the Netherlands Income Tax Act 2001 *(Wet inkomstenbelasting 2001)*;
vi. Entities which are resident in Aruba, Curacao or Sint Maarten that have an enterprise which is carried on through a permanent establishment or a permanent representative on Bonaire, Sint Eustatius or Saba, to which permanent establishment or permanent representative the Aegon common shares are attributable;

vii. Holders of Aegon common shares which are not considered the beneficial owner *(uiteindelijk gerechtigde)* of these shares or of the benefits derived from or realized in respect of the Aegon common shares; and

viii. Individuals to whom Aegon common shares or the income therefrom are attributable to employment activities which are taxed as employment income in the Netherlands.

Where this section refers to the Netherlands, such reference is restricted to the part of the Kingdom of the Netherlands that is situated in Europe and the legislation applicable in that part of the Kingdom.

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Dividend withholding tax

Withholding requirement

Aegon is required to withhold 15% Netherlands dividend withholding tax in respect of dividends paid on its common shares.

Netherlands dividend withholding tax will be withheld from the gross dividends paid on the Aegon common shares. In the Netherlands Dividend Withholding Tax Act 1965 (*Wet op de dividendbelasting 1965*), dividends are defined as the proceeds from shares, which include:

i. Direct or indirect distributions of profit, regardless of their name or form;
ii. Liquidation proceeds, proceeds on redemption of Aegon common shares and, as a rule, the consideration for the repurchase of its own common shares by Aegon in excess of the average paid-in capital recognized for Netherlands dividend withholding tax purposes, unless a particular statutory exemption applies;
iii. The nominal value of new common shares issued to a holder of Aegon common shares or an increase of the nominal value of Aegon common shares, except insofar as the (increase in the) nominal value of Aegon common shares is funded out of its paid-in capital as recognized for Netherlands dividend withholding tax purposes; and
iv. Partial repayments of paid-in capital recognized for Netherlands dividend withholding tax purposes, if and to the extent there are qualifying profits (*zuivere winst*), unless Aegon s General Meeting of Shareholders has resolved in advance to make such repayment and provided that the nominal value of Aegon common shares concerned has been reduced by an equal amount by way of an amendment of the Articles of Association. The term qualifying profits includes anticipated profits that have yet to be realized.

Residents of the Netherlands

If a holder of Aegon common shares is a resident, or deemed to be a resident of the Netherlands for Netherlands corporate or individual income tax purposes, Netherlands dividend withholding tax which is withheld with respect to proceeds from Aegon common shares will generally be creditable for Netherlands corporate income tax or Netherlands income tax purposes.

Non-residents of the Netherlands

If a holder of Aegon common shares is a resident of a country other than the Netherlands and if a treaty for the avoidance of double taxation with respect to taxes on income is in effect between the Netherlands and that country, and such holder is a resident for the purposes of such treaty, such holder may, depending on the specific terms of that particular treaty, qualify for full or partial relief at source or for a refund in whole or in part of the Netherlands dividend withholding tax.

A refund of Netherlands withholding dividend tax is available to an entity resident in another EU member state, Norway, Iceland, or Liechtenstein if (i) this entity is not subject to corporate income tax there and (ii) this entity would not be subject to Netherlands corporate income tax, if this entity would be tax resident in the Netherlands for corporate income tax purposes and (iii) this entity is not comparable to an investment institution *(fiscale beleggingsinstelling)* or exempt investment institution *(vrijgestelde beleggingsinstelling)*. Furthermore, a similar

refund of Netherlands dividend withholding tax may be available to an entity resident in another country, under the additional conditions that (i) the Aegon common shares are considered portfolio investments for purposes of article 63 (taking into account article 64) of the Treaty on the functioning of the European Union and (ii) the Netherlands can exchange information with this other country in line with the international standards for the exchange of information.

A (partial) refund of Netherlands dividend withholding tax is available to a holder of Aegon common shares resident in another EU member state, Norway, Iceland or Liechtenstein if (i) this holder of Aegon common shares is not subject to Netherlands individual income tax or Netherlands corporate income tax with respect to the income from the Aegon common shares and (ii) such Netherlands dividend withholding tax is higher than the Netherlands individual income tax or Netherlands corporate income tax would have been had this holder of Aegon common shares been tax resident in the Netherlands, after taking into account a possible refund based on the Netherlands Dividend Withholding Tax Act 1965 (*Wet op de dividendbelasting 1965*) or a refund based on a treaty for the avoidance of double taxation with respect to taxes on income, and (iii) no credit based on a treaty for the avoidance of double taxation with respect to taxes on income is granted in the state in which the holder of Aegon common shares is tax resident, for the full amount of Netherlands dividend withholding tax withheld, and (iv) this holder of Aegon common shares does not have a similar function as an investment institution (*fiscale beleggingsinstelling*) or exempt investment institution (*vrijgestelde beleggingsinstelling*). Furthermore, a similar refund of Netherlands dividend withholding tax may be available to a holder of Aegon common shares resident in another country, under the additional conditions that (i) the Aegon common shares are considered portfolio investments for purposes of article 63 (taking into account article 64) of the Treaty on the functioning of the European Union and (ii) the Netherlands can exchange information with this other country in line with the international standards for the exchange of information.

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US-residents

Residents of the United States that qualify for, and comply with the procedures for claiming benefits under, the Convention between the Kingdom of the Netherlands and the United States of America for the avoidance of double taxation and the prevention of fiscal evasion with respect to taxes on income 1992 (the US/NL Income Tax Treaty) may, under various specified conditions, be eligible for a reduction of the Netherlands dividend withholding tax rate from 15% to 5% if the resident of the United States is a company which holds directly at least 10% of the voting power in Aegon. The US/NL Income Tax Treaty provides, subject to certain conditions, for a complete exemption from, or refund of, Netherlands dividend withholding tax for dividends received by exempt pension trusts and exempt organizations, as defined therein.

Beneficial owner

A recipient of proceeds from Aegon common shares will not be entitled to any exemption, reduction, refund or credit of Netherlands dividend withholding tax if such recipient is not considered to be the beneficial owner of such proceeds. The recipient will not be considered the beneficial owner of these proceeds, if, in connection with such proceeds, the recipient has paid a consideration as part of a series of transactions in respect of which it is likely:

- That the proceeds have in whole or in part accumulated, directly or indirectly, to a person or legal entity that would: (i) as opposed to the recipient paying the consideration, not be entitled to an exemption from dividend withholding tax; or (ii) in comparison to the recipient paying the consideration, to a lesser extent be entitled to a reduction or refund of dividend withholding tax; and
- That such person or legal entity has, directly or indirectly, retained or acquired an interest in Aegon common shares or in profit sharing certificates or loans, comparable to the interest it had in similar instruments prior to the series of transactions being initiated.

Netherlands dividend withholding tax upon redistribution of foreign dividends

Aegon must pay to the Dutch tax authorities all Netherlands dividend withholding tax it withholds on dividends it distributed with respect to the Aegon common shares. Provided certain conditions are met, Aegon may apply a reduction with respect to the withholding tax that it has to pay to the Dutch tax authorities. This reduction can be applied if Aegon distributes dividends that stem from dividends Aegon itself has received from certain qualifying non-Netherlands subsidiaries, provided these dividends received by Aegon are exempt from Netherlands corporate income tax and were subject to a withholding tax of at least 5% upon distribution to Aegon. The reduction is applied to the Netherlands dividend withholding tax that Aegon must pay to the Netherlands tax authorities and not to the amount of the Netherlands dividend withholding tax that Aegon must withhold. The reduction is equal to the lesser of:

i. 3% of the amount of the dividends distributed by Aegon that are subject to Netherlands dividend withholding tax; and
ii. 3% of the gross amount of the dividends received during a certain period from the qualifying non-Netherlands subsidiaries.

The amount of the above mentioned reduction of the withholding tax will be reduced on a pro rata basis to the extent that Aegon distributes dividends to entities that are entitled to a refund of the Netherlands dividend withholding tax. This reduction does not apply in respect of dividends paid to entities that own less than 5% of the nominal paid-up

capital of Aegon.

Corporate and individual income tax

Residents of the Netherlands

If a holder of Aegon common shares is a resident or deemed to be a resident of the Netherlands for Netherlands corporate income tax purposes and is fully subject to Netherlands corporate income tax or is only subject to Netherlands corporate income tax in respect of an enterprise to which Aegon common shares are attributable, income derived from Aegon common shares and gains realized upon the redemption or disposal of Aegon common shares are generally taxable in the Netherlands (at up to a maximum rate of 25%) under the Netherlands Corporate Income Tax Act 1969 *(Wet op de vennootschapsbelasting 1969)*.

If an individual is a resident or deemed to be a resident of the Netherlands for Netherlands individual income tax purposes, income derived from Aegon common shares and gains realized upon the redemption or disposal of Aegon common shares are taxable at progressive rates (at up to a maximum rate of 51.75%) under the Netherlands Income Tax Act 2001 *(Wet inkomstenbelasting 2001)* if:

i. The individual is an entrepreneur (*ondernemer*) and has an enterprise to which Aegon common shares are attributable or the individual has, other than as a shareholder, a co-entitlement to the net worth of an enterprise (*medegerechtigde*), to which enterprise Aegon common shares are attributable; or
ii. Such income or gains qualify as income from miscellaneous activities (*resultaat uit overige werkzaamheden*), which includes but is not limited to activities with respect to Aegon common shares that exceed regular, active portfolio management (*normaal, actief vermogensbeheer*).

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If neither condition (i) nor condition (ii) above applies to the holder of the Aegon common shares, taxable income with regard to the Aegon common shares must be determined on the basis of a deemed return on income from savings and investments (sparen en beleggen), rather than on the basis of income actually received or gains actually realized. This deemed return on income from savings and investments is fixed at percentage of the individual s yield basis (*rendementsgrondslag*) at the beginning of the calendar year (1 January), insofar as the individual s yield basis exceeds a certain threshold (*heffingsvrij vermogen*). The individual s yield basis is determined as the fair market value of certain qualifying assets held by the holder of Aegon common shares less the fair market value of certain qualifying liabilities on 1 January. The fair market value of Aegon common shares will be included as an asset in the individual s yield basis. The deemed return percentage to be applied to the yield basis increases progressively depending on the amount of the yield basis. The deemed return on income from savings and investments is taxed at a rate of 30%.

Non-residents of the Netherlands

If a person is neither a resident nor is deemed to be a resident of the Netherlands for Netherlands corporate or individual income tax purposes, such person is not subject to Netherlands income tax in respect of income derived from Aegon common shares and gains realized upon the redemption or disposal of Aegon common shares, except if:

i. The person is not an individual and (1) has an enterprise that is, in whole or in part, carried on through a permanent establishment or a permanent representative in the Netherlands to which permanent establishment or a permanent representative Aegon common shares are attributable, or (2) is, other than by way of securities, entitled to a share in the profits of an enterprise or a co-entitlement to the net worth of an enterprise, which is effectively managed in the Netherlands and to which enterprise Aegon common shares are attributable. This income and these gains are subject to Netherlands corporate income tax at up to a maximum rate of 25%;
ii. The person is an individual that (1) has an enterprise or an interest in an enterprise that is, in whole or in part, carried on through a permanent establishment or a permanent representative in the Netherlands to which permanent establishment or permanent representative Aegon common shares are attributable, or (2) realizes income or gains with respect to Aegon common shares that qualify as income from miscellaneous activities (*resultaat uit overige werkzaamheden*) in the Netherlands which include activities with respect to Aegon common shares that exceed regular, active portfolio management (*normaal, actief vermogensbeheer*), or (3) is, other than by way of securities, entitled to a share in the profits of an enterprise that is effectively managed in the Netherlands and to which enterprise Aegon common shares are attributable. Income and gains derived from Aegon common shares as specified under (1) and (2) by an individual are subject to individual income tax at up to a maximum rate of 51.75%. Income derived from a share in the profits of an enterprise as specified under (3) that is not already included under (1) or (2) will be taxed on the basis of a deemed return on income from savings and investments (as described above under Residents of the Netherlands). The fair market value of the share in the profits of the enterprise (which includes Aegon common shares) will be part of the individual s Netherlands yield basis.

Gift and inheritance tax

Residents of the Netherlands

Generally, gift tax (*schenkbelasting*) or inheritance tax (*erfbelasting*) will be due in the Netherlands in respect of the acquisition of Aegon common shares by way of a gift by, or on behalf of, or on the death of, a holder of Aegon common shares that is a resident or deemed to be a resident of the Netherlands for the purposes of the Netherlands

Gift and Inheritance Tax Act 1956 (*Successiewet 1956*) at the time of the gift or his or her death. A gift made under a condition precedent is for the purposes of the Netherlands Gift and Inheritance Tax Act 1956 deemed to be made at the time the condition precedent is fulfilled and is subject to gift tax if the donor is, or is deemed to be, a resident of the Netherlands at that time.

