

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

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM N-Q

QUARTERLY SCHEDULE OF PORTFOLIO HOLDINGS OF REGISTERED MANAGEMENT INVESTMENT
COMPANY

Investment Company Act file number 811-07616

Nuveen Missouri 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 Missouri Premium Income Municipal
Fund (NOM)
February 29, 2016 (Unaudited)

Principal Amount (000)	Description (1)	Optional Call Provisions (2)	Ratings (3)	Value
	LONG-TERM INVESTMENTS – 158.5% (100.0% of Total Investments)			
	MUNICIPAL BONDS – 158.5% (100.0% of Total Investments)			
	Consumer Staples – 4.0% (2.5% of Total Investments)			
\$ 1,055	Missouri Development Finance Board, Solid Waste Disposal Revenue Bonds, Procter and Gamble Inc., Series 1999, 5.200%, 3/15/29 (Alternative Minimum Tax)	No Opt. Call	AA–	\$ 1,323,497
	Education and Civic Organizations – 23.3% (14.7% of Total Investments)			
300	Curators of the University of Missouri, System Facilities Revenue Bonds, Refunding Series 2014A, 4.000%, 11/01/33	11/24 at 100.00	AA+	330,696
250	Lincoln University, Missouri, Auxiliary System Revenue Bonds, Series 2007, 5.125%, 6/01/37 – AGC Insured	6/17 at 100.00	AA	256,923
410	Missouri Health and Educational Facilities Authority, Educational Facilities Revenue Bonds, Kansas City University of Medicine and Biosciences, Series 2013A, 5.000%, 6/01/33	6/23 at 100.00	A1	456,867
750	Missouri Health and Educational Facilities Authority, Educational Facilities Revenue Bonds, Saint Louis College of Pharmacy, Series 2013, 5.500%, 5/01/43	5/23 at 100.00	BBB+	829,845
600	Missouri Health and Educational Facilities Authority, Educational Facilities Revenue Bonds, Southwest Baptist University Project, Series 2012, 5.000%, 10/01/33	10/22 at 100.00	BBB–	646,320

Edgar Filing: NUVEEN MISSOURI PREMIUM INCOME MUNICIPAL FUND - Form N-Q

725	Missouri Health and Educational Facilities Authority, Educational Facilities Revenue Bonds, University of Central Missouri, Series 2013C2, 5.000%, 10/01/34	10/23 at 100.00	A	832,815
630	Missouri Health and Educational Facilities Authority, Revenue Bonds, A.T. Still University of Health Sciences, Series 2011, 5.250%, 10/01/41	10/21 at 100.00	A-	704,094
510	Missouri Health and Educational Facilities Authority, Revenue Bonds, A.T. Still University of Health Sciences, Series 2014, 5.000%, 10/01/39	10/23 at 100.00	A-	578,014
700	Missouri Health and Educational Facilities Authority, Revenue Bonds, Rockhurst University, Series 2011A, 6.500%, 10/01/35	10/18 at 103.00	BBB-	777,840
1,000	Missouri Health and Educational Facilities Authority, Revenue Bonds, Saint Louis University, Series 2015A, 4.000%, 10/01/42	10/25 at 100.00	AA-	1,045,390
550	Missouri Health and Educational Facilities Authority, Revenue Bonds, Washington University, Series 2011B, 5.000%, 11/15/37	11/21 at 100.00	AAA	639,061
600	Missouri Health and Educational Facilities Authority, Revenue Bonds, Webster University, Series 2011, 5.000%, 4/01/36	4/21 at 100.00	A2	656,688
7,025	Total Education and Civic Organizations Health Care – 37.1% (23.4% of Total Investments)			7,754,553
525	Cape Girardeau County Industrial Development Authority, Missouri, Health Facilities Revenue Bonds, Saint Francis Medical Center, Series 2009A, 5.750%, 6/01/39	6/19 at 100.00	AA-	585,501
760	Cape Girardeau County Industrial Development Authority, Missouri, Health Facilities Revenue Bonds, Southeast Missouri Hospital Association, Series 2007: 5.000%, 6/01/27	6/17 at 100.00	B	736,410
560	5.000%, 6/01/36	6/17 at 100.00	B	522,122
930	Cass County, Missouri, Hospital Revenue Bonds, Series 2007, 5.625%, 5/01/38	11/16 at 100.00	BBB-	938,110
480	Clinton County Industrial Development Authority, Missouri, Revenue Bonds, Cameron Regional	12/17 at 100.00	N/R	484,214

