

PIONEER MUNICIPAL HIGH INCOME TRUST
Form N-CSR
June 29, 2006

OMB APPROVAL
OMB Number: 3235-0570
Expires: September 30, 2007
Estimated average burden
hours per response.....19.4

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM N-CSR

CERTIFIED SHAREHOLDER REPORT OF REGISTERED
MANAGEMENT INVESTMENT COMPANIES

Investment Company Act file number 811-21321

Pioneer Municipal High Income Trust
(Exact name of registrant as specified in charter)

60 State Street, Boston, MA 02109
(Address of principal executive offices) (ZIP code)

Dorothy E. Bourassa, Pioneer Investment Management, Inc.,
60 State Street, Boston, MA 02109
(Name and address of agent for service)

Registrant's telephone number, including area code: (617) 742-7825

Date of fiscal year end: April 30

Date of reporting period: May 1, 2005 through April 30, 2006

Form N-CSR is to be used by management investment companies to file reports with the Commission not later than 10 days after the transmission to stockholders of any report that is required to be transmitted to stockholders under Rule 30e-1 under the Investment Company Act of 1940 (17 CFR 270.30e-1). The Commission may use the information provided on Form N-CSR in its regulatory, disclosure review, inspection, and policymaking roles.

A registrant is required to disclose the information specified by Form N-CSR, and the Commission will make this information public. A registrant is not required to respond to the collection of information contained in Form N-CSR 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 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. ss. 3507.

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ITEM 1. REPORTS TO SHAREOWNERS.

PIONEER

MUNICIPAL
HIGH
INCOME
TRUST

Annual
Report

4/30/06

[Logo] PIONEER
Investments (R)

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President's

Dear Shareowner,

The six and 12 months ending April 30, 2006, have been characterized by strong global growth, rising commodity and stock prices, and rising interest rates. While markets reversed in May (U.S. Treasury bond yields, stock markets, and commodity prices all turned down), we believe the basic fundamental pattern of strong global economic growth remains intact.

According to the International Monetary Fund, global economic growth in 2004-5 was the fastest of any two-year period in more than 30 years, and 2006 growth is projected to match 2005 levels. Growth has been broad-based, with Europe, Japan, and emerging market economies all showing strength. The result has been rising prices across a broad range of commodities, rising corporate profits, and rising interest rates. These have been the basic ingredients of the equity bull market and relatively weak bond market over the six months ending April 30, 2006.

The bond markets' concern has been that strong economic growth would spark inflation - we have already seen commodity prices rise, and U.S. labor costs are threatening to rise as the economy reaches full employment. In this environment, strong economic growth may lead to inflation and higher interest rates, while slowing economic growth is welcomed by the markets.

While first quarter economic growth was strong, it looks as if the slowdown in the U.S. economy that we have been anticipating for the second half of the year may be starting to unfold. The U.S. unemployment rate reached a five-year low of 4.6 percent in May, but employment growth slowed to only 75,000 new jobs, the smallest increase since the Katrina-distorted result of October 2005. The housing market is cooling, as is non-essential consumer spending.

The U.S. Federal Reserve ("Fed") has not yet paused in its program of measured increases in short-term interest rates, and it appears likely that the Fed will raise rates again at the end of June. Global stock markets declined in May after the Fed warned that the central bank remains determined to keep inflation low. Fed vigilance against inflation and resolve to hike interest rates as necessary to keep inflation pressures well-contained puts short-term pressure on markets, but is investor-friendly over the intermediate-to-longer term. By restraining

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Letter

inflation, the Fed may limit upward pressure on longer-maturity bond yields and downward pressure on stocks' price/earnings ratios.

In summary, we believe a desirable moderate slowing of U.S. economic growth appears likely, with beneficial impacts on inflation and interest rates, while global growth prospects remain strong. We think security market valuations remain reasonable. However, there are no guarantees in investing. We know from a long-view of history that sudden shifts in investor sentiment can occur with little warning. This unpredictability reinforces the importance of Pioneer's message that investors should remain diversified, take a long-term view, and base investment decisions on economic and market fundamentals, rather than on emotion. Our investment philosophy and approach continue to be based on the use of fundamental research to identify a range of opportunities that offer an attractive balance of risk and reward to help Trust shareowners work toward their long-term goals.

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Respectfully,

/s/ Osbert M. Hood

Osbert M. Hood, President
Pioneer Investment Management, Inc.

