NUVEEN MISSOURI PREMIUM INCOME MUNICIPAL FUND Form N-Q April 29, 2014

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 811-07616

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: 2/28/14

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, 2014

Principal Amount (000)	Description (1) LONG-TERM INVESTMENTS – 159.9% (100.0% of Total Investments) MUNICIPAL BONDS – 159.9% (100.0% of	Optional Call Provisions (2)	Ratings (3)Value)
\$ 1,010	Total Investments) Consumer Staples – 3.6% (2.2% 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- \$	1,149,087
	Education and Civic Organizations – 18.2% (11.4% of Total Investments) Lincoln University, Missouri, Auxiliary System Revenue Bonds, Series 2007, 5.125%,			
250	6/01/37 – AGC Insured Missouri Health and Educational Facilities Authority, Educational Facilities Revenue	6/17 at 100.00	AA-	255,855
410	Bonds, Kansas City University of Medicine and Biosciences, Series 2013A, 5.000%, 6/01/33 Missouri Health and Educational Facilities Authority, Educational Facilities Revenue	6/23 at 100.00	A1	429,311
750	Bonds, Saint Louis College of Pharmacy, Series 2013, 5.500%, 5/01/43 Missouri Health and Educational Facilities	5/23 at 100.00	BBB+	782,033
600	Authority, Educational Facilities Revenue Bonds, Southwest Baptist University Project, Series 2012, 5.000%, 10/01/33	10/22 at 100.00	BBB-	603,930
725	Missouri Health and Educational Facilities Authority, Educational Facilities Revenue	10/23 at 100.00	A	774,808

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	Bonds, University of Central Missouri, Series 2013C2,			
	5.000%, 10/01/34			
	Missouri Health and Educational Facilities			
	Authority, Revenue Bonds, A.T. Still	10/21 at		
630	University of	100.00	A-	668,707
050	Health Sciences, Series 2011, 5.250%,	100.00	11	000,707
	10/01/41			
	Missouri Health and Educational Facilities			
	Authority, Revenue Bonds, Rockhurst	10/18 at		
700	University,	103.00	BBB-	770,882
	Series 2011A, 6.500%, 10/01/35			
	Missouri Health and Educational Facilities	11/01		
550	Authority, Revenue Bonds, Washington	11/21 at	A A A	(05.127
550	University,	100.00	AAA	605,127
	Series 2011B, 5.000%, 11/15/37 Missouri Health and Educational Facilities			
600	Authority, Revenue Bonds, Webster University,	4/21 at 100.00	A2	633,864
000	Series 2011, 5.000%, 4/01/36	4/21 at 100.00	AL	033,804
	Northwest Missouri State University, Housing			
	System Revenue Bonds, Refunding Series			
350	2012,	No Opt. Call	A3	305,750
330	3.125%, 6/01/29	140 Opt. Can	713	303,730
5,565	Total Education and Civic Organizations			5,830,267
5,505	Health Care – 35.2% (22.0% of Total			3,030,207
	Investments)			
	Cape Girardeau County Industrial			
	Development Authority, Missouri, Health			
525	Facilities Revenue	6/19 at 100.00	AA-	557,403
	Bonds, Saint Francis Medical Center, Series			,
	2009A, 5.750%, 6/01/39			
	Cape Girardeau County Industrial			
	Development Authority, Missouri, Health			
	Facilities Revenue			
	Bonds, Southeast Missouri Hospital			
	Association, Series 2007:			
760	5.000%, 6/01/27	6/17 at 100.00	BBB+	771,848
560	5.000%, 6/01/36	6/17 at 100.00	BBB+	563,298
	Cass County, Missouri, Hospital Revenue	11/16 at		
930	Bonds, Series 2007, 5.625%, 5/01/38	100.00	BBB-	933,004
	Clinton County Industrial Development			
	Authority, Missouri, Revenue Bonds, Cameron	12/17 at		
480	Regional	100.00	N/R	448,646
	Medical Center, Series 2007, 5.000%, 12/01/37			
	Joplin Industrial Development Authority,			
	Missouri, Health Facilities Revenue Bonds,	40000	222	- (0.0=0
750	Freeman	2/15 at 102.00	BBB+	768,278
200	Health System, Series 2004, 5.500%, 2/15/29	0/01 - / 100 00	DDD	200.525
200	Joplin Industrial Development Authority,	2/21 at 100.00	BBB+	209,526
	Missouri, Health Facilities Revenue Bonds,			