Edgar Filing: NUVEEN MISSOURI PREMIUM INCOME MUNICIPAL FUND - Form N-Q

200	Medical Center, Series 2007, 5.000%, 12/01/37 Joplin Industrial Development Authority, Missouri, Health Facilities Revenue Bonds, Freeman	2/21 at 100.00	BBB+	222,740
315	Health System, Series 2011, 5.500%, 2/15/31 Joplin Industrial Development Authority, Missouri, Health Facilities Revenue Bonds, Freeman	2/24 at 100.00	BBB+	351,868
250	Health System, Series 2015, 5.000%, 2/15/35 Missouri Health and Educational Facilities Authority, Health Facilities Revenue Bonds, BJC	No Opt. Call	AA	260,195
540	Health System, Series 2015A, 4.000%, 1/01/45 Missouri Health and Educational Facilities Authority, Health Facilities Revenue Bonds, Capital	11/20 at 100.00	A3	606,469
1,730	Region Medical Center, Series 2011, 5.000%, 11/01/27 Missouri Health and Educational Facilities Authority, Health Facilities Revenue Bonds, CoxHealth, Series 2013A, 5.000%, 11/15/44	11/23 at 100.00	A2	1,933,067
415	Missouri Health and Educational Facilities Authority, Health Facilities Revenue Bonds, CoxHealth, Series 2015A, 5.000%, 11/15/32	11/25 at 100.00	A2	481,989
335	Missouri Health and Educational Facilities Authority, Health Facilities Revenue Bonds, Heartland Regional Medical Center, Series 2012, 5.000%, 2/15/37	2/22 at 100.00	A1	366,058
290	Missouri Health and Educational Facilities Authority, Health Facilities Revenue Bonds, Mercy Health, Series 2012, 4.000%, 11/15/42	No Opt. Call	AA-	299,295
500	Missouri Health and Educational Facilities Authority, Health Facilities Revenue Bonds, Saint Luke's Episcopal and Presbyterian Hospitals, Series 2011, 5.000%, 12/01/25	12/21 at 100.00	A+	575,010
500	Missouri Health and Educational Facilities Authority, Health Facilities Revenue Bonds, SSM Health Care, Series 2014A, 5.000%, 6/01/31	6/24 at 100.00	AA-	586,795
2,000	Missouri Health and Educational Facilities Authority, Health Facility Revenue Bonds, Saint Luke's Health System, Series 2010A, 5.000%, 11/15/30	11/20 at 100.00	A+	2,244,480
720	Saline County Industrial Development Authority, Missouri, Health Facilities Revenue Bonds, John Fitzgibbon Memorial Hospital Inc., Series 2010, 5.600%, 12/01/28	12/20 at 100.00	BBB-	808,862

Edgar Filing: NUVEEN MISSOURI PREMIUM INCOME MUNICIPAL FUND - Form N-Q

350	St. Louis County Industrial Development Authority, Missouri, Healthcare Facilities Revenue	11/16 at 100.00	N/R	351,393
	Bonds, Ranken-Jordan Project, Refunding Series 2007, 5.000%, 11/15/27			
11,400	Total Health Care Housing/Single Family – 0.7% (0.4% of Total Investments)			12,354,578
155	Missouri Housing Development Commission, Single Family Mortgage Revenue Bonds, Homeownership Loan Program, Series 2007A-1, 4.700%, 9/01/27 (Alternative Minimum Tax)	9/16 at 100.00	AA+	156,277
60	Missouri Housing Development Commission, Single Family Mortgage Revenue Bonds, Homeownership Loan Program, Series 2007C-1, 4.800%, 9/01/38 (Alternative Minimum Tax)	3/17 at 100.00	AA+	60,011
215	Total Housing/Single Family Long-Term Care – 14.5% (9.1% of Total Investments)			216,288
250	Bridgeton Industrial Development Authority, Missouri, Senior Housing Revenue Bonds, The Sarah Community Project, Series 2013, 4.500%, 5/01/28	5/18 at 100.00	N/R	251,425
500	Joplin Industrial Development Authority, Missouri, Revenue Bonds, Christian Homes Inc., Series 2007F, 5.750%, 5/15/31	5/17 at 100.00	BBB–	509,855
475	Lees Summit Industrial Development Authority, Missouri, Revenue Bonds, John Knox Village Obligated Group, Series 2007A, 5.125%, 8/15/32	8/17 at 100.00	BBB–	487,364
250	Lees Summit Industrial Development Authority, Missouri, Revenue Bonds, John Knox Village Obligated Group, Series 2014A, 5.250%, 8/15/39	No Opt. Call	BBB–	260,212
250	Missouri Health and Educational Facilities Authority, Revenue Bonds, Lutheran Senior Services Projects, Series 2011, 6.000%, 2/01/41	2/21 at 100.00	BBB+	277,252
250	Missouri Health and Educational Facilities Authority, Revenue Bonds, Lutheran Senior Services Projects, Series 2014A: 5.000%, 2/01/35	2/24 at 100.00	BBB+	273,480
500	5.000%, 2/01/44	2/24 at 100.00	BBB+	540,520
190		2/26 at 100.00	BBB+	208,778

