NUVEEN CONNECTICUT PREMIUM INCOME MUNICIPAL FUND Form N-Q April 29, 2016

UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, DC 20549

FORM N-O

QUARTERLY SCHEDULE OF PORTFOLIO HOLDINGS OF REGISTERED MANAGEMENT INVESTMENT COMPANY

Investment Company Act file number 811-07606

Nuveen Connecticut Premium Income Municipal Fund (Exact name of registrant as specified in charter)

Nuveen Investments 333 West Wacker Drive, Chicago, Illinois 60606 (Address of principal executive offices) (Zip code)

Kevin J. McCarthy
Vice President and Secretary
333 West Wacker Drive, Chicago, Illinois 60606
(Name and address of agent for service)

Registrant's telephone number, including area code: 312-917-7700

Date of fiscal year end: 5/31

Date of reporting period: 2/29/16

Form N-Q is to be used by management investment companies, other than small business investment companies registered on Form N-5 (§§ 239.24 and 274.5 of this chapter), to file reports with the Commission, not later than 60 days after the close of the first and third fiscal quarters, pursuant to rule 30b1-5 under the Investment Company Act of 1940 (17 CFR 270.30b1-5). The Commission may use the information provided on Form N-Q in its regulatory, disclosure review, inspection, and policymaking roles.

A registrant is required to disclose the information specified by Form N-Q, and the Commission will make this information public. A registrant is not required to respond to the collection of information contained in Form N-Q unless the Form displays a currently valid Office of Management and Budget ("OMB") control number. Please direct comments concerning the accuracy of the information collection burden estimate and any suggestions for reducing the burden to the Secretary, Securities and Exchange Commission, 450 Fifth Street, NW, Washington, DC 20549-0609. The OMB has reviewed this collection of information under the clearance requirements of 44 U.S.C. § 3507.

Item 1. Schedule of Investments

Portfolio of Investments

Nuveen Connecticut Premium Income Municipal Fund (NTC) February 29, 2016 (Unaudited)

Principal Amount (000)	Description (1)	Optional Call Provisions (2)	Ratings (3)	Value
	LONG-TERM INVESTMENTS – 154.1% (100.0% of Total Investments)			
	MUNICIPAL BONDS – 154.1% (100.0% of Total Investments)			
	Consumer Staples – 1.4% (0.9% of Total Investments)			
\$ 3,010	Puerto Rico, The Children's Trust Fund, Tobacco Settlement Asset-Backed Refunding Bonds, Series 2002, 5.375%, 5/15/33 Education and Civic Organizations – 32.9% (21.3% of Total Investments)	5/16 at 100.00	BBB+	\$ 3,064,150
840	Connecticut Health and Educational Facilities Authority, Revenue Bonds, Chase Collegiate School,	7/17 at 100.00	AA	883,999
	Series 2007A, 5.000%, 7/01/27 – RAAI Insured Connecticut Health and Educational Facilities			
1,000	Authority, Revenue Bonds, Connecticut College, Series 2007G, 4.500%, 7/01/37 – NPFG Insured	7/17 at 100.00	AA-	1,019,240
1,150	Connecticut Health and Educational Facilities Authority, Revenue Bonds, Connecticut College, Series 2011H, 5.000%, 7/01/41	7/21 at 100.00	A2	1,269,807
	Connecticut Health and Educational Facilities Authority, Revenue Bonds, Fairfield University, Series 2010-O:			
800	5.000%, 7/01/35	7/20 at 100.00	A-	899,784
4,000	5.000%, 7/01/40	7/20 at 100.00	A–	4,498,920
1,065	Connecticut Health and Educational Facilities Authority, Revenue Bonds, Fairfield	7/26 at 100.00	A–	1,218,445

