NUVEEN MUNICIPAL HIGH INCOME OPPORTUNITY FUND Form N-Q April 01, 2013

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 811-21449

Nuveen Municipal High Income Opportunity 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: 10/31

Date of reporting period: 1/31/13

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 Municipal High Income Opportunity Fund (NMZ) January 31, 2013

Principal Amount (000)	Description (1)	Optional Call Provisions (2)	Ratings (3) Valu	e
\$ 1,000	Alabama – 1.1% (1.0% of Total Investments) Adamsville Solid Waste Disposal Authority, Alabama, Solid Waste Disposal Revenue Bonds, Green Mountain Management LLC Project, Series 2010, 8.750%, 8/01/30	8/20 at 100.00	N/R \$	1,017,800
1,000	Alabama Industrial Development Authority, Solid Waste Disposal Revenue Bonds, Pine City Fiber Co. Project, Series 1993, 6.450%, 12/01/23 (Alternative Minimum Tax)	4/13 at 100.00	B2	999,920
1,880	Bessemer, Alabama, General Obligation Warrants, Series 2007, 6.500%, 2/01/37 Jefferson County, Alabama, Limited	2/17 at 102.00	N/R	1,739,132
1,000	Obligation School Warrants, Education Tax Revenue Bonds, Series 2004A, 5.250%, 1/01/14	No Opt. Call	В	1,001,550
4,880	Total Alabama Arizona – 6.4% (5.8% of Total Investments) Arizona Health Facilities Authority, Hospital Revenue Bonds, Banner Health Systems,			4,758,402
1,420	Tender Option Bond Trust 3256, 18.196%, 1/01/29 (IF) (4) Arizona Health Facilities Authority, Hospital	1/18 at 100.00	AA-	1,873,647
1,760	Revenue Bonds, Banner Health Systems, Tender Option Bond Trust 4695, 19.344%, 1/01/32	1/18 at 100.00	AA-	2,598,957
339	(IF) (4) Estrella Mountain Ranch Community Facilities District, Goodyear, Arizona, Special	4/13 at 100.00	N/R	339,692

	Assessment Lien Bonds, Series 2001A, 7.875%, 7/01/25 Maricopa County Industrial Development			
2,000	Authority, Arizona, Multifamily Housing Revenue Bonds,	4/13 at 100.00	N/R	1,599,780
	Privado Park Apartments Project, Series 2010, 5.000%, 11/01/46 (Mandatory put 11/01/15)			
	(Alternative Minimum Tax) (5) Maricopa County Industrial Development Authority, Arizona, Senior Living Facility			
6,720	Revenue Bonds, Christian Care Mesa II Inc., Series 2004A, 6.625%, 1/01/34 (Alternative Minimum Tax)	1/14 at 100.00	CC	5,316,595
	Phoenix Industrial Development Authority, Arizona, Educational Revenue Bonds, Keystone			
	Montessori School, Series 2004A:			
50	6.375%, 11/01/13	4/13 at 103.00 11/16 at	N/R	50,382
790	7.250%, 11/01/23	100.00 11/16 at	N/R	815,517
1,715	7.500%, 11/01/33 Phoenix Industrial Development Authority,	100.00	N/R	1,770,789
	Arizona, Lease Revenue Bonds, Rowan			
1,500	University Project, Tender Option Bond Trust 1086, 17.359%, 6/01/42 – (IF) (4)	6/22 at 100.00	A+	2,068,440
	Pima County Industrial Development			
	Authority, Arizona, Charter School Revenue	12/14 at	222	
550	Bonds, Noah Webster Basic Schools Inc., Series 2004, 6.125%, 12/15/34	100.00	BBB-	559,708
	Pima County Industrial Development			
200	Authority, Arizona, Charter School Revenue Bonds, Pointe	No Opt. Call	AA+ (6)	216,974
200	Educational Services Charter School, Series	140 Opt. Can	AA+(0)	210,774
	2004, 6.250%, 7/01/14 (ETM)			
	Pima County Industrial Development			
1,500	Authority, Arizona, Education Revenue Bonds, Carden	1/22 at 100.00	BBB-	1,660,080
,	Traditional Schools Project, Series 2012,			, ,
	7.500%, 1/01/42			
	Pima County Industrial Development Authority, Arizona, Education Revenue			
	Bonds, Paradise			
	Education Center Project, Series 2010:			
500	6.000%, 6/01/40	6/19 at 100.00	BBB-	521,035
500 1,150	6.100%, 6/01/45	6/19 at 100.00 4/13 at 100.00	BBB– BBB–	521,785 1,150,989
1,150		113 at 100.00	–מממ	1,130,909

