

NUVEEN MISSOURI PREMIUM INCOME MUNICIPAL FUND
Form N-Q
April 29, 2013

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 811-7616

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: 2/28/13

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 (Unaudited)

Nuveen Missouri Premium Income
Municipal Fund (NOM)
February 28, 2013

Principal Amount (000)	Description (1)	Optional Call Provisions (2)	Ratings (3)	Value
\$ 1,000	Consumer Staples – 3.6% (2.3% of Total Investments) 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–	\$ 1,241,610
250	Education and Civic Organizations – 9.0% (5.8% of Total Investments) Lincoln University, Missouri, Auxiliary System Revenue Bonds, Series 2007, 5.125%, 6/01/37 – AGC Insured	6/17 at 100.00	AA–	265,583
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–	709,040
700	Missouri Health and Educational Facilities Authority, Revenue Bonds, Rockhurst University, Series 2011A, 6.500%, 10/01/35	10/18 at 103.00	BBB	802,179
550	Missouri Health and Educational Facilities Authority, Revenue Bonds, Washington University, Series 2011B, 5.000%, 11/15/37	11/21 at 100.00	AAA	647,383
600	Missouri Health and Educational Facilities Authority, Revenue Bonds, Webster University, Series 2011, 5.000%, 4/01/36	4/21 at 100.00	A2	668,070
2,730	Total Education and Civic Organizations Health Care – 35.3% (22.9% of Total Investments)			3,092,255
485		6/19 at 100.00	AA–	547,133

	Cape Girardeau County Industrial Development Authority, Missouri, Health Facilities Revenue Bonds, Saint Francis Medical Center, Series 2009A, 5.750%, 6/01/39			
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	BBB+	789,290
930	Cass County, Missouri, Hospital Revenue Bonds, Series 2007, 5.625%, 5/01/38	11/16 at 100.00	BBB-	955,184
480	Clinton County Industrial Development Authority, Missouri, Revenue Bonds, Cameron Regional Medical Center, Series 2007, 5.000%, 12/01/37	12/17 at 100.00	N/R	482,688
750	Joplin Industrial Development Authority, Missouri, Health Facilities Revenue Bonds, Freeman Health System, Series 2004, 5.500%, 2/15/29	2/15 at 102.00	BBB+	788,925
200	Joplin Industrial Development Authority, Missouri, Health Facilities Revenue Bonds, Freeman Health System, Series 2011, 5.500%, 2/15/31	2/21 at 100.00	BBB+	223,536
540	Missouri Health and Educational Facilities Authority, Health Facilities Revenue Bonds, Capital Region Medical Center, Series 2011, 5.000%, 11/01/27	11/20 at 100.00	A3	600,032
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	369,170
750	Missouri Health and Educational Facilities Authority, Health Facilities Revenue Bonds, Mercy Health, Series 2012, 4.000%, 11/15/42	No Opt. Call	AA-	761,753
500	Missouri Health and Educational Facilities Authority, Health Facilities Revenue Bonds, St. Luke's Episcopal and Presbyterian Hospitals, Series 2011, 5.000%, 12/01/25	12/21 at 100.00	A+	573,470
2,000	Missouri Health and Educational Facilities Authority, Health Facility Revenue Bonds, St. Lukes's Health System, Series 2010A, 5.000%, 11/15/30	11/20 at 100.00	A+	2,237,740
1,500	Missouri Health and Educational Facilities Authority, Revenue Bonds, BJC Health System, Series 2003: 5.125%, 5/15/25	5/13 at 100.00	AA	1,513,935