	University, Series			
	2016Q-1, 5.000%, 7/01/46 Connecticut Health and Educational Facilities			
	Authority, Revenue Bonds, Loomis Chaffee			
	School,			
	Series 2005F:			
440	5.250%, 7/01/18 – AMBAC Insured	No Opt. Call	A2	483,331
1,510	5.250%, 7/01/19 – AMBAC Insured	No Opt. Call	A2	1,714,862
,	Connecticut Health and Educational Facilities	1		, ,
	Authority, Revenue Bonds, Norwich Free			
1,125	Academy,	7/23 at 100.00	A1	1,192,489
	Series 2013B, 4.000%, 7/01/34			
	Connecticut Health and Educational Facilities			
	Authority, Revenue Bonds, Quinnipiac			
7,030	University,	7/25 at 100.00	A-	7,917,256
	Series 2015L, 5.000%, 7/01/45			
	Connecticut Health and Educational Facilities			
	Authority, Revenue Bonds, Sacred Heart			
	University,			
250	Series 2011G:	7/01 + 100 00	DDD	270 252
250	5.125%, 7/01/26	7/21 at 100.00	BBB+	279,352
3,260	5.625%, 7/01/41 Connecticut Health and Educational Facilities	7/21 at 100.00	BBB+	3,577,883
	Authority, Revenue Bonds, Sacred Heart			
	University,			
	Series 2012H:			
1,500	5.000%, 7/01/26 – AGM Insured	7/22 at 100.00	AA	1,704,405
1,000	5.000%, 7/01/28 – AGM Insured	7/22 at 100.00	AA	1,123,850
1,000	Connecticut Health and Educational Facilities	7722 66 100.00	1 21 2	1,120,000
	Authority, Revenue Bonds, The Loomis			
	Chaffee			
	School Issue, Series 2011-I:			
560	5.000%, 7/01/23 – AGM Insured	7/21 at 100.00	A2	651,913
225	5.000%, 7/01/24 – AGM Insured	7/21 at 100.00	A2	260,251
	Connecticut Health and Educational Facilities			
	Authority, Revenue Bonds, Wesleyan			
4,140	University,	7/20 at 100.00	AA	4,704,406
	Series 2010G, 5.000%, 7/01/35			
	Connecticut Health and Educational Facilities			
0.050	Authority, Revenue Bonds, Yale University,	5 /16 + 100 00		10 100 147
9,950	Series	7/16 at 100.00	AAA	10,100,145
	2007Z-1, 5.000%, 7/01/42			
	Connecticut Health and Educational Facilities			
17,000	Authority, Revenue Bonds, Yale University, Series	7/17 at 100.00	AAA	17,909,670
17,000	2007Z-3, 5.050%, 7/01/42 (UB) (4)	//1/ at 100.00	AAA	17,909,070
	Connecticut Health and Educational Facilities	11/23 at		
5,580	Authority, Revenue Bonds, Connecticut State	100.00	AA	6,590,929
2,200	University System, Series 2013N, 5.000%,	100.00	1 11 1	~,c > ~,> <u>~</u>
	11/01/31			
515			Aa2	586,245

	University of Connecticut, Student Fee Revenue Bonds, Refunding Series 2010A, 5.000%, 11/15/27	11/19 at 100.00		
1,500 64,440	University of Connecticut, Student Fee Revenue Bonds, Refunding Series 2012A, 5.000%, 11/15/29 Total Education and Civic Organizations Health Care – 31.9% (20.7% of Total Investments)	No Opt. Call	Aa2	1,788,780 70,375,962
3,200	Connecticut Health and Educational Facilities Authority Revenue Bonds, Hartford HealthCare, Series 2015F, 5.000%, 7/01/45 Connecticut Health and Educational Facilities	7/25 at 100.00	A	3,599,776
4,540	Authority, Revenue Bonds, Ascension Health Series 2010A, 5.000%, 11/15/40 Connecticut Health and Educational Facilities	11/19 at 100.00	AA+	5,022,965
660 3,000	Authority, Revenue Bonds, Bristol Hospital, Series 2002B: 5.500%, 7/01/21 – RAAI Insured 5.500%, 7/01/32 – RAAI Insured	5/16 at 100.00 5/16 at 100.00	AA AA	662,171 3,005,910
1,010	Connecticut Health and Educational Facilities Authority, Revenue Bonds, Catholic Health East	11/20 at 100.00	AA	1,112,262
200	Series 2010, 4.750%, 11/15/29 Connecticut Health and Educational Facilities Authority, Revenue Bonds, Danbury Hospital, Series	5/16 at 100.00	A	200,206
20	2006H, 4.500%, 7/01/33 – AMBAC Insured Connecticut Health and Educational Facilities Authority, Revenue Bonds, Eastern	5/16 at 100 00	A A	20.076
20	Connecticut Health Network, Series 2000A, 6.125%, 7/01/20 – RAAI Insured Connecticut Health and Educational Facilities Authority, Revenue Bonds, Eastern	5/16 at 100.00	AA	20,076
840	Connecticut Health Network, Series 2005, 5.000%, 7/01/25 – RAAI Insured Connecticut Health and Educational Facilities Authority, Revenue Bonds, Griffin Hospital, Series 2005B:	5/16 at 100.00	AA	841,806
2,400 1,050	5.000%, 7/01/20 – RAAI Insured 5.000%, 7/01/23 – RAAI Insured Connecticut Health and Educational Facilities Authority, Revenue Bonds, Hartford	5/16 at 100.00 5/16 at 100.00	A3 A3	2,406,816 1,052,509
7,025	HealthCare, Series 2011A, 5.000%, 7/01/41	7/21 at 100.00	A	7,693,148
500	Connecticut Health and Educational Facilities Authority, Revenue Bonds, Hartford	No Opt. Call	A	563,055