Edgar Filing: NUVEEN MISSOURI PREMIUM INCOME MUNICIPAL FUND - Form N-Q

	Missouri Health and Educational Facilities Authority, Revenue Bonds, Lutheran Senior Services Projects, Series 2016A, 5.000%, 2/01/46			
100	St. Louis County Industrial Development Authority, Missouri, Revenue Bonds, Friendship Village of Chesterfield, Series 2012, 5.000%, 9/01/42	No Opt. Call	BBB-	104,079
250	St. Louis County Industrial Development Authority, Missouri, Revenue Bonds, Friendship Village of Sunset Hills, Series 2012: 5.000%, 9/01/32	No Opt. Call	A-	272,787
425	5.000%, 9/01/42	9/22 at 100.00	A-	455,035
430	St. Louis County Industrial Development Authority, Missouri, Revenue Bonds, Friendship Village of Sunset Hills, Series 2013A, 5.875%, 9/01/43	9/23 at 100.00	A-	492,470
570	St. Louis County Industrial Development Authority, Missouri, Revenue Bonds, Friendship Village of West County, Series 2007A, 5.500%, 9/01/28	9/17 at 100.00	BBB-	583,948
100	St. Louis County Industrial Development Authority, Missouri, Revenue Bonds, Saint Andrew's Resources for Seniors, Series 2015A, 5.125%, 12/01/45	12/25 at 100.00	N/R	104,242
4,540	Total Long-Term Care Tax Obligation/General – 10.8% (6.8% of Total Investments)			4,821,447
500	Branson Reorganized School District R-4, Taney County, Missouri, General Obligation Bonds, School Building Series 2012, 4.375%, 3/01/32	3/22 at 100.00	A+	539,810
500	Fort Zumwalt School District, Callaway County, Missouri, General Obligation Bonds, Refunding & Improvement Series 2015, 4.000%, 3/01/32	3/24 at 100.00	AA+	545,010
1,685	Independence School District, Jackson County, Missouri, General Obligation Bonds, Series 2010, 5.000%, 3/01/27	3/20 at 100.00	AA+	1,931,482
500	Jackson County Reorganized School District 4, Blue Springs, Missouri, General Obligation Bonds, School Building Series 2013A, 5.000%, 3/01/31	3/21 at 100.00	AA	573,550
3,185	Total Tax Obligation/General Tax Obligation/Limited – 22.0% (13.9% of Total Investments)			3,589,852