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

1,155	5.250%, 5/15/32	5/13 at 100.00	AA	1,165,176
	Saline County Industrial Development Authority, Missouri, Health Facilities Revenue Bonds,	12/20 at 100.00	BBB-	787,097
720	John Fitzgibbon Memorial Hospital Inc., Series 2010, 5.600%, 12/01/28			
	St. Louis County Industrial Development Authority, Missouri, Healthcare Facilities Revenue Bonds, Ranken-Jordan Project, Refunding Series 2007, 5.000%, 11/15/27	11/16 at 100.00	N/R	354,946
350				
11,455	Total Health Care Housing/Multifamily – 1.3% (0.8% of Total Investments)			12,150,075
	Missouri Housing Development Commission, Multifamily Housing Revenue Bonds, Series 2001II, 5.250%, 12/01/16	6/13 at 100.00	AA	105,344
105				
	Northwest Missouri State University, Housing System Revenue Bonds, Refunding Series 2012, 3.125%, 6/01/29	No Opt. Call	A3	332,773
350				
455	Total Housing/Multifamily Housing/Single Family – 1.9% (1.3% of Total Investments)			438,117
	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+	265,970
255				
	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+	398,004
380				
635	Total Housing/Single Family Long-Term Care – 12.0% (7.8% of Total Investments)			663,974
	Cole County Industrial Development Authority, Missouri, Revenue Bonds, Lutheran Senior Services – Heisinger Project, Series 2004, 5.500%, 2/01/35	2/14 at 100.00	BBB+	1,772,505
1,750				
	Joplin Industrial Development Authority, Missouri, Revenue Bonds, Christian Homes Inc., Series 2007F, 5.750%, 5/15/31	5/17 at 100.00	BBB-	530,305
500				
	Lees Summit Industrial Development Authority, Missouri, Revenue Bonds, John Knox Village	8/17 at 100.00	BBB-	483,037
475				

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

	Obligated Group, Series 2007A, 5.125%, 8/15/32			
250	Missouri Health and Educational Facilities Authority, Revenue Bonds, Lutheran Senior Services	2/21 at 100.00	BBB+	281,585
100	Projects, Series 2011, 6.000%, 2/01/41 St. Louis County Industrial Development Authority, Missouri, Revenue Bonds, Friendship Village	No Opt. Call	BBB-	98,557
425	of Chesterfield, Series 2012, 5.000%, 9/01/42 St. Louis County Industrial Development Authority, Missouri, Revenue Bonds, Friendship Village	9/22 at 100.00	A	448,868
500	of Sunset Hills, Series 2012, 5.000%, 9/01/42 St. Louis County Industrial Development Authority, Missouri, Revenue Bonds, Friendship Village	9/17 at 100.00	BBB-	521,750
4,000	of West County, Series 2007A, 5.500%, 9/01/28 Total Long-Term Care Tax Obligation/General – 17.2% (11.2% of Total Investments)			4,136,607
600	Branson Reorganized School District R-4, Taney County, Missouri, General Obligation Bonds,	3/22 at 100.00	A+	655,044
1,500	School Building Series 2012, 4.375%, 3/01/32 Camdenton Reorganized School District R3, Camden County, Missouri, General Obligation Bonds,	3/15 at 100.00	AA-	1,636,155
1,685	Series 2005, 5.250%, 3/01/24 – AGM Insured Independence School District, Jackson County, Missouri, General Obligation Bonds, Series 2010,	3/20 at 100.00	AA+	1,971,147
500	5.000%, 3/01/27 Missouri School Boards Association, Lease Participation Certificates, Clay County School District 53 Liberty, Series 2007, 5.250%, 3/01/27 – AGM Insured	3/17 at 100.00	AA-	567,330
1,000	Puerto Rico, General Obligation and Public Improvement Bonds, Series 2002A, 5.500%, 7/01/20 –	No Opt. Call	BBB+	1,094,890
5,285	NPFG Insured Total Tax Obligation/General Tax Obligation/Limited – 25.4% (16.5% of Total Investments)			5,924,566
600	Chesterfield, Missouri, Certificates of Participation, Series 2005, 5.000%, 12/01/24 – FGIC Insured	12/15 at 100.00	Aa1	666,570
150	Fenton, Missouri, Tax Increment Revenue Bonds, Gravois Bluffs Redevelopment Project, Series	4/14 at 100.00	BBB+	153,017