	HealthCare, Series 2014E, 5.000%, 7/01/42 Connecticut Health and Educational Facilities Authority, Revenue Bonds, Hospital For Special Care, Series 2007C:			
1,065 300	5.250%, 7/01/32 – RAAI Insured 5.250%, 7/01/37 – RAAI Insured Connecticut Health and Educational Facilities Authority, Revenue Bonds, Lawrence and	7/17 at 100.00 7/17 at 100.00	AA AA	1,114,810 313,134
2,000	Memorial Hospitals, Series 2011F, 5.000%, 7/01/36 Connecticut Health and Educational Facilities Authority, Revenue Bonds, Middlesex Hospital, Series 2011N:	7/21 at 100.00	A	2,200,560
1,105	5.000%, 7/01/25	7/21 at 100.00	A2	1,251,689
400	5.000%, 7/01/26	7/21 at 100.00	A2	451,708
500	5.000%, 7/01/27 Connecticut Health and Educational Facilities Authority, Revenue Bonds, Middlesex	7/21 at 100.00	A2	561,565
1,915	Hospital, Series 2015O, 5.000%, 7/01/36 Connecticut Health and Educational Facilities Authority, Revenue Bonds, Stamford	7/25 at 100.00	A2	2,182,162
1,275	Hospital, Series 2010-I, 5.000%, 7/01/30 Connecticut Health and Educational Facilities Authority, Revenue Bonds, Stamford	7/20 at 10.00	A	1,430,639
7,000	Hospital, Series 2012J, 5.000%, 7/01/42 Connecticut Health and Educational Facilities Authority, Revenue Bonds, Western	7/22 at 100.00	A	7,648,130
3,905	Connecticut Health, Series 2011M, 5.375%, 7/01/41 Connecticut Health and Educational Facilities Authority, Revenue Bonds, Western	7/21 at 100.00	A	4,374,576
4,000	Connecticut Health, Series 2011N, 5.000%, 7/01/29 Connecticut Health and Educational Facilities Authority, Revenue Bonds, Yale-New Haven Health Issue, Series 2014E:	7/21 at 100.00	A	4,480,840
2,610	5.000%, 7/01/32	7/24 at 100.00	Aa3	3,055,449
2,740	5.000%, 7/01/33	7/24 at 100.00	Aa3	3,192,073
900	5.000%, 7/01/34 Monroe County Industrial Development Corporation, New York, FHA Insured	7/24 at 100.00	Aa3	1,046,313
7,475	Mortgage Revenue Bonds, Unity Hospital of Rochester Project, Series 2010, 5.500%, 8/15/40	2/21 at 100.00	AA	8,749,562

