

PIONEER MUNICIPAL HIGH INCOME TRUST
Form NSAR-B
June 27, 2014

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000 B000000 04/30/2014
000 C000000 0001223026
000 D000000 N
000 E000000 NF
000 F000000 Y
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000 I000000 6.1
000 J000000 A
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001 B000000 811-21321
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
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007 C010100 1
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007 C010300 3
007 C010400 4
007 C010500 5
007 C010600 6
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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 02110
011 A000001 PIONEER FUNDS DISTRIBUTOR, INC.
011 B000001 8-41256
011 C010001 BOSTON
011 C020001 MA
PAGE 2
011 C030001 02109
011 C040001 1820
011 A000002 UBS INVESTMENT BANK
011 B000002 8-022651
011 C010002 STAMFORD
011 C020002 CT

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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 ADVEST, INC.
011 B000004 8-21409
011 C010004 HARTFORD
011 C020004 CT
011 C030004 06103
011 A000005 JANNEY MONTGOMERY SCOTT, LLC
011 B000005 8-462
011 C010005 PHILADELPHIA
011 C020005 PA
011 C030005 19103
011 C040005 1675
011 A000006 MCDONALD INVESTMENTS, INC.
011 B000006 8-30177
011 C010006 CLEVELAND
011 C020006 OH
011 C030006 44114
011 C040006 2603
011 A000007 STIFEL, NICOLAUS & CO., INC.
011 B000007 8-001447
011 C010007 ST. LOUIS
011 C020007 MO
011 C030007 63102
012 A000001 PIONEER INVEST. MGT. SHAREHOLDER SVCS., 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 85-00000
012 C010003 NEW YORK
012 C020003 NY
012 C030003 10005
013 A000001 ERNST & YOUNG LLP
PAGE 3
013 B010001 BOSTON
013 B020001 MA
013 B030001 02116
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015 A000001 BROWN BROTHERS HARRIMAN & CO.
015 B000001 C
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015 C020001 MA
015 C030001 02110
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015 A000002 CITIBANK, N.A. BUENOS AIRES BRANCH
015 B000002 S
015 C010002 BUENOS AIRES
015 D010002 ARGENTINA
015 E040002 X
015 A000003 HSBC BANK AUSTRALIA LIMITED

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015 B000003 S
015 C010003 SYDNEY
015 D010003 AUSTRALIA
015 E040003 X
015 A000004 UNICREDIT BANK AUSTRIA AG
015 B000004 S
015 C010004 VIENNA
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015 E040004 X
015 A000005 STANDARD CHARTERED BANK, BANGLADESH BRANCH
015 B000005 S
015 C010005 DHAKA
015 D010005 BANGLADESH
015 E040005 X
015 A000006 BNP PARIBAS SECURITIES SERVICES
015 B000006 S
015 C010006 PARIS
015 D010006 BELGIUM
015 E040006 X
015 A000007 EUROCLEAR BANK SA NV
015 B000007 S
015 C010007 BRUSSELS
015 D010007 BELGIUM
015 E040007 X
015 A000008 CITIBANK, N.A., SAO PAULO
015 B000008 S
015 C010008 SAO PAULO
015 D010008 BRAZIL
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015 A000009 ING BANK, N.V., SOFIA BRANCH
015 B000009 S
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015 D010009 BULGARIA
015 E040009 X
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015 C010010 TORONTO
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015 C010011 SANTIAGO
015 D010011 CHILE
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015 A000012 STANDARD CHARTERED BANK (CHINA) LIMITED
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015 C010012 SHANGHAI
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015 A000013 CITITRUST COLOMBIA S.A., SOCIEDAD FIDUCIARA
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015 C010013 BOGATA
015 D010013 COLOMBIA
015 E040013 X
015 A000014 UNICREDIT BANK AUSTRIA AG
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015 C010014 VIENNA
015 D010014 CROATIA
015 E040014 X
015 A000015 CITIBANK EUROPE PLC, ORGANIZACNI SLOZKA
015 B000015 S