	Freeman			
	Health System, Series 2011, 5.500%, 2/15/31 Missouri Health and Educational Facilities			
	Authority, Health Facilities Revenue Bonds,	11/20 at		
540	Capital	100.00	A3	568,852
540	Region Medical Center, Series 2011, 5.000%,	100.00	713	300,032
	11/01/27			
	Missouri Health and Educational Facilities			
335	Authority, Health Facilities Revenue Bonds,	2/22 at 100.00	A1	346,102
	Heartland Regional Medical Center, Series			
	2012, 5.000%, 2/15/37			
	Missouri Health and Educational Facilities	11/23 at		
1,730	Authority, Health Facilities Revenue Bonds,	100.00	A2	1,771,330
	CoxHealth, Series 2013A, 5.000%, 11/15/44			
	Missouri Health and Educational Facilities			
650	Authority, Health Facilities Revenue Bonds,	No Ont Call	A A	574 457
650	Mercy Health, Series 2012, 4.000%, 11/15/42	No Opt. Call	AA–	574,457
	Missouri Health and Educational Facilities			
	Authority, Health Facilities Revenue Bonds,	12/21 at		
500	St.	100.00	A+	543,520
200	Luke's Episcopal and Presbyterian Hospitals,	100.00		0.0,020
	Series 2011, 5.000%, 12/01/25			
	Missouri Health and Educational Facilities	11/20 at		
2,000	Authority, Health Facility Revenue Bonds, St.	100.00	A+	2,115,420
	Luke's Health System, Series 2010A, 5.000%,			
	11/15/30			
	Saline County Industrial Development			
720	Authority, Missouri, Health Facilities Revenue	12/20 at	222	770 104
720	Bonds,	100.00	BBB-	778,104
	John Fitzgibbon Memorial Hospital Inc., Series 2010, 5.600%, 12/01/28			
	St. Louis County Industrial Development			
	Authority, Missouri, Healthcare Facilities	11/16 at		
350	Revenue	100.00	N/R	331,979
	Bonds, Ranken-Jordan Project, Refunding			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	Series 2007, 5.000%, 11/15/27			
11,030	Total Health Care			11,281,767
	Housing/Single Family – 1.0% (0.6% of Total			
	Investments)			
	Missouri Housing Development Commission,			
4 6 7	Single Family Mortgage Revenue Bonds,	0.44.6		165 5 10
165	Homeownership	9/16 at 100.00	AA+	167,742
	Loan Program, Series 2007A-1, 4.700%,			
	9/01/27 (Alternative Minimum Tax) Missouri Housing Development Commission,			
	Single Family Mortgage Revenue Bonds,			
140	Homeownership	3/17 at 100.00	AA+	140,088
2.10	Loan Program, Series 2007C-1, 4.800%,	20100	2 22 2 1	1.0,000
	9/01/38 (Alternative Minimum Tax)			
305	Total Housing/Single Family			307,830
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3	3			
	Long-Term Care – 15.7% (9.8% of Total			
	Investments)			
	Bridgeton Industrial Development Authority,			
	Missouri, Senior Housing Revenue Bonds, The	~		
250	Sarah	5/18 at 100.00	NA	227,200
	Community Project, Series 2013, 4.500%,			
	5/01/28			
	Cole County Industrial Development			
1.750	Authority, Missouri, Revenue Bonds, Lutheran	0/14 + 100 00	DDD.	1 750 542
1,750	Senior	8/14 at 100.00	BBB+	1,750,543
	Services – Heisinger Project, Series 2004, 5.500%, 2/01/35			
	Joplin Industrial Development Authority,			
	Missouri, Revenue Bonds, Christian Homes			
500	Inc., Series	5/17 at 100.00	BBB-	507,705
	2007F, 5.750%, 5/15/31			•
	Lees Summit Industrial Development			
	Authority, Missouri, Revenue Bonds, John			
475	Knox Village	8/17 at 100.00	BBB-	472,188
	Obligated Group, Series 2007A, 5.125%,			
	8/15/32			
	Missouri Health and Educational Facilities			
	Authority, Revenue Bonds, Lutheran Senior			
250	Services	2/21 at 100.00	BBB+	265,523
	Projects, Series 2011, 6.000%, 2/01/41			
	St. Louis County Industrial Development			
100	Authority, Missouri, Revenue Bonds,	M 0 . G 11	222	02.662
100	Friendship Village	No Opt. Call	BBB-	93,662
	of Chesterfield, Series 2012, 5.000%, 9/01/42			
	St. Louis County Industrial Development			
	Authority, Missouri, Revenue Bonds, Friendship Village			
	of Sunset Hills, Series 2012:			
250	5.000%, 9/01/32	No Opt. Call	A-	256,268
425	5.000%, 9/01/32	9/22 at 100.00	A- A-	425,582
723	St. Louis County Industrial Development	7122 at 100.00	7.4	423,362
	Authority, Missouri, Revenue Bonds,			
430	Friendship Village	9/23 at 100.00	A–	446,976
	of Sunset Hills, Series 2013A, 5.875%, 9/01/43			,
	St. Louis County Industrial Development			
	Authority, Missouri, Revenue Bonds,			
570	Friendship Village	9/17 at 100.00	BBB-	578,881
	of West County, Series 2007A, 5.500%,			
	9/01/28			
5,000	Total Long-Term Care			5,024,528
	Tax Obligation/General – 15.7% (9.9% of Total	1		
	Investments)			
	Branson Reorganized School District R-4,			
	Taney County, Missouri, General Obligation			
500	Bonds,	3/22 at 100.00	A+	514,640
	School Building Series 2012, 4.375%, 3/01/32			

