NUVEEN MUNICIPAL HIGH INCOME OPPORTUNITY FUND Form N-Q September 28, 2012

#### 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 811-21449

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: 7/31/12

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) July 31, 2012

			Optional		
]	Principal		Call		
	Amount		<b>Provisions</b>		
	(000)	Description (1)	(2) Ra	tings (3)V	<sup>7</sup> alue
		Alabama – 1.2% (1.1% of Total Investments)			
		Adamsville Solid Waste Disposal Authority, Alabama, Solid Waste	8/20 at		\$
\$	1,000	Disposal Revenue Bonds, Green	100.00	N/R	1,006,660
		Mountain Management LLC Project, Series 2010, 8.750%, 8/01/30			
		Alabama Industrial Development Authority, Solid Waste Disposal	1/13 at		
	1,000	Revenue Bonds, Pine City Fiber	100.00	B2	982,580
		Co. Project, Series 1993, 6.450%, 12/01/23 (Alternative Minimum			
		Tax)			
		Bessemer, Alabama, General Obligation Warrants, Series 2007,	2/17 at		
	1,915	6.500%, 2/01/37	102.00	N/R	1,749,870
		Jefferson County, Alabama, Limited Obligation School Warrants,	No Opt.		
	1,000	Education Tax Revenue Bonds,	Call	В	1,003,140
		Series 2004A, 5.250%, 1/01/14			
	4,915	Total Alabama			4,742,250
		Arizona – 7.0% (6.1% of Total Investments)			
		Arizona Health Facilities Authority, Hospital Revenue Bonds, Banner	1/18 at		
	1,420	Health Systems, Tender	100.00	AA-	1,802,662
		Option Bond Trust 3256, 17.535%, 1/01/29 (IF)			
		Arizona Health Facilities Authority, Hospital Revenue Bonds, Banner	1/18 at		
	1,760	Health Systems, Tender	100.00	AA-	2,610,661
		Option Bond Trust 4695, 18.629%, 1/01/32 (IF) (4)			
		Estrella Mountain Ranch Community Facilities District, Goodyear,	1/13 at		
	343	Arizona, Special Assessment	100.00	N/R	343,648
		Lien Bonds, Series 2001A, 7.875%, 7/01/25			
		Maricopa County Industrial Development Authority, Arizona,	11/12 at		
	2,000	Multifamily Housing Revenue Bonds,	100.00	N/R	1,599,960
		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	1/14 at		
	6,720	Living Facility Revenue	100.00	CC	5,353,488
		Bonds, Christian Care Mesa II Inc., Series 2004A, 6.625%, 1/01/34			
		(Alternative Minimum Tax)			
		Phoenix Industrial Development Authority, Arizona, Educational			
		Revenue Bonds, Keystone			
		Montessori School, Series 2004A:			
	100	6.375%, 11/01/13		N/R	101,298

