NUVEEN TAX ADVANTAGED TOTAL RETURN STRATEGY FUND
Form N-Q
November 29, 2017

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 811-21471

Nuveen Tax-Advantaged Total Return Strategy Fund

(Exact name of registrant as specified in charter)

333 West Wacker Drive, Chicago, Illinois 60606

(Address of principal executive offices) (Zip code)

Gifford R. Zimmerman 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: December 31

Date of reporting period: September 30, 2017

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

JTA

Nuveen Tax-Advantaged Total Return Strategy Fund
Portfolio of Investments **September 30, 2017** (Unaudited)

Shares	Description (1)	Value
	LONG-TERM INVESTMENTS 141.3% (98.3% of Total Investments)	
	COMMON STOCKS 101.8% (70.8% of Total Investments)	
	Air Freight & Logistics 2.6%	
115,000	Deutsche Post AG, (2)	$ 5,126,042
	Airlines 0.8%	
32,600	Delta Air Lines, Inc.	1,571,972
	Automobiles 1.6%	
38,100	Daimler AG, (2)	3,041,334
	Banks 18.2%	
1,120,000	Allied Irish Banks	6,731,159
368,000	Bank of Ireland Group PLC, (3)	3,011,955
99,500	CIT Group Inc., (4)	4,880,475
91,700	Citigroup Inc., (4)	6,670,258
256,000	ING Groep N.V, Sponsored ADR, (4)	4,715,520
38,400	JP Morgan Chase & Co.	3,667,584
1,540,700	Unicaja Banco, (2), (3)	2,370,305
89,000	The Bank of NT Butterfield and Son Limited, (4)	3,260,960
	Total Banks	35,308,216
	Biotechnology 0.9%	
20,600	Gilead Sciences, Inc., (4)	1,669,012
	Building Products 1.4%	
67,500	Johnson Controls International PLC	2,719,575
	Capital Markets 6.3%	
153,000	Ares Capital Corporation, (4)	2,507,670
46,500	Aurelius AG	3,057,884
277,000	Deutsche Boerse AG, ADR, (2), (4)	3,008,220
219,500	UBS Group AG, (2)	3,754,981
	Total Capital Markets	12,328,755
	Chemicals 4.3%	
270,000	CVR Partners LP, (4)	872,100
108,200	DowDuPont, Inc., (4)	7,490,686
	Total Chemicals	8,362,786
	Communications Equipment 1.2%	
70,500	Cisco Systems, Inc.	2,370,915

	Diversified Financial Services 1.5%	
291,000	Challenger Limited, (2)	2,852,459
	Diversified Telecommunication Services 4.3%	
105,300	Nippon Telegraph and Telephone Corporation, ADR, (2)	4,814,316
216,500	Telefonica Brasil SA	3,450,028
	Total Diversified Telecommunication Services	8,264,344
	Electric Utilities 1.0%	
65,800	FirstEnergy Corp., (5)	2,028,614

JTA Nuveen Tax-Advantaged Total Return Strategy Fund
Portfolio of Investments (continued) **September 30, 2017** (Unaudited)

Shares	Description (1)	Value
	Electrical Equipment 1.1%	
26,700	Eaton PLC	$ 2,050,293
	Energy Equipment & Services 0.0%	
3,348	Ocean Rig UDW Inc., (3)	79,558
	Equity Real Estate Investment Trusts 2.4%	
250,200	Colony Northstar, Inc.	3,142,512
19,000	Life Storage, Inc., (4)	1,554,390
	Total Equity Real Estate Investment Trusts	4,696,902
	Food & Staples Retailing 1.3%	
31,500	CVS Health Corporation, (4)	2,561,580
	Food Products 2.1%	
398,100	Orkla ASA, Sponsored ADR, (2), (4)	4,056,639
	Health Care Equipment & Supplies 1.8%	
78,000	Philips Electronics, (4)	3,213,600
	Health Care Providers & Services 0.0%	
6,594	Millennium Health LLC, (3)	4,121
	Household Durables 1.8%	
203,050	Sekisui House, Ltd., (2)	3,422,554
	Industrial Conglomerates 1.9%	
62,000	General Electric Company	1,499,160
16,200	Siemens AG, Sponsored ADR, (2)	2,285,971
	Total Industrial Conglomerates	3,785,131
	Insurance 10.1%	
91,500	Ageas, (2)	4,303,584
168,000	Allinaz S.E., Sponsored ADR, (2), (4)	3,761,520
50,600	CNA Financial Corporation, (4)	2,542,650
82,800	NN Group NV, (2)	3,467,363
22,300	Renaissance Holdings, Limited, (4)	3,013,622
50,000	Unum Group, (4)	2,556,500
	Total Insurance	19,645,239
	Media 1.7%	
2,099	Metro-Goldwyn-Mayer, (3)	200,849
156,400	National CineMedia, Inc., (4)	1,091,672
3,184	Tribune Media Company, (6)	
71,500	Viacom Inc., Class B, (4)	1,990,560
	Total Media	3,283,081
	Multi-Utilities 3.5%	
295,000	Veolia Environment S.A., ADR, (2)	6,816,853