1,500	Camdenton Reorganized School District R3, Camden County, Missouri, General Obligation Bonds, Series 2005, 5.250%, 3/01/24 – AGM Insured Independence School District, Jackson County,	3/15 at 100.00	AA-	1,572,210
1,685	Missouri, General Obligation Bonds, Series 2010, 5.000%, 3/01/27	3/20 at 100.00	AA+	1,865,950
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	551,645
500	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-	545,765
4,685	Total Tax Obligation/General Tax Obligation/Limited – 24.0% (15.0% of Total Investments)			5,050,210
910	Bi-State Development Agency of the Missouri-Illinois Metropolitan District, Mass Transit Sales Tax Appropriation Bonds, Refunding Combined Lien Series 2013A, 5.000%, 10/01/33	10/22 at 100.00	AA+	990,417
315	Fulton, Missouri, Tax Increment Revenue Bonds, Fulton Commons Redevelopment Project, Series	6/16 at 100.00	N/R	253,361
430	2006, 5.000%, 6/01/28 Government of Guam, Business Privilege Tax Bonds, Series 2012B-1, 5.000%, 1/01/42 Howard Bend Levee District, St. Louis County, Missouri, Levee District Improvement Bonds,	1/22 at 100.00	A	433,440
	Series 2013B:			
180	4.875%, 3/01/33	3/23 at 100.00	BBB+	179,557
115	5.000%, 3/01/38	3/23 at 100.00	BBB+	112,406
	Jackson County, Missouri, Special Obligation	12/21 at		,
485	Bonds, Truman Medical Center Project, Series 2011B, 4.350%, 12/01/23 Kansas City Industrial Development Authority,	100.00	Aa3	526,463
300	*	9/21 at 100.00	AA-	312,864
475	Commission, Missouri, Tax Increment Revenue Bonds, Briarcliff West Project, Series 2006A, 5.400%, 6/01/24	6/14 at 102.00	N/R	484,975
360	Missouri Development Finance Board, Infrastructure Facilities Revenue Bonds,	6/15 at 100.00	A	365,972

	Branson Landing Project, Series 2005A, 5.000%, 6/01/35			
245	Monarch-Chesterfield Levee District, St. Louis County, Missouri, Levee District Improvement Bonds, Series 1999, 5.750%, 3/01/19 – NPFG Insured	9/14 at 100.00	A	246,009
500	Osage Beach, Missouri, Tax Increment Revenue Bonds, Prewitts Point Transportation Development	5/14 at 100.00	N/R	485,665
	District, Series 2006, 5.000%, 5/01/23 Puerto Rico Sales Tax Financing Corporation, Sales Tax Revenue Bonds, First Subordinate			
1,750	Series 2009A, 6.000%, 8/01/42	8/19 at 100.00	A+	1,446,568
225	Puerto Rico Sales Tax Financing Corporation, Sales Tax Revenue Bonds, Senior Series 2011C,	No Opt. Call	AA-	32,769
	0.000%, 8/01/41 Puerto Rico Sales Tax Financing Corporation,	•		,
1,500	Sales Tax Revenue Bonds, Series 2007A, 0.000%, 8/01/41 – NPFG Insured	No Opt. Call	AA-	247,440
600	Riverside, Missouri, L-385 Levee Redevelopment Plan Tax Increment Revenue Bonds, Series 2004,	5/15 at 100.00	A	618,498
	5.250%, 5/01/20 St. Joseph Industrial Development Authority, Missouri, Tax Increment Bonds, Shoppes at			
	North Village Project, Series 2005A:			
340	5.375%, 11/01/24	11/14 at 100.00 11/14 at	N/R	340,942
400	5.500%, 11/01/27 St. Joseph Industrial Development Authority,	100.00	N/R	400,332
200	Missouri, Tax Increment Bonds, Shoppes at North Village Project, Series 2005B, 5.500%,	11/14 at 100.00	N/R	200,048
9,330	11/01/27 Total Tax Obligation/Limited Transportation – 13.5% (8.4% of Total Investments)			7,677,726
335	Guam International Airport Authority, Revenue Bonds, Series 2013B, 5.500%, 10/01/33 –	10/23 at 100.00	AA-	361,254
1,000	AGM Insured St. Louis, Missouri, Airport Revenue Bonds, Lambert-St. Louis International Airport, Series	No Opt. Call	A	1,181,130
2,500	2005, 5.500%, 7/01/18 – NPFG Insured St. Louis, Missouri, Airport Revenue Bonds, Lambert-St. Louis International Airport, Series	7/17 at 100.00	AA-	2,774,448

