NUVEEN MUNICIPAL HIGH INCOME OPPORTUNITY FUND Form N-Q September 28, 2007

# 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)

(Name and address of agent for service

Registrant's telephone number, including area code: <u>312-917-7700</u>

Date of fiscal year end: <u>10/31</u>

Date of reporting period: 7/31/07

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 (NMZ) July 31, 2007

Principal Amount (000) Description (1) Optional Ca Provisions (2

	•	-	
		National 🛛 2.1% (1.4% of Total Investments)	
		Charter Mac Equity Issuer Trust, Preferred Shares, Series 2004A-4:	
5	5,000	6.000%, 12/31/45 (Mandatory put 4/30/19) (Alternative Minimum Tax)	4/19 at 100.0
1	1,000	5.750%, 12/31/45 (Mandatory put 4/30/15) (Alternative Minimum Tax)	4/15 at 100.0
1	1,000	GMAC Municipal Mortgage Trust, Series B-1, 5.600%, 10/31/39 (Mandatory put 10/31/19)	No Opt. Ca
		(Alternative Minimum Tax)	
-	7,000	Total National	
		Alabama 🛛 2.3% (1.5% of Total Investments)	
e	6,200	Baldwin County Eastern Shore Healthcare Authority, Alabama, Hospital Revenue Bonds, Thomas	4/08 at 102.0
		Hospital, Series 1998, 5.750%, 4/01/27 (Pre-refunded 4/01/08)	
2	2,000	Bessemer, Alabama, General Obligation Warrants, Series 2007, 6.500%, 2/01/37	2/17 at 102.0
8	8,200	Total Alabama	
		Arizona 🛛 5.5% (3.7% of Total Investments)	
	515	Estrella Mountain Ranch Community Facilities District, Goodyear, Arizona, Special Assessment	7/10 at 102.0
		Lien Bonds, Series 2001A, 7.875%, 7/01/25	
2	2,000	Maricopa County Industrial Development Authority, Arizona, Multifamily Housing Revenue Bonds,	11/07 at 103.0
		Privado Park Apartments Project, Series 2006A, 5.250%, 11/01/41 (Mandatory put 11/01/11)	
		(Alternative Minimum Tax)	
6	6,720	Maricopa County Industrial Development Authority, Arizona, Senior Living Facility Revenue	1/11 at 103.0
		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:	
	315	6.375%, 11/01/13	11/11 at 103.0
	790	7.250%, 11/01/23	11/11 at 103.0
1	1,715	7.500%, 11/01/33	11/11 at 103.0
1	1,000	Pima County Industrial Development Authority, Arizona, Charter School Revenue Bonds, Franklin	7/16 at 100.0
		Phonetic Charter School, Series 2006, 5.750%, 7/01/36	
1	1,645	Pima County Industrial Development Authority, Arizona, Charter School Revenue Bonds, Heritage	7/14 at 100.0

- Elementary School, Series 2004, 7.500%, 7/01/34 (Pre-refunded 7/01/14)
   12/14 at 100.0

   550
   Pima County Industrial Development Authority, Arizona, Charter School Revenue Bonds, Noah
   12/14 at 100.0

   Webster Basic Schools Inc., Series 2004, 6.125%, 12/15/34
   No Opt. Ca

   500
   Pima County Industrial Development Authority, Arizona, Charter School Revenue Bonds, Pointe
   No Opt. Ca

   Educational Services Charter School, Series 2004, 6.250%, 7/01/14 (ETM)
   7/14 at 100.0

   1,000
   Pima County Industrial Development Authority, Arizona, Charter School Revenue Bonds, Pointe
   7/14 at 100.0

   Educational Services Charter School, Series 2004, 7.125%, 7/01/24 (Pre-refunded 7/01/14)
   10/12 ± 100.0
- 1,150Pinal County Industrial Development Authority, Arizona, Correctional Facilities Contract10/12 at 100.0Revenue Bonds, Florence West Prison LLC, Series 2002A, 5.250%, 10/01/22 [] ACA Insured9/14 at 100.01,000Tucson Industrial Development Authority, Arizona, Charter School Revenue Bonds, Arizona9/14 at 100.0Agribusiness and Equine Center Charter School, Series 2004A, 5.850%, 9/01/249/14 at 100.0

18,900 Total Arizona

\$

#### California 🛛 17.4% (11.9% of Total Investments)

8,000 Alameda Public Finance Authority, California, Revenue Bond Anticipation Notes, Alameda Power