	Oil, Gas & Consumable Fuels 5.4%	
24,100	Chevron Corporation, (4)	2,831,750
184,500	Enterprise Products Partnership LP, (4)	4,809,915
9	Southcross Holdings Borrower LP, (3)	5,850
51,400	Total SA, Sponsored ADR, (4)	2,750,928
	Total Oil, Gas & Consumable Fuels	10,398,443
	Pharmaceuticals 8.1%	
72,000	AstraZeneca PLC, Sponsored ADR	2,439,360
169,000	GlaxoSmithKline PLC, Sponsored ADR	6,861,400

Shares	Description (1)		Value
	Pharmaceuticals (continued)		
99,400	Roche Holdings AG, Sponsored ADR, (2), (4)	$	3,180,800
60,000	Takeda Chemical Industries, (2)		3,317,754
	Total Pharmaceuticals		15,799,314
	Real Estate Management & Development 1.7%		
1,856,500	Sino Land Company Limited, (2)		3,272,986
	Road & Rail 1.5%		
25,800	Union Pacific Corporation, (4)		2,992,026
	Semiconductors & Semiconductor Equipment 3.5%		
226,000	Cypress Semiconductor Corporation		3,394,520
131,500	Infineon Technologies AG, (2)		3,315,431
	Total Semiconductors & Semiconductor Equipment		6,709,951
	Software 5.7%		
41,500	Microsoft Corporation, (4)		3,091,335
166,000	Oracle Corporation		8,026,100
	Total Software		11,117,435
	Specialty Retail 1.0%		
509,000	Kingfisher plc, (2)		2,037,874
	Tobacco 3.1%		
138,900	Imperial Brands PLC, Sponsored ADR, (2)		6,010,203
	Total Common Stocks (cost $163,424,295)		197,597,807

Shares	Description (1)	Coupon	Ratings (7)		Value
	CONVERTIBLE PREFERRED SECURITIES 1.4% (1.0% of Total Investments)				
	Banks 0.7%				
525	Bank of America Corporation	7.250%	BB+	$	683,272
425	Wells Fargo & Company	7.500%	BBB		558,875
	Total Banks				1,242,147
	Pharmaceuticals 0.7%				
4,090	Teva Pharmaceutical Industries Limited, (2)	7.000%	N/R		1,416,367
	Total Convertible Preferred Securities (cost $4,807,873)				2,658,514

Shares	Description (1)	Coupon	Ratings (7)		Value
	$25 PAR (OR SIMILAR) RETAIL PREFERRED 6.4% (4.5% of Total Investments)				
	Banks 2.2%				
13,020	Boston Private Financial Holdings Inc.	6.950%	N/R	$	335,916

4,625	Cobank Agricultural Credit Bank, 144a, (2)	6.250%	BBB+	495,886
3,250	Cobank Agricultural Credit Bank, (2)	6.125%	BBB+	321,649
14,122	Fifth Third Bancorp.	6.625%	Baa3	423,519
9,986	First Republic Bank of San Francisco	7.000%	BBB	265,727
3,800	FNB Corporation	7.250%	Ba2	112,480
4,450	HSBC Holdings PLC	8.000%	BBB+	120,061
16,275	Huntington BancShares Inc.	6.250%	Baa3	446,261
7,850	KeyCorp	6.125%	Baa3	230,712
12,300	People s United Financial, Inc.	5.625%	BB+	330,255
15,544	Regions Financial Corporation	6.375%	Ba1	444,248
3,821	TCF Financial Corporation	7.500%	BB	96,289
19,300	U.S. Bancorp.	6.500%	A3	562,595
	Total Banks			4,185,598

JTA Nuveen Tax-Advantaged Total Return Strategy Fund
Portfolio of Investments (continued) **September 30, 2017** (Unaudited)

Shares	Description (1)	Coupon	Ratings (7)	Value
	Capital Markets 1.2%			
12,400	Charles Schwab Corporation	6.000%	BBB	$ 336,536
8,046	Charles Schwab Corporation	5.950%	BBB	218,368
22,350	Ladenburg Thalmann Financial Services Inc.	8.000%	N/R	554,951
26,575	Morgan Stanley	7.125%	Ba1	779,711
16,200	Stifel Financial Corporation	6.250%	BB	434,808
	Total Capital Markets			2,324,374
	Consumer Finance 0.8%			
10,700	Capital One Financial Corporation	6.700%	Baa3	290,719
3,800	Discover Financial Services	6.500%	BB	96,710
46,000	GMAC Capital Trust I	5.785%	B+	1,214,400
	Total Consumer Finance			1,601,829
	Diversified Financial Services 0.2%			
17,305	KKR Financial Holdings LLC	7.375%	BBB	446,296
	Electric Utilities 0.1%			
3,035	Alabama Power Company, (2)	6.500%	A3	76,729
1,300	Alabama Power Company, (2)	6.450%	A3	32,581
	Total Electric Utilities			109,310
	Food Products 0.4%			
3,857	CHS Inc.	7.875%	N/R	113,164
14,600	CHS Inc.	7.100%	N/R	423,545
11,705	CHS Inc.	6.750%	N/R	322,473
	Total Food Products			859,182
	Insurance 1.0%			
14,089	Allstate Corporation	6.750%	BBB	372,795
3,816	Arch Capital Group Limited	6.750%	BBB	97,117
20,420	Endurance Specialty Holdings Limited	6.350%	Baa2	546,235
21,022	Maiden Holdings Limited	8.250%	BB	532,908