3,835	2007A, 5.000%, 7/01/21 – AGM Insured Total Transportation U.S. Guaranteed – 9.6% (6.0% of Total Investments) (4)			4,316,832
600	Chesterfield, Missouri, Certificates of Participation, Series 2005, 5.000%, 12/01/24 (Pre-refunded 12/01/15) – FGIC Insured Cottleville, Missouri, Certificates of	12/15 at 100.00	Aa1 (4)	649,578
80	Participation, Series 2006, 5.250%, 8/01/31 (Pre-refunded 8/01/14) Springfield Public Building Corporation,	8/14 at 100.00	N/R (4)	81,744
1,395	Missouri, Lease Revenue Bonds, Jordan Valley Park Projects, Series 2000A, 6.125%, 6/01/21 – AMBAC Insured (ETM) St. Louis County, Missouri, GNMA	6/14 at 100.00	N/R (4)	1,733,413
500	Collateralized Mortgage Revenue Bonds, Series 1993D, 5.650%, 7/01/20 (Alternative Minimum Tax) (ETM)	No Opt. Call	AA+ (4)	605,205
2,575	Total U.S. Guaranteed Utilities – 4.6% (2.9% of Total Investments) Missouri Joint Municipal Electric Utility Commission, Plum Point Project, Revenue			3,069,940
500	Bonds, Series 2006, 5.000%, 1/01/34 – NPFG Insured Missouri Joint Municipal Electric Utility	1/16 at 100.00	A	506,680
110	Commission, Power Project Revenue Bonds, Iatan 2 Project Series 2006A, 4.125%, 1/01/21 – AMBAC Insured Missouri Joint Municipal Electric Utility Commission, Power Supply System Revenue Bonds, MoPEP Facilities, Series 2012:	1/16 at 100.00	A2	115,749
400	5.000%, 1/01/32	1/21 at 100.00	A2	419,444
425 1,435	5.000%, 1/01/37 Total Utilities Water and Sewer – 18.8% (11.8% of Total Investments) Correll County Public Water Supply District 1	1/21 at 100.00	A2	439,773 1,481,646
600	Carroll County Public Water Supply District 1, Missouri, Water System Revenue Bonds, Refunding Series 2009, 6.000%, 3/01/39 Metropolitan St. Louis Sewerage District,	3/18 at 100.00	A	638,436
200	Missouri, Wastewater System Revenue Bonds, Series 2006C, 5.000%, 5/01/36 – NPFG Insured Metropolitan St. Louis Sewerage District,	5/17 at 100.00	AAA	216,364
2,000	Missouri, Wastewater System Revenue Bonds, Series 2012A, 5.000%, 5/01/42	5/22 at 100.00	AAA	2,165,000

	Missouri Environmental Improvement and Energy Resources Authority, Water Facility	12/16 at		
2,965	Revenue	100.00	AA+	2,995,806
,	Bonds, Missouri-American Water Company,			, ,
	Series 2006, 4.600%, 12/01/36 – AMBAC			
	Insured			
	(Alternative Minimum Tax) (UB) (5)			
5,765	Total Water and Sewer			6,015,606
	Total Long-Term Investments (cost			
\$ 50,535	\$49,461,828)			51,205,439
	Floating Rate Obligations – (6.9)%			(2,225,000)
	MuniFund Term Preferred Shares, at			
	Liquidation Value – (55.8)% (6)			(17,880,000)
	Other Assets Less Liabilities – 2.8%			930,937
	Net Assets Applicable to Common Shares –			
	100%			\$ 32,031,376

Fair Value Measurements

Fair value is defined as the price that the Fund 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	\$ —	- \$51,205,439	\$ —	- \$51,205,439

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, 2014, the cost of investments was \$47,176,208.

Gross unrealized appreciation and gross unrealized depreciation of investments as of February 28, 2014, were as follows:

Gross unrealized:

Appreciation \$2,599,125
Depreciation (794,960)

Net unrealized appreciation (depreciation) of investments

\$1,804,165

- (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 34.9% (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 and Title) /s/ Kevin J. McCarthy

Kevin J. McCarthy

Vice President and Secretary

Date: April 29, 2014

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, 2014

By (Signature and Title) /s/ Stephen D. Foy

Stephen D. Foy

Vice President and Controller (principal financial officer)

Date: April 29, 2014