A holder of Netherlands nationality is deemed to be a resident of the Netherlands for the purposes of the Netherlands Gift and Inheritance Tax Act 1956 if he or she has been resident in the Netherlands and dies or makes a gift within ten years after leaving the Netherlands. A holder of any other nationality is deemed to be a resident of the Netherlands for the purposes of the Netherlands Gift and Inheritance Tax Act 1956 if he or she has been resident in the Netherlands and makes a gift within a twelve-month period after leaving the Netherlands. The same twelve-month rule may apply to entities that have transferred their seat of residence out of the Netherlands.

Non-residents of the Netherlands

No gift or inheritance tax will arise in the Netherlands in respect of the acquisition of Aegon common shares by way of a gift by, or as a result of the death of, a holder that is neither a resident nor deemed to be a resident of the Netherlands for the purposes of the Netherlands Gift and Inheritance Tax Act 1956. However, inheritance tax will be due in the case of a gift of Aegon common shares by, or on behalf of, a holder who at the date of the gift was neither a resident nor deemed to be a resident of the Netherlands for the purposes of the Netherlands Gift and Inheritance Tax Act 1956, but such holder dies within 180 days after the date of the gift, and at the time of his or her death is a resident or deemed to be a resident of the Netherlands for the purposes of the Netherlands

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Gift and Inheritance Tax Act 1956. A gift made under a condition precedent is deemed to be made at the time the condition precedent is fulfilled.

The proposed financial transactions tax

The European Commission has published a proposal for a Directive for a common financial transactions tax (FTT) in Belgium, Germany, Estonia, Greece, Spain, France, Italy, Austria, Portugal, Slovenia and Slovakia (the participating Member States). However, Estonia has stated that it will not participate.

The proposed FTT has a very broad scope and could, if introduced in its current form, apply to certain dealings in Aegon common shares (including secondary market transactions) in certain circumstances.

Under the current proposals, the FTT could apply in certain circumstances to persons both within and outside of the participating Member States. Generally, it would apply to certain dealings in Aegon common shares where at least one party is a financial institution, and at least one party is established in a participating Member State. A financial institution may be, or be deemed to be, established in a participating Member State in a broad range of circumstances, including (1) by transacting with a person established in a participating Member State or (2) where the financial instrument which is subject to the dealings is issued in a participating Member State.

However, the FTT proposal remains subject to negotiation between participating Member States and is subject to legal challenge. It may therefore be altered prior to any implementation, the timing of which remains unclear. Additional EU Member States may decide to participate. Prospective holders of Aegon common shares are advised to seek their own professional advice in relation to the FTT.

Value added tax

In general, no value added tax will arise in respect of payments in consideration for the issue of Aegon common shares or in respect of a cash payment made under Aegon common shares, or in respect of a transfer of Aegon common shares.

Other taxes and duties

No registration tax, customs duty, transfer tax, stamp duty, capital tax or any other similar documentary tax or duty will be payable in the Netherlands by a holder of Aegon common shares in respect of or in connection with the subscription, issue, placement, allotment, delivery or transfer of the Aegon common shares.

ii Taxation in the United States

This section describes certain US Federal income tax consequences to beneficial holders of common shares that are held as capital assets. This section does not address all US Federal income tax matters that may be relevant to a particular holder. Each investor should consult their tax advisor with respect to the tax consequences of an investment in the common shares. This section does not address tax considerations for holders of common shares subject to special tax rules including, without limitation, the following:

Financial institutions;
Insurance companies;
Dealers or traders in securities or currencies;
Tax-exempt entities; and
Regulated investment companies;

Persons that at any time hold the common shares as part of a hedging or conversion transaction or as a position in a straddle or as part of a synthetic security or other integrated transaction for US Federal income tax purposes;
US expatriates and former citizens or long-term residents of the United States;
Persons subject to special tax accounting rules as a result of any item of gross income with respect to the stock being taken into account in an applicable financial statement;Holders that own (or are deemed to own for US Federal income tax purposes) 10% or more of the voting shares of Aegon;
Partnerships, or arrangements treated as partnerships for US tax purposes, or pass-through entities or persons who hold common shares through partnerships or other pass-through entities; and
Holders that have a functional currency other than the US dollar.

Further, this section does not address alternative minimum tax consequences or the indirect effects on the holders of equity interests in a holder of common shares. This section also does not describe any tax consequences arising under the laws of any taxing jurisdiction other than the Federal income tax laws of the US Federal government.

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This section is based on the US Internal Revenue Code of 1986, as amended, US Treasury regulations and judicial and administrative interpretations, in each case as in effect and available on the date of this Annual Report. All of the foregoing is subject to change, which change could apply retroactively and could affect the tax consequences described below.

For the purposes of this section, a US holder is a beneficial owner of common shares that is, for US Federal income tax purposes:

- A citizen or individual resident of the United States;
- A corporation created or organized in or under the laws of the United States or any state of the United States (including the District of Columbia);
- An estate, the income of which is subject to US Federal income taxation regardless of its source; or
- A trust, if a court within the United States is able to exercise primary supervision over its administration and one or more US persons have the authority to control all of the substantial decisions of such trust.

A non-US holder is a beneficial owner of common shares that is neither a US holder nor an entity treated as a partnership for US federal income tax purposes.

If an entity treated as a partnership for U.S. federal income tax purposes holds common shares, the tax treatment of a partner in the partnership will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. Accordingly, partnerships holding common shares and the partners in such partnerships should consult their tax advisors regarding the US federal income tax consequences to them.

Tax consequences to US holders

Distributions

The gross amount of any distribution (including any amounts withheld in respect of Dutch withholding tax) actually or constructively received by a US holder with respect to common shares will be taxable to the US holder as a dividend to the extent of Aegon s current and accumulated earnings and profits as determined under US Federal income tax principles. Such dividends will not qualify for the dividends received deduction otherwise allowable to corporations. Distributions in excess of current and accumulated earnings and profits are treated under US tax law as non-taxable return of capital to the extent of the US holder s adjusted tax basis in the common shares. Distributions in excess of earnings and profits and such adjusted tax basis will generally be taxable to the US holder as capital gain from the sale or exchange of property. However, Aegon does not maintain calculations of its earnings and profits under US Federal income tax principles. Therefore, US holders of Aegon shares will generally be taxed on all distributions as dividends, even if some portion of the distributions might otherwise be treated as a non-taxable return of capital or as capital gain if the amount of US earnings and profits was known. The amount of any distribution of property other than cash will be the fair market value of that property on the date of distribution.

Certain qualified dividend income received by certain non-corporate US holders is taxed at a maximum income tax rate of 20% under current law. Only dividends received from US corporations or from a qualified foreign corporation and on shares held by a non-corporate US holder for a minimum holding period (generally, 61 days during the 121-day period beginning 60 days before the ex-dividend date) can qualify for this reduced rate. Aegon is eligible for

benefits under the comprehensive income tax treaty between the Netherlands and the US; therefore, Aegon should be considered a qualified foreign corporation for this purpose. Accordingly, dividends paid by Aegon to non-corporate US holders on shares held for the minimum holding period may qualify for a reduced income tax rate. Each US holder should consult their tax advisor regarding the applicable tax rate.

In addition, US holders receiving dividends may be subject to a net investment income tax (NIIT). The NIIT is a 3.8% tax on the lesser of net investment income or the amount of modified adjusted gross income (MAGI) that is over a threshold amount based on filing status (USD 250,000 for married taxpayers filing jointly). Each US holder should consult their tax advisor regarding applicability of the NIIT.

Distributions paid in currency other than US dollars (a foreign currency), including the amount of any withholding tax thereon, must be included in the gross income of a US holder in an amount equal to the US dollar value of the foreign currency calculated by reference to the exchange rate in effect on the date of receipt. This is the case regardless of whether the foreign currency is converted into US dollars. If the foreign currency is converted into US dollars on the date of receipt, a US holder generally should not be required to recognize foreign currency gain or loss in respect of the dividend. If the foreign currency received in the distribution is not converted into US dollars on the date of receipt, a US holder will have a basis in the foreign currency equal to its US dollar value on the date of receipt. Any gain or loss on a subsequent conversion or other disposition of the foreign currency will be treated as ordinary income or loss.

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Dividends received by a US holder with respect to common shares will be treated as foreign source income for foreign tax credit limitation purposes. Subject to certain conditions and limitations, any Dutch income tax withheld on dividends may be deducted from taxable income or credited against a US holder s Federal income tax liability. The limitation on foreign taxes eligible for the US foreign tax credit is calculated separately with respect to passive category income and general category income . Dividends distributed by Aegon generally will constitute passive category income , or, in the case of certain US holders, financial services income , which is treated as general category income. Each US holder should consult their tax advisor regarding the availability of the foreign tax credit under their particular circumstances.

The amount of the qualified dividend income paid by Aegon to a US holder that is subject to the reduced dividend income tax rate and that is taken into account for purposes of calculating the US holder s US foreign tax credit limitation must be reduced by the rate differential portion of such dividend. Each US holder should consult their tax advisor regarding the implications of the rules relating to qualified dividend income on the calculation of US foreign tax credits under their particular circumstances.

In general, upon making a distribution to shareholders, Aegon is required to remit all Dutch dividend withholding taxes to the Dutch tax authorities. The full amount of the taxes so withheld should (subject to certain limitations and conditions) be eligible for the US holder s foreign tax deduction or credit as described above. Investors are urged to consult their tax advisors regarding the general creditability or deductibility of Dutch withholding taxes.

Aegon generally affords shareholders an option to receive dividend distributions in cash or in stock. A distribution of additional common shares to US holders with respect to their common shares that is made pursuant to such an election will generally be taxable in the same manner as a cash dividend under the rules described above.

Sale or other disposition of shares

Upon the sale or exchange of common shares, a US holder will generally recognize gain or loss for US Federal income tax purposes on the difference between the US dollar value of the amount realized from such sale or exchange and the tax basis in those common shares. This gain or loss will be a capital gain or loss and will generally be treated as from sources within the United States. Investors should consult their tax advisors with respect to the treatment of capital gains (which may be taxed at lower rates than ordinary income for taxpayers who are individuals, trusts or estates that have held the common shares for more than one year) and capital losses (the deductibility of which is subject to limitations).

In addition, US holders with capital gains may be subject to a NIIT. The NIIT is a 3.8% tax on the lesser of net investment income or the amount that is over a threshold amount based on filing status (USD 250,000 for married taxpayers filing jointly). Each US holder should consult their tax advisor regarding applicability of the NIIT.

If a US holder receives foreign currency upon a sale or exchange of common shares, gain or loss, if any, recognized on the subsequent sale, conversion or disposition of such foreign currency will be ordinary income or loss, and will generally be income or loss from sources within the United States for foreign tax credit limitation purposes. However, if such foreign currency is converted into US dollars on the date received by the US holder, the US holder generally should not be required to recognize any gain or loss on such conversion.

Passive foreign investment company considerations

Generally effective January 1, 2018 the U.S. Tax Cuts and Jobs Act (Tax Act) amended certain provisions of the U.S. Internal Revenue Code, relating to the scope of the insurance business exception to the passive foreign investment company (PFIC) rules. Aegon does not believe it is a PFIC for 2018 under the amended PFIC rules and does not expect that it will become a PFIC in the foreseeable future. However, this is a factual determination that must be made annually after the close of each taxable year. If Aegon were treated as a PFIC in any year during which a U.S. investor owns common shares or any other equity in Aegon, certain adverse tax consequences could apply to such U.S. investor. Investors should consult their tax advisors with respect to any PFIC considerations.

Tax consequences to non-US holders

A non-US holder generally will not be subject to US Federal income tax on dividends received on common shares or on any gain realized on the sale or exchange of common shares unless the gain is connected with a trade or business that the non-US holder conducts in the United States or unless the non-US holder is an individual, such holder was present in the United States for at least 183 days during the year in which such holder disposes of the common shares, and certain other conditions are satisfied. Non-US holders should consult their tax advisors with respect to the US Federal income tax consequences of dividends received on, and any gain realized from the sale or exchange of, the common shares.

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Backup withholding and information reporting

Backup withholding and information reporting requirements may apply to certain payments on the common shares and to proceeds of a sale or redemption of the common shares to US holders made within the United States. Aegon, its agent, a broker, or any paying agent, as the case may be, may be required to withhold tax from any payment that is subject to backup withholding if a US holder fails to furnish the US holder s taxpayer identification number, fails to certify that such US holder is not subject to backup withholding, or fails to otherwise comply with the applicable requirements of the backup withholding rules. Certain US holders are not subject to the backup withholding and information reporting requirements.

Non-US holders that provide the required tax certifications of exempt or foreign status will generally be exempt from US information reporting requirements and backup withholding. However, distributions with respect to common shares and sales proceeds a non-US holder receives on a sale of common shares through a broker may be subject to information reporting and backup withholding if the non-US holder is not eligible for an exemption.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a US holder or a non-US holder generally may be claimed as a credit against such holder s US Federal income tax liability provided that the required information is furnished to the US Internal Revenue Service (IRS). Investors should consult their tax advisors as to their qualification for exemption from backup withholding and the procedure for obtaining an exemption. Non-US holders should consult their tax advisors concerning the applicability of the information reporting and backup withholding rules.