61,635	Total Health Care Housing/Single Family – 2.9% (1.9% of Total Investments)			68,233,910
3,900	Connecticut Housing Finance Authority, Housing Mortgage Finance Program Bonds, Series 2006D, 4.650%, 11/15/27 Connecticut Housing Finance Authority, Single Family Housing Mortgage Finance Program Bonds, Series 2010-A2:	5/16 at 100.00	AAA	3,917,589
630	4.500%, 11/15/30	11/19 at 100.00 11/19 at	AAA	662,728
1,500 6,030	4.750%, 11/15/35 Total Housing/Single Family Long-Term Care – 2.0% (1.3% of Total Investments) Connecticut Health and Educational Facilities Authority, Revenue Bonds, Duncaster, Inc.,	100.00	AAA	1,571,040 6,151,357
1,100	Series 2014A, 5.000%, 8/01/44 Connecticut Housing Finance Authority, Special Needs Housing Mortgage Finance	8/24 at 100.00	BBB-	1,134,661
1,500	Program Special Obligation Bonds, Series 2002SNH-1, 5.000%, 6/15/32 – AMBAC Insured Connecticut Housing Finance Authority, State Supported Special Obligation Bonds,	5/16 at 100.00	N/R	1,501,620
1,380	Refunding Series 2010-16, 5.000%, 6/15/30	6/20 at 100.00	AA	1,565,679
3,980	Total Long-Term Care Tax Obligation/General – 26.5% (17.2% of Total Investments) Bridgeport, Connecticut, General Obligation Bonds, Series 2014A:			4,201,960
2,345	5.000%, 7/01/32 – AGM Insured	7/24 at 100.00	AA	2,699,869
1,600	5.000%, 7/01/34 – AGM Insured Connecticut State, General Obligation Bonds,	7/24 at 100.00 11/24 at	AA	1,829,392
5,100	Green Series 2014G, 5.000%, 11/15/31 Connecticut State, General Obligation Bonds,	100.00	AA	6,031,005
2,100	Refunding Series 2006E, 5.000%, 12/15/20 Connecticut State, General Obligation Bonds,	12/16 at 10.00	AA	2,180,388
2,290	Refunding Series 2012E, 5.000%, 9/15/32 Connecticut State, General Obligation Bonds,	9/22 at 100.00 12/16 at	AA	2,663,636
3,500	Series 2006A, 4.750%, 12/15/24 Connecticut State, General Obligation Bonds,	100.00 11/21 at	AA	3,622,920
1,000	Series 2011D, 5.000%, 11/01/31 Connecticut State, General Obligation Bonds,	100.00	AA	1,170,910
2,600	Series 2014A, 5.000%, 3/01/31	3/24 at 100.00	AA	3,040,180
3,500	,,		AA	4,076,695

	Connecticut State, General Obligation Bonds, Series 2014F, 5.000%, 11/15/34 Connecticut State, General Obligation Bonds,	100.00		
2,630	Series 2015F, 5.000%, 11/15/34 Hartford, Connecticut, General Obligation Bonds, Refunding Series 2013A, 5.000%,	100.00	AA	3,094,405
1,000	4/01/31 Hartford, Connecticut, General Obligation	4/23 at 100.00	AA-	1,133,660
870	Bonds, Series 2009A, 5.000%, 8/15/28 Hartford, Connecticut, General Obligation	8/19 at 100.00	AA	967,466
2,000	Bonds, Series 2013B, 5.000%, 4/01/33 New Haven, Connecticut, General Obligation		AA-	2,257,760
2,150	Bonds, Refunding Series 2006, 5.000%, 11/01/17 –	11/16 at 100.00	A-	2,215,059
	AMBAC Insured New Haven, Connecticut, General Obligation Bonds, Series 2015:			
790	5.000%, 9/01/32 – AGM Insured	9/25 at 100.00	AA	928,400
1,620	5.000%, 9/01/33 – AGM Insured	9/25 at 100.00	AA	1,900,876
500	5.000%, 9/01/35 – AGM Insured New Haven, Connecticut, General Obligation Bonds, Series 2014A, 5.000%, 8/01/33 – AGN		AA	583,070
985	Insured North Haven, Connecticut, General Obligation	8/24 at 100.00	AA	1,116,517
900	Bonds, Series 2006, 5.000%, 7/15/24 Oregon State, General Obligation Bonds, Oregon University System Projects, Series	No Opt. Call	Aa1	1,123,947
3,890	2011G, 5.000%, 8/01/36 Stamford, Connecticut, General Obligation Bonds, Refunding Series 2014, 3.000%,	8/21 at 100.00	AA+	4,524,264
2,500	8/15/22 Stratford, Connecticut, General Obligation	8/21 at 100.00 12/22 at	AAA	2,733,975
600	Bonds, Series 2014, 5.000%, 12/15/32 Suffield, Connecticut, General Obligation Bonds, Refunding Series 2005:	100.00	AA	713,352
800	5.000%, 6/15/17	No Opt. Call	AA+	846,664
820	5.000%, 6/15/19	No Opt. Call	AA+	932,996
1,400	5.000%, 6/15/21 Waterbury, Connecticut, General Obligation Bonds, Lot A Series 2015:	No Opt. Call	AA+	1,684,466
445	5.000%, 8/01/30 – BAM Insured	8/25 at 100.00	AA	527,770
390	5.000%, 8/01/31 – BAM Insured	8/25 at 100.00	AA	459,206
610	5.000%, 8/01/32 – BAM Insured	8/25 at 100.00	AA	713,291
445	5.000%, 8/01/33 – BAM Insured	8/25 at 100.00	AA	519,956
445	5.000%, 8/01/34 – BAM Insured	8/25 at 100.00	AA	517,566
49,825	Total Tax Obligation/General Tax Obligation/Limited – 22.0% (14.3% of Total Investments) Connecticut State, Special Tax Obligation Bonds, Transportation Infrastructure			56,809,661