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015 C010015 PRAGUE
015 D010015 CZECH REPUBLIC
015 E040015 X
015 A000016 SKANDINAVISKA ENSKILDA BANKEN AB (PUBL)DAN
015 B000016 S
015 C010016 COPENHAGEN
015 D010016 DENMARK
015 E040016 X
015 A000017 CITIBANK, N.A., CAIRO BRANCH
015 B000017 S
015 C010017 CAIRO
015 D010017 EGYPT
015 E040017 X
015 A000018 NORDEA BANK FINLAND PLC
015 B000018 S
015 C010018 HELSINKI
015 D010018 FINLAND
015 E040018 X
015 A000019 BNP PARIBAS SECURITIES SERVICES
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015 D010019 FRANCE
015 E040019 X
015 A000020 BNP PARIBAS SECURITIES SERVICES, FRANKFURT
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015 E040020 X
015 A000021 STANDARD CHARTERED BANK GHANA LTD.
015 B000021 S
015 C010021 ACCRA
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015 E040021 X
015 A000022 HSBC BANK PLC, ATHENS BRANCH
015 B000022 S
015 C010022 ATHENS
015 D010022 GREECE
015 E040022 X
015 A000023 STANDARD CHARTERED BANK (HONG KONG) LIMITED
015 B000023 S
015 C010023 KWUN TONG
015 D010023 HONG KONG
015 E040023 X
015 A000024 CITIBANK EUROPE PLC, HUNGARIAN BRANCH OFFICE
015 B000024 S
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015 D010024 HUNGARY
015 E040024 X
015 A000025 CITIBANK, N.A.-MUMBAI BRANCH
015 B000025 S
015 C010025 MUMBAI
015 D010025 INDIA
015 E040025 X
015 A000026 CITIBANK, N.A., JAKARTA BRANCH
015 B000026 S
015 C010026 JAKARTA
015 D010026 INDONESIA
015 E040026 X
015 A000027 CITIBANK, N.A., LONDON BRANCH
015 B000027 S
015 C010027 LONDON

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015 D010027 IRELAND
015 E040027 X
015 A000028 BANK HAPOALIM BM
015 B000028 S
015 C010028 TEL AVIV
015 D010028 ISRAEL
015 E040028 X
015 A000029 BNP PARIBAS SECURITIES SERVICES, MILAN BRANCH
015 B000029 S
015 C010029 MILAN
015 D010029 ITALY
015 E040029 X
015 A000030 SUMITOMO MITSU BANKING CORPORATION
015 B000030 S
015 C010030 TOKYO
015 D010030 JAPAN
015 E040030 X
015 A000031 HSBC BANK MIDDLE EAST LIMITED, JORDAN BRANCH
015 B000031 S
015 C010031 AMMAN
015 D010031 JORDAN
015 E040031 X
015 A000032 CFC STANBIC BANK LIMITED
015 B000032 S
015 C010032 NAIROBI
015 D010032 KENYA
015 E040032 X
015 A000033 HSBC BANK MIDDLE EAST LIMITED, KUWAIT BRANCH
015 B000033 S
015 C010033 SAFAT
015 D010033 KUWAIT
015 E040033 X
015 A000034 KBL EUROPEAN PRIVATE BANKERS SA
015 B000034 S
015 C010034 LUXEMBOURG
015 D010034 LUXEMBOURG
015 E040034 X
015 A000035 HSBC BANK MALAYSIA BERHAD
015 B000035 S
015 C010035 KUALA LUMPUR
015 D010035 MALAYSIA
015 E040035 X
015 A000036 BANCO NACIONAL DE MEXICO, S.A. (BANAMEX)
015 B000036 S
015 C010036 MEXICO CITY
015 D010036 MEXICO
015 E040036 X
015 A000037 CITIBANK MAGHREB
015 B000037 S
015 C010037 CASABLANCA
015 D010037 MOROCCO
015 E040037 X
015 A000038 BNP PARIBAS SECURITIES SERVICES
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015 D010038 NETHERLANDS
015 E040038 X
015 A000039 HSBC LIMITED, NEW ZEALAND BRANCH
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015 C010039 AUCKLAND
015 D010039 NEW ZEALAND

