

PIONEER MUNICIPAL HIGH INCOME ADVANTAGE TRUST

Form NSAR-A/A

December 18, 2012

PAGE 1
000 A000000 09/30/2012
000 C000000 0001258943
000 D000000 N
000 E000000 NF
000 F000000 Y
000 G000000 Y
000 H000000 N
000 I000000 6.1
000 J000000 A
001 A000000 PIONEER MUNICIPAL HIGH INCOME ADVANTAGE TRUST
001 B000000 811-21409
001 C000000 6177427825
002 A000000 60 STATE STREET
002 B000000 BOSTON
002 C000000 MA
002 D010000 02109
003 000000 N
004 000000 N
005 000000 N
006 000000 N
007 A000000 N
007 B000000 0
007 C010100 1
007 C020100 PIONEER MUNICIPAL HIGH INCOME ADVANTAGE TRUST
007 C030100 N
007 C010200 2
007 C010300 3
007 C010400 4
007 C010500 5
007 C010600 6
007 C010700 7
007 C010800 8
007 C010900 9
007 C011000 10
008 A000001 PIONEER INVESTMENT MANAGEMENT, INC.
008 B000001 A
008 C000001 801-8255
008 D010001 BOSTON
008 D020001 MA
008 D030001 02109
010 A000001 PIONEER INVESTMENT MANAGEMENT, INC.
010 B000001 801-8255
010 C010001 BOSTON
010 C020001 MA
010 C030001 02109
010 A000002 BROWN BROTHERS HARRIMAN & CO.
010 C010002 BOSTON
010 C020002 MA
010 C030002 02109
011 A000001 PIONEER FUNDS DISTRIBUTOR, INC.
011 B000001 8-41256
PAGE 2
011 C010001 BOSTON
011 C020001 MA
011 C030001 02109
011 C040001 1820
011 A000002 UBS INVESTMENT BANK
011 B000002 8-022651

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME ADVANTAGE TRUST - Form NSAR-A/A

011 C010002 STAMFORD
011 C020002 CT
011 C030002 06901
011 A000003 RBC CAPITAL MARKETS CORP.
011 B000003 8-045411
011 C010003 MINNEAPOLIS
011 C020003 MN
011 C030003 55402
011 C040003 4422
011 A000004 MERRILL LYNCH & CO.
011 B000004 8-7221
011 C010004 NEW YORK
011 C020004 NY
011 C030004 10281
011 C040004 1201
011 A000005 JANNEY MONTGOMERY SCOTT, LLC
011 B000005 8-462
011 C010005 PHILADELPHIA
011 C020005 PA
011 C030005 19103
011 C040005 1675
011 A000006 WACHOVIA CAPITAL MARKETS, LLC
011 B000006 8-99999
011 C010006 RICHMOND
011 C020006 VA
011 C030006 23219
012 A000001 PIONEER INVEST. MGMT. SHAREHOLDER SERV. INC.
012 B000001 85-01359
012 C010001 BOSTON
012 C020001 MA
012 C030001 02109
012 A000002 AMERICAN STOCK TRANSFER & TRUST CO. (COMMON)
012 B000002 85-00000
012 C010002 BROOKLYN
012 C020002 NY
012 C030002 11219
012 A000003 DEUTSCHE BANK TRUST COMPANY AMERICAS (PREF.)
012 B000003 85-05212
012 C010003 NEW YORK
012 C020003 NY
012 C030003 10005
013 A000001 ERNST & YOUNG, LLP
013 B010001 BOSTON
013 B020001 MA
013 B030001 02116
PAGE 3
013 B040001 5072
015 A000001 BROWN BROTHERS HARRIMAN & CO.
015 B000001 C
015 C010001 BOSTON
015 C020001 MA
015 C030001 02109
015 E010001 X
018 000000 Y
019 A000000 Y
019 B000000 56
019 C000000 PIONEERFDS
020 A000001 SANFORD C. BERNSTEIN & CO., INC.
020 B000001 13-4132953
020 C000001 2
020 A000002 UBS SECURITIES
020 B000002 13-2638166

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME ADVANTAGE TRUST - Form NSAR-A/A