	Purposes,			
3,835	Series 2014A: 5.000%, 9/01/33	9/24 at 100.00	AA	4,526,872
•		9/24 at 100.00 9/24 at 100.00	AA AA	
1,000	5.000%, 9/01/34	9/24 at 100.00	AA	1,176,240
	Connecticut State, Special Tax Obligation Transportation Infrastructure Purposes Bonds,			
2,500	Series	, No Opt. Call	AA	2,888,875
2,300	2012A, 5.000%, 1/01/33	140 Opt. Can	AA	2,000,073
	Connecticut State, Special Tax Obligation			
	Transportation Infrastructure Purposes Bonds,	. 10/23 at		
3,855	Series	100.00	AA	4,514,436
3,033	2013A, 5.000%, 10/01/33	100.00	7 17 1	4,514,450
	Connecticut State, Special Tax Obligation			
	Transportation Infrastructure Purposes Bonds,			
1,380	Series	8/25 at 100.00	AA	1,642,462
1,000	2015A, 5.000%, 8/01/33	0/20 00 100/00	1 1	1,0 .2, .02
	Connecticut, Certificates of Participation,			
	Juvenile Training School, Series 2001,			
1,000	5.000%, 12/15/30	5/16 at 100.00	AA-	1,002,660
•	Government of Guam, Business Privilege Tax			
	Bonds, Series 2011A:			
840	5.250%, 1/01/36	1/22 at 100.00	A	935,743
3,200	5.125%, 1/01/42	1/22 at 100.00	A	3,509,504
	Harbor Point Infrastructure Improvement			
	District, Connecticut, Special Obligation			
3,000	Revenue Bonds,	4/20 at 100.00	N/R	3,559,170
	Harbor Point Project, Series 2010A, 7.875%,			
	4/01/39			
	Puerto Rico Municipal Finance Agency,			
2,550	Series 2005C, 5.000%, 8/01/16 – AGM Insure	ed5/16 at 100.00	AA	2,559,053
	Puerto Rico Municipal Finance Agency,			
1,500	Series 2002A, 5.250%, 8/01/21 – AGM Insure		AA	1,505,520
	University of Connecticut, General Obligation			
	Bonds, Series 2006A, 5.000%, 2/15/19 – FGIO			
1,300	Insured	4/16 at 100.00	AA	1,305,447
2 (00	University of Connecticut, General Obligation			2 0 6 0 2 4 2
2,600	Bonds, Series 2010A, 5.000%, 2/15/28	2/20 at 100.00	AA	2,968,342
	University of Connecticut, General Obligation	1		
2 200	Bonds, Series 2013A:	N 0 . C 11		2 (02 7()
2,290	5.000%, 8/15/20	No Opt. Call	AA	2,683,766
2,500	5.000%, 8/15/32	8/23 at 100.00	AA	2,917,425
760	University of Connecticut, General Obligation		A A	902 797
760	Bonds, Series 2014A, 5.000%, 2/15/31	2/24 at 100.00	AA	892,787
1 415	University of Connecticut, General Obligation		A A	1 657 742
1,415	Bonds, Series 2015A, 5.000%, 2/15/34	No Opt. Call	AA	1,657,743
	Virgin Islands Public Finance Authority,			
	Gross Receipts Taxes Loan Note, Refunding Series 2012A:			
2,275	5.000%, 10/01/32	No Opt. Call	BBB+	2,450,585
1,790	5.000%, 10/01/32 – AGM Insured	No Opt. Call	AA	1,976,411
2,150	5.000 /0, 10/01/32 – MOWI HISUICU	140 Opt. Can	BBB	2,340,705
2,130			טטט	2,570,703