9,470	National General Holding Company	7.500%	N/R	241,012
8,175	National General Holding Company	7.500%	N/R	208,626
	Total Insurance			1,998,693
	Thrifts & Mortgage Finance 0.5%			
4,631	Astoria Financial Corporation	6.500%	Ba2	117,998
24,550	Federal Agricultural Mortgage Corporation	6.875%	N/R	654,478
8,100	New York Community Bancorp Inc.	6.375%	Ba1	236,439
	Total Thrifts & Mortgage Finance			1,008,915
	Total $25 Par (or similar) Retail Preferred (cost $11,598,365)			12,534,197

Principal Amount (000)	Description (1)	Coupon (8)	Reference Rate (8)	Spread (8)	Maturity (9)	Ratings (7)	Value
	VARIABLE RATE SENIOR LOAN INTERESTS 24.5% (17.0% of Total Investments) (8)						
	Aerospace & Defense 0.8%						
$ 993	Leidos Holdings, Inc., Term Loan B	3.250%	LIBOR	2.000%	8/16/23	BBB	$ 999,949
494	Transdigm, Inc., Extend Term Loan F	4.235%	LIBOR	3.000%	6/07/23	Ba2	495,648
1,487	Total Aerospace & Defense						1,495,597
	Airlines 0.5%						
500	American Airlines, Inc., Term Loan B	3.734%	LIBOR	2.500%	12/14/23	BB+	501,668
476	Delta Air Lines, Inc., Term Loan B1	3.737%	LIBOR	2.500%	10/18/18	Baa2	478,757
976	Total Airlines						980,425
	Automobiles 0.6%						
1,180	Formula One Group, Term Loan B	4.235%	LIBOR	3.000%	2/01/24	N/R	1,188,677

Principal Amount (000)	Description (1)	Coupon (8)	Reference Rate (8)	Spread (8)	Maturity (9)	Ratings (7)	Value
	Building Products 0.3%						
$ 496	Quikrete Holdings, Inc., Term Loan B	3.985%	LIBOR	2.750%	11/15/23	N/R	$ 496,813
	Capital Markets 0.3%						
496	RPI Finance Trust, Term Loan B6	3.333%	LIBOR	2.000%	3/27/23	Baa2	497,914
	Chemicals 0.8%						
668	Axalta Coating Systems, Term Loan, First Lien	3.333%	LIBOR	2.000%	6/01/24	BBB	672,373
199	Mineral Technologies, Inc., Term Loan B2	4.750%	N/A	N/A	5/07/21	BB+	202,611
771	Univar, Inc., Term Loan B	3.985%	LIBOR	2.750%	7/01/22	BB	775,113
1,638	Total Chemicals						1,650,097
	Commercial Services & Supplies 0.5%						
988	West Corporation, Refinanced Term Loan B12	3.735%	LIBOR	2.500%	6/17/23	BB	989,130
	Communications Equipment 0.1%						
232	CommScope, Inc., Term Loan B	3.235%	LIBOR	2.000%	12/29/22	Baa3	233,207
	Consumer Finance 0.4%						
851	First Data Corporation, Term Loan B	3.737%	LIBOR	2.500%	4/26/24	BB+	855,173
	Containers & Packaging 0.8%						
372	Berry Global, Inc., Term Loan M	3.485%	LIBOR	2.250%	10/01/22	BB	373,404
1,264	Reynolds Group Holdings, Inc., Term Loan, First Lien	3.985%	LIBOR	2.750%	2/05/23	B+	1,270,071
1,636	Total Containers & Packaging						1,643,475
	Diversified Consumer Services 0.3%						
538	Hilton Hotels Corporation, Term Loan B2	3.237%	LIBOR	2.000%	10/25/23	BBB	541,122
	Diversified Financial Services 0.6%						
739	MGM Growth Properties, Term Loan B	3.485%	LIBOR	2.250%	4/25/23	N/R	741,893
413	Veritas US, Inc., Term Loan B1	5.833%	LIBOR	4.500%	1/27/23	B+	417,158