Individual US holders may be required to report to the IRS certain information with respect to their beneficial ownership of certain foreign financial assets, such as the common shares, if the aggregate value of such assets exceeds USD 50,000 and the assets are not held through a US financial institution. US holders who fail to report required information could be subject to substantial penalties. Prospective investors should consult their own tax advisors concerning the application of the information reporting rules to their particular circumstances.

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Principal accountant fees and services

PricewaterhouseCoopers Accountants N.V. (PwC) has served as Aegon s independent public accountant for each of the years in the three-year period ended December 31, 2018, for which audited financial statements appear in this Annual Report.

The following table presents the aggregate fees for services rendered by PwC in 2018, 2017 and 2016.

Fees independent public accountant

In million EUR	2018	2017	2016
Audit fees	37	42	27
Audit-related fees	2	3	3
	39	46	30

Audit fees consist of fees billed for the annual financial statement audit (including quarterly reviews), subsidiary audits, equity investment audits and other procedures required to be performed by the independent auditor to be able to form an opinion on Aegon s consolidated financial statements. These other procedures include information systems and procedural reviews and testing performed in order to understand and place reliance on the systems of internal control, and consultations relating to the audit or quarterly review. They also include fees billed for other audit services, which are those services that only the external auditor reasonably can provide, and include statutory audits or financial audits for subsidiaries or affiliates of the Company and services associated with SEC registration statements, periodic reports and other documents filed with the SEC or other documents issued in connection with securities offerings.

Audit-related fees consist of fees billed for audit-related services including assurance and related services that are reasonably related to the performance of the audit or review of Aegon s financial statements or that are traditionally performed by the independent auditor. Audit-related services include, among others, assurance services to report on internal controls for third parties, due diligence services pertaining to potential business acquisitions/dispositions; accounting consultations related to accounting, financial reporting or disclosure matters not classified as Audit services ; assistance with understanding and implementing new accounting and financial reporting guidance from rulemaking authorities; financial audits of employee benefit plans; agreed-upon or expanded audit procedures related to accounting and/or billing records required to respond to or comply with financial, accounting or regulatory reporting matters; and assistance with internal control reporting requirements.

Audit Committee pre-approval policies and procedures

Aegon s Audit Committee is responsible, among other matters, for the oversight of the external auditor. The Audit Committee has adopted a policy regarding pre-approval of audit and permissible non-audit services provided by Aegon s independent auditors (the Pre-approval Policy).

Under the Pre-approval Policy, proposed services either:

- May be pre-approved by the Audit Committee without consideration of specific case-by-case services (general pre-approval); or
- Require the specific pre-approval of the Audit Committee (specific pre-approval). Appendices to the Pre-approval Policy (that are adopted each year) set out the audit, audit-related, tax and other services that have received general pre-approval of the Audit Committee. All other audit, audit-related, tax and other services must receive specific pre-approval from the Audit Committee.

For the period 2016 to 2018, all services provided to Aegon by its independent public accountant were pre-approved by the Audit Committee in accordance with the Pre-approval Policy.

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Purchases of equity securities by the issuer and affiliated purchasers

Period	Total number of shares purchased[1]	Average price paid per share in EUR	Total number of shares purchased as part of publicly announced plans or programs	Maximum number of shares that may yet be purchased under the plans or programs at end of month
January 1 31, 2018	375	8.54	-	-
February 1 28, 2018	381	8.64	-	-
March 1 31, 2018	407	8.63	-	-
April 1 30, 2018	380	8.56	-	-
May 1 31, 2018	359	8.24	-	-
June 1 30, 2018	759	7.02	-	21,954,140
July 1 31, 2018	18,852,788	5.27	15,852,309	6,101,831
August 1 31, 2018	6,102,236	5.52	6,101,831	-
September 1 30, 2018	859	8.17	-	24,133,950
October 1 31, 2018	20,342,506	5.43	20,341,984	3,791,966
November 1 30, 2018	3,792,481	5.48	3,791,966	-
December 1 31, 2018	609	4.55	-	-
Total	**49,094,140**		**49,088,090**	

[1] The shares have been purchased as part of a share purchase program, to neutralize the dilution effect of issued stock dividends and agent-related incentive programs. Excluding Aegon shares purchased by index funds controlled by Aegon. Such purchases are made to the extent necessary to maintain a basket of securities within the relevant fund reflecting the underlying index. Please refere to note 20 Dividend per common share and to the section Major shareholders in the Other information .

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Other non-financial data

Data on Aegon s environmental, social and governance performance has been grouped according to stakeholder (customers, employees, business partners, investors and wider

community). Some figures may not add due to rounding. Year-on-year changes have been calculated using pre-rounded numbers.

Customers

Indicator	2018	2017	Change	2016	GRI reference
Total number of customers	28.5 million	28.1 million[1]	1.3%	26.7 million	
New customers	3.8 million	NA	NA	NM	
Customers with two or more products					
(as % of total customers)	18%	NM	NA	NM	
Net Promoter Score (NPS)[2]	41%	45%	(4 pp)	7%	
1st quartile	1%	2%	(1 pp)	1%	
2nd quartile	40%	43%	(3 pp)	6%	
3rd quartile	5%	37%	(32 pp)	37%	
4th quartile	54%	18%	36 pp	56%	
Total customer complaints[3]	79,509	66,496	19.6%	75,575	
Customer complaints relating to data privacy	636	198	221.2%	275	
Total claims, benefits and plan withdrawals[4]	EUR 53.6 billion	EUR 48.1 billion	11.4%	EUR 59.0 billion	201-1
Customer investments in ethical or SRI funds[5]	EUR 3.4 billion	EUR 3.0 billion	13.4%	EUR 2.4 billion	203-1

[1] Please note this number has been restated; this follows a recalculation of the number of Aegon customers in Brazil. Total number of customers for 2017 was originally reported as 29.0 million.

[2] Table shows NPS performance benchmarked against peers for Aegon businesses in the US, Netherlands and UK. Results from Knab, our online bank in the Netherlands, have also been incorporated. Top line shows percentage of businesses ranking in the top half, weighted by customer numbers. Figures below provide the breakdown by quartile. Figures for 2017 and 2016 have been restated; this is to reflect changes in weighting and to exclude results from Hungary (which had been included in previous years).

[3] Includes all written and verbal complaints.
[4] Total for 2016 includes a one-off item relating to the acquisition of Mercer US defined contribution pension business.
[5] Excludes separate green or SRI (Socially Responsible Investment) funds managed by AIFMC in China.

Employees

Indicator	2018	2017	Change	2016	GRI reference
Total number of employees	26,543	28,318	**(6.3%)**	29,380	102-7, 102-8
New hires	3,891	4,689	**(17.0%)**	4,121	401-1
Turnover	33%	25%	**8 pp**	26%	401-1
Voluntary	18%	17%	**1 pp**	17%	401-1
Involuntary	15%	7%	**8 pp**	6%	401-1
Absentee rate	2.4%	2.4%	**unchanged**	2.0%	403-2
Work-related injuries and illnesses	163	167	**(2.4%)**	204	
% of women in workforce	49%[1]	53%	**(4 pp)**	53%	102-8
% of women in senior management	33%	28%	**5 pp**	27%	102-8
Employee engagement score[2]	65	65	**unchanged**	63	102-8
Total employment costs	EUR 2.1 billion	EUR 2.2 billion	**(7.7%)**	EUR 2.3 billion	201-1
Salaries	EUR 1.2 billion	EUR 1.5 billion	**(15.9%)**	EUR 1.5 billion	201-1
Ratio of median to CEO salary[3]	42:1	42:1	**unchanged**	42:1	102-38, 102-39
Spending on training and career development	EUR 12.5 million	EUR 13.8 million	**(9.7%)**	EUR 15.0 million	

[1] Figure for 2018 does not include Aegon s operations in China.
[2] Index developed by Culture Amp. Employee engagement measures the degree of employee motivation and commitment to the Company. Score for 2016 is taken from survey conducted in February 2017. All scores are out of 100.
[3] Figures cover all employment costs relating to both staff and CEO.

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Business partners

Indicator	2018	2017	Change	2016	GRI reference
Commissions paid to brokers and other intermediaries	EUR 2.4 billion	EUR 2.7 billion	**(8.1%)**	EUR 2.9 billion	
Premiums paid to reinsurers	EUR 2.7 billion	EUR 3.4 billion	**(22.4%)**	EUR 3.2 billion	
Amount spent on goods and services	EUR 1.5 billion	EUR 1.4 billion	**3.7%**	EUR 1.3 billion	201-1
% of goods and services spend covered by a Supplier Sustainability Declaration	25%	NM	**NA**	NM	
Incidents of fraud involving employees, intermediaries and third parties	3,652	551	**562.8%**	196	

Investors

Indicator	2018	2017	Change	2016	GRI reference
Returns to investors	EUR 861 million	EUR 721 million	**19.4%**	EUR 774 million	
Dividend payments[1]	EUR 570 million	EUR 439 million	**29.8%**	EUR 491 million	201-1
Coupon payments	EUR 291 million	EUR 282 million	**3.1%**	EUR 283 million	201-1
Dividend payments due/share	EUR 0.29	EUR 0.27	**7.4%**	EUR 0.26	
Share price (change year-on-year)	(23.3%)	1.7%	**(25 pp)**	0.0%	
Total shareholder return	(19.0%)	7.0%	**(26 pp)**	7.0%	

[1] Does not include impact of share buy-backs. Aegon s final dividend for 2018 is subject to approval by the Company s General Meeting of Shareholders, due to take place in May 2019. Figures include both interim and final dividends for each year. Calculation reflects IFRS accounting of inventory effects of share repurchases relating dividends paid in stock.

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Wider community

Indicator	2018	2017	Change	2016	GRI reference
Community investment	EUR 10.1 million	EUR 8.9 million	**12.6%**	EUR 8.8 million	201-1
Cash donations	EUR 9.3 million	EUR 8.1 million	**15.1%**	EUR 7.8 million	201-1
Volunteering[1]	EUR 0.7 million	EUR 0.8 million	**(12.1%)**	EUR 1.0 million	
Volunteering hours[2]	14,082	21,156	**(33.4%)**	23,353	
Community investment as % of net income	1.4%	0.4%	**1 pp**	1.5%	203-1
Impact investments[3]	EUR 8.4 billion	EUR 8.1 billion	**3.5%**	EUR 7.2 billion	
Taxes borne by Aegon	EUR 620 million	EUR 444 million	**NA**	EUR 750 million	201-1
Corporate income tax[4]	EUR 36 million	(EUR 173 million)	**NA**	EUR 94 million	
Americas	(EUR 35 million)	(EUR 293 million)	**NA**	EUR 48 million	
The Netherlands	EUR 3 million	EUR 70 million	**NA**	EUR 64 million	
UK	EUR 30 million	EUR 33 million	**NA**	(EUR 46 million)	
Others	EUR 40 million	EUR 17 million	**NA**	EUR 28 million	
Taxes collected on behalf of others	EUR 2.16 billion	EUR 2.22 billion	**NA**	EUR 2.17 billion	
Total CO_2 emissions[5]					
Gross (metric tons)	56,458	59,491	**(5.1%)**	69,213	305-2
Net (metric tons)	51,898	50,295	**3.2%**	60,193	305-2
Per employee (net, metric tons)	3.1	2.7	**14.8%**	3.0	305-4
Renewable energy as % of total consumption	24%	26%	**(2 pp)**		

1 Figures based on average employee expenses across the Company.

2 Number of hours spent by Aegon employees volunteering on local community projects during the year.

3 Impact investments are defined as those investments that meet minimum financial return requirements, but which also deliver specific social and/or environmental benefits.

4 Please note, there is often no direct correlation between tax on earnings for any given year and amounts paid or received in tax. Part of the explanation for this is that certain tax-deductible items are not recognized in the Company s profit & loss statement but directly in equity. Amounts may include payments from other years. The US corporate income tax refund is related to a refund of taxes from prior year losses. Furthermore, the 2018 US tax liability will be satisfied entirely by low income housing, energy, foreign withholding and other tax credits.

5 Gross figures for emissions exclude effects of renewable energy purchased in the UK and the Netherlands. Under the Greenhouse Gas Protocol guidelines for Scope 2 emissions, net CO_2 emissions are calculated using the market-based method, while gross emissions are calculated using the location-based method. Average emissions by employee are weighted by revenue and cover workforces in the US, UK, Netherlands and at Aegon s asset management business only. Please note that Aegon has been carbon neutral since August 2016 (by reducing emissions from the Company s own operations and supporting offset projects in China, India and Turkey. These offset projects were selected in cooperation with NGO ClimateCare). The significant decrease in emissions in 2017 was due mainly to reductions in business operations.

NA not applicable
NM not measured
pp percentage points

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Basis of preparation

Frameworks

Aegon s aim in producing this report is to provide a balanced overview of the Company s operations, strategy and performance, as well as its approach to long-term value creation. This is an integrated report, prepared in accordance with standards published by the Global Reporting Initiative (GRI) and the International Integrated Reporting Council (IIRC). The basis of preparation for the financial information can be found in note 2 Significant accounting policies on page 148.