	Virgin Islands Public Finance Authority, Matching Fund Loan Notes Revenue Bonds, Senior Lien	10/20 at 100.00		
41,740	Series 2010A, 5.000%, 10/01/29 Total Tax Obligation/Limited Transportation – 0.2% (0.2% of Total Investments) Virgin Islands Port Authority, Marine			47,013,746
450	Revenue Bonds, Refunding Series 2014B, 5.000%, 9/01/44 U.S. Guaranteed – 11.6% (7.5% of Total Investments) (5) Connecticut Health and Educational Facilities Authority, Child Care Facilities Program Revenue Bonds, Series 2006F:	9/24 at 100.00	BBB+	493,389
2,525	5.000%, 7/01/31 (Pre-refunded 7/01/16) – AGO Insured 5.000%, 7/01/36 (Pre-refunded 7/01/16) – AGO	7/16 at 100.00	AA (5)	2,563,532
2,930	Insured Connecticut Health and Educational Facilities Authority, Revenue Bonds, Quinnipiac	7/16 at 100.00	AA (5)	2,974,712
4,405	University, Series 2007-I, 5.000%, 7/01/25 (Pre-refunded 7/01/17) – NPFG Insured Connecticut Health and Educational Facilities Authority, Revenue Bonds, Renbrook School, Series 2007A: 5.000%, 7/01/30 (Pre-refunded 7/01/17) –	7/17 at 100.00	AA- (5)	4,667,626
465	AMBAC Insured 5.000%, 7/01/37 (Pre-refunded 7/01/17) –	7/17 at 100.00	N/R (5)	492,723
735	AMBAC Insured Connecticut Health and Educational Facilities Authority, Revenue Bonds, William W.	7/17 at 100.00	N/R (5)	778,821
775	Backus Hospital, Series 2005F, 5.125%, 7/01/35 (Pre-refunded 7/01/18) – AGM Insured Connecticut Health and Educational Facilities	7/18 at 100.00	AA (5)	854,701
1,240	Authority, Revenue Bonds, Yale-New Haven Hospital, Series 2010M, 5.500%, 7/01/40 (Pre-refunded 7/01/20) Connecticut State Development Authority, Health Facilities Revenue Bonds, Alzheimer's	7/20 at 100.00	Aa3 (5)	1,480,709
1,125	Resource Center of Connecticut, Inc., Series 2007, 5.500%, 8/15/27 (Pre-refunded 8/15/17) Connecticut State, Special Tax Obligation Transportation Infrastructure Bonds, Series	8/17 at 100.00	N/R (5)	1,203,109
5,000	2007A, 5.000%, 8/01/27 (Pre-refunded 8/01/17) – AMBAC Insured	8/17 at 100.00	AA (5)	5,317,800