Any information in this shareowner report regarding market or economic trends or the factors influencing the Trust's historical or future performance are statements of the opinion of Trust management as of the date of this report. These statements should not be relied upon for any other purposes. Past performance is no guarantee of future results, and there is no guarantee that market forecasts discussed will be realized.

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Pioneer Municipal High Income Trust

PORTFOLIO SUMMARY 4/30/06

Portfolio Diversification

(As a percentage of total investment portfolio)

Health Revenue	24.7%
Airport Revenue	16.7%
Insured	12.1%
Tobacco Revenue	10.6%
Education Revenue	6.9%
Power Revenue	6.0%
Pollution Control Revenue	4.6%
Development Revenue	4.0%
General Obligation	3.8%
Facilities Revenue	3.1%
Transportation Revenue	2.7%
Utilities Revenue	1.3%
Gaming Revenue	1.2%
Housing Revenue	1.1%
School District Revenue	0.6%
Other Revenue	0.6%

Portfolio Maturity

(Effective duration as a percentage of long-term holdings)

0-1 years	7.5%
1-3 years	8.5%
3-6 years	43.4%
6-8 years	6.8%
8-10 years	9.7%
10+ years	24.1%

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Effective duration with leverage: 9.49 years
Effective duration without leverage: 7.47 years

Quality Distribution

(As a dollar-weighted percentage of holdings; based on S&P ratings.)

AAA	16.1%
AA	2.7%
A	2.6%
BBB	22.7%
BB	5.1%
B	15.5%
CCC	4.4%
Not Rated	30.9%

The portfolio is actively managed and current holdings may be different.

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Pioneer Municipal High Income Trust

PRICES AND DISTRIBUTIONS

Share Prices and Distributions

Market Value per Common Share	4/30/06	4/30/05
	\$13.22	\$14.33

Net Asset Value per Common Share	4/30/06	4/30/05
	\$15.15	\$15.62

Distributions per Common Share (5/1/05 - 4/30/06)	Income Dividends	Short-Term Capital Gains	Long-Term Capital Gains
	\$0.8920	\$ -	\$ -

10 Largest Holdings

(As a percentage of long-term holdings)

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1	Allegheny County Hospital Development Authority Revenue, 9.25%, 11/15/30	3.40%
2	New Jersey Economic Development Authority Revenue, 6.25%, 9/15/29	3.03
3	Tobacco Settlement Financing Corp., 6.75%, 6/1/39	2.58
4	Massachusetts State Development Finance Agency, RIB, 7.034%, 10/1/39 (144A)	2.46
5	Metropolitan Pier & Exposition Authority Dedicated State Tax Revenue, 0.0%, 6/15/22	2.40
6	Minneapolis/St. Paul Metropolitan Airports, 7.0%, 4/1/25	2.07
7	Oklahoma Development Finance Authority Revenue, 5.625%, 8/15/29	1.98
8	Golden State Tobacco Securitization Corp., 7.875%, 6/1/42	1.94
9	New York State Dormitory Authority Revenue, RIB, 7.328%, 7/1/24 (144A)	1.93
10	Johnson City Health & Educational Facilities Board Hospital Revenue, 7.5%, 7/1/33	1.88

This list excludes temporary cash and derivative instruments. The portfolio is actively managed, and current holdings may be different.

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Pioneer Municipal High Income Trust

PERFORMANCE UPDATE 4/30/06

Investment Returns

The mountain chart on the right shows the change in market value, including reinvestment of dividends and distributions, of a \$10,000 investment made in common shares of Pioneer Municipal High Income Trust, compared to that of the Lehman Brothers Municipal Bond Index and Lehman Brothers Non-Investment Grade Municipal Bond Index.

[The following table was depicted as a mountain chart in the printed material.]

	Pioneer Municipal High Income Trust -----	Lehman Brothers Municipal Bond Index -----	Lehman Brothers Non-Investment Grade~Municipal Bond Index -----
7/03	10,000	10,000	10,000
4/04	11,023	10,441	11,014
4/05	12,598	11,153	12,399
4/06	10,666	11,394	13,324

Cumulative Annual Total Returns (As of April 30, 2006)

Period	Net Asset Value (NAV)	Market Price
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Life-of-Trust (7/21/03)	27.95%	6.66%
1 Year	3.19	-1.85

Call 1-800-225-6292 or visit pioneerinvestments.com for the most recent month-end performance results. Current performance may be lower or higher than the performance data quoted.

