AGILENT TECHNOLOGIES INC
Form 10-K
December 16, 2011

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

(Mark One)

ý **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended October 31, 2011

or

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from to

Commission File Number: 001-15405

Agilent Technologies, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**77-0518772**
State or other jurisdiction of Incorporation or organization	*I.R.S. Employer Identification No.*

Address of principal executive offices: 5301 Stevens Creek Blvd., Santa Clara, California 95051
Registrant's telephone number, including area code: (408) 553-7777

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Name of each exchange on which registered**
Common Stock par value $0.01 per share	**New York Stock Exchange, Inc.**

Securities registered pursuant to Section 12(g) of the Act:
None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ý No o

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes o No ý

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 requirements for the past 90 days. Yes ý No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ý No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ý

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

Large accelerated filer ý	Accelerated filer o	Non-accelerated filer o (Do not check if a smaller reporting company)	Smaller reporting company o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No ý

The aggregate market value of the registrant's common equity held by non-affiliates as of April 30, 2011, was approximately $12.848 billion. Shares of stock held by officers, directors and 5 percent or more stockholders have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of December 1, 2011, there were 348,125,173 outstanding shares of common stock, par value $0.01 per share.

DOCUMENTS INCORPORATED BY REFERENCE

Document Description	**10-K Part**
Portions of the Proxy Statement for the Annual Meeting of Stockholders (the "Proxy Statement") to be held on March 21, 2012, and to be filed pursuant to Regulation 14A within 120 days after registrant's fiscal year ended October 31, 2011 are incorporated by reference into Part III of this Report	III

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Forward-Looking Statements

This report contains forward-looking statements including, without limitation, statements regarding trends, seasonality, cyclicality and growth in, and drivers of, the markets we sell into, our strategic direction, our future effective tax rate and tax valuation allowance, earnings from our foreign subsidiaries, remediation activities, new product and service introductions, the ability of our products to meet market needs, changes to our manufacturing processes, the use of contract manufacturers, the impact of local government regulations on our ability to pay vendors or conduct operations, our liquidity position, our ability to generate cash from operations, growth in our businesses, our investments, the potential impact of adopting new accounting pronouncements, our financial results, our purchase commitments, our contributions to our pension plans, the selection of discount rates and recognition of any gains or losses for our benefit plans, our cost-control activities, uncertainties relating to Food and Drug Administration ("FDA") and other regulatory approvals, the integration of our Varian acquisition and other transactions, our stock repurchase program, our transition to lower-cost regions, and the existence of economic instability, that involve risks and uncertainties. Our actual results could differ materially from the results contemplated by these forward-looking statements due to various factors, including those discussed in Item 1A and elsewhere in this Form 10-K.

PART I

Item 1. *Business*

Overview

Agilent Technologies, Inc. ("we", "Agilent" or the "company"), incorporated in Delaware in May 1999, is the world's premier measurement company providing core bio-analytical and electronic measurement solutions to the communications, electronics, life sciences and chemical analysis industries.

For the fiscal year ended October 31, 2011, we have three business segments comprised of the electronic measurement business, the chemical analysis business and the life sciences business.

Our electronic measurement business addresses the communications, electronics and other industries. Our chemical analysis business focuses on the petrochemical, environmental, forensics and food safety industries. Our life sciences business focuses on the pharmaceutical, biotech, academic and government, bio-agriculture and food safety industries. In addition to our three businesses, we conduct centralized research through Agilent Technologies Laboratories ("Agilent Labs"). Each of our businesses, including Agilent Labs, is supported by our global infrastructure organization, which provides shared services in the areas of finance, information technology, legal, workplace services and human resources.

On May 14, 2010, we acquired Varian, Inc., a leading supplier of scientific instrumentation and associated consumables for life science and applied market applications, for a total cash purchase price of approximately $1.5 billion. Varian's products include analytical instruments, research products and related software, consumable products, accessories and services, as well as vacuum products and related services and accessories. The acquisition broadens Agilent's applications and solutions offerings in both of our chemical analysis and life sciences businesses. It expands Agilent's product portfolio into atomic and molecular spectroscopy; establishes a strong position in nuclear magnetic resonance, imaging and vacuum technologies; and strengthens our consumables portfolio. We financed the purchase price of Varian using the proceeds from our September 2009 offering of senior notes and other existing cash. Varian's cash acquired at completion of the acquisition was approximately $226 million.

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On May 1, 2010, we completed the sale of our Network Solutions Division ("NSD") of our electronic measurement business to JDS Uniphase Corporation. NSD included Agilent's network assurance solutions, network protocol test and drive test products. On February 2, 2010, the company sold Hycor Biomedical Inc., a subsidiary of Agilent and part of our life sciences business, to Linden LLC, a Chicago-based healthcare private equity firm. Hycor is a global manufacturer and marketer of in-vitro diagnostics products.

We sell our products primarily through direct sales, but we also utilize distributors, resellers, manufacturer's representatives, telesales and electronic commerce. Of our total net revenue of $6.6 billion for the fiscal year ended October 31, 2011, we generated 30 percent in the U.S. and 70 percent outside the U.S. As of October 31, 2011, we employed approximately 18,700 people worldwide. Our primary research and development and manufacturing sites are in California, Colorado and Delaware in the U.S. and in Australia, China, Germany, India, Italy, Japan, Malaysia, Singapore and the United Kingdom.

The net revenue, income from operations and assets by business segment, as they were structured, as of and for the fiscal year ended October 31, 2011 and for each of the past three years are shown in Note 21, "Segment Information", to our consolidated financial statements, which we incorporate by reference herein.

Electronic Measurement Business

Our electronic measurement business provides electronic measurement instruments and systems, software design tools and related services that are used in the design, development, manufacture, installation, deployment and operation of electronics equipment, and microscopy products. Related services include start-up assistance, instrument productivity and application services and instrument calibration and repair. We also offer customization, consulting and optimization services throughout the customer's product lifecycle.

Our electronic measurement business employed approximately 8,100 people as of October 31, 2011. Our electronic measurement business generated $3.3 billion in revenue in fiscal 2011, $2.8 billion in revenue in fiscal 2010, and $2.4 billion in revenue in fiscal 2009.

Electronic Measurement Markets

Our electronic measurement products serve the following markets:

The Communications Test Market

We market our electronic measurement products and services to network equipment manufacturers ("NEMs"), handset manufacturers, and communications service providers, including the component manufacturers within the supply chain for these customers.

NEMs manufacture and sell products to facilitate the transmission of voice, data and video traffic. The NEMs' customers are the distributors of end-user subscriber devices, including wireless personal communication devices and set-top boxes, as well as communications service providers that deploy and operate the networks and services. To meet their customers' demands, NEMs require test and measurement instruments, systems and solutions for the development, production and installation of each network technology.

Communications service providers require reliable network equipment that enables new service offerings and allows their networks to operate at ever-increasing capacities. To achieve this, communications service providers require a range of sophisticated test instruments and systems to monitor and evaluate network performance and to identify any sources of communications failure.

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Handset manufacturers require test and measurement products for the design, development, manufacture and repair of mobile handsets. These mobile handsets are used for voice, data and video delivery to individuals who connect wirelessly to the service provider's network. The handset manufacturers' primary customers are large and small service providers. The handset manufacturers require test and measurement products that enable technology development in conformance with the latest communications standards.

Component manufacturers design, develop and manufacture electronic components and modules used in network equipment and handsets. The component manufacturers require test and measurement products to verify that the performance of their components and modules meet the specifications of their NEM and handset customers.

The communications test market accounted for approximately 37 percent of revenue from our electronic measurement business in 2011.

The General Purpose Test Market

We market our general purpose test products and services to the electronics industry and other industries with significant electronic content such as the aerospace and defense, computer and semiconductor industries. These electronics and electronics-dependent industries design, develop and manufacture a wide range of products, including those produced in high volumes, such as computers, computer peripherals, electronic components, consumer electronics, enterprise servers, storage networks and automotive electronics. The components, printed circuit assemblies and functional devices for these products may be designed, developed and manufactured by electronic components companies, by original equipment manufacturers or by contract manufacturers.

For the development and timely commercialization of new technologies, manufacturers require state-of-the-art test instruments, systems and design software in order to design products for efficient and cost-effective manufacturing and to validate product performance in a variety of configurations and environments.

Customers use our general purpose test solutions in developing and manufacturing a wide variety of electronic components and systems. These customers' test requirements include testing the electrical parameters of digital, radio frequency, and microwave frequency components and assemblies; testing multiple parameters of the printed circuit boards used in almost every electronic device; testing of the final product; and testing of systems containing multiple electronic instruments. For semiconductor and board test applications, customers use our solutions in the design, development, manufacture, installation, deployment, and operation of semiconductor and printed circuit assembly fabrication.

We address the biology, life sciences and material science markets by providing solutions such as the atomic force microscope, nano indenters and scanning electron microscope. For nanotechnology applications, customers use our products to study biological samples at the cellular and molecular level including imaging of DNA and proteins, and to study and research polymers, electrochemistry, and thin films.

The general purpose test market accounted for approximately 63 percent of revenue from our electronic measurement business in 2011.

Electronic Measurement Products

We divide our electronic measurement products into communications test products and general purpose test products.

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Communications Test Products

We sell products and services applicable to a wide range of communications networks and systems including wireless communications and microwave networks, voice, broadband, data, and fiber optic networks. Test products include electronic design automation ("EDA") software, vector and signal analyzers, signal generators, vector network analyzers, one box testers, oscilloscopes, logic and protocol analyzers, and bit-error ratio testers.

Our wireless communications and microwave network products include radio frequency and microwave test instruments and EDA software tools. These products are required for the design and production of wireless network products, communications links, cellular handsets and base stations. We provide handheld products for the installation and maintenance of wireless networks. Our high-frequency EDA software tools and instruments are used by radio frequency integrated circuit design engineers to model, simulate and analyze communications product designs at the circuit and system levels. Our customers are also applying this technology more frequently to model signal integrity problems in digital design applications as digital speeds continue to increase.

Our suite of fiber optic test products measure and analyze a wide variety of critical optical and electrical parameters in fiber optic networks and their components. Components which can be tested with Agilent solutions include source lasers, optical amplifiers, filters and other passive components. Test products include optical component analyzers, optical power meters, and optical spectrum analyzers.

General Purpose Test Products

We sell the following types of products into the general purpose test market: general purpose instruments, modular instruments and test software, digital test products, semiconductor and board test solutions, electronics manufacturing test equipment, atomic force microscopes and radio frequency and network surveillance solutions.

General purpose instruments are used principally by engineers in research and development laboratories, manufacturing, and calibration and service, for measuring voltage, current, frequency, signal pulse width, modulation and other complex electronics measurements. Our general purpose products include spectrum analyzers, network analyzers, signal generators, logic analyzers, digitizing oscilloscopes, voltmeters, multimeters, frequency counters, bench and system power supplies, function generators and waveform synthesizers.

Modular instruments and test software are used by the designers and manufacturers of electronic devices as the building blocks of systems that can be configured for a wide variety of test applications, and changed as needed by a combination of modular hardware and software components. Examples include test systems for aviation systems maintenance and multi-function university labs.

Our digital test products are used by research and development engineers across a broad range of industries to validate the function and performance of their digital product and system designs. These designs include a wide range of products from simple digital control circuits to complex high speed systems such as computer servers and the latest generation gaming consoles. The test products offered include high-performance oscilloscopes, logic and serial protocol analyzers, logic-signal sources and data generators.