1,152	Total Diversified Financial Services						1,159,051
	Diversified Telecommunication Services 0.9%						
1,000	CenturyLink, Inc., Term Loan B	2.750%	LIBOR	2.750%	1/31/25	BBB	970,625
522	Intelsat Jackson Holdings, S.A., Tranche B2, Term Loan	4.071%	LIBOR	2.750%	6/30/19	B1	521,017
264	WideOpenWest Finance LLC, Term Loan B	4.484%	LIBOR	3.250%	8/18/23	B	263,568
1,786	Total Diversified Telecommunication Services						1,755,210
	Electric Utilities 0.3%						
404	Vistra Operations Co., Term Loan B	3.982%	LIBOR	2.750%	8/04/23	BB+	405,397
93	Vistra Operations Co., Term Loan C	3.982%	LIBOR	2.750%	8/04/23	BB+	93,158
497	Total Electric Utilities						498,555
	Energy Equipment & Services 0.0%						
19	Drill Rigs Holdings, Inc., Restructure Term Loan	0.000%	N/A	N/A	9/20/24	N/R	19,509
	Equity Real Estate Investment Trusts 0.1%						
327	Communications Sales & Leasing, Inc., Shortfall Term Loan, (DD1)	4.235%	LIBOR	3.000%	10/24/22	BB+	303,155
	Food & Staples Retailing 0.4%						
815	Albertson s LLC, Term Loan B4, (DD1)	3.985%	LIBOR	2.750%	8/25/21	BB	787,603
	Food Products 0.6%						
573	Jacobs Douwe Egberts, Term Loan B	3.563%	LIBOR	2.250%	7/02/22	BB	576,627
580	US Foods, Inc., New Term Loan B	3.985%	LIBOR	2.750%	6/27/23	BB	584,366
1,153	Total Food Products						1,160,993

JTA Nuveen Tax-Advantaged Total Return Strategy Fund
Portfolio of Investments (continued) **September 30, 2017** (Unaudited)

Principal Amount (000)	Description (1)	Coupon (8)	Reference Rate (8)	Spread (8)	Maturity (9)	Ratings (7)	Value
	Health Care Equipment & Supplies 0.2%						
$ 443	Acelity, Term Loan B	4.583%	LIBOR	3.250%	2/02/24	B1	$ 442,159
	Health Care Providers & Services 1.8%						
250	Air Medical Group Holdings, Inc., Term Loan B, (WI/DD)	TBD	TBD	TBD	TBD	B1	250,235
159	Community Health Systems, Inc., Term Loan G	4.067%	LIBOR	2.750%	12/31/19	BB	158,320
320	Community Health Systems, Inc., Term Loan H	4.317%	LIBOR	3.000%	1/27/21	BB	318,682
804	DaVita HealthCare Partners, Inc., Tranche B, Term Loan	3.985%	LIBOR	2.750%	6/24/21	BBB	810,742
561	Envision Healthcare Corporation, Term Loan B, First Lien	4.240%	LIBOR	3.000%	12/01/23	BB	563,659
56	HCA, Inc., Term Loan B9	3.235%	LIBOR	2.000%	3/18/23	BBB	56,493
999	HCA, Inc., Tranche B8, Term Loan	3.485%	LIBOR	2.250%	2/15/24	BBB	1,005,411
330	Millennium Laboratories, Inc., Term Loan B, First Lien	7.735%	LIBOR	6.500%	12/21/20	CCC+	168,370
250	PharMerica, Term Loan, First Lien, (WI/DD)	TBD	TBD	TBD	TBD	B1	251,796
3,729	Total Health Care Providers & Services						3,583,708
	Health Care Technology 0.4%						
746	Emdeon, Inc., Term Loan	3.985%	LIBOR	2.750%	3/01/24	Ba3	749,097
	Hotels, Restaurants & Leisure 1.6%						
1,526	Burger King Corporation, Term Loan B3	3.485%	LIBOR	2.250%	2/16/24	Ba3	1,525,353
1,134	Seaworld Parks and Entertainment, Inc., Term Loan B5	4.333%	LIBOR	3.000%	4/01/24	B	1,101,404
495	YUM Brands, New Term Loan B	3.234%	LIBOR	2.000%	6/16/23	BBB	497,797
3,155	Total Hotels, Restaurants & Leisure						3,124,554
	Household Products 0.2%						
343	Spectrum Brands, Inc., Refinanced Term Loan	3.314%	LIBOR	2.000%	6/23/22	BBB	345,706
	Independent Power & Renewable Electricity Producers 0.1%						
135		4.485%	LIBOR	3.250%	2/07/24	BB	135,627