Content and approval

All content is based on extensive reporting from Aegon businesses around the world. Content is reviewed by the Company s Disclosure Committee and is subject to formal approval by Aegon s Management, Executive and Supervisory Boards before publication. Aegon decided not to seek external assurance for the non-financial information in this report. This is to allow further time for improvement in the Company s non-financial reporting and data collection processes.

Scope and reporting boundaries

Non-financial data in this report covers the full year 2018 (January-December), unless otherwise stated. All necessary notes, explanations and definitions are provided in the text or accompanying tables. Until now, our non-financial data has been reported separately in our Annual Review. Our previous Review was published in March 2018, and is available online. The scope of our non-financial reporting is determined by two factors: a) the relative size of our businesses and b) the potential impact on overall Group performance or strategy. Consequently, we focus reporting on our four largest operating segments (Americas, the Netherlands, UK and Asset Management). We have excluded all divested businesses, as well as all joint ventures and associates in which Aegon does not have a majority shareholding. For a more detailed overview, see page 414. Aegon reports impact on both its business and its immediate stakeholders (customers, employees, business partners and investors). Where possible, the Company also includes secondary impacts on the wider community (local economies, communities, public services etc.)

Materiality principle

Aegon uses materiality to determine the scope and content of its integrated report. For non-financial data, the report contains only material information; this is information relating to topics the Company believes have, or will have, a significant long-term impact on its profitability, operations or reputation. Materiality applies to both Aegon s own businesses and to the Company s relations with its main stakeholders (see Reporting scope by operating segment on page 414). To determine materiality, Aegon takes into account various factors, which may affect long-term value creation. These include potential risks, impact on earnings, brand, reputation, strategy, customer loyalty and recruitment, as well as Aegon s ability to deliver long-term growth and returns to investors.

We carry out a regular materiality assessment. Results from our latest assessment may be found on page 18. For this assessment, we compile an initial list of material topics, based on internal discussions and a thorough media review. Stakeholders and Aegon management are then asked to rate the importance of each of these topics. For our 2018 assessment, the following topics were rated:

Reputation & trust
Cyber security & information security
Low interest rates
Changing consumer behavior
New technologies & digital transformation
Transparent and suitable products & services
Appropriate use of customer data
Big data and data analytics
Attracting and retaining talented employees
Increased regulation in financial services
Aging
Social and environmental impacts of business activities and investments
Partnerships
Non-traditional competitors
Diversity, inclusion and equal opportunities
De-globalization

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The five most material topics are covered in detail in this report (see pages 17-20). For the purposes of the assessment, these topics are defined as those most likely to affect Aegon s business, profitability, reputation and/or ability to create long-term value for stakeholders and society. The assessment used in this report was carried out in December 2017. Results from this assessment were incorporated into Aegon s annual strategy and budget cycle, which ran from January to December 2018. Taking part in the assessment were members of Aegon s Management Board, Supervisory Board and the following stakeholders (representing the Company s five main stakeholder groups):

Customers

Aegon customer panels in the US, UK and the Netherlands.

Employees

Employee panels in the US, UK and Netherlands, representatives from Aegon s European Works Council.

Business partners

Financial advisors, brokers, bancassurance partners, joint venture partners, reinsurers, suppliers (technology suppliers and external consultants).

Investors

Financial analysts, institutional investors, rating agencies and peers.

Wider community

Regulators (US, UK and the Netherlands), non-governmental organizations, and academics.

Global non-financial indicators

Our strategy aims to build life-long relationships with customers to enable financial security and well-being to and through retirement. Our strategy helps us address the material topics that are important to our customers, employees, investors and other stakeholders; this strategy will also strengthen our ability to create long-term value. Aegon has selected six global non-financial indicators; these will be used to assess progress against specific aspects of the Company s strategy (see page 413).

Additional non-financial data

In addition to the data in this report, Aegon collects other non-financial data. This includes data on working conditions, use of social media in customer support, consumption of gas and electricity etc. Further details may be found on the Company s website (www.aegon.com).

Aegon also publishes an annual Responsible Investment Report, and a Climate Change report. The previous Responsible Investment Report was published in May 2018, and the previous Climate Change Report in September 2017. Both are available at www.aegon.com.

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Indicator	Aspect	Definition
Benchmarked Net Promoter Score (NPS)	Customer centricity	NPS is based on the question: how likely is that you would recommend Aegon/Transamerica to a friend or colleague? . Answers are on a scale of 0-10; those answering 9 or 10 are promoters ; those scoring 6 or below are detractors. NPS = % of promoters minus % of detractors. We benchmark our NPS scores annually against those of our peers in our main markets for retail customers (corporate and institutional customers are not benchmarked). All Aegon businesses in the Netherlands and UK are included in our benchmark, plus our retirement, life insurance and mutual funds businesses in the US. In the UK, the required sample size is obtained by an additional sample directly taken from Aegon UK s customer base (additional to the study s panel participants). Scores are weighted based on the number of customers in each business.
Number of customers	Growth, customer centricity	Customers are those with individual, group or corporate policies. We also include those participating in pension plans controlled by trustees or who have white label products serviced by Aegon or Transamerica. There may be some duplications in markets where we operate under more than one brand. Customers of our joint ventures are included on a 100% basis.
Number of new customers	Growth, customer centricity	New customers are those who acquired a product or service during the reporting period (and who were not previously customers of the Company). There may be some duplications in markets where we operate under more than one brand. Customers of our joint ventures are included on a 100% basis.
Number of customers with two or more products (as % of total number of customers)	Life-cycle approach	These are customers who hold two or more products or policies with the Company; examples include life insurance policies, savings accounts, mortgages, deposits in investment funds, or participation in a corporate pension plan etc. (divided by the total number of customers). There may be some duplications in markets where we operate under more than one brand. Customers of our joint ventures are included on a 100% basis.
Number of digitally connected customers (as %	Digitization, customer centricity	Total number of customers who have registered and created an online account with Aegon, and have logged in to this account at least once (divided by the total number of customers).

of total number of customers)		
Employee engagement score	Customer centricity (increased employee engagement leading to better customer service and higher customer retention)	Based on Aegon s annual employee survey. Engagement is defined as the level of connection, motivation and commitment a person feels for the place they work . Aegon uses four dimensions to determine employee engagement: I see myself still working at this company in two years time. I am proud to work for this company. The company motivates me to go beyond expectations. I would recommend this company as a great place to work. New hires (less than 3 months employed) do not participate. Joint ventures participate on a voluntary basis. Approximately 25% of employee data is processed in local HR systems and may be subject to a different level of certainty with regard to completeness. Exceptionally contractors as participants were allowed for one business unit (0.3% of all participants).

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Reporting scope by operating segment

Indicator	Operating segment
Customers	
Number of customers	NA
Number of new customers	NA
Number of customers with two or more Aegon products	NA
Net Promoter Score	NA
Customer complaints	NA
Claims, benefits and plan withdrawals	NA
Customer investments in ethical or socially responsible investment (SRI) funds	
Employees	
Number of employees	
New hires	
Turnover	
Absentee rate	
Work-related injuries and illnesses	
% of women in workforce/senior management	
Employee engagement score	
Total employment costs	
Ratio of median to CEO salary	
Spending on training and career development	
Business partners	
Commissions paid to brokers and other intermediaries	
Premiums paid to reinsurers	
Amount spent on goods and services	
% of goods and services spend covered by a Supplier Sustainability Declaration	
Incidents of fraud involving employees, intermediaries and third parties	
Investors	
Returns to investors	NA

Dividend payments due/share	NA
Share price	NA
Total shareholder return	NA

Wider community

Community investment (cash donations and volunteering)	
Impact investments	
Taxes	
Total CO_2 emissions and renewable energy use	

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Reference tables

Global Reporting Initiative (GRI) standards

This report has been prepared in accordance with the latest Global Reporting Initiative (GRI) standards, issued in 2016. Tables below show Aegon s compliance with these reporting standards and principles. Aegon has been using GRI standards since the Company s first Corporate Responsibility Report in 2003.

GRI reporting standards comprise universal and topic-specific standards. Universal standards include:

- **GRI 101** (Foundation, covering reporting principles)
- **GRI 102** (General Disclosures, covering organizational profile, strategy, ethics and integrity, stakeholder engagement and reporting practices)
- **GRI 103** (Management approach)

Within the topic-specific standards, there are three series of indicators:

- **GRI 200** series (economic)
- **GRI 300** series (environmental)
- **GRI 400** series (social)

Companies are free to select indicators from these series based on their business and chosen material topics. Organizations applying the GRI standards are said to be in accordance . Reporting organizations have a choice between core and comprehensive, depending on the extent of their reporting. For its 2018 report, Aegon has chosen the core option. For more information, see www.globalreporting.org.

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GRI 101 (Foundation)

Reporting principles for defining report content and quality:

Principles for defining report content			
	Principle	**GRI definition**	**Details of compliance**
1.1	Stakeholder inclusiveness	The reporting organization shall identify its stakeholders and explain how it has responded to their reasonable expectations and interests.	**Stakeholder engagement** Definition of stakeholders (Our stakeholders page 16) Identification of main stakeholder groups (Our stakeholders page 16) Details of approach to stakeholder engagement and dilemmas (Dilemmas/Engagement page 16) Key aspects of relationships with stakeholders (Our stakeholders page 16) Note: We also incorporate stakeholder views into our materiality process (page 17); risks and opportunities are explained in terms of impact on stakeholders (page 19).
1.2	Sustainability context	The report shall present the reporting organization s performance in the wider context	**Operating environment**

	of sustainability.	Key economic, social, environmental and governance trends (Our operating environment page 17) Definition of material topics/overview of materiality process (Our material topics page 17)
1.3 Materiality	The report should cover aspects that: Reflect the organization s significant economic, environmental and social impacts; or Substantively influence the assessments and decisions of stakeholders.	**Operating environment** Definition of material topics (Our material topics page 17) Note: These are linked explicitly to Aegon s strategy (from page 21) and performance (from page 28)
1.4 Completeness	The report shall include coverage of material topics and their boundaries, sufficient to reflect significant economic, environmental, and social impacts, and to enable stakeholders to assess the reporting organization s performance in the reporting period.	**Operating environment** Definition of material topics (Our material topics page 17) Description of risks and opportunities associated with these material topics as they affect: Main stakeholder groups Aegon s business, profitability, strategy, reputation etc. (page 19)
1.5 Accuracy	The reported information shall be sufficiently accurate and detailed for stakeholders to assess the reporting organization s performance.	**Basis of preparation** Overview of review and approval process (Content and approval page 411) Report of independent registered public accounting firm (page 333)
1.6 Balance	The reported information shall reflect positive and negative aspects of the reporting organization s performance to enable a reasoned assessment of overall performance.	**Basis of preparation** Description of materiality approach to defining content (Materiality principle page 411)

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Principles for defining report quality

Principle		GRI definition	Details of compliance
1.7	Clarity	The reporting organization shall make information available in a manner that is understandable and accessible to stakeholders using that information.	**Basis of preparation** Definition of scope (Scope and reporting boundaries page 411) Description of materiality approach to defining content (Materiality principle page 411) Glossary (page 427) Definitions of non-financial indicators (page 413)
1.8	Comparability	The reporting organization shall select, compile and report information consistently. The reported information shall be presented in a manner that enables stakeholders to analyze changes in the organization s performance over time, and that could support analysis relative to other organizations.	**Basis of preparation** Description of reporting frameworks used (Frameworks page 411) Note: This is Aegon s first fully combined Annual Report; we have used the GRI and IIRC frameworks for several years, providing a stable basis of comparison. All metrics in this Report are provided with previous year performance, where possible.
1.9	Reliability	The reporting organization shall gather, record, compile, analyze and report	**Basis of preparation**

	information and processes used in the preparation of the report in a way that they can be subject to examination, and that establishes the quality and materiality of the information.	Overview of review and approval process (Content and approval page 411) Report of independent registered public accounting firm (page 333)
1.10 Timeliness	The reporting organization shall report on a regular schedule so that information is available in time for stakeholders to make informed decisions.	**Basis of preparation** Details of reporting schedule (Scope and reporting boundaries page 411) Note: this Report was published in March 2019, in line with regulatory requirements and in time to allow informed discussion of strategy and performance at Aegon s General Meeting of Shareholders, scheduled for May 2019.