Our semiconductor and board test solutions enable customers to develop and test state of the art semiconductors, test and inspect printed circuit boards, perform functional testing, and measure position and distance information to the sub-nanometer level. We are one of the leading suppliers of parametric test instruments and systems used primarily to examine semiconductor wafers during the

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manufacturing process. Our in-circuit test system helps identify quality defects, such as faulty or incorrect parts, that affect electrical performance. Our laser interferometer measurement systems are based on precision optical technology and provide precise position or distance information for dimensional measurements.

Our atomic force microscopes ("AFM") are high-resolution imaging devices that can resolve features as small as an atomic lattice. An AFM allows researchers to observe and manipulate molecular and atomic level features. Our expanding portfolio of AFM products provides customers with reliable, easy-to-use tools for a wide range of nanotechnology applications, including semiconductor, data storage, polymers, materials science and life science studies.

Our surveillance systems and subsystems are used by defense and government engineers and technicians to detect, locate and analyze signals of interest. These signals may be transmitted via radio frequency signals or wire lines. The products offered include receivers for detecting radio frequency signals, probes for detecting wire line signals and software that enables the identification and analysis of these signals.

Electronic Measurement Customers

Agilent's electronic measurement customers include contract manufacturers of electronic products, handset manufacturers and network equipment manufacturers who design, develop, manufacture and install network equipment, service providers who implement, maintain and manage communication networks and services, and companies who design, develop, and manufacture semiconductors and semiconductor lithography systems. Our customers use our products to conduct research and development, manufacture, install and maintain radio frequency, microwave frequency, digital, semiconductor, and optical products and systems and conduct nanotechnology research. Many of our customers purchase solutions across several of our major product lines for their different business units.

We had approximately 15,000 customers for electronic measurement products in fiscal 2011 and no single customer represented greater than 4 percent of net revenue of the electronic measurement business.

In general, the orders and revenues from many of the electronic measurement markets and product categories are seasonal, traditionally marked by lower business levels in the first quarter of the fiscal year and higher volumes in the fourth quarter of the fiscal year. This seasonality is particularly evident in products that we sell into the aerospace and defense industry, as well as those linked to consumer spending, which includes some of our communications test equipment. The seasonal impact of our business is tempered by the diversity of our electronic measurement products and customers, which span multiple industries.

Electronic Measurement Sales, Marketing and Support

We have a focused sales strategy, using a direct sales force, resellers, manufacturer's representatives and distributors to meet our customers' needs. Our direct sales force is focused on identifying customer needs and recommending solutions involving the effective use and deployment of our equipment, services, systems and capabilities. Some members of our direct sales force focus on global accounts, providing uniform services on a worldwide basis. Others focus on our more complex products such as our high-performance instruments, where customers require strategic consultation. Our sales force also engages with the contract manufacturer market by collaborating with original equipment manufacturers to specify our test equipment for contract manufacturer test applications, as well as marketing to contract manufacturers directly.

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Our direct sales force consists of field engineers and systems engineers who have in-depth knowledge of the customers' business and technology needs. Our systems engineers provide a combination of consulting, systems integration and application and software engineering services and are instrumental in all stages of the sale, implementation and support of our complex systems and solutions.

To complement our direct sales force we have agreements with many channel partners around the world. These partners, including resellers, manufacturer's representatives, and distributors, serve Agilent's customers across a number of product lines and provide the same level of service and support expected from our direct channel. Lower dollar transactions can also be served by our tele-sales and electronic commerce channels.

Our products typically come with standard warranties, and extended warranties are available at additional cost.

Electronic Measurement Manufacturing

We concentrate our electronic measurement manufacturing efforts primarily on final assembly and test of our products. To maximize our productivity and our ability to respond to market conditions, we use contract manufacturers for the production of printed circuit boards, sheet metal fabrication, metal die-casting, plastic molding and standard electronic components. We also manufacture proprietary devices and assemblies in our own fabrication facilities for competitive advantage. We have manufacturing facilities in Arizona, California and Colorado in the U.S. Outside of the U.S. we have manufacturing facilities in China, Germany, Japan and Malaysia.

We generally only manufacture products when we have received firm orders for delivery and do not generally hold large stocks of finished inventory.

Electronic Measurement Competition

The market for electronic measurement equipment is highly competitive. Our electronic measurement business competes with a number of significant competitors in all our major product categories and across our targeted industries. In the communications test market our primary competitors are Aeroflex Incorporated, Anritsu Corporation, Ansoft Corporation (a subsidiary of Ansys Corporation), EXFO Electro-Optical Engineering, Inc., National Instruments Corporation, Rohde & Schwartz GmbH & Co. KG, Spirent plc and Tektronix, Inc. (a subsidiary of Danaher Corporation). In the general purpose test market, we compete against companies such as Aeroflex Incorporated, Bruker Corporation, Fluke Corporation (a subsidiary of Danaher Corporation), LeCroy Corporation, National Instruments Corporation, Rohde & Schwartz GmbH & Co. KG, Tektronix, Inc. (a subsidiary of Danaher Corporation), Teradyne, Inc., Test Research Inc., and Zygo Corporation.

Our electronic measurement business offers a wide range of products, and these products compete primarily on the basis of product quality and functionality, as well as performance and reliability.

Chemical Analysis Business

Our chemical analysis business provides application-focused solutions that include instruments, software, consumables, and services that enable customers to identify, quantify and analyze the physical and biological properties of substances and products. Key product categories in chemical analysis include: gas chromatography ("GC") systems, columns and components; gas chromatography mass spectrometry ("GC-MS") systems; inductively coupled plasma mass spectrometry ("ICP-MS") instruments; atomic absorption ("AA") instruments; inductively coupled plasma optical emission

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spectrometry ("ICP-OES") instruments; software and data systems; vacuum pumps and measurement technologies; services and support for our products.

We employed approximately 3,500 people as of October 31, 2011 in our chemical analysis business. This business generated revenue of $1.5 billion in fiscal 2011, $1.2 billion in fiscal 2010 and $0.8 billion in fiscal 2009.

Chemical Analysis Markets

Within chemical analysis, we focus primarily on the following markets:

The Chemical & Energy Market. The natural gas and petroleum refining markets use our products to measure and control the quality of their finished products and to verify the environmental safety of their operations. Petroleum refiners use our measurement solutions to analyze crude oil composition, perform raw material analysis, verify and improve refining processes and ensure the overall quality of gasoline, fuels, lubricants and other products. Our solutions are also used in the development, manufacturing and quality control of fine chemicals.

The Environmental & Forensics Market. Our instruments, software and workflow solutions are used by the environmental market for applications such as laboratory and field analysis of chemical pollutants in air, water, soil and solid waste. Environmental industry customers include all levels of government, the industrial and manufacturing sectors, engineering and consulting companies, commercial testing laboratories and colleges and universities. Drug testing and forensics laboratories use our instruments, software and workflow solutions for applications such as analyzing evidence associated with crime, screening athletes for performance enhancing drugs, analyzing samples for recreational drugs, or detecting and identifying biological and chemical warfare agents. This instrumentation is used in either static or mobile laboratories. Customers include local, state, federal, and international law enforcement agencies and health laboratories.

The Food Market. Our instruments, software, and workflow solutions are used throughout the food production chain, including incoming inspection, new product development, quality control and assurance, and packaging. For example, our mass spectrometer portfolio, including triple quad liquid chromatography mass spectrometers, is used to analyze contaminants and residual pesticides in food. There is also a significant food safety market involved in analyzing food for pathogen contamination, accurate verification of species type and evidence of genetically modified content.

Chemical Analysis Products

A key factor in all of our chemical analysis markets is the need for new products that increase customer productivity and provide high quality data that enable decision-making by our customers. Our key product segments include:

Gas Chromatography Products

Agilent is the world's leading provider of gas chromatographs, both laboratory and portable models. A gas chromatograph ("GC") is used to separate any gas, liquid or solid that can be vaporized and then detect the molecules present to determine their identity and quantity. Agilent provides custom or standard analyzers configured for specific chemical analysis applications, such as detailed speciation of a complex hydrocarbon stream, calculation of gas calorific values in the field, or analysis of a new bio-fuel formulation. We also offer related software, accessories and consumable products for these and other similar instruments.

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Mass Spectrometry Products

Mass spectrometry ("MS") is a technique for analyzing the individual chemical components of substances by ionizing them and determining their mass-to-charge ratios. Our MS products incorporate various technologies for measuring mass, including single-quadrupole, triple-quadrupole, and ion trap mass spectrometers. We combine our mass spectrometers with other instruments to create high-performance instruments such as gas chromatograph mass spectrometers ("GC/MS"), and inductively coupled plasma mass spectrometers ("ICP-MS"). We also offer related software, accessories and consumable products for these and other similar instruments.

Spectroscopy Products

Spectroscopy is a technique for analyzing the individual chemical components of substances based on the absorption or emission of electromagnetic radiation of specific wavelengths of light. Our spectroscopy instruments include atomic absorption ("AA") spectrometers, inductively coupled plasma-optical emissions spectrometers ("ICP-OES"), inductively coupled plasma-mass spectrometers ("ICP-MS"), fluorescence spectrophotometers, ultraviolet- visible ("UV-Vis") spectrophotometers, Fourier Transform infrared ("FT-IR") spectrophotometers, near-infrared ("NIR") spectrophotometers, Raman spectrometers and sample automation products. We also offer related software, accessories and consumable products for these and other similar instruments.

Vacuum Technology Products

Our vacuum technologies products are used to create, control, measure and test vacuum environments in life science, industrial and scientific applications where ultra-clean, high-vacuum environments are needed. Vacuum technologies' customers are typically OEMs that manufacture equipment for these applications. Products include a wide range of high and ultra-high vacuum pumps (diffusion, turbomolecular and ion getter), intermediate vacuum pumps (rotary vane, sorption and dry scroll), vacuum instrumentation (vacuum control instruments, sensor gauges and meters) and vacuum components (valves, flanges and other mechanical hardware). Its products also include helium mass spectrometry and helium-sensing leak detection instruments used to identify and measure leaks in hermetic or vacuum environments. In addition to product sales, we also offer a wide range of services including an exchange and rebuild program, assistance with the design and integration of vacuum systems, applications support and training in basic and advanced vacuum technologies.

Consumables and Services

We offer a broad range of consumable products, which support our technology platforms, including sample preparation consumables such as solid phase extraction ("SPE") and filtration products, self manufactured GC and LC columns, chemical standards, and instrument replacement parts. Consumable products also include scientific instrument parts and supplies such as filters and fittings for GC systems; xenon lamps and cuvettes for UV-Vis-NIR, fluorescence, FT-IR and Raman spectroscopy instruments; and graphite furnace tubes, hollow cathode lamps and specialized sample introduction glassware for our AA, ICP-OES and ICP-MS products.

We offer a wide range of startup, operational, educational and compliance support services for our measurement and data handling systems. Our support services include maintenance, troubleshooting, repair and training for all of our chemical and bioinstrumentation analysis hardware and software products. Special service bundles have also been designed to meet the specific application needs of various industries.

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Chemical Analysis Customers

We had approximately 34,000 customers for our chemical analysis business in 2011. No single customer represented greater than 2 percent of the net revenue of the chemical analysis business. A significant number of our chemical analysis customers are also customers of our life sciences business.

The chemical analysis business is susceptible to seasonality in its orders and revenues primarily based on U.S. government and large company budgets. The result is that our fourth fiscal quarter tends to deliver the strongest profits for this business. However, general economic trends, new product introductions and competition might overshadow this trend in any given year.