	Dynegy, Inc., Tranche Term Loan C1						
	Internet and Direct Marketing Retail 0.1%						
233	Travelport LLC, Term Loan B	4.061%	LIBOR	2.750%	8/31/21	N/R	232,590
	IT Services 1.3%						
386	Gartner, Inc., Term Loan A	3.235%	LIBOR	2.000%	3/21/22	N/R	388,423
249	Gartner, Inc., Term Loan B	3.235%	LIBOR	2.000%	4/05/24	BB+	251,082
499	Tempo Acquisition LLC, Term Loan B	4.235%	LIBOR	3.000%	5/01/24	B1	499,583
476	Vantiv, Inc., Term Loan B	3.237%	LIBOR	2.000%	10/06/23	N/R	476,658
390	Vantiv, Inc., Term Loan B, (WI/DD)	TBD	TBD	TBD	TBD	BB	391,322
110	Vantiv, Inc., Term Loan B1, (WI/DD)	TBD	TBD	TBD	TBD	BBB	109,696
494	WEX, Inc., Term Loan B	3.985%	LIBOR	2.750%	7/01/23	BB	499,665
2,604	Total IT Services						2,616,429
	Leisure Products 0.3%						
517	24 Hour Fitness Worldwide, Inc., Term Loan B	5.046%	LIBOR	3.750%	5/28/21	Ba3	515,014
	Life Sciences Tools & Services 0.2%						
390	Inventiv Health, Inc., Term Loan B	3.485%	LIBOR	2.250%	8/01/24	Ba2	391,582
	Machinery 0.3%						
211	Gates Global LLC, Initial Dollar Term Loan B1	4.583%	LIBOR	3.250%	4/01/24	B+	212,216
409	Rexnord LLC, Term Loan B, First Lien	4.063%	LIBOR	2.750%	8/21/23	BB	410,807
620	Total Machinery						623,023
	Media 3.1%						
991	Cequel Communications LLC, Term Loan B	3.485%	LIBOR	2.250%	7/28/25	BB	988,241
479	Charter Communications Operating Holdings LLC, Term Loan E	3.240%	LIBOR	2.000%	7/01/20	BBB	480,919
747	Clear Channel Communications, Inc., Tranche D, Term Loan	8.083%	LIBOR	6.750%	1/30/19	Caa1	580,258

Principal Amount (000)	Description (1)	Coupon (8)	Reference Rate (8)	Spread (8)	Maturity (9)	Ratings (7)	Value
	Media (continued)						
$ 92	Clear Channel Communications, Inc., Term Loan E	8.833%	LIBOR	7.500%	7/30/19	Caa1	$ 71,408
659	Cumulus Media, Inc., Term Loan B	4.490%	LIBOR	3.250%	12/23/20	Caa1	552,370
463	Lions Gate Entertainment Corporation, Term Loan B	4.235%	LIBOR	3.000%	12/08/23	Ba2	466,739
42	Nexstar Broadcasting Group, Term Loan	3.737%	LIBOR	2.500%	1/17/24	BB+	42,242
336	Nexstar Broadcasting Group, Term Loan B	3.737%	LIBOR	2.500%	1/17/24	BB	337,334
488	Springer Science & Business Media, Inc., Term Loan B9, First Lien	4.735%	LIBOR	3.500%	8/14/20	B	490,419
1,492	Univision Communications, Inc., Term Loan C5	3.985%	LIBOR	2.750%	3/15/24	BB	1,480,635
500	Virgin Media Investment Holdings, Limited Term Loan I	3.984%	LIBOR	2.750%	1/31/25	BB	502,345
6,289	Total Media						5,992,910
	Multiline Retail 0.4%						
740	Dollar Tree, Inc., Term Loan B2	4.250%	N/A	N/A	7/06/22	BBB	751,563
	Oil, Gas & Consumable Fuels 0.3%						
208	Fieldwood Energy LLC, Term Loan, First Lien	8.333%	LIBOR	7.000%	8/31/20	B	184,715
134	Fieldwood Energy LLC, Term Loan, Second Lien	8.458%	LIBOR	7.125%	9/30/20	CCC	55,906
358	Fieldwood Energy LLC, Term Loan, Second Lien	8.458%	LIBOR	7.125%	9/30/20	B	250,625
189	Harvey Gulf International Marine, Inc., Term Loan B, (10)	0.000%	LIBOR	4.500%	6/18/20	CCC	66,805
9	Southcross Holdings Borrower L.P., Term Loan B, First Lien, (cash 3.500%, PIK 5.500%)	3.500%	N/A	N/A	4/13/23	CCC+	7,719
898	Total Oil, Gas & Consumable Fuels						565,770
	Personal Products 0.4%						
721	Coty, Inc., Term Loan A	2.982%	LIBOR	1.750%	10/27/20	Ba1	716,491
	Pharmaceuticals 0.4%						
746	Grifols, Inc., Term Loan B	3.447%	LIBOR	2.250%	1/31/25	BB	748,451