		11/12 at 103.00	
		11/16 at	
790	7.250%, 11/01/23	100.00	N/R 815,193
170	1.230 %, 11/01/23	11/16 at	1VK 013,173
1 715	7.500%, 11/01/33	100.00	N/R 1,769,691
1,713	Phoenix Industrial Development Authority, Arizona, Lease Revenue	6/22 at	11/1 1,700,001
1 500	Bonds, Rowan University	100.00	A+ 1,910,520
1,500	Project, Tender Option Bond Trust 1086, 17.141%, 6/01/42 (IF) (4)	100.00	111 1,710,320
	Pima County Industrial Development Authority, Arizona, Charter	12/14 at	
550	School Revenue Bonds, Noah	100.00	BBB- 555,924
330	Webster Basic Schools Inc., Series 2004, 6.125%, 12/15/34	100.00	DDD- 333,72 <del>4</del>
	Pima County Industrial Development Authority, Arizona, Charter	No Opt.	
200	School Revenue Bonds, Pointe	Call	AA+ (6) 222,950
200	Educational Services Charter School, Series 2004, 6.250%, 7/01/14	Can	AAT (0) 222,930
	(ETM)		
	Pima County Industrial Development Authority, Arizona, Education	1/22 at	
1 500	Revenue Bonds, Carden	100.00	BBB- 1,609,755
1,500	Traditional Schools Project, Series 2012, 7.500%, 1/01/42	100.00	DDD- 1,00 <i>7</i> ,7 <i>33</i>
	Pima County Industrial Development Authority, Arizona, Education		
	Revenue Bonds, Paradise		
	Education Center Project, Series 2010:		
	Education Center Project, Series 2010.	6/19 at	
500	6.000%, 6/01/40	100.00	BBB- 509,480
300	0.000 /0, 0/01/40	6/19 at	DDD- 309, <del>4</del> 00
500	6.100%, 6/01/45	100.00	BBB- 510,290
300	Pinal County Industrial Development Authority, Arizona, Correctional	100.00 10/12 at	DDD- 510,270
1 150	Facilities Contract Revenue	100.00	BBB- 1,151,185
1,130	Bonds, Florence West Prison LLC, Series 2002A, 5.250%, 10/01/22 –	100.00	<b>DDD</b> - 1,131,103
	ACA Insured		
	Quechan Indian Tribe of the Fort Yuma Reservation, Arizona,	12/17 at	
1 000	Government Project Bonds, Series	102.00	CCC 891,000
1,000	2008, 7.000%, 12/01/27	102.00	071,000
	Quechan Indian Tribe of the Fort Yuma Reservation, Arizona, Tribal	5/22 at	
1 000	Econmic Development Bonds,	100.00	N/R 1,057,850
1,000	Series 2012A, 9.750%, 5/01/25	100.00	1771 1,037,030
	Salt Verde Financial Corporation, Arizona, Senior Gas Revenue	No Opt.	
2 000	Bonds, Citigroup Energy Inc	Call	В 2,024,500
2,000	Prepay Contract Obligations, Series 2007, 5.500%, 12/01/37	Cun	B 2,021,500
	Surprise Municipal Property Corporation, Arizona, Wastewater	4/14 at	
1 000	System Revenue Bonds, Series	100.00	A-1,017,810
1,000	2007, 4.700%, 4/01/22	100.00	11 1,017,010
	Tucson Industrial Development Authority, Arizona, Charter School	9/14 at	
1 000	Revenue Bonds, Arizona	100.00	BB+ 995,660
1,000	Agribusiness and Equine Center Charter School, Series 2004A,	100.00	<b>DD</b> 1
	5.850%, 9/01/24		
26 748	Total Arizona		26,853,525
_0,, 10	California – 16.1% (14.0% of Total Investments)		20,000,020
	Calfornia Enterprise Development Authority, Recovery Zone Facility	4/21 at	
1,000	Revenue Bonds, SunPower	100.00	N/R 1,160,300
1,000	Corporation – Headquarters Project, Series 2010, 8.500%, 4/01/31	100.00	1,,11 1,100,200
	23-7 3-11-12-12 21-13-13-13-13-13-13-13-13-13-13-13-13-13		

1,810	California County Tobacco Securitization Agency, Tobacco Settlement Asset-Backed Bonds, Sonoma County Tobacco Securitization Corporation, Series 2005, 5.125%,	6/15 at 100.00	B- 1,501,087
1,250	6/01/38 California Health Facilities Financing Authority, Refunding Revenue Bonds, Stanford Hospital and Clinics, Tender Option Bond Trust 3267, 18.750%, 5/15/31 (IF) (4)	11/21 at 100.00	AA- 1,957,700
3,425	California State University, Systemwide Revenue Bonds, Tender Option Bond Trust 4696, 16.642%, 11/01/35 – AMBAC Insured (IF) (4)	5/15 at 100.00	Aa2 4,635,327
4,000	California Statewide Communities Development Authority, Revenue Bonds, EnerTech Regional Biosolids Project, Series 2007A, 5.500%, 12/01/33 (Alternative Minimum Tax) (5)	No Opt. Call	D 319,960
1,000	California Statewide Communities Development Authority, Statewide Community Infrastructure Program Revenue Bonds, Series 2011A, 8.000%, 9/02/41	9/21 at 100.00	N/R 1,067,000
2,915	California Statewide Community Development Authority, Revenue Bonds, Epidaurus Project, Series	3/14 at 102.00	N/R 3,050,606
515	2004A, 7.750%, 3/01/34 California Statewide Community Development Authority, Revenue Bonds, Sutter Health, Tender Option Bond Trust 3048, 17.073%, 11/15/38 (IF) California Statewide Community Development Authority, Revenue Bonds, Sutter Health, Tender	5/18 at 100.00	AA- 647,782
	Option Bond Trust 3102:	5/18 at	
745	17.368%, 11/15/38 (IF) (4)	100.00 5/18 at	AA- 938,462
1,000	18.442%, 11/15/48 (IF) (4) California Statewide Community Development Authority, Subordinate	100.00 1/14 at	AA- 1,303,120
1,005	Lien Multifamily Housing Revenue Bonds, Corona Park Apartments, Series 2004I-S, 7.750%, 1/01/34 (Alternative	100.00	N/R 1,011,623
500	Minimum Tax) Fontana Public Financing Authority, California, Tax Allocation Revenue Bonds, North Fontana Redevelopment Project, Tender Option Bonds Trust 1013, 18.794%, 9/01/32 –	10/12 at 100.00	A+ 543,860
1,000	AMBAC Insured (IF) (4) Golden State Tobacco Securitization Corporation, California, Enhanced Tobacco Settlement Asset-Backed Revenue Bonds, Tender Option Bonds Trust 3107, 17.363%, 6/01/45 –	6/15 at 100.00	AA+ 1,124,820
	AMBAC Insured (IF) Golden State Tobacco Securitization Corporation, California, Enhanced Tobacco Settlement Asset-Backed Revenue Bonds, Tender Option Bond Trust 1011:		
750	17.151%, 6/01/45 (IF) (4)	6/15 at 100.00	A2 819,360
	,		017,000