Chemical Analysis Sales, Marketing and Support

Our sales and support delivery channels are aligned by key markets. We market products to our customers through direct sales, electronic commerce, resellers, manufacturers' representatives and distributors. Additionally, we are optimizing our worldwide distribution capabilities to address high-growth opportunities such as the environmental and food safety markets in the Asia-Pacific region.

We use direct sales to market our solutions to our large- and medium-sized chemical customers and environmental accounts. Sales agents supplement direct sales by providing broader geographic coverage and coverage of smaller accounts. Our active reseller program augments our ability to provide more complete solutions to our customers. We sell our consumable products through distributors, telesales, electronic commerce and direct sales.

We deliver our support services to customers in a variety of ways, including on-site assistance with repair or exchange of returned products, telephone support and self-diagnostic services provided over the Internet. We also offer special industry-focused service bundles that are designed to meet the specific needs including those for hydrocarbon processing and environmental customers to keep instruments fully operational and compliant with the respective industry requirements. Our products typically come with standard warranties, and extended warranties are available for additional cost.

Chemical Analysis Manufacturing

Our manufacturing supports our diverse product range and customer-centric focus. We assemble highly configurable products to individual customer orders and make standard products to stock. We employ advanced manufacturing techniques and supply chain management systems to reduce costs and manufacturing cycle times. We selectively use third parties to provide some supply chain processes for manufacturing, warehousing and logistics. We have manufacturing facilities in California, Delaware, and Massachusetts in the U.S. Outside of the U.S., we have manufacturing facilities in Australia, China, Italy, Netherlands, Japan and the United Kingdom. We utilize just-in-time manufacturing and so typically do not maintain a high level of inventory.

Chemical Analysis Competition

The markets for analytical instruments in which we compete are characterized by evolving industry standards and intense competition. Our principal competitors in the chemical analysis arena include: Bruker Corporation, PerkinElmer Inc., Shimadzu Corporation and Thermo Fisher Scientific Inc. Agilent competes on the basis of product performance, reliability, support quality, applications expertise, global channel coverage and price.

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Chemical Analysis Government Regulation

The analysis products and related consumables marketed by our chemical analysis business are subject to regulation in the U.S. by the Environmental Protection Agency ("EPA") under the Toxic Substances Control Act and by government agencies in other countries under similar laws. The Toxic Substances Control Act regulations govern, among other things, the testing, manufacture, processing and distribution of chemicals, the testing of regulated chemicals for their effects on human health and safety and import and export of chemicals. The Toxic Substances Control Act prohibits persons from manufacturing any chemical in the U.S. that has not been reviewed by EPA for its effect on health and safety, and placed on an EPA inventory of chemical substances. Therefore, we must continually adapt our chemical analysis products to changing regulations. If we fail to comply with the notification, record-keeping and other requirements in the manufacture or distribution of our products, the EPA can obtain an order from a court that would prohibit the further distribution or marketing of a product that does not comply or we could face fines, civil penalties or criminal prosecution.

Life Sciences Business

Our life sciences business provides application-focused solutions that include instruments, software, consumables, and services that enable customers to identify, quantify and analyze the physical and biological properties of substances and products. Key product categories in life sciences include: DNA and RNA microarrays and associated scanner, software, and reagents; microfluidics-based sample analysis systems; liquid chromatography ("LC") systems, columns and components; liquid chromatography mass spectrometry ("LCMS") systems; capillary electrophoresis systems; laboratory software and informatics systems; bio-reagents and related products; laboratory automation and robotic systems, dissolution testing; Nuclear Magnetic Resonance ("NMR") and Magnetic Resonance Imaging ("MRI") systems along with X-Ray crystallography, and services and support for the aforementioned products.

We employed approximately 4,600 people as of October 31, 2011 in our life sciences business. This business generated revenue of $1.8 billion in fiscal 2011, $1.5 billion in fiscal 2010 and $1.2 billion in fiscal 2009.

Life Science Markets

Our life sciences business focuses primarily on the following two markets:

The Pharma, Biotech, CRO & CMO Market. This market consists of "for-profit" companies who participate across the pharmaceutical value chain in the areas of therapeutic research, discovery & development, clinical trials, manufacturing and quality assurance and quality control. One sub-segment of this market is core and emerging pharmaceutical companies ("Pharma"). A second sub-segment includes biotechnology companies ("biotech"), contract research organizations ("CROs") and contract manufacturing organizations ("CMOs"). Biotech companies and, to a somewhat lesser extent, CROs and CMOs typically participate in specific points in the Pharma industry value chain.

The Academic and Government Market. This market consists primarily of "not-for-profit" organizations and includes academic institutions, large government institutes and privately funded organizations. The academic and government research market plays an influential role in technology adoption and therapeutic developments for Pharma and molecular diagnostics companies. After decades of investment in basic biomedical research by government funding bodies, the focus has widened to include translational research multidisciplinary scientific efforts directed at "accelerating therapy development". Notable are efforts by the National Institute of Health, the National Cancer Institute, the European Organisation for Research and the Treatment of Cancer

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("EORTC"), the European Molecular Biology Laboratory ("EMBL"), the Genomics Institute of Singapore ("GIS"), the Wellcome Trust Sanger Institute, and the National Translational Cancer Research Network ("NTRAC"). In addition, large donations by private foundations are also fueling growth in this key market segment.

Life Science Measurement Products and Applications

A key factor in all of our life science measurement target markets is the need for new products that increase customer productivity and provide high quality data that enable decision-making by our customers. Our key product segments include:

Liquid Chromatography Products

A liquid chromatograph ("LC") or a high performance liquid chromatograph ("HPLC") is used to separate molecules of a liquid mixture to determine the quantity and identity of the molecules present. The Agilent LC portfolio is modular in construction and can be configured as analytical and preparative systems. These systems can be stepwise upgraded to highly sophisticated, automated workflow solutions such as method development, multi-method/walk-up, high-capacity/high-throughput or multi-dimensional LC and can be extended to application-based analyzers e.g. for bio-molecular separations, chiral analysis or size exclusion chromatograhy. As a leader in liquid chromatography, we continue to expand our application space with new HPLC columns, new services and diagnostics offerings and ongoing instrument and software product enhancements.

Mass Spectrometry Products

A mass spectrometer ("MS") identifies and quantifies chemicals based on a chemical's molecular mass and characteristic patterns of fragment ion masses that result when a molecule is broken apart. Liquid chromatography ("LC") is commonly used to separate compounds and introduce them to the MS system. The combined use of LC and MS ("LC/MS") is frequently used both to identify and quantify chemical compounds. Mass spectrometry is an important tool in analyzing small molecules and can also be used to characterize and quantify proteins and other biological entities. Agilent's LC/MS portfolio includes instruments built around five main analyzer types single quadrupole, triple quadrupole, ion trap, time-of-flight ("TOF") and quadrupole time-of-flight ("QTOF"). We significantly expanded our mass spectrometry portfolio in recent years with a focus on improving performance, reliability, and ease of use.

Microarray Products

Agilent is a leading provider of microarray-based, genomics research solutions. Our end-to-end solution includes reagents for sample preparation and microarray processing; hardware for sample QC and high-throughput microarray scanning; 60-mer oligo microarrays on industry-standard 1" × 3" glass slides for gene expression; comparative genomic hybridization ("CGH")/Copy Number variation ("CNV") analysis, microRNA, methylation, splice variants, and chromatin immunoprecipitation applications; custom microarray design services; and GeneSpring software products for data analysis. We also provide target enrichment products for next-generation sequencing platforms. Our SureSelect XT Target Enrichment System is a fully customizable liquid genome partitioning/ enrichment sample prep system that enhances and accelerates nucleic acid sequencing experiments when used in front of next generation sequencing technologies.

PCR Instrumentation

PCR is used by scientists studying genetics to amplify or replicate a small amount of DNA to enable further analysis of the genes. Our portfolio of PCR instrumentation, reagents and kits, coupled with

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our other products such as microarrays and target enrichment systems for next-generation sequencing, provides a broad set of workflow solutions to customers in the genomics marketplace.

Bioreagents

Bioreagents are the primary tools used by scientists in the life science market to interrogate cells, genes and proteins. These bioreagent products are used to conduct a variety of experiments necessary to understand both the form and function of biological entities. We offer a portfolio of reagent products for Nucleic Acid Amplification ("PCR") and quantitative real-time PCR ("QPCR"), Cloning, Mutagenesis, Cell Biology and other key life science applications. These reagent tools enable us to create a broad set of complete workflow solutions to meet customer needs across our life science markets.

Lab Automation and Robotics

We offer a comprehensive suite of workflow solutions to our life science customers with the addition of automated liquid handling and robotics that range from standalone instrumentation to bench-top automation solutions to large, multi-armed robotic systems. These solutions strengthened our offering of automated sample- preparation solutions across a broad range of applications. In fiscal 2009 we continued with our focus on automating laboratory processes by introducing the new Direct Drive Robot and VWorks Automation Control Software. The Direct Drive Robot advances high-throughput screening for drug-discovery research and can also be used in genomics applications, including DNA extraction and PCR sample preparation.

Electrophoresis Products

Electrophoresis is used in many scientific and applied disciplines, such as food identification or protein quality control, to separate, quantify, enrich and purify biomolecules which differ in their electrical charge or polarity. Agilent is a world leading supplier of innovative electrophoretic separation solutions. The 2100 Bioanalyzer analyzes biomolecules or cells in microfluidic networks of channels and wells etched into glass chips. The 3100 OFFGEL Fractionator resolves proteins or peptides by isoelectric point with liquid-phase recovery.

Software and Informatics Products

We provide software for instrument control, data acquisition, data analysis, laboratory content and business process management, and informatics. Our software facilitates the regulatory-compliant use of instruments in pharmaceutical quality assurance/quality control environments. With OpenLab, Agilent has introduced a scalable, open architecture, that enables you to easily capture, analyze, and share scientific data throughout the lab and across the enterprise.

NMR and MRI systems

With the acquisition of Varian during fiscal 2010, Agilent has enriched its portfolio with NMR, spectrometers, MRI systems and X-ray diffractometers used in a variety of industries including academic and not-for-profit research, life sciences (pharma and biotech), and industrial companies. All of these technologies are utilized for basic and applied research, and NMR is also used in process development and manufacturing QA/QC.

Consumables and Services

We also offer a broad range of consumable products, which support our LC, and MS technology platforms. These consumable products include sample preparation products; self manufactured LC columns, instrument replacement parts, and consumable supplies to meet our customers' analysis

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needs. All of our products are designed to Agilent's specifications to improve and maximize the performance of our instruments.

We offer a wide range of startup, operational, educational and compliance support services for our measurement and data handling systems. Our support services include maintenance, troubleshooting, repair and training for all of our chemical and bioinstrumentation analysis hardware and software products. Special service bundles have also been designed to meet the specific application needs of various industries.

Life Sciences Customers

We had over 30,000 customers for our life sciences business in 2011. No single customer represented greater than 2 percent of the net revenue of the life sciences business. A significant number of our life sciences customers are also customers of our chemical analysis business.

The life sciences business is susceptible to seasonality in its orders and revenues primarily based on U.S. government and large pharmaceutical company budgets. In general, the result is that our first and fourth fiscal quarters tend to deliver the strongest profits for this group. However, general economic trends, new product introductions and competition might overshadow this trend in any given year.