Edgar Filing: NUVEEN MISSOURI PREMIUM INCOME MUNICIPAL FUND - Form N-Q

910	Bi-State Development Agency of the Missouri-Illinois Metropolitan District, Mass Transit Sales	10/22 at 100.00	AA+	1,053,234
	Tax Appropriation Bonds, Refunding Combined Lien Series 2013A, 5.000%, 10/01/33			
350	Blue Springs, Missouri, Special Obligation Tax Increment Bonds, Adams Farm Project, Special	6/24 at 100.00	N/R	355,478
	Districts Refunding & Improvement Series 2015A, 4.750%, 6/01/30			
315	Fulton, Missouri, Tax Increment Revenue Bonds, Fulton Commons Redevelopment Project, Series	6/16 at 100.00	N/R	278,123
	2006, 5.000%, 6/01/28			
430	Government of Guam, Business Privilege Tax Bonds, Series 2012B-1, 5.000%, 1/01/42	1/22 at 100.00	A	467,088
	Howard Bend Levee District, St. Louis County, Missouri, Levee District Improvement Bonds, Series 2013B:			
180	4.875%, 3/01/33	3/23 at 100.00	BBB+	189,990
115	5.000%, 3/01/38	3/23 at 100.00	BBB+	121,104
485	Jackson County, Missouri, Special Obligation Bonds, Truman Medical Center Project, Series 2011B, 4.350%, 12/01/23	12/21 at 100.00	Aa3	549,219
300	Kansas City Industrial Development Authority, Missouri, Downtown Redevelopment District Revenue Bonds, Series 2011A, 5.000%, 9/01/32	9/21 at 100.00	AA-	332,649
475	Kansas City Tax Increment Financing Commission, Missouri, Tax Increment Revenue Bonds, Briarcliff West Project, Series 2006A, 5.400%, 6/01/24	6/16 at 100.00	N/R	477,342
325	Kansas City, Missouri, Special Obligation Bonds, Downtown Redevelopment District, Series 2014C, 5.000%, 9/01/33	9/23 at 100.00	AA-	373,812
245	Missouri Development Finance Board, Infrastructure Facilities Revenue Bonds, City of Branson – Branson Landing Project, Series 2015A, 4.000%, 6/01/34	6/23 at 100.00	A	250,003
110	Monarch-Chesterfield Levee District, Saint Louis County, Missouri, Levee District Improvement Bonds, Series 1999, 5.750%, 3/01/19 – NPF	3/16 at 100.00	AA-	110,499
500	Insured Osage Beach, Missouri, Tax Increment Revenue Bonds, Prewitts Point Transportation	5/16 at 100.00	N/R	498,820

Edgar Filing: NUVEEN MISSOURI PREMIUM INCOME MUNICIPAL FUND - Form N-Q

	Development District, Series 2006, 5.000%, 5/01/23 Plaza at Noah's Ark Community Improvement District, Saint Charles, Missouri, Tax Increment and	5/21 at 100.00	N/R	145,569
140	Improvement District Revenue Bonds, Series 2015, 5.000%, 5/01/30 Puerto Rico Sales Tax Financing Corporation, Sales Tax Revenue Bonds, Series 2007A, 0.000%, 8/01/41 – NPFPG Insured	No Opt. Call	AA–	294,660
1,500	Saint Louis County Industrial Development Authority, Missouri, Sales Tax Revenue Bonds, Chesterfield Blue Valley Community Improvement District Project, Series 2014A, 5.250%, 7/01/44 Springfield, Missouri, Special Obligation Bonds, Sewer System Improvements Project, Series 2015, 4.000%, 4/01/35	7/24 at 100.00	N/R	257,260
250	St. Joseph Industrial Development Authority, Missouri, Tax Increment Bonds, Shoppes at North Village Project, Series 2005A:	4/25 at 100.00	Aa2	634,668
600	5.375%, 11/01/24	11/16 at 100.00	N/R	340,262
340	5.500%, 11/01/27	11/16 at 100.00	N/R	400,308
400	St. Joseph Industrial Development Authority, Missouri, Tax Increment Bonds, Shoppes at North Village Project, Series 2005B, 5.500%, 11/01/27	11/16 at 100.00	N/R	200,296
200	Total Tax Obligation/Limited Transportation – 12.4% (7.8% of Total Investments) Guam International Airport Authority, Revenue Bonds, Series 2013B, 5.500%, 10/01/33 – AGM Insured			7,330,384
8,170	Saint Louis, Missouri, Airport Revenue Bonds, Lambert-St. Louis International Airport, Series 2005, 5.500%, 7/01/18 – NPFPG Insured	10/23 at 100.00	AA	386,054
335	Saint Louis, Missouri, Airport Revenue Bonds, Lambert-St. Louis International Airport, Series 2007A, 5.000%, 7/01/21 – AGM Insured	No Opt. Call	AA–	1,108,680
1,000	Total Transportation U.S. Guaranteed – 10.6% (6.7% of Total Investments) (4)	7/17 at 100.00	AA	2,642,675
2,500				4,137,409
3,835		3/18 at 100.00	A– (4)	664,140
600				