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GRI 102 (General Disclosures)

Disclosure	Topic	Page reference[1] (or details of omission if applicable)
Organizational profile		
102-1	Name of the organization	Page 8 (Aegon today) Page 10 (Our Businesses)
102-2	Activities, brands, products and services	Page 8 (Aegon today) Page 10 (Our Businesses)
102-3	Location of headquarters	Page 10 (Our markets)
102-4	Location of operations	Page 8 (Aegon today)
102-5	Ownership and legal form	Page 12 (Ownership)
102-6	Markets served	Page 8 (Aegon today) Page 10 (Our Businesses)
102-7	Scale of the organization	Page 8 (Aegon today) Page 10 (Our Businesses)
102-8	Information of employees and other workers	Page 9 (Where our employees work) Page 14 (Our value chain) Page 32 (Employees)

		Page 66 (Non-financial policies, procedures and outcomes)
102-9	Supply chain	Page 14 (Our value chain) Page 34 (Suppliers) Page 66 (Non-financial policies, procedures and outcomes)
102-10	Significant changes to the organization and its	Page 6 (Main events of 2018)
	supply chain	Page 17 (Our operating environment) Page 34 (Suppliers)
102-11	Precautionary principle or approach	Page 16 (Dilemmas stakeholder engagement) Page 19 (Risk and oportunities material topics) Page 90 (Risk management) Page 66 (Non-financial policies, procedures and outcomes)
102-12	External initiatives	Page 6 (Main events of 2018) Page 21 (Our strategy)
102-13	Membership of associations	Page 21 (Secure retirement and healthy aging) Page 424 (UN Principles for Sustainable Insurance)

Strategy

102-14	Statement from senior decision-maker	Page 4 (Letter from our CEO)
102-15	Key impacts, risks, and opportunities	Page 17 (Our material topics) Page 19 (Our material topics risk and opportunities)

Ethics and integrity

102-16	Values, principles, standards and norms of behavior	Page 27 (Culture and values) Page 66 (Non-financial policies, procedures and outcomes) Page 69 (Code of Conduct)
102-17	Mechanisms for advice and concerns about ethics	Page 27 (Culture and values) Page 66 (Non-financial policies, procedures and outcomes) Page 69 (Code of Conduct)

[1] All page numbers in this table refer to Aegon s 2018 Integrated Annual Report, unless otherwise stated. Where there are several examples, we have included principal references only.

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Disclosure	Topic	Page reference[1] (or details of omission if applicable)
Governance		
102-18	Governance structure	Page 42 (Corporate governance)
102-19	Delegating authority	Page 42 (Corporate governance) Page 70 (Regulation and supervision)
102-20	Executive-led responsibility for economic, environmental and social topics	Page 42 (Corporate governance)
102-21	Consulting stakeholders on economic, environmental and social topics	Page 16 (Stakeholder engagement) Page 17 (Our material topics)
102-22	Composition of the highest governance body and its committees	Page 49 (Members of the Supervisory Board) Page 49 (Membership of Supervisory Board committees)
102-23	Chair of highest governance body	Page 40 (Letter from Chairman of the Supervisory Board) Page 49 (Members of the Supervisory Board)
102-24	Nominating and selecting the highest governance body	Page 49 (Members of the Supervisory Board)
102-25	Conflicts of interest	Page 42 (Corporate governance) Page 66 (Non-financial policies, procedures and outcomes)
102-26	Role of highest governance body in setting purpose, values and strategy	Page 51 (Report of the Supervisory Board)
102-27	Collective knowledge of highest governance body	Page 49 (Members of the Supervisory Board) Page 47-49 (Members of the Supervisory Board and the Executive Board) Page 53 (Educational sessions)
102-28		Page 54 (Board review)

	Evaluating highest governance body s performance	
102-29	Identifying and managing economic, environmental and social impacts	Page 17 (Our material topics)
102-30	Effectiveness of risk management processes	Page 90 (Risk management)
102-31	Review of economic, environmental and social topics	Page 17 (Our operating environment)
102-32	Highest governance body s role in sustainability reporting	Page 411 (Basis of preparation)
102-33	Communicating critical concerns	Page 17 (Our operating environment Our material topics) Page 90 (Risk management)
102-34	Nature and total number of critical concerns	Page 90 (Risk management)
102-35	Remuneration policies	Page 59 (Remuneration Report) Page 66 (Non-financial policies, procedures and outcomes)
102-36	Process for determining remuneration	Page 32 (Employees Salaries and benefits) Page 59 (Remuneration Report)
102-37	Stakeholders involvement in remuneration	Page 59 (Remuneration Report)
102-38	Annual total compensation ratio	Page 408 (Other non-financial data)
102-39	Percentage increase in annual total compensation ratio	Page 408 (Other non-financial data)

[1] All page numbers in this table refer to Aegon s 2018 Integrated Annual Report, unless otherwise stated. Where there are several examples, we have included principal references only.

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Disclosure	Topic	Page reference[1] (or details of omission if applicable)
Stakeholder engagement		
102-40	List of stakeholder groups	Page 16 (Stakeholder engagement)
102-41	Collective bargaining agreements	Page 27 (Culture and values) Page 32 (Diversity and inclusion) Note: approximately half Aegon s employees are covered by collective labor agreements.
102-42	Identifying and selecting stakeholders	Page 16 (Stakeholder engagement)
102-43	Approach to stakeholder engagement	Page 16 (Engagement Stakeholder engagement)
102-44	Key topics and concerns raised	Page 16 (Engagement/Dilemmas Stakeholder engagement)
Reporting practice		
102-45	Entities included in the consolidated financial statements	Page 411 (Basis of preparation)
102-46	Defining report content and topic boundaries	Page 411 (Basis of preparation Scope and boundaries)
102-47	List of material topics	Page 17 (Our material topics)
102-48	Restatements of information	Any restatements or corrections are included in the report where relevant
102-49	Changes in reporting	Page 413 (Basis of preparation)
102-50	Reporting period	Page 413 (Basis of preparation)
102-51	Date of most recent report	Page 413 (Basis of preparation)
102-52	Reporting cycle	Page 413 (Basis of preparation)
102-53	Contact point for questions regarding the report	Page 436 (Contact)
102-54		Page 1 (Welcome to Aegon s 2018 Annual Report)

	Claims of reporting in accordance with the GRI standards	Page 411 (Basis of preparation)
102-55	GRI content index	Page 415 (Reference tables)
102-56	External assurance	Page 333 (Report of independent registered public accounting firm) Note: for this Report, Aegon decided not to seek external assurance for its non-financial information. This is to allow time for further improvements to be made to its reporting and internal data collection processes.

[1] All page numbers in this table refer to Aegon s 2018 Integrated Annual Report, unless otherwise stated. Where there are several examples, we have included principal references only.

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GRI 103 (Management Approach)

Disclosure		Page reference[1] (or details of omission if applicable)
Explanation of the material topic and its boundary		
103-1	Reputation & trust	Page 19 (Degree of influence or control/risks and opportunities)
	Cyber & information security	Page 19 (Degree of influence or control/risks and opportunities)
	New technologies & digital transformation	Page 19 (Degree of influence or control/risks and opportunities)
	Low interest rates	Page 20 (Degree of influence or control/risks and opportunities)
	Changing consumer behavior	Page 20 (Degree of influence or control/risks and opportunities)
The management approach and its components		
103-2	Reputation & trust	Page 21 (Financial security and well-being) Page 21 (Secure retirement and healthy aging) Page 22 (Clean energy and sustainable real estate)
	Cyber & information security	Page 21 (Financial security and well-being)
	New technologies & digital transformation	Page 21 (Financial security and well-being)
	Low interest rates	Page 21 (Financial security and well-being)
	Changing consumer behavior	Page 21 (Financial security and well-being) Page 21 (Secure retirement and healthy aging)

Evaluation of the management approach

103-3	Reputation & trust	Page 21 (Financial security and well-being) Page 21 (Secure retirement and healthy aging) Page 22 (Clean energy and sustainable real estate)
	Cyber & information security	Page 21 (Financial security and well-being)
	New technologies & digital transformation	Page 7 (Performance highlights) Page 21 (Financial security and well-being) Page 27 (Culture and values) Page 29 (Non-financial indicators) Page 408 (Other non-financial data)
	Low interest rates	Page 21 (Financial security and well-being) Page 23 (Building strong foundation for our business) Page 79 (Sensitivities)
	Changing consumer behavior	Page 7 (Performance highlights) Page 21 (Financial security and well-being) Page 21 (Secure retirement and healthy aging) Page 27 (Culture and values) Page 30 (Value created and shared with our customers) Page 29 (Non-financial indicators) Page 408 (Other non-financial data)

[1] All page numbers in this table refer to Aegon s 2018 Annual Report, unless otherwise stated. Where there are several examples, we have included principal references only.

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GRI topic-related standards (chosen from series 200, 300 and 400)

Disclosure	Topic	Link to Aegon material topics and strategy	Page reference
201-1	Direct economic value generated and distributed	Material topics: Changing consumer behavior Low interest rates New technologies & digital transformation Strategy: value creation, financial security and well-being, secure retirement and healthy aging, clean energy and sustainable real estate	Page 13 (Value creation) Page 21 (Our strategy) Page 30 (Value created and shared with our stakeholders) Page 422 (Economic value generated and distributed)
201-2	Financial implications and other risks and opportunities due to climate change	Material topics: Reputation & trust Strategy: clean energy and sustainable real estate	Page 21 (Our strategy) Page 20 (Climate change) Page 36 (Wider community)
203-1	Infrastructure investments and services supported	Material topics: Reputation & trust Strategy: clean energy and sustainable real estate	Page 21 (Our strategy) Page 36 (Wider community)
203-2	Significant indirect economic impacts	Material topics: Reputation & trust New technologies & digital transformation Strategy: financial security and well-being	Page 30 (Value created and shared with stakeholders)
417-2	Incidents of	Material topics:	Page 66 (Non-financial

	non-compliance concerning product and service information and labeling	Reputation & trust Strategy: financial security and well-being	policies, procedures and outcomes)
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Material topics: Cyber security & information security Changing consumer behavior Strategy: financial security and well-being	Page 30 (Customers) Page 66 (Non-financial policies, procedures and outcomes)

In addition to the indicators above, GRI recommends a third indicator: economic value retained. This is effectively economic value generated minus economic value distributed. Aegon does not use this indicator for management purposes. The following calculation is based on IFRS reporting and is included for information purposes only:

Direct economic value[1]

(2016-2018, all figures in EUR million)

GRI 201-1 component	Reference to consolidated financial statements of Aegon N.V.	2018	2017	2016
Revenue	Total income	20,992	57,910	53,357
	Share in profit of joint ventures and associates	216	172	140
Direct economic value generated		**21,208**	**58,082**	**53,497**
Employee wages and benefits	Employee expenses	2,061	2,234	2,287
Operating costs	Total charges excluding employee expenses and interest charges and related fees	17,859	53,020	50,059
Payment to government	Income tax expenses	37	32	219

Payment to investors	Interest charges and related fees	507	435	347
	Dividends	570	439	491
Direct economic value distributed		**21,034**	**56,160**	**53,403**
Direct economic value retained		**174**	**1,922**	**94**

[1] This is calculated using shareholders equity based on IFRS as adopted by the EU.

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International Integrated Reporting Council (IIRC) framework

Table below shows Aegon s compliance with the IIRC s IR framework. For more information, see www.integratedreporting.org.

Disclosure	Topic	Page reference[1] (or details of omission if applicable)
Guiding principles		
	Strategic focus and future orientation	Our strategy (page 21) Our vision (page 21) Building a strong foundation for our business, 2016-2018 (page 23) Sustainable growth, beyond 2018 (page 25)
	Connectivity of information	We identify our material topics (page 17); these material topics are linked directly to risks and opportunities, both for Aegon and its stakeholders (page 19) and to the Company s strategy (Our vision page 21)
	Stakeholder relationships	Page 16 (Stakeholder engagement)
	Materiality	Page 17 (Our material topics) Page 411 (Basis of preparation Materiality principle)
	Conciseness	Pages 1-40 are structured around our material topics, the risks, opportunities, strategy and performance associated with these; we have also applied a materiality principle to content (see page 411 Basis of preparation)
	Reliability and completeness	Page 411 (Content and approval) Page 333 (Report of independent registered public accounting firm)
	Consistency and comparability	This Report is prepared in accordance with IFRS standards, as adopted by the European Union, as well as the IIRC framework and reporting standards issued by the Global Reporting Initiative (page 415). This is Aegon s first fully combined Annual Report, but its eighth integrated report. Each of these integrated reports has used the GRI framework; we have used the IIRC framework (in combination with the GRI) since 2014.
Content elements		
	Organizational overview and external environment	Page 10 (Our businesses) Page 17 (Our operating environment)
	Governance	Page 42 (Corporate Governance)
	Business model	Page 12 (Our business model)

	Risk and opportunities	Page 17 (Our material topics)
	Strategy and resource allocation	Page 21 (Our strategy)
		Page 26 (Allocation of resources)
	Performance	Page 28 (Results, performance and targets)
	Outlook	Page 28 (Results, performance and targets)
	Basis of preparation and presentation	Page 411 (Basis of preparation)
Additional note on IR capitals		
	Financial	Page 14 (Our value chain)
	Human	Page 14 (Our value chain)
	Intellectual	Page 14 (Our value chain)
	Manufactured	Page 15 (Our value chain footnote)
	Social & relationship	Page 14 (Our value chain)
	Natural	Page 15 (Our value chain footnote)

[1] All page numbers in this table refer to Aegon s 2018 Annual Report, unless otherwise stated. Where there are several examples, we have included principal references only.

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EU Directive on Non-Financial Information

The table below shows compliance with EU Directive 2014/95/ EU on non-financial reporting. All companies with 500 employees or more are required to publish non-financial information to the extent necessary for an understanding of the (Company s)

development, performance, position and impact of its activity relating to, as a minimum, environmental, social and employee matters, respect for human rights, anti-corruption and bribery matters .