	Pinal County Industrial Development Authority, Arizona, Correctional Facilities			
	Contract			
	Revenue Bonds, Florence West Prison LLC,			
	Series 2002A, 5.250%, 10/01/22 – ACA			
	Insured			
	Quechan Indian Tribe of the Fort Yuma	10/15		
1 000	Reservation, Arizona, Government Project	12/17 at	aaa	000 700
1,000	Bonds, Series	102.00	CCC	889,700
	2008, 7.000%, 12/01/27			
	Quechan Indian Tribe of the Fort Yuma Reservation, Arizona, Tribal Economic			
1,000	Development Bonds,	5/22 at 100.00	N/R	1,082,180
1,000	Series 2012A, 9.750%, 5/01/25	3/22 dt 100.00	17/10	1,002,100
	Salt Verde Financial Corporation, Arizona,			
	Senior Gas Revenue Bonds, Citigroup Energy			
2,000	Inc	No Opt. Call	В	2,031,140
,	Prepay Contract Obligations, Series 2007, 5.500%, 12/01/37	•		, ,
	Surprise Municipal Property Corporation,			
	Arizona, Wastewater System Revenue Bonds,			
1,000	Series	4/14 at 100.00	A-	1,014,110
	2007, 4.700%, 4/01/22			
	Tucson Industrial Development Authority,			
1 000	Arizona, Charter School Revenue Bonds,	0.4.4. 4.00.00		1 01 6 000
1,000	Arizona	9/14 at 100.00	BB+	1,016,080
	Agribusiness and Equine Center Charter			
26,694	School, Series 2004A, 5.850%, 9/01/24 Total Arizona			27,097,580
20,094	California – 16.1% (14.5% of Total			27,097,360
	Investments)			
	California Enterprise Development Authority,			
	Recovery Zone Facility Revenue Bonds,			
1,000	SunPower	4/21 at 100.00	N/R	1,160,120
,	Corporation – Headquarters Project, Series			
	2010, 8.500%, 4/01/31			
	California County Tobacco Securitization			
	Agency, Tobacco Settlement Asset-Backed			
1,810	Bonds, Sonoma	6/15 at 100.00	В–	1,590,013
	County Tobacco Securitization Corporation,			
	Series 2005, 5.125%, 6/01/38			
	California Health Facilities Financing	11/01		
1.250	Authority, Refunding Revenue Bonds,	11/21 at	A A	2 002 750
1,250	Stanford Hospital	100.00	AA-	2,002,750
	and Clinics, Tender Option Bond Trust 3267, 19.279%, 5/15/31 (IF) (4)			
	California School Finance Authority,			
	Educational Facilities Revenue Bonds,			
1,000	Tri-Valley Learning	6/20 at 102.00	N/R	1,017,670
1,500	Corporation, Series 2012A, 7.000%, 6/01/47		1.011	1,017,070
3,425	1 ,	5/15 at 100.00	Aa2	4,488,839
, -				, , ,

	California State University, Systemwide Revenue Bonds, Tender Option Bond Trust 4696, 17.327%,			
	11/01/35 – AMBAC Insured (IF) (4) California Statewide Communities Development Authority, Community			
1,000	Facilities District 2012-01, Fancher Creek, Special Tax Bonds, Series 2013A, 5.700%, 9/01/43 (WI/DD, Settling	9/22 at 100.00	N/R	992,790
4,000	2/07/13) California Statewide Communities Development Authority, Revenue Bonds, EnerTech Regional	No Opt. Call	D	239,040
4,000	Biosolids Project, Series 2007A, 5.500%, 12/01/33 (Alternative Minimum Tax) (5) California Statewide Communities	No Opt. Can	Б	239,040
1,000	Development Authority, Statewide Community Infrastructure Program Revenue Bonds, Series 2011A,	9/21 at 100.00	N/R	1,066,280
2,915	8.000%, 9/02/41 California Statewide Community Development Authority, Revenue Bonds, Epidaurus Project, Series	3/14 at 102.00	N/R	3,032,970
_,	2004A, 7.750%, 3/01/34 California Statewide Community Development Authority, Revenue Bonds,			2,022,510
515	Sutter Health, Tender Option Bond Trust 3048, 17.662%, 11/15/38 (IF)	5/18 at 100.00	AA-	762,066
	California Statewide Community Development Authority, Revenue Bonds, Sutter Health, Tender			
745	Option Bond Trust 3102:	5/10 / 100 00		1 104 077
745	17.873%, 11/15/38 (IF) (4)	5/18 at 100.00	AA-	1,104,977
1,000	18.966%, 11/15/48 (IF) (4) California Statewide Community Development Authority, Subordinate Lien	5/18 at 100.00	AA-	1,503,600
1,005	Multifamily Housing Revenue Bonds, Corona Park Apartments, Series 2004I-S, 7.750%, 1/01/34 (Alternative Minimum Tax)	1/14 at 100.00	N/R	1,011,623
500	Fontana Public Financing Authority, California, Tax Allocation Revenue Bonds, North Fontana Redevelopment Project, Tender Option Bonds Trust 1013, 19.271%, 9/01/32 – AMBAC	4/13 at 100.00	A+	543,320
1,000	Insured (IF) (4) Golden State Tobacco Securitization Corporation, California, Enhanced Tobacco Settlement	6/15 at 100.00	AA+	1,184,710
•				