		6/15 at	
500	17.130%, 6/01/45 (IF) (4)	100.00	A2 546,180
	Golden State Tobacco Securitization Corporation, California, Tobacco		
	Settlement Asset-Backed		
	Bonds, Series 2007A-1:		
		6/17 at	
1,750	5.000%, 6/01/33	100.00	BB- 1,404,935
		6/17 at	
500	5.750%, 6/01/47	100.00	BB- 423,315
1 000	5 105 W (101 HB	6/17 at	DD - 564 550
1,000	5.125%, 6/01/47	100.00	BB- 764,770
1 000	Golden State Tobacco Securitization Corporation, California, Tobacco	6/22 at	DD 700.040
1,000	Settlement Asset-Backed	100.00	BB- 789,840
	Bonds, Series 2007A-2, 0.000%, 6/01/37	No Ont	
1 500	Grossmont Healthcare District, California, General Obligation Bonds,	No Opt. Call	A 62 2 976 520
1,500	Tender Option Bond Trust 3253, 22.214%, 1/15/19 (IF) (4)	Can	Aa2 2,876,520
	Lake Elsinore, California, Special Tax Bonds, Community Facilities	9/13 at	
1 200	District 2003-2 Improvement	102.00	N/R 1,225,956
1,200	Area A, Canyon Hills, Series 2004A, 5.950%, 9/01/34	102.00	1V/K 1,223,730
	Lancaster Redevelopment Agency, California, Tax Allocation Bonds,	8/19 at	
335	Combined Redevelopment	100.00	BBB+ 381,763
	Project Areas Housing Programs, Series 2009, 6.875%, 8/01/39		
	Lee Lake Water District, Riverside County, California, Special Tax	9/13 at	
3,400	Bonds, Community Facilities	102.00	N/R 3,510,330
-	District 3, Series 2004, 5.950%, 9/01/34		
	Long Beach Bond Finance Authority, California, Natural Gas	No Opt.	
1,000	Purchase Revenue Bonds, Series	Call	A 1,097,100
	2007A, 5.500%, 11/15/37		
	Los Angeles Department of Airports, California, Revenue Bonds, Los	5/20 at	
1,125	Angeles International	100.00	AA 1,684,260
	Airport, Tender Option Bond Trust 10-27B, 18.329%, 5/15/40 (IF) (4)		
	Lynwood Redevelopment Agency, California, Project A Revenue	9/21 at	
1,000	Bonds, Subordinate Lien Series	100.00	A- 1,178,130
	2011A, 7.000%, 9/01/31		
	March Joint Powers Redevelopment Agency, California, March Air		
	Force Base Redevelopment		
	Project Tax Allocation Revenue Bonds, Series 2011A:	0/01 -4	
1 000	7,0000/, 9,01,106	8/21 at	DDD: 1.170.400
1,000	7.000%, 8/01/26	100.00 8/21 at	BBB+ 1,178,480
1 000	7.500%, 8/01/41	100.00	BBB+ 1,171,500
1,000	M-S-R Energy Authority, California, Gas Revenue Bonds, Citigroup	No Opt.	DDDT 1,171,500
1 000	Prepay Contracts, Series	Call	A 1,267,310
1,000	2009B, 6.500%, 11/01/39	Can	11 1,207,310
	National City Community Development Commission, California, Tax	8/21 at	
500	Allocation Bonds, National	100.00	A- 633,890
	City Redevelopment Project, Series 2011, 7.000%, 8/01/32		,
	Novato Redevelopment Agency, California, Tax Allocation Bonds,	9/21 at	
330	Hamilton Field Redevelopment	100.00	A- 380,853
	Project, Series 2011, 6.750%, 9/01/40		