Life Sciences Sales, Marketing and Support

The life science channel focuses on the therapeutics customer base (Pharma, biotech, CRO, CMO and Generics and on emerging life sciences opportunities in academic and government life science research institutes. We deploy a multi-channel approach, marketing products to our customers through direct sales, electronic commerce, resellers, manufacturers' representatives and distributors. We use direct sales to market our solutions to all of our pharmaceutical and biopharmaceutical accounts. Sales agents supplement direct sales by providing broader geographic coverage and coverage of smaller accounts. Our active reseller program augments our ability to provide more complete solutions to our customers. We sell our consumable products through distributors, telesales, electronic commerce and direct sales.

We deliver our support services to customers in a variety of ways, including on-site assistance with repair or exchange of returned products, telephone support and self-diagnostic services provided over the Internet. We also offer special industry-focused service bundles that are designed to meet the specific needs of hydrocarbon processing, environmental, pharmaceutical and biopharmaceutical customers to keep instruments fully operational and compliant with the respective industry requirements. Our products typically come with standard warranties, and extended warranties are available for additional cost.

Life Sciences Manufacturing

Our manufacturing supports our diverse product range and customer-centric focus. We assemble highly configurable products to individual customer orders and make standard products to stock. We employ advanced manufacturing techniques and supply chain management systems to reduce costs and manufacturing cycle times. We selectively use third parties to provide some supply chain processes for manufacturing, warehousing and logistics. We have manufacturing facilities in California, Colorado, North Carolina and Texas in the U.S. Outside of the U.S., we have manufacturing facilities in Germany, Malaysia, Poland, Singapore and U.K. We utilize just-in-time manufacturing.

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Life Sciences Competition

The markets for analytical instruments in which we compete are characterized by evolving industry standards and intense competition. Our principal competitors in the life sciences arena include: Affymetrix Inc., Bruker Corp., Danaher Corporation, Illumina, Inc., Life Technologies Corp., Thermo Fisher Scientific Inc. and Waters Corp. Agilent competes on the basis of product performance, reliability, support quality, applications expertise, global channel coverage and price.

Life Sciences Government Regulation

The analysis products and related consumables marketed by our life sciences business are subject to regulation in the U.S. by the EPA under the Toxic Substances Control Act and by government agencies in other countries under similar laws. The Toxic Substances Control Act regulations govern, among other things, the testing, manufacture, processing and distribution of chemicals, the testing of regulated chemicals for their effects on human health and safety and import and export of chemicals. The Toxic Substances Control Act prohibits persons from manufacturing any chemical in the U.S. that has not been reviewed by EPA for its effect on health and safety, and placed on an EPA inventory of chemical substances. Therefore, we must continually adapt our chemical analysis products to changing regulations. If we fail to comply with the notification, record-keeping and other requirements in the manufacture or distribution of our products, the EPA can obtain an order from a court that would prohibit the further distribution or marketing of a product that does not comply or we could face fines, civil penalties or criminal prosecution.

Agilent Technologies Research Laboratories

Agilent Technologies Research Laboratories ("Research Labs") is our research organization based in Santa Clara, California, with offices in China and Belgium. The Research Labs create competitive advantage through high-impact technology, driving market leadership and growth in Agilent's core businesses and expanding Agilent's measurement footprint into adjacent markets. At the cross-roads of the organization, the Research Labs are able to identify and enable synergies across Agilent's businesses to create competitive differentiation and compelling customer value.

The technical staff have advanced degrees that cover a wide range of scientific and engineering fields, including biology, chemistry, computer science, distributed measurement, electrical engineering, image processing, materials science, mathematics, nano/microfabrication, microfluidics, software, informatics, optics, physics, physiology and signal processing. As of the end of October 2011, Research Labs employed approximately 210 personnel worldwide.

Global Infrastructure Organization

We provide support to our businesses through our global infrastructure organization. This support includes services in the areas of finance, legal, workplace services, human resources and information technology. Generally these organizations are centrally operated from Santa Clara, California, with services provided worldwide. As of the end of October 2011, our global infrastructure organization employed approximately 2,500 people worldwide.

The following discussions of Research and Development, Backlog, Intellectual Property, Materials, Environmental, International Operations and Acquisition and Disposal of Material Assets include information common to each of our businesses.

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Research and Development

Research and development ("R&D") expenditures were $649 million in 2011, $612 million in 2010 and $642 million in 2009, the vast majority of which was company-sponsored. We anticipate that we will continue to have significant R&D expenditures in order to maintain our competitive position with a continuing flow of innovative, high-quality products and services.

Backlog

On October 31, 2011, our unfilled orders for the electronic measurement business were approximately $810 million, as compared to approximately $830 million at October 31, 2010. On October 31, 2011, our unfilled orders for the chemical analysis business were approximately $320 million, as compared to approximately $250 million at October 31, 2010. Within our life sciences business, our unfilled orders were approximately $430 million on October 31, 2011 as compared to approximately $350 million at October 31, 2010. We expect that a large majority of the unfilled orders for all three businesses will be delivered to customers within six months. On average, our unfilled orders represent approximately three months' worth of revenues. In light of this experience, backlog on any particular date, while indicative of short-term revenue performance, is not necessarily a reliable indicator of medium or long-term revenue performance.

Intellectual Property

We generate patent and other intellectual property rights covering significant inventions and other innovations in order to create a competitive advantage. While we believe that our licenses, patents and other intellectual property rights have value, in general no single license, patent or other intellectual property right is in itself material. In addition, our intellectual property rights may be challenged, invalidated or circumvented or may otherwise not provide significant competitive advantage.

Materials

Our manufacturing operations employ a wide variety of semiconductors, electromechanical components and assemblies and raw materials such as plastic resins and sheet metal. Our electronic measurement, chemical analysis and life sciences businesses all purchase materials from thousands of suppliers on a global basis. Some of the parts that require custom design work are not readily available from alternate suppliers due to their unique design or the length of time necessary for design work. Our long-term relationships with suppliers allow us to proactively manage technology road maps and product discontinuance plans and monitor their financial health. Even so, some suppliers may still extend their lead times, limit supplies, increase prices or cease to produce necessary parts for our products. If these are unique components, we may not be able to find a substitute quickly or at all. To address the potential disruption in our supply chain, we use a number of techniques, including qualifying multiple sources of supply and redesign of products for alternative components. In addition, while we generally attempt to keep our inventory at minimal levels, we do purchase incremental inventory as circumstances warrant to protect the supply chain.

Environmental

Our R&D, manufacturing and distribution operations involve the use of hazardous substances and are regulated under international, federal, state and local laws governing health and safety and the environment. We apply strict standards for protection of the environment and occupational health and safety to sites inside and outside the U.S., even if not subject to regulation imposed by foreign governments. We believe that our properties and operations at our facilities comply in all material respects with applicable environmental laws and occupational health and safety laws. However, the

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risk of environmental liabilities cannot be completely eliminated and there can be no assurance that the application of environmental and health and safety laws to Agilent will not require us to incur significant expenditures. We are also regulated under a number of international, federal, state, and local laws regarding recycling, product packaging and product content requirements. The environmental, product content/disposal, and recycling laws are gradually becoming more stringent and may cause us to incur significant expenditures in the future.

Some of our operations are located on properties that are known to have subsurface contamination undergoing remediation by our former parent company, Hewlett-Packard Company ("HP"). As part of the initial separation agreement from HP in 1999, HP agreed to retain the liability for the contamination, perform the required remediation and indemnify us with respect to claims arising out of the contamination. The determination of the existence and cost of remediation of additional contamination caused by us, if any, could involve costly and time-consuming negotiations and litigation. While we expect that HP will meet its remediation and indemnification obligations in this regard, there can be no guarantee that it will do so. Under our agreement with HP, HP will have access to these properties to perform the remediation. HP has agreed to minimize interference with on-site operations at those properties during the course of the remediation, but there can be no guarantee that our operations will not be interrupted or that we will not be required to incur unreimbursed costs associated with the remediation. The remediation could also harm on-site operations and the future use and negatively affect the value and future use of the properties. Several of the sites under the initial separation agreement from HP have been sold.

In addition, some of these properties are undergoing remediation by HP under an order of an agency of the state in which the property is located. Although HP has agreed to indemnify us with respect to such subsurface contamination, it is possible that one or more of the governmental agencies will require us to be named on any of these orders. The naming of Agilent will not affect HP's obligation to indemnify us with regard to these matters.

We are liable and are indemnifying HP for any contamination found at all facilities transferred to us by HP excluding the properties undergoing remediation. In addition, we are obligated to indemnify HP for liability associated with past non-compliance with environmental laws regulating ongoing operations, if any, at all properties transferred to us by HP, as well as at sold or discontinued businesses that are related to our businesses. While we are not aware of any material liabilities associated with such indemnified matters, there is no guarantee that such contamination or regulatory non-compliance does not exist, and will not expose us to material liability in the future.

We are being indemnified by HP with respect to all environmental liabilities for which HP accrued a reserve, and we are not aware of any material environmental liabilities assumed by us which are not subject to the indemnity.

As part of our acquisition of Varian in 2010, we assumed the liabilities of Varian, including Varian's costs and potential liabilities for environmental matters. One such cost is our obligation, along with the obligation of Varian Semiconductor Equipment Associates, Inc. ("VSEA") (under the terms of a Distribution Agreement between Varian, VSEA and Varian Medical Systems, Inc. ("VMS")) to each indemnify VMS for one-third of certain costs (after adjusting for any insurance proceeds and tax benefits recognized or realized by VMS for such costs) relating to (a) environmental investigation, monitoring and/or remediation activities at certain facilities previously operated by Varian Associates, Inc. ("VAI") and third-party claims made in connection with environmental conditions at those facilities, and (b) U.S. Environmental Protection Agency or third-party claims alleging that VAI or VMS is a potentially responsible party under the Comprehensive Environmental Response Compensation and Liability Act of 1980, as amended ("CERCLA") in connection with certain sites to

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which VAI allegedly shipped manufacturing waste for recycling, treatment or disposal (the "CERCLA sites"). With respect to the facilities formerly operated by VAI, VMS is overseeing the environmental investigation, monitoring and/or remediation activities, in most cases under the direction of, or in consultation with, federal, state and/or local agencies, and handling third-party claims. VMS is also handling claims relating to the CERCLA sites. Although any ultimate liability arising from environmental- related matters could result in significant expenditures that, if aggregated and assumed to occur within a single fiscal year, could be material to our financial statements, the likelihood of such occurrence is considered remote. Based on information currently available and our best assessment of the ultimate amount and timing of environmental-related events, management believes that the costs of environmental-related matters are unlikely to have a material adverse effect on our financial condition or results of operations.

We maintain a comprehensive Environmental Site Liability insurance policy which may cover certain clean-up costs or legal claims related to environmental contamination. This policy covers specified active, inactive and divested locations.

International Operations

Our net revenue originating outside the U.S., as a percentage of our total net revenue, was approximately 70 percent in fiscal 2011, 68 percent in fiscal 2010, and 67 percent in fiscal 2009, the majority of which was from customers other than foreign governments. Annual revenues derived from China were approximately 16 percent in fiscal 2011, 14 percent in fiscal 2010 and 13 percent in fiscal 2009. Approximately 11 percent of our revenue in fiscal 2011, 10 percent in fiscal 2010 and 11 percent in fiscal 2009 was derived from Japan. Revenues from external customers are generally attributed to countries based upon the location of the Agilent sales representative.