53	Valeant Pharmaceuticals International, Inc., Series F3, Tranche B, Term Loan	5.990%	LIBOR	4.750%	4/01/22	BB	54,509
799	Total Pharmaceuticals						802,960
	Professional Services 0.2%						
397	Nielsen Finance LLC, Term Loan B4	3.235%	LIBOR	2.000%	10/04/23	BBB	398,226
	Software 2.4%						
474	BMC Software, Inc., Initial Term Loan B1	5.235%	LIBOR	4.000%	9/10/22	B+	477,172
736	Ellucian, Term Loan B, First Lien	4.583%	LIBOR	3.250%	9/30/22	B	736,335
612	Infor (US), Inc., Term Loan B	4.083%	LIBOR	2.750%	2/01/22	BB	611,036
250	McAfee Holdings International, Inc., Term Loan, First Lien, (WI/DD)	TBD	TBD	TBD	TBD	B1	251,469
129	Micro Focus International PLC, New Term Loan	3.987%	LIBOR	2.750%	6/21/24	BB	129,397
871	Micro Focus International PLC, Term Loan B	3.987%	LIBOR	2.750%	6/21/24	BB	873,853
614	SS&C Technologies, Inc./ Sunshine Acquisition II, Inc., 2017 Refinancing New Term Loan B1	3.485%	LIBOR	2.250%	7/08/22	BB+	617,876
32	SS&C Technologies, Inc./ Sunshine Acquisition II, Inc., 2017 Refinancing New Term Loan B2	3.485%	LIBOR	2.250%	7/08/22	BB+	32,678
920	Tibco Software, Inc., Term Loan, First Lien	4.740%	LIBOR	3.500%	12/04/20	B1	924,733
4,638	Total Software						4,654,549
	Specialty Retail 0.5%						
378	Burlington Coat Factory Warehouse Corporation, Term Loan B4	3.990%	LIBOR	2.750%	8/13/21	BB+	379,910
465	Petco Animal Supplies, Inc., Term Loan B1	4.311%	LIBOR	3.000%	1/26/23	B1	384,948
148	Petsmart Inc., Term Loan B, First Lien	4.240%	LIBOR	3.000%	3/11/22	Ba3	125,665
991	Total Specialty Retail						890,523
	Technology Hardware, Storage & Peripherals 1.1%						
812	Dell International LLC, New Term Loan B	3.740%	LIBOR	2.500%	9/07/23	BBB	815,707

JTA Nuveen Tax-Advantaged Total Return Strategy Fund
Portfolio of Investments (continued) **September 30, 2017** (Unaudited)

Principal Amount (000)	Description (1)	Coupon (8)	Reference Rate (8)	Spread (8)	Maturity (9)	Ratings (7)	Value
	Technology Hardware, Storage & Peripherals (continued)						
$ 1,286	Western Digital, Inc., New Term Loan B	3.985%	LIBOR	2.750%	4/29/23	BBB	$ 1,296,170
2,098	Total Technology Hardware, Storage & Peripherals						2,111,877
	Trading Companies & Distributors 0.5%						
884	Avolon, Repriced Term Loan B2	3.986%	LIBOR	2.750%	4/03/22	BB+	886,648
	Wireless Telecommunication Services 0.4%						
746	Sprint Corporation, Term Loan, First Lien	3.750%	LIBOR	2.500%	2/02/24	Ba2	747,728
$ 48,383	Total Variable Rate Senior Loan Interests (cost $48,159,004)						47,534,440

Principal Amount (000)	Description (1)	Coupon	Maturity	Ratings (7)	Value
	CORPORATE BONDS 0.0% (0.0% of Total Investments)				
	Media 0.0%				
$ 133	iHeartCommunications, Inc.	9.000%	12/15/19	Caa1	$ 101,412
$ 133	Total Corporate Bonds (cost $123,097)				101,412

Principal Amount (000)	Description (1)	Coupon	Maturity	Ratings (7)	Value
	$1,000 PAR (OR SIMILAR) INSTITUTIONAL PREFERRED 6.1% (4.2% of Total Investments)				
	Automobiles 0.3%				
$ 630	General Motors Financial Company Inc.	5.750%	N/A (11)	BB+	$ 652,838
	Banks 3.6%				
275	Bank of America Corporation	6.500%	N/A (11)	BB+	310,922
25	Bank of America Corporation	6.300%	N/A (11)	BB+	28,250
425	CIT Group Inc., Series A	5.800%	N/A (11)	B+	441,469
500	Citigroup Inc.	6.250%	N/A (11)	BB+	562,500
1,295	Citigroup Inc.	5.950%	N/A (11)	BB+	1,364,605
450	Citigroup Inc.	5.800%	N/A (11)	BB+	464,625
200	Citizens Financial Group Inc.	5.500%	N/A (11)	BB+	208,500
50	Cobank Agricultural Credit Bank	6.250%	N/A (11)	BBB+	55,157
500	JP Morgan Chase & Company	6.750%	N/A (11)	BBB	571,905
250	JP Morgan Chase & Company	6.100%	N/A (11)	BBB	275,935

	250	JP Morgan Chase & Company	7.900%	N/A (11)	BBB	257,500
	600	M&T Bank Corporation	6.450%	N/A (11)	Baa2	666,215
	600	PNC Financial Services Inc.	6.750%	N/A (11)	Baa2	675,000
	450	SunTrust Bank Inc.	5.625%	N/A (11)	Baa3	470,250
	400	Wells Fargo & Company	5.875%	N/A (11)	BBB	445,200
	225	Zions Bancorporation	7.200%	N/A (11)	BB	252,000
	6,495	Total Banks				7,050,033
		Capital Markets 0.2%				
	275	Goldman Sachs Group Inc.	5.300%	N/A (11)	Ba1	294,594
	100	Morgan Stanley	5.550%	N/A (11)	Ba1	104,188
	375	Total Capital Markets				398,782
		Consumer Finance 0.3%				
	475	Capital One Financial Corporation	5.550%	N/A (11)	Baa3	495,781
		Food Products 1.2%				
	2,121	Land O Lakes Incorporated, 144A	8.000%	N/A (11)	BB	2,359,613
		Industrial Conglomerates 0.5%				
	840	General Electric Capital Corporation	5.000%	N/A (11)	A	888,468
$	10,936	Total $1,000 Par (or similar) Institutional Preferred (cost $11,005,669)				11,845,515