020 C000002 0
 020 A000003 MERRILL LYNCH, PIERCE, FENNER & SMITH
 020 B000003 13-5674085
 020 C000003 0
 020 A000004 WELLS FARGO SECURITIES LLC
 020 B000004 94-3379992
 020 C000004 0
 020 C000005 0
 020 C000006 0
 020 C000007 0
 020 C000008 0
 020 C000009 0
 020 C000010 0
 021 000000 3
 022 A000001 JP MORGAN SECURITIES, LLC
 022 B000001 13-3379014
 022 C000001 8415
 022 D000001 0
 022 A000002 CITIGROUP GLOBAL MARKETS, INC.
 022 B000002 11-2418191
 022 C000002 7425
 022 D000002 0
 022 A000003 MORGAN KEEGAN & CO., INC.
 022 B000003 64-0474907
 022 C000003 4727
 022 D000003 0
 022 A000004 BNY MELLON CAPITAL MARKETS, LLC
 022 B000004 23-2384977
 022 C000004 4482
 022 D000004 0
 022 A000005 SOCIETE GENERALE
 022 B000005 00-0000000
 022 C000005 537
 022 D000005 3061
 022 A000006 BLACKROCK INVESTMENTS, LLC
 PAGE 4
 022 B000006 00-0000000
 022 C000006 0
 022 D000006 3400
 022 A000007 OPPENHEIMER & CO., INC.
 022 B000007 13-5657518
 022 C000007 2793
 022 D000007 0
 022 A000008 MESIROW FINANCIAL, INC.
 022 B000008 00-0000000
 022 C000008 0
 022 D000008 2024
 022 A000009 MERRILL LYNCH, PIERCE, FENNER & SMITH
 022 B000009 13-5674085
 022 C000009 0
 022 D000009 1990
 022 A000010 BARCLAYS CAPITAL, INC.
 022 B000010 61-0316560
 022 C000010 0
 022 D000010 559
 023 C000000 28379
 023 D000000 11034
 024 000000 N
 025 D000001 0
 025 D000002 0
 025 D000003 0
 025 D000004 0

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME ADVANTAGE TRUST - Form NSAR-A/A

025	D000005	0
025	D000006	0
025	D000007	0
025	D000008	0
026	A000000	N
026	B000000	Y
026	C000000	N
026	D000000	Y
026	E000000	N
026	F000000	N
026	G010000	N
026	G020000	N
026	H000000	N
027	000000	N
028	A010000	0
028	A020000	0
028	A030000	0
028	A040000	0
028	B010000	0
028	B020000	0
028	B030000	0
028	B040000	0
028	C010000	0
028	C020000	0
028	C030000	0
	PAGE 5	
028	C040000	0
028	D010000	0
028	D020000	0
028	D030000	0
028	D040000	0
028	E010000	0
028	E020000	0
028	E030000	0
028	E040000	0
028	F010000	0
028	F020000	0
028	F030000	0
028	F040000	0
028	G010000	0
028	G020000	0
028	G030000	0
028	G040000	0
028	H000000	0
030	A000000	0
030	B000000	0.00
030	C000000	0.00
031	A000000	0
031	B000000	0
032	000000	0
033	000000	0
035	000000	0
036	B000000	0
038	000000	0
042	A000000	0
042	B000000	0
042	C000000	0
042	D000000	0
042	E000000	0
042	F000000	0
042	G000000	0
042	H000000	0

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME ADVANTAGE TRUST - Form NSAR-A/A

043	000000	0
044	000000	0
045	000000	Y
046	000000	N
047	000000	Y
048	000000	0.600
048	A010000	0
048	A020000	0.000
048	B010000	0
048	B020000	0.000
048	C010000	0
048	C020000	0.000
048	D010000	0
048	D020000	0.000
048	E010000	0
	PAGE	6
048	E020000	0.000
048	F010000	0
048	F020000	0.000
048	G010000	0
048	G020000	0.000
048	H010000	0
048	H020000	0.000
048	I010000	0
048	I020000	0.000
048	J010000	0
048	J020000	0.000
048	K010000	0
048	K020000	0.000
049	000000	N
050	000000	N
051	000000	N
052	000000	N
053	A000000	N
054	A000000	Y
054	B000000	Y
054	C000000	Y
054	D000000	N
054	E000000	N
054	F000000	N
054	G000000	N
054	H000000	Y
054	I000000	N
054	J000000	Y
054	K000000	N
054	L000000	N
054	M000000	Y
054	N000000	N
054	O000000	N
055	A000000	N
055	B000000	N
056	000000	N
057	000000	N
058	A000000	N
059	000000	Y
060	A000000	Y
060	B000000	Y
061	000000	0
062	A000000	Y
062	B000000	0.0
062	C000000	0.0
062	D000000	0.0