EU Directive requirement	Page reference	Equivalent requirement under Dutch law[1]
Brief description of company s business model	Our Business Model (page 12)	Decree non-financial information (article 3.1.a)
Description of policies relating to environmental, social and employee matters (including due diligence processes implemented)	Non-financial policies, procedures and outcomes (page 66)	Decree non-financial information (article 3.1.b)
Outcome of these policies	Non-financial policies, procedures and outcomes (page 66) Note: Value shared with our stakeholders (pages 30-39) also includes an in-depth description of outcomes by stakeholder group.	Decree non-financial information (article 3.1.b)
Principal risks related to environmental, social and employee matters and how these risks are managed	Our material topics (page 17) Risk factors (page 387) Risk management (page 90)	Decree non-financial information (article 3.1.c)

	Note: Our strategy (page 21) describes in detail our approach to managing the risks and opportunities associated with our most important environmental, social and employees matters.	
Non-financial key performance indicators	Performance highlights (page 7) Results, performance and targets (page 28) Non-financial policies, procedures and outcomes (page 66)	Decree non-financial information (article 3.1.d)
Description of diversity policy applied to administrative, management and supervisory bodies	Report of the Supervisory Board (Diversity page 57)	Decree diversity policy (article B.d)
	Note: For information on Aegon s broader approach, see also Diversity and Inclusion (page 32 and 67)	

[1] The EU Directive was transposed into Dutch law through two decrees relating respectively to non-financial information and diversity policy (Bekendmaking niet-financiële informatie/Bekendmaking diversiteitsbeleid).

UN Principles for Sustainable Insurance (PSI)

As a signatory, Aegon reports each year on actions taken to implement the PSI s four commitments:

Principles	Actions taken (2018)
1. We will embed in our decision-making environmental, social and governance (ESG) issues relevant to the insurance business.	ESG factors are embedded in our Company policies, guidelines and procedures (see Non-financial policies, procedures and outcomes page 66)
2. We will work together with our clients and business partners to raise awareness of ESG issues, manage risk and develop solutions.	We engage regularly with all stakeholders, including customers and business partners; we use their feedback to help improve our products and services (see Stakeholder engagement page 16; Customers page 30; Business partners page 34)
3. We will work together with governments, regulators and other key stakeholders to promote widespread action across society	We work closely on ESG issues with governments, regulators and other stakeholders (see Stakeholder engagement page 16; Secure retirement and healthy aging page 21; Wider community page

on ESG issues.	36; Regulation and supervision page 70).
4. We will demonstrate accountability and transparency in regularly disclosing publicly our progress in implementing the Principles.	We publish details our progress each; our latest progress report is included in our 2018 integrated Annual Report (page 424).

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425 Other non-financial information **Reference tables**

UN Sustainable Development Goals (SDG)

In September 2015, the UN adopted new Sustainable Development Goals (SDGs). These goals cover poverty reduction, education, gender equality, climate change and health. Behind each of these goals is a series of targets and indicators.

For our business, we have identified the following targets as strategic:

SDG1: No poverty (target 1.2)

SDG3: Good health and well-being (target 3.4)

SDG7: Affordable and clean energy (targets 7.2, 7.3 and 7a)

SDG8: Decent work and economic growth (target 8.10)

SDG13: Climate action (target 13.2)

These specific targets, we believe, are most relevant to our business and strategy. This is also where, as a company, we can best support the international sustainable development agenda. The choice of these targets reflect essentially two factors: the nature of our business (as a provider of financial services) and our geographical footprint (the majority of our businesses are located in developed economies, though we do have operations in a number of upper and lower middle-income countries). The table below shows our contribution both to our chosen SDGs and, where applicable, to the other twelve goals (at goal level only).

Sustainable Development Goal	Aegon contribution to relevant SDG targets
Aegon strategic SDGs	
No poverty	**Contribution to target 1.2**
End poverty in all its forms everywhere	Products for low-income customers, including micro-insurance in Brazil (page 31) Investments in international development banks that work for poverty reduction and job creation in developing countries (page 37)

	Investment in micro-finance institutions to provide loans and savings to people without access to traditional financial services (page 37)
	Working with customers in financial difficulty budget coaches in the Netherlands/ cooperation with National Foundation for Credit Counseling in US (page 31)
	Strengthening financial literacy through local initiatives and programs (page 31)
Good health and well-being	**Contribution to target 3.4**
Ensure healthy lives and promote well-being for all at all ages	Supplemental health insurance for customers on low incomes (page 31)
	Cover for customers facing chronic illnesses, including diabetes and cancer (page 31)
	Investment in care homes for the elderly in UK and Netherlands (page 37)
	Support for research into chronic illnesses, including cancer, heart disease and Alzheimer s (page 37)
	Investment in Dementia Discovery Fund, dedicated to finding treatments for the condition (pages 6, 22)
	Exclusion of tobacco from investments to help address health concerns over smoking (page 22)
Affordable and clean energy	**Contribution to target 7.2/7.3/7.a**
Ensure access to affordable, reliable, sustainable and modern energy for all	Significant investments in renewable energy primarily wind and solar power (page 37)
	Launch of new mortgage feature in the Netherlands, allowing customers to finance energy efficiency improvements to their homes (pages 39)
	Investments in green bonds and green residential mortgage-backed securities (page 37)
	Working for greater energy efficiency in Amvest s real estate fund in the Netherlands (page 22)
Decent work and economic growth	**Contribution to target 8.10**
Promote sustained, inclusive and sustainable economic	Support for economic growth and job creation through our businesses and investments (page 13)

growth, full and productive employment and decent work for all	Providing a long-term source of employment for communities in which we operate (page 36) Inclusion of minimum labor standards in Aegon responsible investment and procurement policies (pages 36, 34)
Climate action	**Contribution to target 13.2**
Take urgent action to combat climate change and its impacts	Support for Dutch national climate agreement, working to reduce carbon emissions (page 22) Exclusion of oil sands extraction and transportation from investment Exclusion of thermal coal production from investment (page 36)

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Sustainable Development Goal	Aegon contribution to relevant SDG targets
Other SDGs (where Aegon also makes a contribution)	
Quality education Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	Support for US Federal Family Education Loan Program to help children from low and middle-income families into university (page 37)
Gender equality Achieve gender equality and empower all women and girls	Products to support women suffering from cervical and breast cancer (page 31) Signatory to Talent to the Top initiative in the Netherlands (page 33) Local diversity and inclusion initiatives aimed at promoting gender diversity (page 32) Reporting on gender pay gap in the UK and equal pay study in the Netherlands (page 32)
Industry, innovation and infrastructure Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	Launch of new innovation fund for small and medium-sized companies in the Netherlands (page 6) Participation in B3i, an industry initiative to use blockchain to speed up reinsurance transactions (page 17) Investment in new, innovative technology companies through Transamerica Ventures (page 10)
Reduced inequalities Reduce inequality within and among countries	Local diversity and inclusion initiatives (page 32) Products for low-income customers (page 31) Research into longevity, retirement and healthy aging (page 37).
Sustainable cities and communities Make cities and human settlements inclusive, safe, resilient and sustainable	Significant investments in social/affordable housing in US and Netherlands (page 37) Launch of new US affordable housing fund in US (page 6)
Responsible consumption and production	Aegon business operations have been climate neutral since 2016 (page 410) Offer of socially responsible investment funds to customers (page 31)

Ensure sustainable consumption and production patterns	
Life on land Protect, restore and promote sustainable use of terrestrial eco-systems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	Exclusion in the Netherlands of investment in palm oil (page 36)
Peace, justice and strong institutions Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	Exclusion of controversial weapons from investment (page 36) Internal policies and guidelines covering bribery, corruption and money laundering (page 66)
Partnerships for the goals Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development	Signatories to UN Principles for both Responsible Investment and Sustainable Insurance (pages 9, 39, 424)

[1] In 2018, Aegon s Center for Longevity and Retirement also published a report into retirement for the LGBT community: *Retirement preparations amid social progress*.

Note: in our analysis, we excluded three SDGs, where our contributions are not sufficiently material (primarily because of the nature of our business and the location of our operations). These SDGs are zero hunger (SDG2), clean water and sanitation (SDG6), and life below water (SDG14). For more information on the SDGs, see https://www.un.org/sustainabledevelopment/ sustainable-development-goals/

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427 Other non-financial information **Glossary**

Glossary

Accounting Consolidation is the default method for calculating the Group solvency position. With this consolidation method, diversification benefits in the calculation of capital requirements are allowed.

Acquisition date is the date on which the acquirer effectively obtains control of the acquiree. In most cases this includes at least the transfer of risks and rewards related to the acquired business or assets/liabilities.

Actuarial funding enables a life insurance company to reduce the size of the unit reserves it holds for unit-linked business to reflect some or all of the unit-linked charges it expects to receive in the future from the units nominally allocated. Actuarial funding is used on those contracts that have surrender penalties and the Company will hold a minimum of the surrender value at all times.

Actuarial gains and losses relate to the accounting for post-employment benefit plans. They comprise the effects of experience adjustments and changes in assumptions used to determine the cost of a plan.

Alt-A mortgages relates to a type of US residential mortgage which are securitized home equity loans. Typical Alt-A borrower has a credit score high enough to obtain an: A standing. Alt-A mortgages are primarily backed by loans with fixed interest rates for the entire term of the loan.

Aggregation is the methodology by which capital requirements are calculated across different risk groupings, allowing for diversification benefit between the groupings.

Amortized cost is the amount at which the financial asset or liability is measured at initial recognition minus principal repayments, plus or minus the cumulative amortization using the effective interest rate method of any difference between that initial amount and the maturity amount and minus any reduction (directly or through the use of an allowance account) for impairment or uncollectability.

Asset-Backed Securities (ABS) are securities whose value and income payments are derived from and collateralized (or backed) by a specified pool of underlying assets.

Assets held by long-term employee benefit funds are part of plan assets. These are assets (other than non-transferable financial instruments issued by the reporting entity) that:

- Are held by an entity that is legally separate from the reporting entity and exists solely to pay or fund employee benefits; and

Are available to be used only to pay or fund employee benefits and are not available to the reporting entity s own creditors.

Authorized Control Level (ACL) is the level regulators are permitted to seize control of a company.

Bifurcation is the measurement and presentation of embedded derivatives separate from the host contracts, as if they were stand-alone derivative financial instruments.

Binomial option pricing model uses a binomial lattice that represents possible paths that might be followed by the underlying asset s price over the life of the option, for a given number of time steps between valuation date and option expiration. Each node in the lattice represents a possible price of the underlying asset, at a particular point in time. The valuation process is iterative; it starts at each final node and then works backwards through the lattice to the first node, which is the valuation date, where the calculated result is the value of the option.

Business combination is the bringing together of separate entities or operations of entities into one reporting entity. This can be realized through a purchase transaction or by means of a merger. A business combination involving entities (or operations of entities) under common control is a business combination in which all of the combining entities (or operations of entities) ultimately are controlled by the same party or parties both before and after the combination, and that control is not transitory.

Company Action Level (CAL) is the regulatory intervention level at which a company has to submit a plan to its state regulators for the Aegon Americas segment. It is 200% of the Authorized Control Level (ACL) the level regulators are permitted to seize control of a company. It is a requirement and the most pertinent for measuring risk-based capital (RBC).

Capital funding includes debt securities that are issued for general corporate purposes and for capitalizing our business units. Capital funding is part of the Company s total capitalization that is used for financing our subsidiaries and the cash held at the holding company.

Capitalization is the recognition of a cost as part of the cost of an asset on the statement of financial position.

Cash-generating unit is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets.

Cedant is the policyholder under a reinsurance contract.

Claims settlement expenses are costs incurred in settling a claim. These costs include internal administration and payout costs, but also such items as attorney´s fees and investigation expenses.

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Collateral is an asset pledged by a borrower to secure a loan and is subject to seizure in the case of default.

Collateralized Debt Obligation (CDO) is a type of asset-backed security which provides investors exposure to the credit risk of a pool of fixed income assets.

Commercial Mortgage-Backed Securities (CMBS) is a type of mortgage-backed security that is secured by the loan on a commercial property.

Compound financial instruments are financial instruments that, from the issuer´s perspective, contain both a liability and an equity element.

Constructive obligation is an obligation that derives from an entity´s actions whereby an established pattern of past practice, published policies or a sufficiently specific current statement, the entity has indicated to other parties that it will accept certain responsibilities, and as a result, the entity has created a valid expectation on the part of those other parties that it will discharge those responsibilities.

Contingent liability is a possible obligation dependent on the occurrence of an uncertain future event or a present obligation for which payment is not probable or the amount cannot be measured reliably.

Credit risk is the risk that one party to a financial instrument will fail to discharge an obligation and cause the other party to incur a financial loss.

Currency exchange rate risk is a market risk, namely the risk that the value of a financial instrument will fluctuate due to changes in foreign exchange rates.

Debt securities are interest-paying bonds, debentures, notes, or money market instruments that are issued by governments or corporations. Debt securities are issued with a promise of repayment on a certain date at a specified rate of interest**.**

Deduction & Aggregation is the alternate method for calculating group solvency that aggregates an entity without allowing for diversification between the entity that is aggregated using D&A and those that are aggregated using Accounting Consolidation.

