

PIONEER MUNICIPAL HIGH INCOME ADVANTAGE TRUST

Form NSAR-B

May 30, 2007

PAGE 1  
000 B000000 03/31/2007  
000 C000000 1258943  
000 D000000 N  
000 E000000 NF  
000 F000000 Y  
000 G000000 N  
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  
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007 C010600 6  
007 C010700 7  
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007 C010900 9  
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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 PRINCETON ADMINISTRATORS, LLC  
010 C010002 PRINCETON  
010 C020002 NJ  
010 C030002 08543  
010 C040002 9095  
011 A000001 PIONEER FUNDS DISTRIBUTOR, INC.  
011 B000001 8-12345678  
011 C010001 BOSTON  
PAGE 2  
011 C020001 MA  
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011 A000002 UBS WARBURG  
011 B000002 8-022651  
011 C010002 STAMFORD

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011 C020002 CT  
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011 A000003 RBC CAPITAL MARKETS  
011 B000003 8-045411  
011 C010003 MINNEAPOLIS  
011 C020003 MN  
011 C030003 55402  
011 C040003 4422  
011 A000004 MERRILL LYNCH, PIERCE, FENNER & SMITH INC.  
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 INV. MGMT. SHAREHOLDER SERVICES, INC.  
012 B000001 85-00000  
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012 C020001 MA  
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012 A000002 AMERICAN STOCK TRANSFER & TRUST COMPANY  
012 B000002 85-00000  
012 C010002 BROOKLYN  
012 C020002 NY  
012 C030002 11219  
012 A000003 DEUTSCHE BANK TRUST COMPANY AMERICAS (PREF.)  
012 B000003 85-00000  
012 C010003 NEW YORK CITY  
012 C020003 NY  
012 C030003 10005  
013 A000001 ERNST & YOUNG LLP  
013 B010001 BOSTON  
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PAGE 3  
015 A000001 BROWN BROTHERS HARRIMAN & CO.  
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020 C000007 0  
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 022 A000001 BLACKROCK, INC.  
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 022 A000002 LEHMAN BROTHERS, INC.  
 022 B000002 13-2518466  
 022 C000002 10168  
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 022 A000003 B.C. ZIEGLER AND COMPANY  
 022 B000003 39-0727640  
 022 C000003 19421  
 022 D000003 1160  
 022 A000004 WACHOVIA SECURITIES, LLC  
 022 B000004 54-0796506  
 022 C000004 6784  
 022 D000004 13508  
 022 A000005 UBS FINANCIAL SERVICES, INC.  
 022 B000005 13-2638166  
 022 C000005 10450  
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 022 A000006 HERBERT J. SIMS & CO., INC.  
 022 B000006 13-5213180  
 022 C000006 16259  
 022 D000006 2428  
 022 A000007 MERRILL LYNCH, PIERCE, FENNER & SMITH INC.  
 022 B000007 13-5674085  
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 022 A000008 CORBY CAPITAL MARKETS, INC.  
 022 B000008 52-1037969  
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 022 C000008 0  
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 022 A000009 CITIGROUP GLOBAL MARKETS, INC.  
 022 B000009 11-2418191  
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 022 A000010 J. GIORDANO SECURITIES GROUP  
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PAGE 6

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070 P020000 N  
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070 R020000 N

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071 A000000 85708  
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072 A000000 12  
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074 K000000 0  
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087	A020000	723762100
087	A030000	MAV
087	B010000	PREFERRED STOCK - SERIES A
087	B020000	723762209
087	C010000	PREFERRED STOCK - SERIES B
087	C020000	723762308
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088	B000000	N
088	C000000	N
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SIGNATURE	MARY KELLERMANN	
TITLE	ACCOUNTING MANAGER	