

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  
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003 000000 N  
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007 C020100 PIONEER MUNICIPAL HIGH INCOME ADVANTAGE TRUST  
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007 C010300 3  
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007 C010700 7  
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007 C011000 10  
008 A000001 PIONEER INVESTMENT MANAGEMENT, INC.  
008 B000001 A  
008 C000001 801-8255  
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010 A000001 PIONEER INVESTMENT MANAGEMENT, INC.  
010 B000001 801-8255  
010 C010001 BOSTON  
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010 A000002 BROWN BROTHERS HARRIMAN & CO.  
010 C010002 BOSTON  
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011 A000001 PIONEER FUNDS DISTRIBUTOR, INC.  
011 B000001 8-41256  
PAGE 2  
011 C010001 BOSTON  
011 C020001 MA  
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011 C040001 1820  
011 A000002 UBS INVESTMENT BANK  
011 B000002 8-022651

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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  
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011 A000004 MERRILL LYNCH & CO.  
011 B000004 8-7221  
011 C010004 NEW YORK  
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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  
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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  
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012 C030003 10005  
013 A000001 ERNST & YOUNG, LLP  
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013 B040001 5072  
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020 A000001 SANFORD C. BERNSTEIN & CO., INC.  
020 B000001 13-4132953  
020 C000001 2  
020 A000002 UBS SECURITIES  
020 B000002 13-2638166

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020 C000002 0  
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 020 B000003 13-5674085  
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 022 A000002 CITIGROUP GLOBAL MARKETS, INC.  
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 022 B000003 64-0474907  
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 022 A000008 MESIROW FINANCIAL, INC.  
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PAGE 7

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PAGE 8

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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