1,000	Palomar Pomerado Health Care District, California, Certificates of Participation, Series 2010, 6.000%, 11/01/41	11/20 at 100.00	Baa3	1,072,770
	Palomar Pomerado Health, California, General Obligation Bonds,	8/17 at		
250	Tender Option Bond Trust 4683, 17.368%, 8/01/37 – NPFG Insured (IF) (4)	100.00	A+	325,130
	Pittsburg Redevelopment Agency, California, Tax Allocation Bonds,	9/18 at		
1,000	Los Medanos Community	100.00	BBB	1,072,000
	Development Project, Refunding Series 2008A, 6.500%, 9/01/28			
	River Rock Entertainment Authority, California, Revenue Bonds,	11/15 at		
947	Senior Notes Series 2011B,	104.00	N/R	919,281
	8.000%, 11/01/18			
1 000	Riverside County Public Financing Authority, California, Tax	10/14 at	222	004.000
1,000	Allocation Bonds, Multiple	100.00	BBB	991,800
	Projects, Series 2004, 5.000%, 10/01/35 – SYNCORA GTY Insured	10/21 -4		
1 200	Riverside County Redevelopment Agency, California, Tax Allocation Bonds, Jurupa Valley Project	10/21 at 100.00	٨	1 250 024
1,200	Area, Series 2011B, 6.750%, 10/01/30	100.00	A-	1,350,924
	Sacramento City Financing Authority California, Lease Revenue			
	Bonds, Master Lease Program			
	Facilities Projects, Tender Option Bond Trust 4698:			
	Tuernics Projects, Tender Option Bond Plast 1050.	No Opt.		
750	17.584%, 12/01/30 – AMBAC Insured (IF) (4)	Call	Aa3	1,300,710
		No Opt.		-,,
2,015	18.165%, 12/01/33 – AMBAC Insured (IF) (4)	Call	Aa3	3,419,294
•	San Buenaventura, California, Revenue Bonds, Community Memorial			
	Health System, Series 2011:			
		12/21 at		
960	8.000%, 12/01/26	100.00	BB	1,233,187
		12/21 at		
1,000	8.000%, 12/01/31	100.00	BB	1,266,880
	San Jose, California, Airport Revenue Bonds, Tender Option Bond	3/17 at		
1,000	Trust 3923, 17.370%, 9/01/31 –	100.00	AA–	1,251,040
	AMBAC Insured (IF) (4)	2/21		
1 000	Santee Community Development Commission, California, Santee	2/21 at		1 150 270
1,000	Redevelopment Project Tax  Allocation Rends, Series 2011 A. 7,000%, 8/01/41	100.00	А	1,159,270
	Allocation Bonds, Series 2011A, 7.000%, 8/01/41 Temecula Redevelopment Agency, California, Tax Allocation	8/12 at		
1 000	Revenue Bonds, Redevelopment	100.00	٨	1,000,680
1,000	Project 1, Series 2002, 5.250%, 8/01/36 – NPFG Insured	100.00	Λ-	1,000,000
	Twentynine Palms Redevelopment Agency, California, Tax Allocation	9/21 at		
650	Bonds, Four Corners Project	100.00	BBB+	763,061
	Area, Series 2011A, 7.650%, 9/01/42			,
	West Patterson Financing Authority, California, Special Tax Bonds,	9/13 at		
3,895	Community Facilities	103.00	N/R	3,836,530
	District 2001-1, Series 2004A, 6.125%, 9/01/39			
56,722	Total California		6	51,558,696
	Colorado – 6.8% (5.9% of Total Investments)			
	Bradburn Metropolitan District 3, Westminster, Adams County,	12/13 at		
1,015	Colorado, General Obligation	102.00	N/R	1,049,825
	Limited Tax Refunding Bonds, Series 2010, 7.500%, 12/01/39			