870	Hartford, Connecticut, General Obligation Bonds, Series 2009A, 5.000%, 8/15/28 (Pre-refunded 8/15/19)	8/19 at 100.00	AA (5)	994,488
40	New Haven, Connecticut, General Obligation Bonds, Series 2002A, 5.250%, 11/01/17 – AMBAC Insured (ETM) Puerto Rico Public Finance Corporation,	5/16 at 100.00	A- (5)	41,562
1,010	Commonwealth Appropriation Bonds, Series 1998A, 5.125%, 6/01/24 – AMBAC Insured (ETM) Stamford, Connecticut, Special Obligation	No Opt. Call	Aaa	1,221,161
1,725	Revenue Bonds, Mill River Corridor Project, Series 2011A, 7.000%, 4/01/41 (Pre-refunded	4/21 at 100.00	N/R (5)	2,208,138
22,845	4/01/21) Total U.S. Guaranteed			24,799,082
	Utilities – 6.3% (4.1% of Total Investments) Connecticut Development Authority, Water Facility Revenue Bonds, Aquarion Water			
4,375	Company Project, Series 2007, 5.100%, 9/01/37 – SYNCORA GTY Insured (Alternative Minimum Tax) Connecticut Municipal Electric Energy Cooperative, Power Supply System Revenue Bonds, Tender	9/17 at 100.00	N/R	4,485,600
1 205	Option Bond Trust 1164:	1/22 at 100 00	A 0.2	2 072 979
1,295 410	17.290%, 1/01/32 (IF) (4) 17.130%, 1/01/38 (IF) (4)	1/23 at 100.00 1/23 at 100.00	Aa3 Aa3	2,073,878 614,184
410	Connecticut Transmission Municipal Electric Energy Cooperative, Transmission System Revenue Bonds, Series 2012A:	1723 at 100.00	Aas	014,104
655	5.000%, 1/01/31	1/22 at 100.00	Aa3	764,732
500	5.000%, 1/01/32	1/22 at 100.00	Aa3	581,365
2,830	5.000%, 1/01/42	1/22 at 100.00	Aa3	3,218,644
	Eastern Connecticut Resource Recovery			
1,765	Authority, Solid Waste Revenue Bonds, Wheelabrator Lisbon Project, Series 1993A, 5.500%, 1/01/20 (Alternative Minimum Tax)	5/16 at 100.00	A-	1,777,108
11,830	Total Utilities Water and Sewer – 16.4% (10.6% of Total Investments) Greater New Haven Water Pollution Control Authority, Connecticut, Regional Wastewater System Revenue Bonds, Refunding Series 2014B:			13,515,511
500	5.000%, 8/15/30	8/24 at 100.00	AA	595,790
1,000	5.000%, 8/15/31	8/24 at 100.00	AA	1,185,390
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500	5.000%, 8/15/32 Greater New Haven Water Pollution Control	8/24 at 100.00	AA	589,360
55	Authority, Connecticut, Regional Wastewater System Revenue Bonds, Series 2005A, 5.000%,	11/16 at 100.00	AA	55,206
2,050	8/15/35 – NPFG Insured Guam Government Waterworks Authority, Water and Wastewater System Revenue Bonds, Series 2010, 5.625%, 7/01/40	7/20 at 100.00	A-	2,266,439
1,125	Guam Government Waterworks Authority, Water and Wastewater System Revenue Bonds, Series 2016, 5.000%, 1/01/46 Hartford County Metropolitan District,	7/26 at 100.00	A-	1,261,980
6,815	Connecticut, Clean Water Project Revenue Bonds, Refunding Green Bond Series 2014A, 5.000%, 11/01/42 Hartford County Metropolitan District, Connecticut, Clean Water Project Revenue	11/24 at 100.00	AA	7,882,502
	Bonds, Series 2013A:			
4,100	5.000%, 4/01/36	4/22 at 100.00	AA	4,748,907
2,500	5.000%, 4/01/39 South Central Connecticut Regional Water Authority Water System Revenue Bonds,	4/22 at 100.00	AA	2,870,700
795	Thirtieth Series 2014A, 5.000%, 8/01/44 South Central Connecticut Regional Water	8/24 at 100.00	Aa3	908,725
1,840	Authority, Water System Revenue Bonds, Twentieth Series, 2007A, 5.000%, 8/01/30 – NPFG Insured	8/16 at 100.00	AA-	1,874,150
4,870	South Central Connecticut Regional Water Authority, Water System Revenue Bonds, Twentieth-Sixth Series, 2011, 5.000%, 8/01/41	8/21 at 100.00	Aa3	5,636,782
4,000	South Central Connecticut Regional Water Authority, Water System Revenue Bonds, Twenty-Seventh Series 2012, 5.000%, 8/01/33 Stamford, Connecticut, Water Pollution Control System and Facility Revenue Bonds,	No Opt. Call	Aa3	4,649,080
500	Series 2013A, 5.250%, 8/15/43	8/23 at 100.00	AA+	583,425
30,650	Total Water and Sewer			35,108,436
\$ 296,435	Total Long-Term Investments (cost \$310,013,799) Floating Rate Obligations – (6.0)%			329,767,164 (12,750,000)
	Variable Rate MuniFund Term Preferred Shares, at Liquidation Preference – (49.5)% (6 Other Assets Less Liabilities – 1.4%)		(106,000,000) 2,914,600

Net Assets Applicable to Common Shares – 100%

\$ 213,931,764

Fair Value Measurements

Fair Value is defined as the price that would be received upon selling an investment or transferring a liability in an orderly transaction to an independent buyer in the principal or most advantageous market for the investment. A three-tier hierarchy is used to maximize the use of observable market data and minimize the use of unobservable inputs and to establish classification of fair value measurements for disclosure purposes. Observable inputs reflect the assumptions market participants would use in pricing the asset or liability. Observable inputs are based on market data obtained from sources independent of the reporting entity. Unobservable inputs reflect the reporting entity's own assumptions about the assumptions market participants would use in pricing the asset or liability. Unobservable inputs are based on the best information available in the circumstances. The following is a summary of the three-tiered hierarch of valuation input levels.

Level 1 – Inputs are adjusted and prices are determined using quoted prices in active markets for identical securities.

Level 2 – Prices are determined using other significant observable inputs (including quoted prices for similar securities, interest rates, prepayment speeds, credit risk, etc.).

Level 3 – Prices are determined using significant unobservable inputs (including management's assumptions in determining the fair value of investments).