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

	2006, 4.500%, 4/01/21 Fulton, Missouri, Tax Increment Revenue Bonds, Fulton Commons Redevelopment Project, Series	6/16 at 100.00	N/R	271,587
315				
	2006, 5.000%, 6/01/28 Government of Guam, Business Privilege Tax Bonds, Series 2012B-1, 5.000%, 1/01/42	1/22 at 100.00	A	502,306
455				
	Howard Bend Levee District, St. Louis County, Missouri, Levee District Improvement Bonds, Series 2013B:			
180	4.875%, 3/01/33 (WI/DD, Settling 3/12/13)	3/23 at 100.00	BBB+	192,501
115	5.000%, 3/01/38 (WI/DD, Settling 3/12/13)	3/23 at 100.00	BBB+	122,406
	Jackson County, Missouri, Special Obligation Bonds, Truman Medical Center Project, Series	12/21 at 100.00	Aa3	545,659
485				
	2011B, 4.350%, 12/01/23 Kansas City Industrial Development Authority, Missouri, Downtown Redevelopment District	9/21 at 100.00	AA-	329,967
300				
	Revenue Bonds, Series 2011A, 5.000%, 9/01/32 Kansas City Tax Increment Financing Commission, Missouri, Tax Increment Revenue Bonds,	6/14 at 102.00	N/R	470,226
475				
	Briarcliff West Project, Series 2006A, 5.400%, 6/01/24 Kansas City Tax Increment Financing Commission, Missouri, Tax Increment Revenue Bonds, Shoal	6/16 at 100.00	N/R	104,450
100				
	Creek Parkway Project, Series 2011, 5.000%, 6/01/21 Missouri Development Finance Board, Infrastructure Facilities Revenue Bonds, Branson Landing	6/15 at 100.00	A	369,990
360				
	Project, Series 2005A, 5.000%, 6/01/35 Missouri Development Finance Board, Infrastructure Facilities Revenue Bonds, City of	3/16 at 100.00	A-	425,529
415				
	Independence, Crackerneck Creek Project, Series 2006C, 5.000%, 3/01/28 Monarch-Chesterfield Levee District, St. Louis County, Missouri, Levee District Improvement	9/13 at 100.00	A	246,036
245				
	Bonds, Series 1999, 5.750%, 3/01/19 – NPFG Insured Osage Beach, Missouri, Tax Increment Revenue Bonds, Prewitts Point Transportation Development	5/13 at 101.00	N/R	478,800
500				
	District, Series 2006, 5.000%, 5/01/23 Puerto Rico Sales Tax Financing Corporation, Sales Tax Revenue Bonds, First Subordinate Series	8/19 at 100.00	A+	1,933,488
1,750				
	2009A, 6.000%, 8/01/42			

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

225	Puerto Rico Sales Tax Financing Corporation, Sales Tax Revenue Bonds, Senior Series 2011C, 0.000%, 8/01/41	No Opt. Call	AA-	47,664
1,500	Puerto Rico Sales Tax Financing Corporation, Sales Tax Revenue Bonds, Series 2007A, 0.000%, 8/01/41 – NPMG Insured	No Opt. Call	AA-	314,430
600	Riverside, Missouri, L-385 Levee Redevelopment Plan Tax Increment Revenue Bonds, Series 2004, 5.250%, 5/01/20	5/15 at 100.00	A	634,566
340	St. Joseph Industrial Development Authority, Missouri, Tax Increment Bonds, Shoppes at North Village Project, Series 2005A: 5.375%, 11/01/24	11/14 at 100.00	N/R	341,890
400	5.500%, 11/01/27	11/14 at 100.00	N/R	401,740
200	St. Joseph Industrial Development Authority, Missouri, Tax Increment Bonds, Shoppes at North Village Project, Series 2005B, 5.500%, 11/01/27	11/14 at 100.00	N/R	200,870
9,710	Total Tax Obligation/Limited Transportation – 13.0% (8.4% of Total Investments)			8,753,692
500	Kansas City, Missouri, Passenger Facility Charge Revenue Bonds, Kansas City International Airport, Series 2001, 5.000%, 4/01/23 – AMBAC Insured (Alternative Minimum Tax)	4/13 at 100.00	A	502,015
1,000	St. Louis, Missouri, Airport Revenue Bonds, Lambert-St. Louis International Airport, Series 2005, 5.500%, 7/01/18 – NPMG Insured	No Opt. Call	A-	1,170,100
2,500	St. Louis, Missouri, Airport Revenue Bonds, Lambert-St. Louis International Airport, Series 2007A, 5.000%, 7/01/21 – AGM Insured	7/17 at 100.00	AA-	2,801,047
4,000	Total Transportation U.S. Guaranteed – 10.9% (7.1% of Total Investments) (4)			4,473,162
80	Cottleville, Missouri, Certificates of Participation, Series 2006, 5.250%, 8/01/31 (Pre-refunded 8/01/14)	8/14 at 100.00	N/R (4)	85,684
500	Missouri Health and Educational Facilities Authority, Revenue Bonds, Lake Regional Health System, Series 2003, 5.700%, 2/15/34 (Pre-refunded 2/15/14)	2/14 at 100.00	BBB+ (4)	525,815
1,395		6/13 at 100.00	N/R (4)	1,395,000