Edgar Filing: NUVEEN MISSOURI PREMIUM INCOME MUNICIPAL FUND - Form N-Q

	Carroll County Public Water Supply District 1, Missouri, Water System Revenue Bonds, Refunding Series 2009, 6.000%, 3/01/39 (Pre-refunded 3/01/18)			
200	Metropolitan St. Louis Sewerage District, Missouri, Wastewater System Revenue Bonds, Series 2006C, 5.000%, 5/01/36 (Pre-refunded 5/01/17) – NPMFG Insured	5/17 at 100.00	AAA	210,648
500	Missouri School Boards Association, Lease Participation Certificates, Clay County School District 53 Liberty, Series 2007, 5.250%, 3/01/27 (Pre-refunded 3/01/17) – AGM Insured	3/17 at 100.00	AA (4)	521,730
1,320	Springfield Public Building Corporation, Missouri, Lease Revenue Bonds, Jordan Valley Park Projects, Series 2000A, 6.125%, 6/01/21 – AMBAC Insured (ETM)	6/16 at 100.00	N/R (4)	1,559,329
500	St. Louis County, Missouri, GNMA Collateralized Mortgage Revenue Bonds, Series 1993D, 5.650%, 7/01/20 (Alternative Minimum Tax) (ETM)	No Opt. Call	AA+ (4)	588,795
3,120	Total U.S. Guaranteed Utilities – 14.5% (9.2% of Total Investments)			3,544,642
2,965	Missouri Environmental Improvement and Energy Resources Authority, Water Facility Revenue Bonds, Missouri-American Water Company, Series 2006, 4.600%, 12/01/36 – AMBAC Insured (Alternative Minimum Tax) (UB) (5)	12/16 at 100.00	AA+	3,003,397
350	Missouri Joint Municipal Electric Utility Commission, Power Project Revenue Bonds, Plum Point Project, Refunding Series 2014A, 5.000%, 1/01/32	1/25 at 100.00	A	406,340
500	Missouri Joint Municipal Electric Utility Commission, Power Project Revenue Bonds, Plum Point Project, Refunding Series 2015A, 4.000%, 1/01/35	1/26 at 100.00	A	521,065
400	Missouri Joint Municipal Electric Utility Commission, Power Supply System Revenue Bonds, MoPEP Facilities, Series 2012: 5.000%, 1/01/32	1/21 at 100.00	A2	440,692
425	5.000%, 1/01/37	1/21 at 100.00	A2	463,802
4,640	Total Utilities Water and Sewer – 8.6% (5.5% of Total Investments)			4,835,296

Edgar Filing: NUVEEN MISSOURI PREMIUM INCOME MUNICIPAL FUND - Form N-Q

2,000	Metropolitan St. Louis Sewerage District, Missouri, Wastewater System Revenue Bonds, Series 2012A, 5.000%, 5/01/42	5/22 at 100.00	AAA	2,300,320
500	Missouri Environmental Improvement and Energy Resources Authority, Water Facility Revenue Bonds, Tri-County Water Authority, Series 2015, 5.000%, 1/01/40	1/25 at 100.00	Aa3	572,935
2,500	Total Water and Sewer			2,873,255
\$ 49,685	Total Long-Term Investments (cost \$49,059,855)			52,781,201
	Floating Rate Obligations – (6.7)%			(2,225,000)
	Variable Rate MuniFund Term Preferred Shares, at Liquidation Preference – (54.1)% (6)			(18,000,000)
	Other Assets Less Liabilities – 2.3%			744,367
	Net Assets Applicable to Common Shares – 100%			\$ 33,300,568

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 hierarchy of valuation input levels.

Level 1 – Inputs are unadjusted 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	\$ —	\$52,781,201	\$ —	\$52,781,201

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 not 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 \$46,747,573.

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

Gross unrealized:	
Appreciation	\$4,003,765
Depreciation	(195,217)
Net unrealized appreciation (depreciation) of investments	\$3,808,548

- (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.
Backed by an escrow or trust containing sufficient U.S. Government or U.S. Government agency securities,
 - (4) which ensure the timely payment of principal and interest. Certain bonds backed by U.S. Government or agency securities are regarded as having an implied rating equal to the rating of such securities.
 - (5) Investment, or portion of investment, has been pledged to collateralize the net payment obligations for investments in inverse floating rate transactions.
 - (6) Variable Rate MuniFund Term Preferred Shares, at Liquidation Preference as a percentage of Total Investments is 34.1%.
- (ETM) Escrowed to maturity.
- (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 Missouri 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