The inputs or methodologies used for valuing securities are not an indication of the risk associated with investing in those securities. The following is a summary of the Fund's fair value measurements as of the end of the reporting period:

	Level 1	Level 2	Level 3	Total
Long-Term Investments:				
Municipal Bonds	\$ —	\$329,767,164	\$ —	\$329,767,164

Income Tax Information

The following information is presented on an income tax basis. Differences between amounts for financial statement and federal income tax purposes are primarily due to timing differences in recognizing taxable market discount, timing differences in recognizing certain gains and losses on investment transactions and the treatment of investments in inverse floating rate securities reflected as financing transactions, if any. To the extent that differences arise that are permanent in nature, such amounts are reclassified within the capital accounts on the Statement of Assets and Liabilities presented in the annual report, based on their federal tax basis treatment; temporary differences do no require reclassification. Temporary and permanent differences do not impact the net asset value of the Fund.

As of February 29, 2016, the cost of investments was \$297,429,257.

Gross unrealized appreciation and gross unrealized depreciation of investments as of February 29, 2016, were as follows:

Gross unrealized:

Appreciation \$19,880,410

Depreciation (292,503)

Net unrealized appreciation (depreciation) of investments \$19,587,907

- (1) All percentages shown in the Portfolio of Investments are based on net assets applicable to Common shares unless otherwise noted.
- (2) Optional Call Provisions: Dates (month and year) and prices of the earliest optional call or redemption. There may be other call provisions at varying prices at later dates. Certain mortgage-backed securities may be subject to periodic principal paydowns.
- (3) Ratings: Using the highest of Standard & Poor's Group ("Standard & Poor's"), Moody's Investors Service, Inc. ("Moody's") or Fitch, Inc. ("Fitch") rating. Ratings below BBB by Standard & Poor's, Baa by Moody's or BBB by Fitch are considered to be below investment grade. Holdings designated N/R are not rated by any of these national rating agencies.
- Investment, or portion of investment, has been pledged to collateralize the net payment obligations for investments in inverse floating rate transactions.
 Backed by an escrow or trust containing sufficient U.S. Government or U.S. Government agency
- (5) securities, which ensure the timely payment of principal and interest. Certain bonds backed by U.S. Government or agency securities are recognized as having an implied rating equal to the rating of such securities.
- (6) Variable Rate MuniFund Term Preferred Shares, at Liquidation Preference as a percentage of Total Investments is 32.1%.
- (ETM) Escrowed to maturity.
 - (IF) Inverse floating rate investment.
 - (UB) Underlying bond of an inverse floating rate trust reflected as a financing transaction.

Item 2. Controls and Procedures.

- a. The registrant's principal executive and principal financial officers, or persons performing similar functions, have concluded that the registrant's disclosure controls and procedures (as defined in Rule 30a-3(c) under the Investment Company Act of 1940, as amended (the "1940 Act") (17 CFR 270.30a-3(c))) are effective, as of a date within 90 days of the filing date of this report that includes the disclosure required by this paragraph, based on their evaluation of the controls and procedures required by Rule 30a-3(b) under the 1940 Act (17 CFR 270.30a-3(b)) and Rule 13a-15(b) or 15d-15(b) under the Securities Exchange Act of 1934 (17 CFR 240.13a-15(b) or 240.15d-15(b)).
- b. There were no changes in the registrant's internal control over financial reporting (as defined in Rule 30a-3(d) under the 1940 Act (17 CFR 270.30a-3(d)) that occurred during the registrant's last fiscal quarter that have materially affected, or are reasonably likely to materially affect, the registrant's internal control over financial reporting.

Item 3. Exhibits.

File as exhibits as part of this Form a separate certification for each principal executive officer and principal financial officer of the registrant as required by Rule 30a-2(a) under the 1940 Act (17 CFR 270.30a-2(a)), exactly as set forth below: See EX-99 CERT attached hereto.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

(Registrant) Nuveen Connecticut Premium Income Municipal Fund

By

(Signature /s/ Kevin J. McCarthy

and Title)

Kevin J. McCarthy

Vice President and Secretary

Date: April 29, 2016

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

By

(Signature /s/ Gifford R. Zimmerman

and Title)

Gifford R. Zimmerman

Chief Administrative Officer (principal executive officer)

Date: April 29, 2016

By

(Signature /s/ Stephen D. Foy

and Title)

Stephen D. Foy

Vice President and Controller (principal financial officer)

Date: April 29, 2016