Long-lived assets located outside of the U.S., as a percentage of our total long-lived assets, was approximately 56 percent in fiscal year 2011, 52 percent in fiscal year 2010 and 51 percent in fiscal year 2009. Approximately 13, 13 and 16 percent of our long-lived assets were located in Japan in fiscal years 2011, 2010 and 2009, respectively.

Most of our sales in international markets are made by foreign sales subsidiaries. In countries with low sales volumes, sales are made through various representatives and distributors. However, we also sell into international markets directly from the U.S.

Our international business is subject to risks customarily encountered in foreign operations, including interruption to transportation flows for delivery of parts to us and finished goods to our customers, changes in a specific country's or region's political or economic conditions, trade protection measures, import or export licensing requirements, consequences from changes in tax laws and regulatory requirements, difficulty in staffing and managing widespread operations, differing labor regulations, differing protection of intellectual property and geopolitical turmoil, including terrorism and war. We are also exposed to foreign currency exchange rate risk inherent in our sales commitments, anticipated sales and expenses, and assets and liabilities denominated in currencies other than the local functional currency, and may also become subject to interest rate risk inherent in any debt we incur, or investment portfolios we hold. There may be an increased risk of political unrest in regions where we have significant manufacturing operations such as Southeast Asia. However, we believe that our international diversification provides stability to our worldwide operations and reduces the impact on us of adverse economic changes in any single country. Financial information about our international operations is contained in Note 21, "Segment Information", to our consolidated financial statements.

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Acquisition and Disposal of Material Assets

On May 14, 2010, we completed our acquisition of Varian, Inc., a leading supplier of scientific instrumentation and associated consumables for life science and applied market applications, for a total cash purchase price of approximately $1.5 billion. Varian's products include analytical instruments, research products and related software, consumable products, accessories and services, as well as vacuum products and related services and accessories. The acquisition broadens Agilent's applications and solutions offerings in life sciences, environmental, and energy and materials. It also expands Agilent's product portfolio into atomic and molecular spectroscopy; establishes a leading position in nuclear magnetic resonance, imaging and vacuum technologies; and strengthens our consumables portfolio. We financed the purchase price of Varian using the proceeds from our September 2009 offering of senior notes and other existing cash. Varian's cash acquired at completion of the acquisition was approximately $226 million.

Executive Officers of the Registrant

The names of our current executive officers and their ages, titles and biographies appear below:

Jean M. Halloran, 59, has served as our Senior Vice President, Human Resources since from August 1999. From 1997 to 1999, Ms. Halloran served as Director of Corporate Education and Development for Hewlett-Packard. Prior to assuming this position, from 1993 to 1997, Ms. Halloran acted as human resources manager for Hewlett-Packard's Measurement Systems Organization. Ms. Halloran joined Hewlett-Packard in 1980 in the Medical Products Group, where she held a variety of positions in human resources, manufacturing and strategic planning.

Didier Hirsch, 60, has served as our Senior Vice President and Chief Financial Officer since July 2010 and served as interim Chief Financial Officer from April 2010 to July 2010. Prior to that he served as Vice President, Corporate Controllership and Tax from November 2006 to July 20, 2010 and as Chief Accounting Officer from November 2007 to July 20, 2010. From April 2003 to October 2006, Mr. Hirsch served as Vice President and Controller. Prior to assuming this position, Mr. Hirsch served as Vice President and Treasurer from September 1999 to April 2003. Mr. Hirsch had joined Hewlett-Packard Company in 1989 as Director of Finance and Administration of Hewlett-Packard France. In 1993, he became Director of Finance and Administration of Hewlett-Packard Asia Pacific, and in 1996 Director of Finance and Administration of Hewlett-Packard Europe, Middle East, and Africa.

Marie Oh Huber, 50, has served as Senior Vice President, General Counsel and Secretary since September 2009 and serves as an officer or director for a variety of Agilent subsidiaries. She served as our Vice President, Deputy General Counsel and Assistant Secretary from June 2007 to September 2009 and as our Vice President, Assistant General Counsel and Assistant Secretary from July 2002 to June 2007. She is also a director of the American Leadership Forum Silicon Valley.

Michael R. McMullen, 50, has served as Senior Vice President, Agilent and President, Chemical Analysis Group since September 2009. From January 2002 to September 2009, he served as our Vice President and General Manager of the Chemical Analysis Solutions Unit of the Life Sciences and Chemical Analysis Group. Prior to assuming this position, from March 1999 to December 2001, Mr. McMullen served as Country Manager for Agilent's China, Japan and Korea Life Sciences and Chemical Analysis Group. Prior to this position, Mr. McMullen served as our Controller for the Hewlett-Packard Company and Yokogawa Electric Joint Venture from July 1996 to March 1999.

Ronald S. Nersesian, 52, has served as Executive Vice President, Chief Operating Officer since November 2011. From March 2009 to November 2011, Mr. Nersesian served as our Senior Vice President, Agilent and President, Electronic Measurement Group, as our Vice President and General

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Manager of the Wireless Business Unit of the Electronics Measurement Group from February 2005 to February 2009, and as our Vice President and General Manager of the Design Validation Division from May 2002 to February 2005. Prior to joining Agilent, Mr. Nersesian served in management positions with LeCroy Corporation from 1996 to 2002, including Senior Vice President and General Manager of the Digital Storage Oscilloscope Business. Mr. Nersesian serves on the Board of Directors of Trimble Navigation Limited.

Nicolas H. Roelofs, 53, has served as Senior Vice President, Agilent and President, Life Sciences Group since September 2009. From June 2006 to September 2009 he served as our Vice President and General Manager of the Life Sciences Solutions Unit of the Life Sciences and Chemical Analysis Group. Prior to joining Agilent, Mr. Roelofs served as Group Operations Officer of the Life Sciences Group of Bio-Rad Laboratories from January 2005 to May 2006. Prior to that, Mr. Roelofs served as Chief Operating Officer of Stratagene Corporation from September 2001 to December 2004.

Guy Séné, 56, has served as Senior Vice President, Agilent and President, Electronic Measurement Group since November 2011. From May 2009 to November 2011, Mr. Séné served as our Vice President and General Manager, Microwave and Communications Division of the Electronic Measurement Group, and from October 2006 to April 2009, he served as our Vice President and General Manager, Signal Analysis Division. Prior to that, Mr. Séné held a broad variety of positions in sales, marketing and support in Europe and Asia for Agilent and Hewlett-Packard Company.

William P. Sullivan, 61, has served as Agilent's President, Chief Executive Officer and a Director since March 2005. Before being named as Agilent's Chief Executive Officer, Mr. Sullivan served as Executive Vice President and Chief Operating Officer from March 2002 to March 2005. In that capacity, he shared the responsibilities of the president's office with Agilent's former President and Chief Executive Officer, Edward W. Barnholt. Mr. Sullivan also had overall responsibility for Agilent's Electronic Products and Solutions Group, the company's largest business group. Prior to assuming that position, Mr. Sullivan served as our Senior Vice President, Semiconductor Products Group, from August 1999 to March 2002. Before that, Mr. Sullivan held various management positions at Hewlett-Packard Company. Mr. Sullivan serves on the Board of the Children's Discovery Museum in San Jose, California, as well as on the Board of Directors of URS Corporation and Avnet, Inc.

Investor Information

We are subject to the informational requirements of the Securities Exchange Act of 1934 ("Exchange Act"). Therefore, we file periodic reports, proxy statements and other information with the Securities and Exchange Commission ("SEC"). Such reports, proxy statements and other information may be read and copied by visiting the Public Reference Room of the SEC at 100 F Street N.E., Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains an Internet site (http://www.sec.gov) that contains reports, proxy and information statements and other information regarding issuers that file electronically.

You can access financial and other information at our Investor Relations website. The address is www.investor.agilent.com. We make available, free of charge, copies of our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after filing such material electronically or otherwise furnishing it to the SEC.

Our Amended and Restated Corporate Governance Standards, the charters of our Audit and Finance Committee, our Compensation Committee, our Executive Committee and our Nominating/

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Corporate Governance Committee, as well as our Standards of Business Conduct (including code of ethics provisions that apply to our principal executive officer, principal financial officer, principal accounting officer and senior financial officers) are available on our website at www.investor.agilent.com under "Corporate Governance". These items are also available in print to any stockholder in the United States and Canada who requests them by calling (877) 942-4200. This information is also available by writing to the company at the address on the cover of this Annual Report on Form 10-K.

Item 1A. ***Risk Factors***

Risks, Uncertainties and Other Factors That May Affect Future Results

Depressed general economic conditions may adversely affect our operating results and financial condition.

Our business is sensitive to changes in general economic conditions, both inside and outside the U.S. An economic downturn may adversely impact our business resulting in:

reduced demand for our products and increases in order cancellations;

increased risk of excess and obsolete inventories;

increased price pressure for our products and services;

reduced access to the credit markets to meet short term cash needs in the U.S.; and

greater risk of impairment to the value, and a detriment to the liquidity, of our investment portfolio.

Our operating results and financial condition could be harmed if the markets into which we sell our products decline or do not grow as anticipated.

Visibility into our markets is limited. Our quarterly sales and operating results are highly dependent on the volume and timing of orders received during the fiscal quarter, which are difficult to forecast and may be cancelled by our customers. In addition, our revenues and earnings forecasts for future fiscal quarters are often based on the expected seasonality or cyclicality of our markets. However, the markets we serve do not always experience the seasonality or cyclicality that we expect. Any decline in our customers' markets or in general economic conditions, including declines related to the current market disruptions described above, would likely result in a reduction in demand for our products and services. For example, we experienced weakness in almost all sectors during 2009 due to declines in market activity caused largely by the continued global economic downturn. The broader semiconductor market is one of the drivers for our electronic measurement business, and therefore, a decrease in the semiconductor market could harm our electronic measurement business. Also, if our customers' markets decline, we may not be able to collect on outstanding amounts due to us. Such declines could harm our consolidated financial position, results of operations, cash flows and stock price, and could limit our ability to sustain profitability. Also, in such an environment, pricing pressures could intensify. Since a significant portion of our operating expenses is relatively fixed in nature due to sales, research and development and manufacturing costs, if we were unable to respond quickly enough these pricing pressures could further reduce our operating margins.

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If we do not introduce successful new products and services in a timely manner, our products and services will become obsolete, and our operating results will suffer.

We generally sell our products in industries that are characterized by rapid technological changes, frequent new product and service introductions and changing industry standards. In addition, many of the markets in which we operate are seasonal and cyclical. Without the timely introduction of new products, services and enhancements, our products and services will become technologically obsolete over time, in which case our revenue and operating results would suffer. The success of our new products and services will depend on several factors, including our ability to:

properly identify customer needs;

innovate and develop new technologies, services and applications;

successfully commercialize new technologies in a timely manner;

manufacture and deliver our products in sufficient volumes on time;

differentiate our offerings from our competitors' offerings;

price our products competitively;

anticipate our competitors' development of new products, services or technological innovations; and

control product quality in our manufacturing process.

Dependence on contract manufacturing and outsourcing other portions of our supply chain may adversely affect our ability to bring products to market and damage our reputation. Dependence on outsourced information technology and other administrative functions may impair our ability to operate effectively.