QUARTERLY SCHEDULE OF PORTFOLIO HOLDINGS OF REGISTERED MANAGEMENT INVESTMENZ COMF

and Telecom, Series 2004, 7.000%, 6/01/09

	and Telecom, Series 2004, 7.000%, 6/01/09	
940	California Health Facilities Financing Authority, Hospital Revenue Bonds, Downey Community	11/07 at 100.0
	Hospital, Series 1993, 5.750%, 5/15/15	
	California State Public Works Board, Lease Revenue Bonds, Department of General Services,	
	Series 2003D:	
1,090	5.000%, 6/01/21	12/13 at 100.0
1,170	5.100%, 6/01/23	12/13 at 100.0
3,000	California State Public Works Board, Lease Revenue Bonds, Department of Mental Health, Coalinga State Hospital, Series 2004A, 5.000%, 6/01/25	6/14 at 100.0
2,000	California Statewide Communities Development Authority, Revenue Bonds, EnerTech Regional Biosolids Project, Series 2007A, 5.500%, 12/01/33 (WI/DD, Settling 8/02/07) (Alternative Minimum Tax)	No Opt. Ca
2,925	California Statewide Community Development Authority, Revenue Bonds, Epidaurus Project, Series 2004A, 7.750%, 3/01/34	3/14 at 102.0
1,005	California Statewide Community Development Authority, Subordinate Lien Multifamily Housing Revenue Bonds, Corona Park Apartments, Series 2004I-S, 7.750%, 1/01/34 (Alternative Minimum Tax)	1/14 at 100.0
3,360	California, General Obligation Bonds, Series 2003, 5.000%, 11/01/21	11/13 at 100.0
4,975	Golden State Tobacco Securitization Corporation, California, Enhanced Tobacco Settlement Asset-Backed Bonds, Series 2003B, 5.625%, 6/01/33 (Pre-refunded 6/01/13)	6/13 at 100.0
5,500	Golden State Tobacco Securitization Corporation, California, Tobacco Settlement Asset-Backed Bonds, Series 2003A-1, 6.750%, 6/01/39 (Pre-refunded 6/01/13)	6/13 at 100.0
1,000	Golden State Tobacco Securitization Corporation, California, Tobacco Settlement Asset-Backed Revenue Bonds, Series 2003A-2, 7.900%, 6/01/42 (Pre-refunded 6/01/13) Huntington Beach, California, Special Tax Bonds, Community Facilities District 2003-1,	6/13 at 100.0
	Huntington Center, Series 2004:	
500	5.800%, 9/01/23	9/14 at 100.0
1,000	5.850%, 9/01/33	9/14 at 100.0
2,500	Independent Cities Lease Finance Authority, California, Revenue Bonds, El Granada Mobile Home Park, Series 2004A, 6.450%, 5/15/44	5/14 at 100.0
1,015	Independent Cities Lease Finance Authority, California, Subordinate Lien Revenue Bonds, El Granada Mobile Home Park, Series 2004B, 6.500%, 5/15/44	5/14 at 100.0
1,200	Lake Elsinore, California, Special Tax Bonds, Community Facilities District 2003-2 Improvement Area A, Canyon Hills, Series 2004A, 5.950%, 9/01/34	9/13 at 102.0
3,400	Lee Lake Water District, Riverside County, California, Special Tax Bonds, Community Facilities District 3, Series 2004, 5.950%, 9/01/34	9/13 at 102.0
300	Los Angeles Regional Airports Improvement Corporation, California, Sublease Revenue Bonds, Los Angeles International Airport, American Airlines Inc. Terminal 4 Project, Series 2002B, 7.500%, 12/01/24 (Alternative Minimum Tax)	12/12 at 102.0
2,950	Angeles International Airport, American Airlines Inc. Terminal 4 Project, Series 2002C, 7.500%, 12/01/24 (Alternative Minimum Tax) Moreno Valley Unified School District, Riverside County, California, Special Tax Bonds,	12/12 at 102.0
	Community Facilities District, Series 2004:	
800	5.550%, 9/01/29	9/14 at 100.0
1,250	5.650%, 9/01/34	9/14 at 100.0
995	Oceanside, California, Special Tax Revenue Bonds, Community Facilities District [] Morro Hills, Series 2004, 5.750%, 9/01/28	3/14 at 100.0

Orange County, California, Special Tax Bonds, Community Facilities District 03-1 of Ladera Ranch, Series 2004A:

500 5.500%, 8/15/23 8/1	12 at 101.0
500 5.500 %, 0(15/25	
1,625 5.600%, 8/15/28 8/1	12 at 101.0
1,000 5.625%, 8/15/34 8/1	12 at 101.0
2,250 San Diego County, California, Certificates of Participation, San Diego-Imperial Counties 9/1	12 at 100.0
Developmental Services Foundation Project, Series 2002, 5.500%, 9/01/27	
3,895 West Patterson Financing Authority, California, Special Tax Bonds, Community Facilities 9/1	13 at 103.0
District 2001-1, Series 2004A, 6.125%, 9/01/39	