	Springfield Public Building Corporation, Missouri, Lease Revenue Bonds, Jordan Valley Park Projects, Series 2000A, 6.125%, 6/01/21 – AMBAC Insured (ETM)			
80	Insured	3/14 at 100.00	AA (4)	84,041
250	5.250%, 3/01/20 (Pre-refunded 3/01/14) – AGM Insured	3/14 at 100.00	AA- (4)	262,628
20	5.250%, 3/01/20 (Pre-refunded 3/01/14) – AGM Insured	3/14 at 100.00	AA (4)	21,016
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)	628,685
750	Sugar Creek, Missouri, Industrial Development Revenue Bonds, Lafarge North America Inc., Series 2003A, 5.650%, 6/01/37 (Pre-refunded 6/01/13) (Alternative Minimum Tax)	6/13 at 101.00	A (4)	767,213
3,575	Total U.S. Guaranteed Utilities – 6.1% (3.9% of Total Investments)			3,770,082
110	Missouri Joint Municipal Electric Utility Commission, Iatan 2 Power Project Revenue Bonds, Series 2006A, 4.125%, 1/01/21 – AMBAC Insured	1/16 at 100.00	A2	118,433
500	Missouri Joint Municipal Electric Utility Commission, Plum Point Project, Revenue Bonds, Series 2006, 5.000%, 1/01/34 – NPFQ Insured	1/16 at 100.00	A–	520,305
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	443,568
425	5.000%, 1/01/37	1/21 at 100.00	A2	464,559
530	Puerto Rico Electric Power Authority, Power Revenue Bonds, Series 2010XX, 5.250%, 7/01/40	7/20 at 100.00	BBB+	536,238
1,965	Total Utilities Water and Sewer – 18.4% (12.0% of Total Investments)			2,083,103
600	Carroll County Public Water Supply District 1, Missouri, Water System Revenue Bonds, Refunding Series 2009, 6.000%, 3/01/39	3/18 at 100.00	A	675,252
1,150	Kansas City, Missouri, Water Revenue Bonds, Series 2012A, 4.500%, 12/01/36	12/21 at 100.00	AA+	1,294,682

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

1,000	Kansas City, Missouri, Water Revenue Bonds, Series 2013A, 4.000%, 12/01/37 (WI/DD, Settling 3/14/13)	12/21 at 100.00	AA+	1,058,030
200	Metropolitan St. Louis Sewerage District, Missouri, Wastewater System Revenue Bonds, Series 2006C, 5.000%, 5/01/36 – NPFG Insured	5/17 at 100.00	AAA	225,960
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+	3,090,775
5,915	Total Water and Sewer			6,344,699
\$ 50,725	Total Investments (cost \$49,788,827) – 154.1%			53,071,942
	Floating Rate Obligations – (6.5)%			(2,225,000)
	MuniFund Term Preferred Shares, at Liquidation Value – (51.9)% (6)			(17,880,000)
	Other Assets Less Liabilities - 4.3%			1,464,299
	Net Assets Applicable to Common Shares - 100%			\$ 34,431,241

Fair Value Measurements

Fair value is defined as the price that the Funds would receive 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 risks 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	\$ —	\$53,071,942	\$ —	\$53,071,942

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 28, 2013, the cost of investments was \$47,516,106.

Gross unrealized appreciation and gross unrealized depreciation of investments as of February 28, 2013, were as follows:

Gross unrealized:	
Appreciation	\$3,416,463

Depreciation	(85,883)
Net unrealized appreciation (depreciation) of investments	\$3,330,580

- (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.
 - (4) Backed by an escrow or trust containing sufficient U.S. Government or U.S. Government agency securities, 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) MuniFund Term Preferred Shares, at Liquidation Value as a percentage of Total Investments is 33.7%
- N/R Not rated.
- WI/DD Investment, or portion of investment, purchased on a when-issued or delayed delivery basis.
- (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 Missouri Premium Income Municipal Fund

By (Signature and Title) /s/ Kevin J. McCarthy
Kevin J. McCarthy
Vice President and Secretary

Date: April 29, 2013

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 and Title) /s/ Gifford R. Zimmerman
Gifford R. Zimmerman
Chief Administrative Officer (principal executive officer)

Date: April 29, 2013

By (Signature and Title) /s/ Stephen D. Foy
Stephen D. Foy
Vice President and Controller (principal financial officer)

Date: April 29, 2013