As part of our efforts to streamline operations and to cut costs, we have been outsourcing aspects of our manufacturing processes and other functions and will continue to evaluate additional outsourcing. If our contract manufacturers or other outsourcers fail to perform their obligations in a timely manner or at satisfactory quality levels, our ability to bring products to market and our reputation could suffer. For example, during a market upturn, our contract manufacturers may be unable to meet our demand requirements, which may preclude us from fulfilling our customers' orders on a timely basis. The ability of these manufacturers to perform is largely outside of our control. In addition, we outsource significant portions of our information technology ("IT") function and other administrative functions. Since IT is critical to our operations, any failure to perform on the part of the IT providers could impair our ability to operate effectively. In addition to the risks outlined above, problems with manufacturing or IT outsourcing could result in lower revenues, unexecuted efficiencies, and impact our results of operations and our stock price. Much of our outsourcing takes place in developing countries and, as a result, may be subject to geopolitical uncertainty.

Failure to adjust our purchases due to changing market conditions or failure to estimate our customers' demand could adversely affect our income.

Our income could be harmed if we are unable to adjust our purchases to market fluctuations, including those caused by the seasonal or cyclical nature of the markets in which we operate. The sale of our products and services are dependent, to a large degree, on customers whose industries are subject to seasonal or cyclical trends in the demand for their products. For example, the consumer electronics market is particularly volatile, making demand difficult to anticipate. During a market upturn, we may not be able to purchase sufficient supplies or components to meet increasing product demand, which could materially affect our results. In the past we have seen a shortage of parts for

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some of our products. In addition, some of the parts that require custom design are not readily available from alternate suppliers due to their unique design or the length of time necessary for design work. Should a supplier cease manufacturing such a component, we would be forced to reengineer our product. In addition to discontinuing parts, suppliers may also extend lead times, limit supplies or increase prices due to capacity constraints or other factors. In order to secure components for the production of products, we may continue to enter into non-cancelable purchase commitments with vendors, or at times make advance payments to suppliers, which could impact our ability to adjust our inventory to declining market demands. Prior commitments of this type have resulted in an excess of parts when demand for our communications and electronics products has decreased. If demand for our products is less than we expect, we may experience additional excess and obsolete inventories and be forced to incur additional charges.

Our operating results may suffer if our manufacturing capacity does not match the demand for our products.

Because we cannot immediately adapt our production capacity and related cost structures to rapidly changing market conditions, when demand does not meet our expectations, our manufacturing capacity will likely exceed our production requirements. If, during a general market upturn or an upturn in one of our segments, we cannot increase our manufacturing capacity to meet product demand, we will not be able to fulfill orders in a timely manner and could lead to order cancellations. This inability could materially and adversely limit our ability to improve our results. By contrast, if during an economic downturn we had excess manufacturing capacity, then our fixed costs associated with excess manufacturing capacity would adversely affect our income, margins, and operating results.

Economic, political and other risks associated with international sales and operations could adversely affect our results of operations.

Because we sell our products worldwide, our business is subject to risks associated with doing business internationally. We anticipate that revenue from international operations will continue to represent a majority of our total revenue. In addition, many of our employees, contract manufacturers, suppliers, job functions and manufacturing facilities are located outside the U.S. Accordingly, our future results could be harmed by a variety of factors, including:

interruption to transportation flows for delivery of parts to us and finished goods to our customers;

changes in foreign currency exchange rates;

changes in a specific country's or region's political, economic or other conditions;

trade protection measures and import or export licensing requirements;

negative consequences from changes in tax laws;

difficulty in staffing and managing widespread operations;

differing labor regulations;

differing protection of intellectual property;

unexpected changes in regulatory requirements; and

geopolitical turmoil, including terrorism and war.

We centralized most of our accounting processes to two locations: India and Malaysia. These processes include general accounting, cost accounting, accounts payable and accounts receivables

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functions. If conditions change in those countries, it may adversely affect operations, including impairing our ability to pay our suppliers and collect our receivables. Our results of operations, as well as our liquidity, may be adversely affected and possible delays may occur in reporting financial results.

Additionally, we must comply with complex foreign and U.S. laws and regulations, such as the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act, and other local laws prohibiting corrupt payments to governmental officials, and anti-competition regulations. Violations of these laws and regulations could result in fines and penalties, criminal sanctions, restrictions on our business conduct and on our ability to offer our products in one or more countries, and could also materially affect our brand, our ability to attract and retain employees, our international operations, our business and our operating results. Although we have implemented policies and procedures designed to ensure compliance with these laws and regulations, there can be no assurance that our employees, contractors, or agents will not violate our policies.

In addition, although the majority of our products are priced and paid for in U.S. dollars, a significant amount of certain types of expenses, such as payroll, utilities, tax, and marketing expenses, are paid in local currencies. Our hedging programs reduce, but do not always entirely eliminate, within any given twelve month period, the impact of currency exchange rate movements, and therefore fluctuations in exchange rates, including those caused by currency controls, could impact our business operating results and financial condition by resulting in lower revenue or increased expenses. However, for expenses beyond that twelve month period, our hedging strategy does not mitigate our exposure. In addition, our currency hedging programs involve third party financial institutions as counterparties. The weakening or failure of financial institution counterparties may adversely affect our hedging programs and our financial condition through, among other things, a reduction in available counterparties, increasingly unfavorable terms, and the failure of the counterparties to perform under hedging contracts.

Our business will suffer if we are not able to retain and hire key personnel.

Our future success depends partly on the continued service of our key research, engineering, sales, marketing, manufacturing, executive and administrative personnel. If we fail to retain and hire a sufficient number of these personnel, we will not be able to maintain or expand our business. The markets in which we operate are very dynamic, and our businesses continue to respond with reorganizations, workforce reductions and site closures. We believe our pay levels are very competitive within the regions that we operate. However, there is also intense competition for certain highly technical specialties in geographic areas where we continue to recruit, and it may become more difficult to retain our key employees, especially in light of our ongoing restructuring efforts.

If we do not achieve the contemplated benefits of our acquisition of Varian, Inc., our business and financial condition may be materially impaired.

We may not achieve the desired benefits from our acquisition of Varian. The acquisition involves the integration of Varian with the rest of our company. If we cannot successfully integrate Varian's operations, we may experience material negative consequences to our business, financial condition or results of operations. The integration of two businesses that have previously operated separately will be a costly and time-consuming process that will involve a number of risks, including, but not limited to:

diversion of senior management's attention from the management of daily operations to the integration of operations;

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difficulties in the assimilation of different practices and sales and distribution methodologies, as well as in the assimilation and retention of geographically dispersed, decentralized operations and personnel;

difficulties and unanticipated expenses related to the integration of facilities, departments, systems, including accounting systems, computer and other technologies, books and records and procedures, as well as in maintaining uniform standards, including internal accounting controls, procedures and policies;

difficulties and uncertainties in achieving anticipated cost reductions and operational synergies; and

the use of cash resources and increased capital expenditures on integration and implementation activities in excess of our current expectations, which could offset any such savings and other synergies resulting from the Varian acquisition and limit other potential uses of our cash, including stock repurchases and retirement of outstanding debt.

Even if we are able to successfully integrate the operations of Varian, we may not be able to realize the cost savings, synergies and growth that we anticipate from the acquisition in the time frame that we currently expect, and the costs of achieving these benefits may be higher than what we currently expect, because of a number of risks, including, but not limited to:

the possibility that the acquisition may not further our business strategy as we expected;

the fact that the acquisition will substantially expand our life sciences and chemical analysis businesses, and we may not experience anticipated growth in that market; and

the risk of intellectual property disputes with respect to Varian's products.

As a result of these risks, the Varian acquisition may not contribute to our earnings as expected, we may not achieve expected cost synergies or our return on invested capital targets when expected, or at all, and we may not achieve the other anticipated strategic and financial benefits of this transaction.

Our acquisitions, strategic alliances, joint ventures and divestitures may result in financial results that are different than expected.

In the normal course of business, we frequently engage in discussions with third parties relating to possible acquisitions, strategic alliances, joint ventures and divestitures, and generally expect to complete several transactions per year. For example, during fiscal 2010, we closed our acquisition of Varian, Inc. and the sale of our Network Solutions Division. During fiscal 2011, we completed the acquisitions of A2 Technologies, Lab901 and Biocius Life Sciences Inc. During fiscal 2012, we announced our acquisitions of Accelicon Technologies, BioSystem Development LLC and Halo Genomics AB. As a result of such transactions, our financial results may differ from our own or the investment community's expectations in a given fiscal quarter, or over the long term. Such transactions often have post-closing arrangements including but not limited to post-closing adjustments, transition services, escrows or indemnifications, the financial results of which can be difficult to predict. In addition, acquisitions, including the Varian acquisition, and strategic alliances may require us to integrate a different company culture, management team and business infrastructure. We may have difficulty developing, manufacturing and marketing the products of a newly acquired company in a way that enhances the performance of our combined businesses or product lines to realize the value from expected synergies. Depending on the size and complexity of an acquisition, our successful integration of the entity depends on a variety of factors, including:

the retention of key employees;

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the management of facilities and employees in different geographic areas;

the retention of key customers;

the compatibility of our sales programs and facilities with those of the acquired company; and

the compatibility of our existing infrastructure with that of an acquired company.

In addition, effective internal controls are necessary for us to provide reliable and accurate financial reports and to effectively prevent fraud. The integration of acquired businesses is likely to result in our systems and controls becoming increasingly complex and more difficult to manage. We devote significant resources and time to comply with the internal control over financial reporting requirements of the Sarbanes-Oxley Act of 2002. However, we cannot be certain that these measures will ensure that we design, implement and maintain adequate control over our financial processes and reporting in the future, especially in the context of acquisitions of other businesses. Any difficulties in the assimilation of acquired businesses into our control system could harm our operating results or cause us to fail to meet our financial reporting obligations. Inferior internal controls could also cause investors to lose confidence in our reported financial information, which could have a negative effect on the trading price of our stock and our access to capital.

A successful divestiture depends on various factors, including our ability to:

effectively transfer liabilities, contracts, facilities and employees to the purchaser;

identify and separate the intellectual property to be divested from the intellectual property that we wish to keep; and

reduce fixed costs previously associated with the divested assets or business.

In addition, if customers of the divested business do not receive the same level of service from the new owners, this may adversely affect our other businesses to the extent that these customers also purchase other Agilent products. All of these efforts require varying levels of management resources, which may divert our attention from other business operations. Further, if market conditions or other factors lead us to change our strategic direction, we may not realize the expected value from such transactions. If we do not realize the expected benefits or synergies of such transactions, our consolidated financial position, results of operations, cash flows and stock price could be negatively impacted.

The impact of consolidation of competitors in the electronic measurement and life sciences markets is difficult to predict and may harm our business.

The electronic measurement and life sciences industries are intensely competitive and have been subject to increasing consolidation. For instance, in June 2011, Danaher Corporation completed its acquisition of Beckman Coulter, Inc., and in August 2011, Thermo Fisher Scientific completed its acquisition of Phadia. Consolidation in the electronic measurement and life sciences industries could result in existing competitors increasing their market share through business combinations, which could have a material adverse effect on our business, financial condition and results of operations. We may not be able to compete successfully in an increasingly consolidated industry and cannot predict with certainty how industry consolidation will affect our competitors or us.

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Environmental contamination from past operations could subject us to unreimbursed costs and could harm on-site operations and the future use and value of the properties involved and environmental contamination caused by ongoing operations could subject us to substantial liabilities in the future.