#### 60,145 Total California

	Colorado 🛛 8.8% (6.0% of Total Investments)	
925	Bradburn Metropolitan District 3, Colorado, General Obligation Bonds, Series 2003,	12/13 at 101.0
	7.500%, 12/01/33	
5,594	Buffalo Ridge Metropolitan District, Colorado, Limited Obligation Assessment Bonds, Series 2003, 7.500%, 12/01/33	12/13 at 101.0
400	Colorado Educational and Cultural Facilities Authority, Charter School Revenue Bonds, Academy Charter School [] Douglas County School District Re. 1, Series 2000, 6.875%, 12/15/20 (Pre-refunded 12/15/10)	12/10 at 101.0
650	Colorado Educational and Cultural Facilities Authority, Charter School Revenue Bonds, Bromley East Charter School, Series 2000A, 7.250%, 9/15/30 (Pre-refunded 9/15/11)	9/11 at 100.0
900	Colorado Educational and Cultural Facilities Authority, Charter School Revenue Bonds, Compass Montessori Elementary Charter School, Series 2000, 7.750%, 7/15/31 (Pre-refunded 7/15/08)	7/08 at 100.0
3,500	Colorado Educational and Cultural Facilities Authority, Charter School Revenue Bonds, Denver Arts and Technology Academy, Series 2003, 8.000%, 5/01/34	5/14 at 101.0
	Colorado Educational and Cultural Facilities Authority, Charter School Revenue Bonds, Excel Academy Charter School, Series 2003:	
485	7.300%, 12/01/23 (Pre-refunded 12/01/11)	12/11 at 100.0
875	7.500%, 12/01/33 (Pre-refunded 12/01/11)	12/11 at 100.0
1,784	Colorado Educational and Cultural Facilities Authority, Charter School Revenue Bonds, Jefferson County School District R-1 🛛 Compass Montessori Secondary School, Series 2002,	2/10 at 100.0
	8.000%, 2/15/32 (Pre-refunded 2/15/10)	
1,000	Colorado Educational and Cultural Facilities Authority, Charter School Revenue Bonds, Jefferson County School District R-1 [] Compass Montessori Secondary School, Series 2006, 5.625%, 2/15/36	2/16 at 101.0
1,240		6/11 at 100.0
1,500	Colorado Educational and Cultural Facilities Authority, Independent School Improvement Revenue Bonds, Heritage Christian School of Northern Colorado, Series 2004A, 7.500%, 6/01/34 (5)	6/14 at 100.0
900	Colorado Housing and Finance Authority, Multifamily Project Bonds, Class II Series 2002C-6, 5.300%, 10/01/42	10/12 at 100.0
4,300	Denver Health and Hospitals Authority, Colorado, Revenue Bonds, Series 2004A, 6.250%, 12/01/33 (Pre-refunded 12/01/14)	12/14 at 100.0
1,000	Denver, Colorado, FHA-Insured Multifamily Housing Mortgage Loan Revenue Bonds, Garden Court Community Project, Series 1998, 5.400%, 7/01/39	7/08 at 102.0
1,250	Mesa County, Colorado, Residential Care Facilities Mortgage Revenue Bonds, Hilltop Community	12/11 at 101.0

#### QUARTERLY SCHEDULE OF PORTFOLIO HOLDINGS OF REGISTERED MANAGEMENT INVESTMENT COMF

	Resources Inc. Obligated Group, Series 2001A, 5.250%, 12/01/21 🛛 RAAI Insured	
1,995	Park Creek Metropolitan District, Colorado, Limited Tax Obligation Revenue Bonds, Series	12/13 at 100.0
	2003CR-2, 7.875%, 12/01/32 (Mandatory put 12/01/13)	
	Tallyn🛭s Reach Metropolitan District 2, Aurora, Colorado, Limited Tax General Obligation	
	Bonds, Series 2004:	
250	6.000%, 12/01/18	12/13 at 100.0
315	6.375%, 12/01/23	12/13 at 100.0
	Tallyn🛭s Reach Metropolitan District 3, Aurora, Colorado, Limited Tax General Obligation	
	Bonds, Series 2004:	
500	6.625%, 12/01/23	12/13 at 100.0
500	6.750%, 12/01/33	12/13 at 100.0
20.062		
29,863	Total Colorado	
	Connecticut 🛛 0.5% (0.4% of Total Investments)	
1,025	Eastern Connecticut Resource Recovery Authority, Solid Waste Revenue Bonds, Wheelabrator	1/08 at 100.0
	Lisbon Project, Series 1993A, 5.500%, 1/01/20 (Alternative Minimum Tax)	
1,000	Mashantucket Western Pequot Tribe, Connecticut, Subordinate Special Revenue Bonds, Series	9/16 at 100.0
	2006A, 5.500%, 9/01/36	
2 0 2 5	Total Connecticut	
2,025		
	Florida 🛛 8.7% (5.9% of Total Investments)	
4,320	Bartram Springs Community Development District, Duval County, Florida, Special Assessment	5/13 at 102.0
	Penda Carias 2002A C $(E00)$ $(E01/24)$ (Provided E(01/12))	