Principal Amount (000)	Description (1)	Coupon	Maturity	Value
	STRUCTURED NOTES 1.1% (0.8% of Total Investments)			
$ 145	Merrill Lynch International Company CV, (2)	10.000%	2/27/18	$ 2,118,915
$ 145	Total Structured Notes (cost $1,951,074)			2,118,915
	Total Long-Term Investments (cost $241,069,377)			**274,390,800**

Principal Amount (000)/ Shares	Description (1)	Coupon	Maturity	Value
	SHORT-TERM INVESTMENTS 2.5% (1.7% of Total Investments)			
	INVESTMENT COMPANIES 1.5% (1.0% of Total Investments)			
2,880,521	BlackRock Liquidity Funds T-Fund Portfolio, (12)	N/A	N/A	$ 2,880,521
	REPURCHASE AGREEMENTS 1.0% (0.7% of Total Investments)			
$ 1,983	Repurchase Agreement with Fixed Income Clearing Corporation, dated 9/29/17, repurchase price $1,983,266, collateralized by $2,030,000 U.S. Treasury Notes, 2.250%, due 2/15/27, value $2,026,486	0.120%	10/02/17	1,983,246
	Total Short-Term Investments (cost $4,863,767)			**4,863,767**
	Total Investments (cost $245,933,144) 143.8%			**279,254,567**
	Borrowings (43.2)% (13), (14)			**(83,800,000)**
	Other Assets Less Liabilities (0.6)% (15)			**(1,298,975)**
	Net Assets Applicable to Common Shares 100%			**$ 194,155,592**

Investments in Derivatives as of September 30, 2017

Interest Rate Swaps OTC Uncleared

Counterparty	Notional Amount	Fund Pay/Receive Floating Rate	Floating Rate Index	Fixed Rate (Annualized)	Fixed Rate Payment Frequency	Effective Date (16)	Optional Termination Date	Maturity Date	Value
JPMorgan Chase Bank N.A.	$ 18,475,000	Receive	1-Month LIBOR	1.462%	Monthly	12/01/17	12/01/18	12/01/20	$ (8,005
	41,800,000	Receive	1-Month LIBOR	1.969	Monthly	6/01/18	7/01/25	7/01/27	145,231

JPMorgan Chase Bank N.A.		
Total	$ 60,275,000	$ 137,226

Fair Value Measurements

Fair value is defined as the price that would be received 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).

JTA Nuveen Tax-Advantaged Total Return Strategy Fund
Portfolio of Investments (continued) **September 30, 2017** (Unaudited)

The inputs or methodologies used for valuing securities are not an indication of the risk 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:				
Common Stocks	$ 123,380,618	$ 74,217,189	$ *	$ 197,597,807
Convertible Preferred Securities	1,242,147	1,416,367		2,658,514
$25 par (or similar) Retail Preferred	11,607,352	926,845		12,534,197
Variable Rate Senior Loan Interests		47,534,440		47,534,440
Corporate bonds		101,412		101,412
$1,000 Par (or similar) Institutional Preferred		11,845,515		11,845,515
Structured Notes		2,118,915		2,118,915
Short-Term Investments:				
Investment Companies	2,880,521			2,880,521
Repurchase Agreements		1,983,246		1,983,246
Investments in Derivatives				
Interest Rate Swaps**		(122,227)		(122,227)
Total	$ 139,110,638	$ 140,021,702	$	$ 279,132,340

* Value equals zero as of the end of the reporting period.

** Represents net unrealized appreciation (depreciation).

The table below presents the transfers in and out of the three valuation levels for the Fund as of the end of the reporting period when compared to the valuation levels at the end of the previous fiscal year. Changes in valuation inputs or methodologies may result in transfers into or out of an assigned level within the fair value hierarchy. Transfers in or out of levels are generally due to the availability of publicly available information and to the significance or extent the Adviser determines that the valuation inputs or methodologies may impact the valuation of those securities.

	Level 1		Level 2		Level 3	
	Transfers In	(Transfers Out)	Transfers In	(Transfers Out)	Transfers In	(Transfers Out)
Common Stocks	$ 3,650,877	$ (4,814,316)	$ 4,814,316	$ (3,650,877)	$	$

Income Tax Information

The following information is presented on a income tax basis. Differences between amounts for financial statement and federal income tax purposes are primarily due to recognition of premium amortization and timing differences in recognizing certain gains and losses on investment transactions. 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.

The tables below present the cost and unrealized appreciation (depreciation) of the Fund s investment portfolio, as determined on a federal income tax basis, as of September 30, 2017.

For purposes of this disclosure, derivative tax cost is generally the sum of any upfront fees or premiums exchanged and any amounts unrealized for income statement reporting but realized in income and/or capital gains for tax reporting. If a particular derivative category does not disclose any tax unrealized appreciation or depreciation, the change in value of those derivatives have generally been fully realized for tax purposes.