Some of our properties are undergoing remediation by the Hewlett-Packard Company ("HP") for subsurface contaminations that were known at the time of our separation from HP. HP has agreed to retain the liability for this subsurface contamination, perform the required remediation and indemnify us with respect to claims arising out of that contamination. HP will have access to our properties to perform remediation. While HP has agreed to minimize interference with on-site operations at those properties, remediation activities and subsurface contamination may require us to incur unreimbursed costs and could harm on-site operations and the future use and value of the properties. We cannot be sure that HP will continue to fulfill its indemnification or remediation obligations. In addition, the determination of the existence and cost of any additional contamination caused by us could involve costly and time-consuming negotiations and litigation.

We have agreed to indemnify HP for any liability associated with contamination from past operations at all other properties transferred from HP to us, other than those properties currently undergoing remediation by HP. While we are not aware of any material liabilities associated with any potential subsurface contamination at any of those properties, subsurface contamination may exist, and we may be exposed to material liability as a result of the existence of that contamination.

Our current and historical manufacturing processes involve, or have involved, the use of substances regulated under various international, federal, state and local laws governing the environment. As a result, we may become subject to liabilities for environmental contamination, and these liabilities may be substantial. While we have divested substantially all of our semiconductor related businesses to Avago and Verigy and regardless of indemnification arrangements with those parties, we may still become subject to liabilities for historical environmental contamination related to those businesses. Although our policy is to apply strict standards for environmental protection at our sites inside and outside the U.S., even if the sites outside the U.S. are not subject to regulations imposed by foreign governments, we may not be aware of all conditions that could subject us to liability.

As part of our acquisition of Varian, we assumed the liabilities of Varian, including Varian's costs and potential liabilities for environmental matters. One such cost is our obligation, along with the obligation of Varian Semiconductor Equipment Associates, Inc. ("VSEA") (under the terms of a Distribution Agreement between Varian, VSEA and Varian Medical Systems, Inc. ("VMS")) to each indemnify VMS for one-third of certain costs (after adjusting for any insurance proceeds and tax benefits recognized or realized by VMS for such costs) relating to (a) environmental investigation, monitoring and/or remediation activities at certain facilities previously operated by Varian Associates, Inc. ("VAI") and third-party claims made in connection with environmental conditions at those facilities, and (b) U.S. Environmental Protection Agency or third-party claims alleging that VAI or VMS is a potentially responsible party under the Comprehensive Environmental Response Compensation and Liability Act of 1980, as amended ("CERCLA") in connection with certain sites to which VAI allegedly shipped manufacturing waste for recycling, treatment or disposal (the "CERCLA sites"). With respect to the facilities formerly operated by VAI, VMS is overseeing the environmental investigation, monitoring and/or remediation activities, in most cases under the direction of, or in consultation with, federal, state and/or local agencies, and handling third-party claims. VMS is also handling claims relating to the CERCLA sites. Although any ultimate liability arising from environmental- related matters could result in significant expenditures that, if aggregated and assumed to occur within a single fiscal year, could be material to our financial statements, the likelihood of such occurrence is considered remote. Based on information currently available and our

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best assessment of the ultimate amount and timing of environmental-related events, management believes that the costs of environmental-related matters are unlikely to have a material adverse effect on our financial condition or results of operations.

Our customers and we are subject to various governmental regulations, compliance with which may cause us to incur significant expenses, and if we fail to maintain satisfactory compliance with certain regulations, we may be forced to recall products and cease their manufacture and distribution, and we could be subject to civil or criminal penalties.

Our businesses are subject to various significant international, federal, state and local regulations, including but not limited to health and safety, packaging, product content, labor and import/export regulations. These regulations are complex, change frequently and have tended to become more stringent over time. We may be required to incur significant expenses to comply with these regulations or to remedy violations of these regulations. Any failure by us to comply with applicable government regulations could also result in cessation of our operations or portions of our operations, product recalls or impositions of fines and restrictions on our ability to carry on or expand our operations. In addition, because many of our products are regulated or sold into regulated industries, we must comply with additional regulations in marketing our products.

Our products and operations are also often subject to the rules of industrial standards bodies, like the International Standards Organization, as well as regulation by other agencies such as the U.S. Federal Communications Commission. We also must comply with work safety rules. If we fail to adequately address any of these regulations, our businesses could be harmed.

Some of our chemical analysis products are used in conjunction with chemicals whose manufacture, processing, distribution and notification requirements are regulated by the U.S. Environmental Protection Agency under the Toxic Substances Control Act, and by regulatory bodies in other countries with laws similar to the Toxic Substances Control Act. We must conform the manufacturing, processing, distribution of and notification about these chemicals to these laws and adapt to regulatory requirements in all countries as these requirements change. If we fail to comply with these requirements in the manufacture or distribution of our products, then we could be made to pay civil penalties, face criminal prosecution and, in some cases, be prohibited from distributing our products in commerce until the products or component substances are brought into compliance.

A number of our products from our life sciences and chemical analysis businesses are subject to regulation by the United States Food and Drug Administration ("FDA") and certain similar foreign regulatory agencies. In addition, a number of our products may be in the future subject to regulation by the FDA and certain similar foreign regulatory agencies. If we or any of our suppliers or distributors fail to comply with FDA and other applicable regulatory requirements or are perceived to potentially have failed to comply, we may face, among other things, adverse publicity affecting both us and our customers, investigations or notices of non compliance, fines, injunctions, and civil penalties; partial suspensions or total shutdown of production facilities or the imposition of operating restrictions; increased difficulty in obtaining required FDA clearances or approvals; seizures or recalls of our products or those of our customers; or the inability to sell our products.

Our business may suffer if we fail to comply with government contracting laws and regulations.

We derive a portion of our revenues from direct and indirect sales to U.S., state, local, and foreign governments and their respective agencies. Such contracts are subject to various procurement laws and regulations, and contract provisions relating to their formation, administration and performance. Failure to comply with these laws, regulations or provisions in our government contracts could result

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in the imposition of various civil and criminal penalties, termination of contracts, forfeiture of profits, suspension of payments, or suspension from future government contracting. If our government contracts are terminated, if we are suspended from government work, or if our ability to compete for new contracts is adversely affected, our business could suffer.

Our retirement and post retirement pension plans are subject to financial market risks that could adversely affect our future results of operations and cash flows.

We have significant retirement and post retirement pension plans assets and obligations. The performance of the financial markets and interest rates impact our plan expenses and funding obligations. Significant decreases in market interest rates, decreases in the fair value of plan assets and investment losses on plan assets will increase our funding obligations, and adversely impact our results of operations and cash flows.

Third parties may claim that we are infringing their intellectual property and we could suffer significant litigation or licensing expenses or be prevented from selling products or services.

From time to time, third parties may claim that one or more of our products or services infringe their intellectual property rights. We analyze and take action in response to such claims on a case by case basis. Any dispute or litigation regarding patents or other intellectual property could be costly and time-consuming due to the complexity of our technology and the uncertainty of intellectual property litigation and could divert our management and key personnel from our business operations. A claim of intellectual property infringement could force us to enter into a costly or restrictive license agreement, which might not be available under acceptable terms or at all, could require us to redesign our products, which would be costly and time-consuming, and/or could subject us to significant damages or to an injunction against development and sale of certain of our products or services. Our intellectual property portfolio may not be useful in asserting a counterclaim, or negotiating a license, in response to a claim of intellectual property infringement. In certain of our businesses we rely on third party intellectual property licenses and we cannot ensure that these licenses will be available to us in the future on favorable terms or at all.

Third parties may infringe our intellectual property and we may suffer competitive injury or expend significant resources enforcing our rights.

Our success depends in large part on our proprietary technology. We rely on various intellectual property rights, including patents, copyrights, trademarks and trade secrets, as well as confidentiality provisions and licensing arrangements, to establish our proprietary rights. If we do not enforce our intellectual property rights successfully our competitive position may suffer which could harm our operating results.

Our pending patent applications, and our pending copyright and trademark registration applications, may not be allowed or competitors may challenge the validity or scope of our patents, copyrights or trademarks. In addition, our patents, copyrights, trademarks and other intellectual property rights may not provide us a significant competitive advantage.

We may need to spend significant resources monitoring our intellectual property rights and we may or may not be able to detect infringement by third parties. Our competitive position may be harmed if we cannot detect infringement and enforce our intellectual property rights quickly or at all. In some circumstances, we may choose to not pursue enforcement because an infringer has a dominant intellectual property position or for other business reasons. In addition, competitors might avoid infringement by designing around our intellectual property rights or by developing non-infringing

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competing technologies. Intellectual property rights and our ability to enforce them may be unavailable or limited in some countries which could make it easier for competitors to capture market share and could result in lost revenues. Furthermore, some of our intellectual property is licensed to others which allow them to compete with us using that intellectual property.

We are subject to ongoing tax examinations of our tax returns by the Internal Revenue Service and other tax authorities. An adverse outcome of any such audit or examination by the IRS or other tax authority could have a material adverse effect on our results of operations, financial condition and liquidity.

We are subject to ongoing tax examinations of our tax returns by the U.S. Internal Revenue Service and other tax authorities in various jurisdictions. We regularly assess the likelihood of adverse outcomes resulting from ongoing tax examinations to determine the adequacy of our provision for income taxes. These assessments can require considerable estimates and judgments. Intercompany transactions associated with the sale of inventory, services, intellectual property and cost share arrangements are complex and affect our tax liabilities. The calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax laws and regulations in a multitude of jurisdictions. There can be no assurance that the outcomes from ongoing tax examinations will not have an adverse effect on our operating results and financial condition. A difference in the ultimate resolution of tax uncertainties from what is currently estimated could have an adverse effect on our operating results and financial condition.

If tax incentives change or cease to be in effect, our income taxes could increase significantly.

Agilent benefits from tax incentives extended to its foreign subsidiaries to encourage investment or employment. Several jurisdictions have granted Agilent tax incentives which require renewal at various times in the future. The incentives are conditioned on achieving various thresholds of investments and employment, or specific types of income. Agilent's taxes could increase if the incentives are not renewed upon expiration. If Agilent cannot or does not wish to satisfy all or parts of the tax incentive conditions, we may lose the related tax incentive and could be required to refund tax incentives previously realized. As a result, our effective tax rate could be higher than it would have been had we maintained the benefits of the tax incentives.

We have substantial cash requirements in the United States while most of our cash is generated outside of the United States. The failure to maintain a level of cash sufficient to address our cash requirements in the United States could adversely affect our financial condition and results of operations.

Although the cash generated in the United States from our operations covers our normal operating requirements and debt service requirements, a substantial amount of additional cash is required for special purposes such as the satisfaction of our ongoing debt obligations, including our senior notes coming due in September 2012, the repurchases of our stock and acquisitions of third parties. Our business operating results, financial condition, and strategic initiatives could be adversely impacted if we were unable to address our U.S. cash requirements through (1) the efficient and timely repatriations of overseas cash or (2) other sources of cash obtained at an acceptable cost.

We have outstanding debt and may incur other debt in the future, which could adversely affect our financial condition, liquidity and results of operations.

We currently have outstanding an aggregate principal amount of $2.1 billion in senior unsecured notes. We also are a party to a five-year senior unsecured revolving credit facility which expires in October, 2016 and under which we may borrow up to $400 million. We may borrow additional amounts

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in the future and use the proceeds from any future borrowing for general corporate purposes, other future acquisitions, expansion of our business or repurchases of our outstanding shares of common stock.

Our incurrence of this debt, and increases in our aggregate levels of debt, may adversely affect our operating results and financial condition by, among other things:

- increasing our vulnerability to downturns in our business, to competitive pressures and to adverse economic and industry conditions;
- requiring the dedication of an increased portion of our expected cash from operations to service our indebtedness, thereby reducing the amount of expected cash flow available for other purposes, including capital expenditures, acquisitions and stock repurchases; and
- limiting our flexibility in planning for, or reacting to, changes in our business and our industry.