	bolids, Series 2005A, 6.650%, 5/01/54 (Pre-refunded 5/01/15)	
1,000	Bartram Springs Community Development District, Duval County, Florida, Special Assessment	5/16 at 100.0
	Bonds, Series 2006, 4.750%, 5/01/34	
700	Broward County, Florida, Airport Facility Revenue Bonds, Learjet Inc., Series 2000, 7.500%,	11/14 at 101.0
	11/01/20 (Alternative Minimum Tax)	
1,160	Century Gardens Community Development District, Miami-Dade County, Florida, Special Assessment	5/14 at 101.0
	Revenue Bonds, Series 2004, 5.900%, 5/01/34	
	Islands at Doral Northeast Community Development District, Miami-Dade County, Florida, Special	

	Assessment Bonds, Series 2004:	
455	6.125%, 5/01/24	5/14 at 101.0
450	6.250%, 5/01/34	5/14 at 101.0
6,880	Lee County Industrial Development Authority, Florida, Multifamily Housing Revenue Bonds,	No Opt. Ca
	Legacy at Lehigh Project, Senior Series 2003A, 6.000%, 12/01/43 (5)	
620	Lexington Community Development District, Florida, Special Assessment Revenue Bonds, Series	5/14 at 101.0
	2004, 6.125%, 5/01/34	
3,816	MMA Financial CDD Junior Securitization Trust, Florida, Pass-Through Certificates, Class A,	11/07 at 100.0
	Series 2003l, 8.000%, 11/01/13	
3,820	Palm Beach County Housing Finance Authority, Florida, Multifamily Housing Revenue Bonds, Lake	7/09 at 103.0
	Delray Apartments, Series 1999A, 6.400%, 1/01/31 (Alternative Minimum Tax)	
1,000	Sarasota County Health Facility Authority, Florida, Revenue Bonds, Sarasota-Manatee Jewish	7/17 at 100.0
	Housing Council, Inc., Series 2007, 5.750%, 7/01/45	
1,700	South-Dade Venture Community Development District, Florida, Special Assessment Revenue Bonds,	5/14 at 101.0
	Series 2004, 6.125%, 5/01/34	
	Stonegate Community Development District, Florida, Special Assessment Revenue Bonds,	

## QUARTERLY SCHEDULE OF PORTFOLIO HOLDINGS OF REGISTERED MANAGEMENT INVESTMENT COMP

	Series 2004:	
455	6.000%, 5/01/24	5/14 at 101.0
500	6.125%, 5/01/34	5/14 at 101.0
	Westchester Community Development District 1, Florida, Special Assessment Bonds, Series 2003:	
140	6.000%, 5/01/23	5/13 at 101.0
3,745	6.125%, 5/01/35	5/13 at 101.0
30,761	Total Florida	
	Georgia 🛛 1.0% (0.7% of Total Investments)	
500	Effingham County Development Authority, Georgia, Solid Waste Disposal Revenue Bonds, Ft. James	7/08 at 102.0
	Project, Series 1998, 5.625%, 7/01/18 (Alternative Minimum Tax) (6)	
900	Fulton County Residential Care Facilities Authority, Georgia, Revenue Bonds, Canterbury Court,	2/09 at 100.0
	Series 2004A, 6.125%, 2/15/34	
1,935	Fulton County Residential Care Facilities Authority, Georgia, Revenue Bonds, St. Anne[]s	12/13 at 102.0
	Terrace, Series 2003, 7.625%, 12/01/33	
3,335	Total Georgia	
	Hawaii 🛛 0.2% (0.2% of Total Investments)	
1,000	Hawaii State Department of Budget and Finance, Private School Revenue Bonds, Montessori of	2/17 at 100.0
	Maui, Series 2007, 5.500%, 1/01/37	
	Illinois 🛛 7.2% (4.9% of Total Investments)	
2,000	Chicago, Illinois, Certificates of Participation Tax Increment Revenue Notes,	12/08 at 100.0
	Chicago/Kingsbury Redevelopment Project, Series 2004A, 6.570%, 2/15/13	
1,000	Chicago, Illinois, Certificates of Participation, Tax Increment Allocation Revenue Bonds,	7/11 at 100.
	Diversey-Narragansett Project, Series 2006, 7.460%, 2/15/26	
2 000	Illinois Einanco Authority, Povonuo Ponds, Midwort Pogional Medical Contor Calona Stauss	

2,000 Illinois Finance Authority, Revenue Bonds, Midwest Regional Medical Center Galena-Stauss