Nuveen Core Equity Alpha Fund Form N-Q May 30, 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 811-22003

Nuveen Core Equity Alpha Fund

(Exact name of registrant as specified in charter) 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 se 312-917-7700

Registrant s telephone number, including area code: Date of fiscal year end: 12/31 Date of reporting period: 3/31/2013

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 Core Equity Alpha Fund (JCE) March 31, 2013

Sharos	Description (1)		Value
Sildres	Description (1) Common Stocks 98.4%		value
	Aerospace & Defense 0.6%		
1,100	L-3 Communications Holdings, Inc.	\$	89,012
2,400	Northrop Grumman Corporation		168,360
4,300	Raytheon Company	2	252,797
3,800	Rockwell Collins, Inc.	2	239,856
29,900	Textron Inc.	8	391,319
	Total Aerospace & Defense	1,6	641,344
	Air Freight & Logistics 0.2%		
	C.H. Robinson Worldwide, Inc.		53,514
4,900	FedEx Corporation	4	481,180
	Total Air Freight & Logistics	Ę	534,694
	Airlines 0.0%		
7,600	Southwest Airlines Co.		102,448
	Auto Components 0.1%		
5,200	Delphi Automotive PLC	2	230,880
	Automobiles 0.3%		
49,500	Ford Motor Company	6	650,925
	Beverages 2.0%		
	Beam Inc.		762,480
	Brown-Forman Corporation	4	492,660
	Coca-Cola Enterprises Inc.		77,532
	Coca-Cola Company	4	144,840
	Constellation Brands, Inc., Class A, (2)		186,676
	Dr. Pepper Snapple Group		953,085
3,200	PepsiCo, Inc.		253,152
	Total Beverages	5,1	170,425
	Biotechnology 2.9%	-	
	Alexion Pharmaceuticals Inc., (2)		737,120
	Amgen Inc.		931,786
	Biogen Idec Inc., (2)	-	335,777
	Celgene Corporation, (2)		139,092
16,800	Gilead Sciences, Inc., (2)		322,024
	Total Biotechnology	7,4	465,799
4 000	Building Products 0.0%		05 050
4,200	Masco Corporation		85,050
7 000	Capital Markets 1.0%		-15 550
	Ameriprise Financial, Inc.	:	515,550
	Bank of New York Company, Inc.		95,166
	BlackRock Inc. Franklin Resources, Inc.		436,696
	Goldman Sachs Group, Inc.		271,458
	Invesco LTD		353,160 344,624
	Morgan Stanley		340.690
	State Street Corporation		106,362
1,000	Total Capital Markets		463,706
	Chemicals 4.0%	-,-	+00,700
13 500	Eastman Chemical Company	c	943,245
	Ecolab Inc.		248,558
	FMC Corporation		912,480
	International Flavors & Fragrances Inc.		291,346
	LyondellBasell Industries NV		386,060
	Monsanto Company		200,697
	Mosaic Company	-	47,688
	PPG Industries, Inc.	1 9	942,130
	Sherwin-Williams Company		578,253
,	Total Chemicals		150,457
	Commercial Banks 2.4%	,	,
93,400	BB&T Corporation	2,9	931,826

5,400	First Horizon National Corporation	57,672
13,200	M&T Bank Corporation	1,361,712
49,400	Regions Financial Corporation	404,586
16,400	SunTrust Banks, Inc.	472,484
11,500	U.S. Bancorp	390,195
16,450	Wells Fargo & Company	608,486
	Total Commercial Banks	6,226,961
	Commercial Services & Supplies 0.7%	
11,800	ADT Corporation	577,492
3,100	Avery Dennison Corporation	133,517
19,600	Cintas Corporation	864,948
7,800	Iron Mountain Inc.	283,218
600	Waste Management, Inc.	23,526
	Total Commercial Services & Supplies	1,882,701
	Communications Equipment 0.4%	
12,800	Harris Corporation	593,152
11,400	Juniper Networks Inc., (2)	211,356
2,400	Motorola Solutions Inc.	153,672
	Total Communications Equipment	958,180
	Computers & Peripherals 3.1%	
15,800	Apple, Inc.	6,993,554
6,000		