Deferred tax assets are amounts of income taxes recoverable in future periods in respect of deductible temporary differences; the carry forward of unused tax losses; and the carry forward of unused tax credits.

Deferred tax liabilities are amounts of income taxes payable in future periods in respect of taxable temporary differences.

Defined benefit obligation is the present value, without deducting any plan assets, of expected future payments required to settle the obligation resulting from employee service in the current and prior periods.

Defined benefit plans are post-employment benefit plans other than defined contribution plans.

Defined contribution plans are post-employment benefit plans under which an entity pays fixed contributions into a separate entity (a fund) and will have no legal or constructive obligation to pay further contributions if the fund does not hold sufficient assets to pay all employee benefits relating to employee service in the current and prior periods.

Deferred Policy Acquisition Cost (DPAC) are the variable costs related to the acquisition or renewal of insurance contracts and investment contracts with discretionary participation features.

Deposit accounting method includes amounts charged and paid to customers directly into the financial liability and not through the income statement as premium income and claims.

Derecognition is the removal of a previously recognized asset or financial liability from an entity´s statement of financial position.

Derivatives are financial instruments whose value changes in response to an underlying variable, that require little or no net initial investment and are settled at a future date.

Discretionary participation feature is a contractual right to receive, as a supplement to guaranteed benefits, additional benefits:

That are likely to be a significant portion of the total contractual benefits;

Whose amount or timing is contractually at the discretion of the issuer; and

That are contractually based on:

The performance of a specified pool of contracts or a specified type of contract;

Realized and/or unrealized investment returns on a specified pool of assets held by the issuer; or

The profit or loss of the Company, fund or other entity that issues the contract.

Diversification is the general concept of reducing the total risk of a portfolio of assets and/or liabilities by spreading it across a mix of different risk exposures. Risk reduction occurs due to the less than perfect correlation among the individual risk exposures in the portfolio, meaning risks will not materialize all at the same time.

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429 Other non-financial information **Glossary**

Effective interest rate method is a method of calculating the amortized cost of a financial asset or liability and of allocating the interest income or expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument or, when appropriate, a shorter period to the net carrying amount of the financial asset or liability.

Embedded derivative is a component of a hybrid instrument that also includes a non-derivative host contract, with the effect that some of the cash flows of the combined instrument vary in a way similar to a derivative.

Equity instruments are financial instruments issued by the Group that are classified as equity if they evidence a residual interest in the assets of the Group after deducting all of its liabilities.

Equity method is a method of accounting whereby the investment is initially recognized at cost and adjusted thereafter for the post-acquisition change in the investor´s share of net assets of the investee. The profit or loss of the investor includes the investor´s share of the profit or loss of the investee.

Equity volatility is the relative rate at which the price of equity changes.

Excess cash in the holding, which is rather a measure of Holdings liquidity, can be defined as the sum of the Holding company assets, less capital investments, less matched short term assets, less other adjustments. Aegon s internal policy for the management of excess cash in the holding is based on a similar approach as the management of the Group and Local Unit capitalization, using a range approach and a ladder of intervention to trigger timely conversations and escalating management actions.

Exchange differences are differences resulting from translating a given number of units of one currency into another currency at different exchange rates.

Fee-based earnings refers to the excess of fees earned over expenses. This is typically associated with pensions business, asset management business, distribution business, variable annuities and unit linked products.

Finance lease is a lease that transfers substantially all the risks and rewards incident to ownership of an asset.

Financial asset is any asset that is:

Cash;

An equity instrument of another entity;

A contractual right to receive cash or another financial asset from another entity or to exchange financial instruments with another party under conditions that are potentially favorable; or

A contract that will or may be settled in the entity s own equity instruments; and is

A non-derivative for which the entity is or may be obliged to receive a variable number of the entity s own equity instruments; or

A derivative that will or may be settled other than by the exchange of a fixed amount of cash or another financial asset for a fixed number of the entity s own equity instruments.

Financial instrument is any contract that gives rise to both a financial asset of one entity and a financial liability or equity instrument of another entity.

Financial liability is any liability that is:

A contractual obligation to deliver cash or another financial asset to another entity or to exchange financial assets or financial liabilities with another entity under conditions that are potentially unfavorable to the entity; or

A contract that will or may be settled in the entity s own equity instruments; and is

A non-derivative for which the entity is or may be obliged to deliver a variable number of the entity s own equity instruments; or

A derivative that will or may be settled other than by the exchange of a fixed amount of cash or another financial asset for a fixed number of the entity s own equity instruments.

Financial risks are risks of a possible future change in one or more of the following variables: a specified interest rate, financial instrument price, commodity price, foreign exchange rate, index or prices or rates, credit rating or credit index or other variable, provided in the case of a non-financial variable, that the variable is not specific to a party to the contract.

Firm commitment is a binding agreement for the exchange of a specified quantity of resources at a specified price on a specified future date or dates.

Fixed charge coverage is a measure of the Aegon s ability to service its financial leverage. It is calculated as the sum of underlying earnings before tax and interest expenses on financial leverage divided by interest payments on financial leverage. The fixed charge coverage includes the impact of interest rate hedging.

Foreign currency is a currency other than the functional currency of an entity within the Group.

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Foreign currency translation reserve (FCTR) is part of shareholders equity, and is the reserve for the exchange differences recognized from the financial statements of the group entities. On the consolidation, the financial statements of group entities with a foreign functional currency are translated to euro, the currency in which the consolidated financial statements are presented. Assets and liabilities are translated at the closing rates on the reporting date. Income, expenses and capital transactions (such as dividends) are translated at average exchange rates or at the prevailing rates on the transaction date, if more appropriate. The resulting exchange differences are recognized in the FCTR.

Foreign operation is an entity that is a subsidiary, associate, joint venture or branch of a reporting entity within the Group, the activities of which are based or conducted in a country or currency other than those of the reporting entity.

Functional currency is the currency of the primary economic environment in which an entity within the Group operates.

Fungibility & Transferability is the ability to up-stream and transfer capital between jurisdictions. This ability differs between jurisdictions as it depends on the legal framework of each jurisdiction.

General account investments are investments of which the financial risks are not borne by the policyholder.

Goodwill is the amount of future economic benefits arising from assets that are not capable of being individually identified and separately recognized as an asset in a business combination.

Government exposures relates to government issued securities including Dutch Government bonds and US Treasury, agency and state bonds.

Guaranteed benefits are payments or other benefits to which a particular policyholder or investor has an unconditional right that is not subject to the contractual discretion of the issuer.

Guaranteed minimum death benefits are benefits that guarantee that the beneficiary, as named in the contract, will receive a death benefit if the annuitant dies. The benefit received differs among contracts and may be greater than the current account value**.**

Guaranteed minimum income benefits are a type of option that annuitants can purchase for their retirement annuities. When the annuity is annuitized, this specific option guarantees that the annuitant will receive a minimum value s worth of payments, regardless of the current level of the account value.

Guaranteed minimum withdrawal benefits are a type of option that annuitants can purchase for their retirement annuities. This specific option gives annuitants the ability to protect

their retirement investments against downside market risk by allowing the annuitant the right to withdraw a percentage of their withdrawal base each year, regardless of how markets have performed

Hedge effectiveness is the degree to which changes in the fair value or cash flows of the hedged item that are attributable to a hedged risk are offset by changes in the fair value or cash flows of the hedging instrument.

Incremental cost is one that would not have been incurred if the entity had not acquired, issued or disposed of a financial instrument.

Insurance asset is an insurer´s contractual right under an insurance contract.

Insurance contract is a contract under which one party (the insurer) accepts significant insurance risk from another party (the policyholder) by agreeing to compensate the policyholder if a specified uncertain future event (the insured event) adversely affects the policyholder.

Insurance liability is an insurer´s contractual obligation under an insurance contract.

Insurance risk is a risk, other than financial risk, transferred from the holder of a contract to the issuer.

Interest rate risk is a market risk, namely the risk that the value of a financial instrument will fluctuate due to changes in market interest rates.

Joint control is the contractually agreed sharing of control over an economic activity, which exists when the strategic and operating decisions relating to the activity require the unanimous consent of the parties sharing control.

Liability adequacy testing is an assessment of whether the carrying amount of an insurance liability needs to be increased (or the carrying amount of related deferred policy acquisition costs or related intangible assets decreased) based on a review of future cash flows.

Liquidity risk is the risk that an entity will encounter difficulty in raising funds to meet commitments associated with financial instruments.

Loss absorbing capacity of deferred taxes is a loss compensating effect of taxes taken into account in the solvency capital requirement.

Master netting agreement is an agreement providing for an entity that undertakes a number of financial instrument transactions with a single counterparty to make a single net

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431 Other non-financial information **Glossary**

settlement of all financial instruments covered by the agreement in the event of default on, or termination of, any contract.

Matching adjustment will adjust the discount rate applied in the valuation of predictable liabilities which are cash flow matched using fixed income assets. The predictability of the portfolio means that matching assets can be held to maturity and that the insurer is consequently not exposed to price movements, only to the risk of default.

Minimum capital requirement is the absolute minimum level of capital an insurance company must hold in excess of its Technical Provisions under Solvency II.

Monetary items are units of currency held and assets and liabilities to be received or paid in a fixed or determinable number of units of currency.

Monoline insurer is an insurance company which issues types of insurance for securities and bonds to cover the interest and principal when an issuer defaults.

Negative amortization mortgages are loans whereby the payment made by the borrower may be less than the accrued interest due and the difference is added to the loan balance. When the accrued balance of the loan reaches the negative amortization limit (typically 110% to 125% of the original loan amount), the loan recalibrates to a fully amortizing level and a new minimum payment amount is determined.

Non-controlling interests are that portion of the profit or loss and net assets of a subsidiary attributable to equity interests that are not owned, directly or indirectly through subsidiaries, by the parent.

Onerous contracts are contracts in which the unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received under it.

Operational funding includes debt securities that are issued for the financing of dedicated pools of assets. These assets are either legally segregated or tracked as separate portfolios.

Operating expenses are all expenses associated with selling and administrative activities (excluding commissions) after reallocation of claim handling expenses to benefits paid.

Partial Internal Model is a combination of a Standard Formula and Internal Model, used to calculate the Solvency II capital requirement.

Past service cost is the increase in the present value of the defined benefit obligation for employee service in prior periods, resulting in the current period from the introduction of, or changes to, post-employment benefits.

Plan assets are assets held by a long-term employee benefit fund and qualifying insurance policies.

Policy acquisition costs are the expenses incurred in soliciting and placing new business as well as renewal of existing business. It includes agent s commissions, underwriting expenses, medical and credit report fees, marketing

expenses and all other direct and indirect expenses of the departments involved in such activities.

Policyholder is a party that has a right to compensation under an insurance contract if an insured event occurs.

Presentation currency is the currency in which the financial statements are presented.

Price risk is a market risk, namely the risk that the value of a financial instrument will fluctuate as a result of changes in market prices.

Private loan is a non-derivative financial asset with a fixed interest rate and a maturity date, which is not bought in an active market but negotiated between the two parties involved. Private loans are not embodied in securities. When a private loan takes the form of a private placement of bonds or other investments directly to an institutional investor like an insurance company, it has more the character of a bond loan and such financial instruments are classified as available-for-sale investments rather than as loans and receivables.

Projected unit credit method is an actuarial valuation method that sees each period of service as giving rise to an additional unit of benefit entitlement and measures each unit separately to build up the final obligation.

Qualifying insurance policies are a component of plan assets. These are insurance policies issued by an insurer that is not a related party of the reporting entity, if the proceeds of the policies:

Can be used only to pay or fund employee benefits under a defined benefit plan; and

Are not available to the reporting entity s own creditors.

Real estate investments foreclosed are real estate investments purchased through foreclosure on the mortgage. Such purchases are not accounted for as mortgages, but as real estate investments until they can be sold at a better price than at the foreclosure. Meanwhile they yield a rental income.

Realizable value is the amount of cash or cash equivalents that could currently be obtained by selling an asset in an orderly disposal.

Recognition is the process of incorporating in the statement of financial position or income statement an item that meets the

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definition of an element and satisfies the following criteria for recognition:

It is probable that any future economic benefit associated with the item will flow to or from the entity; and

The item has a cost or value that can be measured with reliability.

Reinsurance assets are a cedant´s net contractual rights under a reinsurance contract.

Reinsurance contract is an insurance contract issued by one insurer to compensate another insurer for losses on one or more contracts issued by the cedant.

Renewal of a contract is when a policyholder takes whatever action is required, typically payment of a premium, in order to maintain benefits under the contract.

Repurchase agreement is a sale of securities with an agreement to buy back the securities at a specified time and price.

Residential Mortgage Backed Security (RMBS) is an asset-backed security that is secured by a mortgage or collection of mortgages.

Return on plan assets is the investment income derived from plan assets, together with realized and unrealized gains and losses on the plan assets less any costs of administering the plan and less any tax payable by the plan itself.

Reverse repurchase agreement is a purchase of securities with the agreement to resell them at a later specified date and price.