Our current revolving credit facility imposes restrictions on us, including restrictions on our ability to create liens on our assets and the ability of our subsidiaries to incur indebtedness, and requires us to maintain compliance with specified financial ratios. Our ability to comply with these ratios may be affected by events beyond our control. In addition, the indenture governing our senior notes contains covenants that may adversely affect our ability to incur certain liens or engage in certain types of sale and leaseback transactions. If we breach any of the covenants and do not obtain a waiver from the lenders, then, subject to applicable cure periods, our outstanding indebtedness could be declared immediately due and payable.

If we suffer a loss to our factories, facilities or distribution system due to catastrophe, our operations could be seriously harmed.

Our factories, facilities and distribution system are subject to catastrophic loss due to fire, flood, terrorism or other natural or man-made disasters. In particular, several of our facilities could be subject to a catastrophic loss caused by earthquake due to their locations. Our production facilities, headquarters and Agilent Technologies Laboratories in California, and our production facilities in Japan, are all located in areas with above-average seismic activity. If any of these facilities were to experience a catastrophic loss, it could disrupt our operations, delay production, shipments and revenue and result in large expenses to repair or replace the facility. In addition, since we have consolidated our manufacturing facilities, we are more likely to experience an interruption to our operations in the event of a catastrophe in any one location. Although we carry insurance for property damage and business interruption, we do not carry insurance or financial reserves for interruptions or potential losses arising from earthquakes or terrorism. Also, our third party insurance coverage will vary from time to time in both type and amount depending on availability, cost and our decisions with respect to risk retention. Economic conditions and uncertainties in global markets may adversely affect the cost and other terms upon which we are able to obtain third party insurance. If our third party insurance coverage is adversely affected, or to the extent we have elected to self-insure, we may be at a greater risk that our operations will be harmed by a catastrophic loss.

Our results of operations, financial condition and liquidity could be adversely affected if our long-term leasehold counterparty becomes insolvent and the credit support on the leasehold transaction fails.

In February 2001, we sold a parcel of surplus land in San Jose, California for $287 million in cash. In August 2001, we completed a like-kind exchange by acquiring a long-term leasehold interest in several municipal properties in southern California for a total value of $289 million. In 2002, we received $237 million in non-refundable prepaid rent related to the leasehold interests described

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above. We contracted with a third party to provide credit protection for certain aspects of the transaction, including a future bankruptcy of the municipality. The current third party insurer is a subsidiary of American International Group Inc. ("AIG") which experienced a credit rating downgrade by Moody's Investors Service and Standard & Poor's and has been the recipient of U.S. federal government sponsored loans. If the municipality was to become insolvent and the credit support on the transaction was to fail, our results of operations, financial condition and liquidity could be adversely affected.

Adverse conditions in the global banking industry and credit markets may adversely impact the value of our cash investments or impair our liquidity.

As of October 31, 2011, we had cash and cash equivalents of approximately $3.53 billion invested or held in a mix of money market funds, time deposit accounts and bank demand deposit accounts. Disruptions in the financial markets may, in some cases, result in an inability to access assets such as money market funds that traditionally have been viewed as highly liquid. Any failure of our counterparty financial institutions or funds in which we have invested may adversely impact our cash and cash equivalent positions and, in turn, our results and financial condition.

Item 1B. ***Unresolved Staff Comments***

None.

Item 2. ***Properties***

As of October 31, 2011 we owned or leased a total of approximately 10.5 million square feet of space worldwide. Of that, we owned approximately 7.9 million square feet and leased the remaining 2.6 million square feet. Our sales and support facilities occupied a total of approximately 1.3 million square feet. Our manufacturing plants, R&D facilities and warehouse and administrative facilities occupied approximately 9.2 million square feet. Information about each of our businesses appears below:

Electronic Measurement Group. Our electronic measurement business has manufacturing and R&D facilities in China, Germany, Japan, Malaysia, Singapore, India and the U.S. Additionally, we have marketing centers in Germany, Hong Kong, Japan, the U.K., and the U.S., and sales offices throughout the world.

Life Sciences Group. Our life science measurement business has manufacturing and R&D facilities in Singapore, Malaysia, Germany, Poland, U.K. and the U.S. Additionally, we have marketing centers in Germany, Singapore and the U.S., and sales offices throughout the world.

Chemical Analysis Group. Our chemical analysis measurement business has manufacturing and R&D facilities in Australia, China, Malaysia, Italy, Japan, Netherlands, U.K. and the U.S. Additionally, we have marketing centers in Australia, Italy, Japan, Singapore and the U.S., and sales offices throughout the world.

Item 3. ***Legal Proceedings***

In November 2001, a securities class action, Kassin v. Agilent Technologies, Inc., et al., Civil Action No. 01-CV-10639, was filed in United States District Court for the Southern District of New York (the "Court") against certain investment bank underwriters for our initial public offering ("IPO"), Agilent and various of our officers and directors at the time of the IPO. In 2003, the Court granted Agilent's motion to dismiss the claims against Agilent based on Section 10 of the Securities Exchange Act, but denied Agilent's motion to dismiss the claims based on Section 11 of the Securities Act. On June 14,

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2004, papers formalizing a settlement among the plaintiffs, Agilent and more than 200 other issuer defendants and insurers were presented to the Court. Under the proposed settlement, plaintiffs' claims against Agilent and its directors and officers would be released, in exchange for a contingent payment (which, if made, would be paid by Agilent's insurer) and an assignment of certain potential claims. However, class certification of plaintiffs' underlying action against the underwriter defendants was a condition of the settlement. On December 5, 2006, the Court of Appeals for the Second Circuit (the "Second Circuit") reversed the Court's order certifying such a class in several "test cases" that had been selected by the underwriter defendants and plaintiffs. On January 5, 2007, plaintiffs filed a petition for rehearing to the full bench of the Second Circuit. On April 6, 2007, the Second Circuit issued an order denying rehearing but noted that plaintiffs are free to "seek certification of a more modest class." On June 25, 2007, the Court entered an order terminating the proposed settlement between plaintiffs and the issuer defendants based on a stipulation among the parties. Plaintiffs have amended their allegations and filed amended complaints in six "test cases" (none of which involve Agilent). Defendants in these cases have moved to dismiss the amended complaints. On March 26, 2008, the Court denied the defendants' motion to dismiss. The parties have again reached a global settlement of the litigation and filed a motion for preliminary approval of the settlement on April 2, 2009. Under the settlement, the insurers would pay the full amount of settlement share allocated to Agilent, and Agilent would bear no financial liability. Agilent, as well as the officer and director defendants who were previously dismissed from the action pursuant to tolling agreements, would receive complete dismissals from the case. On October 5, 2009, the Court entered an order granting final approval of the settlement. Four objectors appealed the Court's order to the Second Circuit. Two withdrew their respective appeals. Of the remaining two appeals, the Second Circuit dismissed one and remanded the other to the Court for a determination of whether this objector is a proper member of the plaintiff class. The Court found this objector was not a proper class member, but this objector has now appealed that decision to the Second Circuit. That appeal remains pending.

We are involved in lawsuits, claims, investigations and proceedings, including, but not limited to, patent, commercial and environmental matters, which arise in the ordinary course of business. There are no matters pending that we expect to be material in relation to our business, consolidated financial condition, results of operations or cash flows.

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PART II

Item 5. ***Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities***

Our common stock is listed on the New York Stock Exchange with the ticker symbol "A". For the 2010 and 2011 fiscal years, the high and low sale prices per quarter as reported in the consolidated transaction reporting system for the New York Stock Exchange are as follows:

Fiscal 2010	**High**	**Low**
First Quarter (ended January 31, 2010)	$ 31.77	$ 24.69
Second Quarter (ended April 30, 2010)	$ 37.43	$ 28.13
Third Quarter (ended July 31, 2010)	$ 36.89	$ 26.74
Fourth Quarter (ended October 31, 2010)	$ 35.33	$ 26.68

Fiscal 2011	**High**	**Low**
First Quarter (ended January 31, 2011)	$ 44.45	$ 34.38
Second Quarter (ended April 30, 2011)	$ 50.68	$ 39.94
Third Quarter (ended July 31, 2011)	$ 55.33	$ 41.29
Fourth Quarter (ended October 31, 2011)	$ 42.78	$ 28.67

As of December 1, 2011, there were 39,669 common stockholders of record.

Our management and Board of Directors evaluate our capitalization strategy on an on-going basis. We have historically not paid any cash dividends, but rather retained our income to fund the development and growth of our businesses and to fund stock repurchases from time to time.

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ISSUER PURCHASES OF EQUITY SECURITIES

The table below summarizes information about the company's purchases, based on trade date; of its equity securities registered pursuant to Section 12 of the Exchange Act during the quarterly period ended October 31, 2011. The total number of shares of common stock purchased by the company during the year ended October 31, 2011 is 11,603,092.

Period	Total Number of Shares of Common Stock Purchased[1] (a)	Weighted Average Price Paid per Share of Common Stock[2] (b)	Total Number of Shares of Common Stock Purchased as Part of Publicly Announced Plans or Programs[1] (c)	Maximum Approximate Dollar Value of Shares of Common Stock that May Yet Be Purchased Under the Plans or Programs (in millions) (d)
Aug. 1, 2011 through Aug. 31, 2011				NA
Sep. 1, 2011 through Sep. 30, 2011				NA
Oct. 1, 2011 through Oct. 31, 2011	1,069,874	$ 32.69	1,069,874	NA
Total	1,069,874	$ 32.69	1,069,874	

(1) On November 19, 2009 our Board of Directors approved a share repurchase program to reduce or eliminate dilution of basic outstanding shares in connection with issuances of stock under the company's equity incentive plans. The share repurchase program does not require the company to acquire a specific number of shares and may be suspended or discontinued at any time. There is no fixed termination date for the share repurchase program.

(2) The weighted average price paid per share of common stock does not include the cost of commissions.

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Item 6. ***Selected Financial Data***

SELECTED FINANCIAL DATA
(Unaudited)

	Years Ended October 31,				
	2011	**2010**	**2009**	**2008**	**2007**
	(in millions, except per share data)				
Consolidated Statement of Operations Data:					
Net revenue	$ 6,615	$ 5,444	$ 4,481	$ 5,774	$ 5,420
Income before taxes	$ 1,032	$ 692	$ 7	$ 815	$ 670
Net income (loss)	$ 1,012	$ 684	$ (31)	$ 693	$ 638
Net income (loss) per share Basic:	$ 2.92	$ 1.97	$ (0.09)	$ 1.91	$ 1.62
Net income (loss) per share Diluted:	$ 2.85	$ 1.94	$ (0.09)	$ 1.87	$ 1.57
Weighted average shares used in computing basic net income (loss) per share	347	347	346	363	394
Weighted average shares used in computing diluted net income (loss) per share	355	353	346	371	406

	October 31,				
	2011	**2010**	**2009**	**2008**	**2007**
	(in millions)				
Consolidated Balance Sheet Data:					
Cash and cash equivalents and short-term investments	$ 3,527	$ 2,649	$ 2,493	$ 1,429	$ 1,826
Working capital	$ 3,732	$ 3,086	$ 2,838	$ 1,852	$ 2,008
Long-term restricted cash and cash equivalents	$	$	$ 1,566	$ 1,582	$