Asset-Backed Revenue Bon Bonds Trust 3107, 17.762% AMBAC Insured (IF) Golden State Tobacco Secu Corporation, California, En	ritization		
Settlement Asset-Backed Revenue Bon	ds Tender Ontion		
Bond Trust 1011:	ids, render option		
500 17.378%, 6/01/45 (IF) (4)	6/15 at 100.00	A2	582,655
750 17.399%, 6/01/45 (IF) (4)	6/15 at 100.00	A2	874,140
Golden State Tobacco Secu	ritization		
Corporation, California, Tol	bacco Settlement		
Asset-Backed			
Bonds, Series 2007A-1:	(47 + 100 00	D	1 004 500
2,000 4.500%, 6/01/27	6/17 at 100.00	В	1,894,500
1,750 5.000%, 6/01/33 500 5.750%, 6/01/47	6/17 at 100.00 6/17 at 100.00	B B	1,629,390 476,285
1,000 5.125%, 6/01/47	6/17 at 100.00	В	862,930
Golden State Tobacco Secu		Ь	002,730
Corporation, California, Tol			
1,500 Asset-Backed	6/22 at 100.00	В	1,380,765
Bonds, Series 2007A-2, 5.3	00%, 6/01/37		, ,
Grossmont Healthcare Distr			
General Obligation Bonds,	Tender Option		
1,500 Bond Trust	No Opt. Call	Aa2	2,874,420
3253, 22.801%, 1/15/19 (IF			
Lake Elsinore, California, S	-		
Community Facilities Distri		N/D	1 227 020
1,200 Improvement	9/13 at 102.00	N/R	1,227,828
Area A, Canyon Hills, Serie 9/01/34	es 2004A, 5.930%,		
Lancaster Redevelopment A	agency		
California, Tax Allocation I			
335 Redevelopment	8/19 at 100.00	BBB+	386,419
Project Areas Housing Prog			,
2009, 6.875%, 8/01/39			
Lee Lake Water District, Ri	verside County,		
California, Special Tax Bon	· · · · · · · · · · · · · · · · · · ·		
3,400 Facilities	9/13 at 102.00	N/R	3,494,962
District 3, Series 2004, 5.95	•		
Long Beach Bond Finance	•		
California, Natural Gas Pure 1,000 Bonds, Series	No Opt. Call	A	1,209,230
2007A, 5.500%, 11/15/37	No Opt. Can	A	1,209,230
Los Angeles Department of	Airports		
California, Revenue Bonds,	-		
1,125 International	5/20 at 100.00	AA	1,724,265
Airport, Tender Option Bon			, , -
18.670%, 5/15/40 (IF) (4)			
· · · · · · · · · · · · · · · · · · ·	agency, California, 9/21 at 100.00	A-	1,203,990
Project A Revenue Bonds, S	Subordinate Lien		