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015 E040039 X
015 A000040 STANBIC IBTC BANK PLC
015 B000040 S
015 C010040 LAGOS
015 D010040 NIGERIA
PAGE 7
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015 A000041 NORDEA BANK NORGE ASA
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015 C010041 OSLO
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015 E040041 X
015 A000042 CITIBANK DEL PERU S.A.
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015 A000043 HSBC LIMITED, PHILIPPINE BRANCH
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015 A000044 BANK HANDLOWY W WARSZAWIE SA
015 B000044 S
015 C010044 WARSAW
015 D010044 POLAND
015 E040044 X
015 A000045 BNP PARIBAS SECURITIES SERVICES
015 B000045 S
015 C010045 PANTIN
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015 A000046 HSBC BANK MIDDLE EAST LIMITED, QATAR BRANCH
015 B000046 S
015 C010046 JERSEY
015 D010046 QATAR
015 E040046 X
015 A000047 ING BANK N.V., BUCHAREST BRANCH
015 B000047 S
015 C010047 BUCHAREST
015 D010047 ROMANIA
015 E040047 X
015 A000048 ZAO CITIBANK
015 B000048 S
015 C010048 MOSCOW
015 D010048 RUSSIA
015 E040048 X
015 A000049 HSBC SAUDI ARABIA LIMITED
015 B000049 S
015 C010049 RIYADH
015 D010049 SAUDI ARABIA
015 E040049 X
015 A000050 STANDARD CHARTERED BANK SINGAPORE BRANCH
015 B000050 S
015 C010050 SINGAPORE
015 D010050 SINGAPORE
015 E040050 X
PAGE 8
015 A000051 ING BANK NV, BRATISLAVA BRANCH
015 B000051 S
015 C010051 BRATISLAVA
015 D010051 SLOVAKIA

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015 E040051 X
015 A000052 STANDARD BANK OF SOUTH AFRICA LIMITED
015 B000052 S
015 C010052 JOHANNESBURG
015 D010052 SOUTH AFRICA
015 E040052 X
015 A000053 CITIBANK KOREA INC
015 B000053 S
015 C010053 SEOUL
015 D010053 SOUTH KOREA
015 E040053 X
015 A000054 BANCO BILBAO VIZCAYA AREGENTARIA SA
015 B000054 S
015 C010054 MADRID
015 D010054 SPAIN
015 E040054 X
015 A000055 HSBC, SRI LANKA BRANCH
015 B000055 S
015 C010055 COLOMBO
015 D010055 SRI LANKA
015 E040055 X
015 A000056 SKANDINAVISKA ENSKILDA BANKEN AB(PUB)
015 B000056 S
015 C010056 STOCKHOLM
015 D010056 SWEDEN
015 E040056 X
015 A000057 CREDIT SUISSE AG
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015 C010057 ZURICH
015 D010057 SWITZERLAND
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015 A000058 BANK OF TAIWAN
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015 C010058 TAIPEI
015 D010058 TAIWAN
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015 A000059 HSBC LIMITED, THAILAND BRANCH
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015 C010059 BANGKOK
015 D010059 THAILAND
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015 A000060 CITIBANK ANONIM SIRKETI
015 B000060 S
015 C010060 ISTANBUL
015 D010060 TURKEY
015 E040060 X
015 A000061 HSBC BANK MIDDLE EAST LIMITED
PAGE 9
015 B000061 S
015 C010061 DUBAI
015 D010061 UNITED ARAB EMIRATES
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015 A000063 CITIBANK, N.A., CARACAS BRANCH
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015 C010063 CARACAS
015 D010063 VENEZUELA
015 E040063 X

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015 A000064 HSBC BANK (VIETNAM) LTD
015 B000064 S
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022 B000002 23-2384947
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022 A000003 J.P. MORGAN SECURITIES INC.
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022 A000004 RBC CAPITAL MARKETS, INC.
022 B000004 00-0000000
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022 A000005 CLEARVIEW TRADING ADVISORS, INC.
PAGE 10
022 B000005 14-1981175
022 C000005 6461
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022 A000006 GEORGE K. BAUM & COMPANY
022 B000006 43-1661917
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022 A000007 RAYMOND JAMES (USA) LTD.
022 B000007 22-3030928
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022 A000008 JANNEY MONTGOMERY CAPITAL MARKETS
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070 Q010000 N

070 Q020000 N

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087	A020000	723763108

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087 A030000 MHI
087 B010000 PREFERRED STOCK - SERIES A
087 B020000 723763207
087 C010000 PREFERRED STOCK - SERIES B
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SIGNATURE MARK BRADLEY
TITLE TREASURER