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME ADVANTAGE TRUST - Form NSAR-A/A

062 E000000 0.0
062 F000000 0.0
062 G000000 0.0
062 H000000 0.0
062 I000000 0.0

PAGE 7

062 J000000 0.0
062 K000000 0.0
062 L000000 0.0
062 M000000 0.0
062 N000000 0.0
062 O000000 141.8
062 P000000 0.0
062 Q000000 0.8
062 R000000 0.0

063 A000000 0
063 B000000 23.0

064 A000000 Y
064 B000000 Y

065 000000 N

066 A000000 N

067 000000 N

068 A000000 N

068 B000000 N

069 000000 N

070 A010000 Y

070 A020000 Y

070 B010000 N

070 B020000 N

070 C010000 Y

070 C020000 N

070 D010000 N

070 D020000 N

070 E010000 Y

070 E020000 N

070 F010000 N

070 F020000 N

070 G010000 Y

070 G020000 N

070 H010000 N

070 H020000 N

070 I010000 N

070 I020000 N

070 J010000 Y

070 J020000 Y

070 K010000 Y

070 K020000 Y

070 L010000 N

070 L020000 N

070 M010000 N

070 M020000 N

070 N010000 N

070 N020000 N

070 O010000 Y

070 O020000 N

070 P010000 Y

070 P020000 N

PAGE 8

070 Q010000 N

070 Q020000 N

070 R010000 N

070 R020000 N

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME ADVANTAGE TRUST - Form NSAR-A/A

071 A000000	28076
071 B000000	12281
071 C000000	450187
071 D000000	3
072 A000000	6
072 B000000	12945
072 C000000	0
072 D000000	0
072 E000000	0
072 F000000	1382
072 G000000	100
072 H000000	0
072 I000000	9
072 J000000	4
072 K000000	0
072 L000000	14
072 M000000	8
072 N000000	12
072 O000000	0
072 P000000	0
072 Q000000	0
072 R000000	31
072 S000000	137
072 T000000	0
072 U000000	0
072 V000000	0
072 W000000	249
072 X000000	1946
072 Y000000	0
072 Z000000	10998
072AA000000	573
072BB000000	0
072CC010000	18240
072CC020000	0
072DD010000	13286
072DD020000	0
072EE000000	0
073 A010000	0.5700
073 A020000	0.0000
073 B000000	0.0000
073 C000000	0.0000
074 A000000	2243
074 B000000	0
074 C000000	0
074 D000000	449717
074 E000000	0
074 F000000	0
PAGE 9	
074 G000000	0
074 H000000	0
074 I000000	2600
074 J000000	3000
074 K000000	0
074 L000000	8437
074 M000000	1705
074 N000000	467702
074 O000000	0
074 P000000	221
074 Q000000	0
074 R010000	0
074 R020000	0
074 R030000	0

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME ADVANTAGE TRUST - Form NSAR-A/A

074 R040000	271
074 S000000	150008
074 T000000	317202
074 U010000	23346
074 U020000	0
074 V010000	13.59
074 V020000	0.00
074 W000000	0.0000
074 X000000	9688
074 Y000000	0
075 A000000	0
075 B000000	0
076 000000	15.99
077 A000000	N
078 000000	N
080 C000000	0
081 B000000	0
082 B000000	0
083 B000000	0
084 B000000	0
086 A010000	149
086 A020000	1961
086 B010000	0
086 B020000	0
086 C010000	0
086 C020000	0
086 D010000	0
086 D020000	0
086 E010000	0
086 E020000	0
086 F010000	0
086 F020000	0
087 A010000	COMMON STOCK
087 A020000	723762100
087 A030000	MAV
087 B010000	PREFERRED STOCK - SERIES A
087 B020000	723762209
PAGE 10	
087 C010000	PREFERRED STOCK - SERIES B
087 C020000	723762308
088 A000000	N
088 B000000	N
088 C000000	N
088 D000000	Y
SIGNATURE	MARK E. BRADLEY
TITLE	TREASURER