J	Ğ			
	Series			
	2011A, 7.000%, 9/01/31			
	March Joint Powers Redevelopment Agency,			
	California, March Air Force Base			
	Redevelopment			
	Project Tax Allocation Revenue Bonds,			
	Series 2011A:			
1,000	7.000%, 8/01/26	8/21 at 100.00	BBB+	1,205,570
1,000	7.500%, 8/01/41	8/21 at 100.00	BBB+	1,191,260
	M-S-R Energy Authority, California, Gas			
	Revenue Bonds, Citigroup Prepay Contracts,			
1,000	Series	No Opt. Call	A	1,389,140
	2009B, 6.500%, 11/01/39			
	National City Community Development			
	Commission, California, Tax Allocation			
500	Bonds, National	8/21 at 100.00	A-	622,915
	City Redevelopment Project, Series 2011,			
	7.000%, 8/01/32			
	Novato Redevelopment Agency, California,			
	Tax Allocation Bonds, Hamilton Field			
330	Redevelopment	9/21 at 100.00	BBB+	387,763
	Project, Series 2011, 6.750%, 9/01/40			
	Palomar Pomerado Health Care District,			
	California, Certificates of Participation, Series	11/20 at		
1,000	2010,	100.00	Baa3	1,089,980
	6.000%, 11/01/41			
	Palomar Pomerado Health, California,			
	General Obligation Bonds, Tender Option			
250	Bond Trust 4683,	8/17 at 100.00	A+	370,480
	17.862%, 8/01/37 – NPFG Insured (IF) (4)			
	Pittsburg Redevelopment Agency, California,			
	Tax Allocation Bonds, Los Medanos			
1,000	Community	9/18 at 100.00	BBB-	1,097,210
	Development Project, Refunding Series			
	2008A, 6.500%, 9/01/28			
	River Rock Entertainment Authority,			
	California, Revenue Bonds, Senior Notes	11/15 at		
890	Series 2011B,	104.00	N/R	850,146
	8.000%, 11/01/18			
	Riverside County Public Financing Authority,			
1,000	California, Tax Allocation Bonds, Multiple	100.00	BBB	981,310
	Projects, Series 2004, 5.000%, 10/01/35 –			
	SYNCORA GTY Insured			
	Riverside County Redevelopment Agency,			
	California, Tax Allocation Bonds, Jurupa	10/21 at		
1,200	Valley Project	100.00	A–	1,384,452
	Area, Series 2011B, 6.750%, 10/01/30			
	Sacramento City Financing Authority			
	California, Lease Revenue Bonds, Master			
	Lease Program			

	Facilities Projects, Tender Option Bond Trust 4698:			
750 2,015	18.244%, 12/01/30 – AMBAC Insured (IF) (4 19.039%, 12/01/33 – AMBAC Insured (IF) (4 San Buenaventura, California, Revenue	_	A A	1,368,360 3,627,645
	Bonds, Community Memorial Health System, Series 2011:			
0.60	0.000 % .10/01/06	12/21 at		4 227 222
960	8.000%, 12/01/26	100.00 12/21 at	BB	1,237,920
1,000	8.000%, 12/01/31	100.00	ВВ	1,272,420
1,000	San Jose, California, Airport Revenue Bonds,	100.00	22	1,272,120
	Tender Option Bond Trust 3923, 17.913%,			
1,000	9/01/31 –	3/17 at 100.00	AA-	1,252,160
	AMBAC Insured (IF) (4)			
	Santee Community Development			
1 000	Commission, California, Santee	2/21 + 100 00		1 204 050
1,000	Redevelopment Project Tax	2/21 at 100.00	A	1,204,050
	Allocation Bonds, Series 2011A, 7.000%, 8/01/41			
	Temecula Redevelopment Agency,			
	California, Tax Allocation Revenue Bonds,			
1,000	Redevelopment	4/13 at 100.00	A-	1,000,860
	Project 1, Series 2002, 5.250%, 8/01/36 –			
	NPFG Insured			
	Tobacco Securitization Authority of Southern			
	California, Tobacco Settlement			
500	Asset-Backed	6/14 at 100.00	BB+	456,650
	Bonds, San Diego County Tobacco Asset			
	Securitization Corporation, Senior Series			
	2001A, 5.000%, 6/01/37			
	Twentynine Palms Redevelopment Agency,			
	California, Tax Allocation Bonds, Four			
650	Corners Project	9/21 at 100.00	BBB+	776,003
	Area, Series 2011A, 7.650%, 9/01/42			,
	West Patterson Financing Authority,			
	California, Special Tax Bonds, Community			
3,895	Facilities	9/13 at 103.00	N/R	3,900,717
	District 2001-1, Series 2004A, 6.125%,			
(1.665	9/01/39 Text 1 California			(0.100.550
61,665	Total California Colorado – 6.8% (6.1% of Total Investments)			68,189,558
	Bradburn Metropolitan District 3,			
	Westminster, Adams County, Colorado,	12/13 at		
1,015	General Obligation	102.00	N/R	1,045,897
1,010	Limited Tax Refunding Bonds, Series 2010,	102.00	1,112	1,0 10,007
	7.500%, 12/01/39			
	Buffalo Ridge Metropolitan District,			
	Colorado, Limited Obligation Assessment	12/13 at		
6	Bonds, Series	101.00	N/R (6)	6,361

2003, 7.500%, 12/01/33 (Pre-refunded 12/01/13)