Tax cost of investments	$247,706,329
Gross unrealized:	
Appreciation	$ 41,704,831
Depreciation	(10,156,593)
Net unrealized appreciation (depreciation) of investments	$ 31,548,238

Tax cost of swaps	$ 259,453
Net unrealized appreciation (depreciation) of swaps	(122,227)

For Fund portfolio compliance purposes, the Fund s industry classifications refer to any one or more of the industry sub-classifications used by one or more widely recognized market indexes or ratings group indexes, and/or as defined by Fund management. This definition may not apply for purposes of this report, which may combine industry sub-classifications into sectors for reporting ease.

(1) All percentages shown in the Portfolio of Investments are based on net assets applicable to common shares unless otherwise noted.

(2) For fair value measurement disclosure purposes, investment classified as Level 2.

(3) Non-income producing; issuer has not declared a dividend within the past twelve months.

(4) Investment, or portion of investment, is hypothecated. The total value of investments hypothecated as of the end of the reporting period was $77,653,903.

(5) Investment, or portion of investment, has been pledged to collateralize the net payment obligations for investments in derivatives.

(6) Investment valued at fair value using methods determined in good faith by, or at the discretion of, the Board. For fair value measurement disclosure purposes, investment classified as Level 3.

(7) For financial reporting purposes, the ratings disclosed are the highest of Standard & Poor s Group (Standard & Poor s), Moody s Investors Service, Inc. (Moody s) or Fitch, Inc. (Fitch) rating. This treat of split-rated securities may differ from that used for other purposes, such as for Fund investment policies. 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.

(8) Senior loans generally pay interest at rates which are periodically adjusted by reference to a base short-term, floating lending rate (Reference Rate) plus an assigned fixed rate (Spread). These floating lending rates are generally (i) the lending rate referenced by the London Inter-Bank Offered Rate (LIBOR), or (ii) the prime rate offered by one or more major United States banks. Senior loans may be considered restricted in that the Fund ordinarily is contractually obligated to receive approval from the agent bank and/or borrower prior to the disposition of a senior loan. The rate shown in the coupon as of the end of the reporting period.

(9) Senior loans generally are subject to mandatory and/or optional prepayment. Because of these mandatory prepayment conditions and because there may be significant economic incentives for a borrower to prepay, prepayments of senior loans may occur. As a result, the actual remaining maturity of senior loans

held may be substantially less than the stated maturities shown.

(10) As of, or subsequent to, the end of the reporting period, this security is non-income producing. Non-income producing, in the case of a fixed-income security, generally denotes that the issuer has (1) defaulted on the payment of principal or interest, (2) is under the protection of the Federal Bankruptcy Court or (3) the Fund s Adviser has concluded that the issue is not likely to meet its future interest payment obligations and has ceased accruing additional income on the Fund s records.

(11) Perpetual security. Maturity date is not applicable.

(12) A copy of the most recent financial statements for these investment companies can be obtained directly from the Securities and Exchange Commission on its website at http://www.sec.gov.

(13) Borrowings as a percentage of Total Investments is 30.0%.

(14) The Fund may pledge up to 100% of its eligible investments (excluding any investments separately pledged as collateral for specific investments in derivatives) in the Portfolio of Investments as collateral for borrowings. As of the end of the reporting period, investments with a value of $175,124,939 have been pledged as collateral for borrowings.

(15) Other assets less liabilities includes the unrealized appreciation (depreciation) of certain over-the-counter (OTC) derivatives as well as the OTC cleared and exchange-traded derivatives, when applicable.

(16) Effective date represents the date on which both the Fund and counterparty commence interest payment accruals on each contract.

DD1 Portion of investment purchased on a delayed delivery basis.

PIK Payment-in-kind (PIK) security. Depending on the terms of the security, income may be received in the form of cash, securities, or a combination of both. The PIK rate shown, where applicable, represents the annualized rate of the last PIK payment made by the issuer as of the end of the reporting period.

WI/DD Purchased on a when-issued or delayed delivery basis.

144A Investment is exempt from registration under Rule 144A of the Securities Act of 1933, as amended. These investments may only be resold in transactions exempt from registration, which are normally those transactions with qualified institutional buyers.

ADR American Depositary Receipt

TBD	Senior loan purchased on a when-issued or delayed-delivery basis. Certain details associated with this purchase are not known prior to the settlement date of the transaction. In addition, senior loans typically trade without accrued interest and therefore a coupon rate is not available prior to settlement. At settlement, if still unknown, the borrower or counterparty will provide the Fund with the final coupon rate and maturity date.
N/A	Not applicable.
LIBOR	London Inter-Bank Offered Rate

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: 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 Tax-Advantaged Total Return Strategy Fund

By (Signature and Title) /s/ Gifford R. Zimmerman

Gifford R. Zimmerman
Vice President and Secretary

Date: November 29, 2017

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/ Cedric H. Antosiewicz

Cedric H. Antosiewicz
Chief Administrative Officer (principal executive officer)

Date: November 29, 2017

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

Stephen D. Foy
Vice President and Controller (principal financial officer)

Date: November 29, 2017