Risk Based Capital Company Action Level is designed primarily for US regulators to identify poorly capitalized companies whose continued operations may be hazardous to policyholders. The insurer s RBC solvency ratio is determined as its total adjusted capital divided by authorized control level risk based capital. (ACL) However, it is industry and rating agency convention to complete and communicate the RBC solvency ratio relative to the Company Action Level Risk Based Capital , which is twice the authorized control level.

Security lending involves a loan of a security from one party to another.

Settlement date is the date that a financial asset is delivered to the entity that purchased it.

Solvency II is the fundamental reform of European insurance legislation.

Solvency capital requirement is the level of capital an insurance company must hold in excess of its Technical Provisions under Solvency II.

Spot exchange rate is the exchange rate for immediate delivery.

Spread is the difference between the current bid and the current ask or offered price of a given security.

Spread earnings is the difference between the interest earned on investments and the interest credited to policyholders. This is typically associated with traditional type business.

Standard Formula is a risk-based approach to the calculation of an insurer s solvency capital requirement, prescribed by the regulator.

Stochastic modeling is a statistical process that uses probability and random variables to predict a range of probable investment performances.

Temporary differences are differences between the carrying amount of an asset or liability in the statement of financial position and its tax base that will reverse over time.

Trade date is the date that an entity commits itself to purchase or sell an asset.

Transaction costs are incremental costs that are directly attributable to the acquisition, issue or disposal of a financial asset or liability.

Transitional measures allow EEA entities to gradually move to a full implementation of Solvency II over a period of time.

Trust Pass-Through securities (TRUPS) are securities through which the holders participate in a trust. The assets of these trusts consist of debentures issued by an Aegon Group company.

Unlocking of DPAC and VOBA refers to the process of updating the DPAC or the VOBA amortization schedule to reflect changes between the past and current expectations of key assumptions used in the projection of future gross profits.

Value of Business Acquired (VOBA) the difference between the fair value and the carrying amount of the insurance liabilities recognized when a portfolio of insurance contracts is acquired (directly from another insurance company or as part of a business combination).

Volatility adjustment is a volatility adjustment to the discount rates for calculating technical provisions aims at avoiding pro-cyclical investment behavior of insurers when bond prices deteriorate owing to low liquidity of bond markets or exceptional expansion of credit spreads. The adjustment has the effect of stabilizing the capital resources of insurers and will be calculated by EIOPA.

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433 Other non-financial information **Abbreviations**

Abbreviations

AFM Authority for the Financial Markets

ALCO Asset & Liability Management Committee

ALM Asset Liability Management

BCR Basic Capital Requirement

CEE Central & Eastern Europe

DNB Dutch Central Bank

DOL Department of Labor

EFRAG European Financial Reporting Advisory Group

FSB Financial Stability Board

GICs Guaranteed Investment Contracts

GMDB Guaranteed Minimum Death Benefits

GMIB Guaranteed Minimum Income Benefits

GMWB Guaranteed Minimum Withdrawal Benefits

G-SII Global Systematically Important Insurer

HLA Higher Loss Absorbing Capacity

IAIS International Association of Insurance Supervisors

ICS Insurance Capital Standard

ORSA Own Risk and Solvency Assessment

PPI Premium Pension Institution

SEC United States Securities and Exchange Commission

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Disclaimer

Cautionary note regarding non-IFRS measures

This document includes the following non-IFRSfinancial measures: underlying earnings before tax, income tax and income before tax. These non-IFRS measures are calculated by consolidating on a proportionate basis Aegon s joint ventures and associated companies. The reconciliation of these measures to the most comparable IFRS measure is provided in note 5 Segment information of this report. Aegon believes that these non-IFRS measures, together with the IFRS information, provide meaningful supplemental information about the underlying operating results of Aegon s business including insight into the financial measures that senior management uses in managing the business.

Currency exchange rates

This document contains certain information about Aegon s results, financial condition and revenue generating investments presented in USD for the Americas and Asia, and in GBP for the United Kingdom, because those businesses operate and are managed primarily in those currencies. None of this information is a substitute for or superior to financial information about Aegon presented in EUR, which is the currency of Aegon s primary financial statements.

Forward-looking statements

The statements contained in this document that are not historical facts are forward-looking statements as defined in the US Private Securities Litigation Reform Act of 1995. The following are words that identify such forward-looking statements: aim, believe, estimate, target, intend, may, expect, anticipate, predict, project, counting on, plan, continue, want, forecast, goal, should, would, is confident, will, and similar expressions as they relate to Aegon. These statements are not guarantees of future performance and involve risks, uncertainties and assumptions that are difficult to predict. Aegon undertakes no obligation to publicly update or revise any forward-looking statements. Readers are cautioned not to place undue reliance on these forward-looking statements, which merely reflect company expectations at the time of writing. Actual results may differ materially from expectations conveyed in forward-looking statements due to changes caused by various risks and uncertainties. Such risks and uncertainties include but are not limited to the following:

Changes in general economic and/or governmental conditions, particularly in the United States, the Netherlands and the United Kingdom;

Changes in the performance of financial markets, including emerging markets, such as with regard to:

The frequency and severity of defaults by issuers in Aegon s fixed income investment portfolios;

The effects of corporate bankruptcies and/or accounting restatements on the financial markets and the resulting decline in the value of equity and debt securities Aegon holds; and

The effects of declining creditworthiness of certain private sector securities and the resulting decline in the value of government exposure that Aegon holds;

Changes in the performance of Aegon s investment portfolio and decline in ratings of Aegon s counterparties;

Consequences of a potential (partial) break-up of the euro;

Consequences of the anticipated exit of the United Kingdom from the European Union;

The frequency and severity of insured loss events;

Changes affecting longevity, mortality, morbidity, persistence and other factors that may impact the profitability of Aegon s insurance products;

Reinsurers to whom Aegon has ceded significant underwriting risks may fail to meet their obligations;

Changes affecting interest rate levels and continuing low or rapidly changing interest rate levels;

Changes affecting currency exchange rates, in particular the EUR/USD and EUR/GBP exchange rates;

Changes in the availability of, and costs associated with, liquidity sources such as bank and capital markets funding, as well as conditions in the credit markets in general such as changes in borrower and counterparty creditworthiness;

Increasing levels of competition in the United States, the Netherlands, the United Kingdom and emerging markets;

Changes in laws and regulations, particularly those affecting Aegon s operations ability to hire and retain key personnel, taxation of Aegon companies, the products Aegon sells, and the attractiveness of certain products to its consumers;

Regulatory changes relating to the pensions, investment, and insurance industries in the jurisdictions in which Aegon operates;

Standard setting initiatives of supranational standard setting bodies such as the Financial Stability Board and the International Association of Insurance Supervisors or changes to such standards that may have an impact on regional (such as EU), national or US federal or state level financial regulation or the application thereof to Aegon, including the designation of Aegon by the Financial Stability Board as a Global Systemically Important Insurer (G-SII);

Changes in customer behavior and public opinion in general related to, among other things, the type of products Aegon sells, including legal, regulatory or commercial necessity to meet changing customer expectations;

Acts of God, acts of terrorism, acts of war and pandemics;

Changes in the policies of central banks and/or governments;

Lowering of one or more of Aegon s debt ratings issued by recognized rating organizations and the adverse impact such action may have on Aegon s ability to raise capital and on its liquidity and financial condition;

Lowering of one or more of insurer financial strength ratings of Aegon s insurance subsidiaries and the adverse impact such action may have on the premium writings, policy retention, profitability and liquidity of its insurance subsidiaries;

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- The effect of the European Union s Solvency II requirements and other regulations in other jurisdictions affecting the capital Aegon is required to maintain;
- Litigation or regulatory action that could require Aegon to pay significant damages or change the way Aegon does business;
- As Aegon s operations support complex transactions and are highly dependent on the proper functioning of information technology, a computer system failure or security breach may disrupt Aegon s business, damage its reputation and adversely affect its results of operations, financial condition and cash flows;
- Customer responsiveness to both new products and distribution channels;
- Competitive, legal, regulatory, or tax changes that affect profitability, the distribution cost of or demand for Aegon s products;
- Changes in accounting regulations and policies or a change by Aegon in applying such regulations and policies, voluntarily or otherwise, which may affect Aegon s reported results and shareholders equity;
- Aegon s projected results are highly sensitive to complex mathematical models of financial markets, mortality, longevity, and other dynamic systems subject to shocks and unpredictable volatility. Should assumptions to these models later prove incorrect, or should errors in those models escape the controls in place to detect them, future performance will vary from projected results;
- The impact of acquisitions and divestitures, restructurings, product withdrawals and other unusual items, including Aegon s ability to integrate acquisitions and to obtain the anticipated results and synergies from acquisitions;
- Catastrophic events, either manmade or by nature, could result in material losses and significantly interrupt Aegon s business;
- Aegon s failure to achieve anticipated levels of earnings or operational efficiencies as well as other cost saving and excess cash and leverage ratio management initiatives.

This document contains information that qualifies, or may qualify, as inside information within the meaning of Article 7(1), 7(1)a and 7(4) of the EU Market Abuse Regulation (596/2014). Further details of potential risks and uncertainties affecting Aegon are described in its filings with the Netherlands Authority for the Financial Markets and the US Securities and Exchange Commission, including the Annual Report. These forward-looking statements speak only as of the date of this document. Except as required by any applicable law or regulation, Aegon expressly disclaims any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in Aegon s expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based.

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436 Other non-financial information **Contact**

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Colophon

Consultancy and design	DartGroup, Amsterdam (NL)
Editing and production	Aegon Corporate Communications (NL)
Typesetting	DartGroup, Amsterdam (NL)

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Documents on display

Aegon files annual reports with and furnishes other information to the Securities and Exchange Commission. You may read and copy any document filed with or furnished to the SEC by Aegon at the SEC s public reference room at 450 Fifth Street, N.W., Washington, D.C. 20549. Aegon s SEC filings are also available to the public through the SEC s web site at www.sec.gov. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room in Washington D.C. and in other locations.

The SEC allows Aegon to incorporate by reference information into this Annual Report on Form 20-F, which means that:

- Incorporated documents are considered part of this Annual Report on Form 20-F; and
- Aegon can disclose important information to you by referring you to those documents.

Those documents contain important information about Aegon and its financial condition. You may obtain copies of those documents in the manner described above. You may also request a copy of those documents (excluding exhibits) at no cost by contacting us (refer to page 436).

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Exhibits

Index to Exhibits

1	Articles of Association. (1)
2	Any instruments defining the rights of security holders and/or long-term debt holders. Pursuant to the requirement of this item, we agree to furnish to the SEC upon request a copy of any instrument defining the rights of holders of long-term debt of us or of our subsidiaries for which consolidated or unconsolidated financial statements are required to be filed.
4.1	1983 Amended Merger Agreement. (2)
4.2	Voting Rights Agreement. (3)
4.3	Board Agreement between A.R. Wynaendts and Aegon N.V. (4)
4.4	Aegon N.V. Long-term Incentive Plan Rules. (5)
4.5	Aegon Group Executive Board Variable Compensation Plan Rules 2013. (6)
4.6	Aegon Group Executive Board Variable Compensation Plan Rules 2014. (7)
4.7	Aegon Group Executive Board Variable Compensation Plan Rules 2015. (8)
8	List of Subsidiaries of Aegon N.V. Incorporation by reference to Note 52 of this Annual Report.
12.1	Certification of the Chief Executive Officer pursuant to Rule 13A-14 or 15D-14 of the Securities Exchange Act of 1934.
12.2	Certification of the Chief Financial Officer pursuant to Rule 13A-14 or 15D-14 of the Securities Exchange Act of 1934.
13	Certification of the Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350.
15	Consent of independent registered public accounting firm.
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Schema Linkbase Document
101.CAL	XBRL Taxonomy Calculation Linkbase Document
101.DEF	XBRL Taxonomy Definition Linkbase Document
101.LAB	XBRL Taxonomy Labels Linkbase Document
101.PRE	XBRL Taxonomy Presentation Linkbase Document

(1) Incorporated by reference to Form 6K (0001104659-13-046533) filed with the SEC on June 4, 2013.
(2) Incorporated by reference Exhibit 4.1 to Form 20-F 2013 filed with the SEC on March 21, 2014.
(3) Incorporated by reference Exhibit 4.2 to Form 20-F 2013 filed with the SEC on March 21, 2014.
(4) Incorporated by reference Exhibit 4.4 to Form 20-F 2015 filed with the SEC on March 25, 2016.
(5) Incorporated by reference Exhibit 4.13 to Form 20-F 2004 filed with the SEC on March 31, 2005.
(6) Incorporated by reference Exhibit 4.14 to Form 20-F 2013 filed with the SEC on March 21, 2014.
(7) Incorporated by reference Exhibit 4.8 to Form 20-F 2014 filed with the SEC on March 20, 2015.
(8) Incorporated by reference Exhibit 4.9 to Form 20-F 2015 filed with the SEC on March 25, 2016.

The company agrees to furnish to the Securities and Exchange Commission upon request copies of instruments with respect to long-term debt of the company and its consolidated subsidiaries.

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