6	Buffalo Ridge Metropolitan District, Colorado, Limited Obligation Assessment Bonds, Series	12/13 at 101.00	N/R (6)	6,525
	2003, 7.500%, 12/01/33 (Pre-refunded 12/01/13)		, ,	•
	Colorado Educational and Cultural Facilities Authority, Charter	5/14 at		
3,500	School Revenue Bonds, Cesar	101.00	N/R	2,829,050
	Chavez Academy, Series 2003, 8.000%, 5/01/34 (5)			
	Colorado Educational and Cultural Facilities Authority, Charter	2/16 at		
1,000	School Revenue Bonds,	101.00	N/R	898,540
	Jefferson County School District R-1 – Compass Montessori Secondary School, Series 2006,			
	5.625%, 2/15/36			
	Colorado Health Facilities Authority, Colorado, Revenue Bonds,	6/22 at		
1,350	Colorado Senior Residences	100.00	N/R	1,430,420
	Project, Series 2012, 6.750%, 6/01/32			
	Compark Business Campus Metropolitan District, Douglas County,	12/22 at		
1,000	Colorado, General Obligation	100.00	N/R	1,023,010
	Bonds, Series 2012A, 6.750%, 12/01/39 – RAAI Insured			
	Confluence Metropolitan District, Colorado, General Obligation	12/17 at		
1,000	Limited Tax Bonds, Series 2007,	100.00	N/R	823,760
	5.450%, 12/01/34			
• 000	E-470 Public Highway Authority, Colorado, Toll Revenue Bonds,	No Opt.	222	0.55.000
2,000	Series 2004A, 0.000%, 9/01/27 –	Call	BBB	957,280
	NPFG Insured	1.110		
2 1 4 5	Kit Carson County Health Service District, Colorado, Health Care	1/18 at	NI/D	2 265 727
3,145	Facility Revenue Bonds,	100.00	N/K	3,265,737
	Series 2007, 6.750%, 1/01/34  Mass County, Coloredo, Pasidantial Cara Facilities Mortgage Payanua	12/12 at		
1 250	Mesa County, Colorado, Residential Care Facilities Mortgage Revenue Bonds, Hilltop Community	100.00	NI/D	1,252,663
1,230	Resources Inc. Obligated Group, Series 2001A, 5.250%, 12/01/21 –	100.00	IN/IX	1,232,003
	RAAI Insured			
	Mountain Shadows Metropolitan District, Colorado, General	12/16 at		
1 000	Obligation Limited Tax Bonds, Series	100.00	N/R	832,450
1,000	2007, 5.500%, 12/01/27	100.00	1010	032,130
	Park Creek Metropolitan District, Colorado, Limited Tax Obligation	12/13 at		
1.985	Revenue Bonds, Series	100.00	N/R	2,064,400
,	2003CR-2, 7.875%, 12/01/32 (Mandatory put 12/01/13)			, ,
	Plaza Metropolitan District 1, Lakewood, Colorado, Tax Increment	6/14 at		
1,500	Revenue Bonds, Series 2003,	101.00	N/R	1,557,210
	8.000%, 12/01/25			
	Public Authority for Colorado Energy, Natural Gas Purchase Revenue	No Opt.		
3,565	Bonds, Colorado Springs	Call	A	4,416,001
	Utilities, Series 2008, 6.500%, 11/15/38			
	Regional Transportation District, Colorado, Denver Transit Partners	7/20 at		
500	Eagle P3 Project Private	100.00	Baa3	601,635
	Activity Bonds, Series 2010, 6.500%, 1/15/30			
	Rendezous Residential Metropolitan District, Colorado, Limited Tax	12/17 at		
625	General Obligation Bonds,	100.00	N/R	583,356
	Refunding Series 2007, 5.375%, 12/01/21			
4.005	Stone Ridge Metropolitan District 2, Colorado, General Obligation	12/17 at		
1,000	Bonds, Limited Tazx	100.00	N/R	255,250
	Convertible to Unlimited, Series 2007, 7.250%, 12/01/31			