Performance data shown represents past performance. Past performance is no guarantee of future results. Investment return and market price will fluctuate, and your shares may trade below net asset value ("NAV"), due to such factors as interest rate changes, and the perceived credit quality of borrowers.

Total investment return does not reflect broker sales charges or commissions. All performance is for common shares of the Trust.

Closed-end funds, unlike open-end funds, are not continuously offered. There is a one-time public offering and once issued, shares of closed-end funds are sold in the open market through a stock exchange and frequently trade at prices lower than their NAV. NAV is total assets less total liabilities, which includes preferred shares, divided by the number of common shares outstanding.

When NAV is lower than market price, dividends are assumed to be reinvested at the greater of NAV or 95% of the market price. When NAV is higher, dividends are assumed to be reinvested at market price.

The performance table and graph do not reflect the deduction of fees and taxes that a shareowner would pay on Trust distributions or the redemption of Trust shares.

Index comparison begins July 31, 2003. The Lehman Brothers Municipal Bond Index is a broad measure of the municipal bond market. Lehman Brothers Non-Investment Grade Municipal Bond Index totals over \$26 billion in market value and maintains over 1300 securities. Municipal bonds in this index have the following requirements: maturities of one year or greater, sub investment grade (below Baa or non-rated), fixed coupon rate, issued after 12-31-90, deal size over \$20 million, maturity size of at least \$3 million. Index returns are calculated monthly, assume reinvestment of dividends and, unlike Trust returns, do not reflect any fees, expenses or sales charges. You cannot invest directly in an Index.

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Pioneer Municipal High Income Trust

PORTFOLIO MANAGEMENT DISCUSSION 4/30/06

During the fiscal period ended April 30, 2006, strong economic growth, improved business fundamentals of some distressed municipal credits and robust investor demand for tax-free income were instrumental in boosting the performance of municipal bonds over their taxable counterparts. Lower-quality bonds led the municipal market during the 12 months. Investors in Pioneer Municipal High Income Trust participated in this outperformance, as the Trust had a substantial position in lower-quality credits, some of which saw positive changes in their business prospects. In the following interview, David Eurkus, a member of the management team for Pioneer Municipal High Income Trust, discusses some of the

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factors that had an impact on the municipal bond market and the Trust.

Q: What was the investment environment like during the period?

A: The main focus in the bond market during the 12-month period ended April 30, 2006 was the Federal Reserve's ("Fed") tighter monetary policy. The Fed boosted the Federal funds target rate, the rate banks charge for overnight loans, to 4.50% from 2.75%. The Fed's actions resulted in a flattening of the yield curve with short-term and long-term rates at roughly the same level for a few months. (The yield curve shows the relationship between bond yields and maturity lengths.) By period-end, the yield curve had a more positive slope, with longer-term yields above shorter-term yields. Despite rising interest rates, the economy grew at a steady pace, with both business and consumer spending at relatively high levels. The strong economy continued to fuel concerns about higher inflation, and the Fed raised interest rates to 5.00% on May 10, 2006, just after the close of the fiscal period.

Q: How did the Trust perform in this environment?

A: For the period, Pioneer Municipal High Income Trust earned a total return of 3.19% at net asset value and -1.85% at market price. As of April 30, 2006, the Trust was selling at a discount of market price to net asset value of 12.74%. The Lehman Brothers Municipal Bond Index, which tracks the performance of investment-grade bonds, returned 2.16%. The Lehman Brothers Non-Investment Grade Municipal Bond Index returned 7.46% for the same period. While the Trust invested in municipal securities with a broad range of maturities and credit ratings, it maintained a dollar-weighted average portfolio credit quality rating of BBB. The Trust held 107

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Pioneer Municipal High Income Trust

PORTFOLIO MANAGEMENT DISCUSSION 4/30/06

(continued)

issues in various states and the District of Columbia. On April 30, 2006, the Trust's 30-day SEC yield based on market price was 7.67%.

Call 1-800-225-6292 or visit www.pioneerinvestments.com for the most recent month-end performance results. Current performance may be lower or higher than the performance data quoted.

Closed end funds, unlike open-end funds, are not continuously offered. There is a one-time public offering and once issued, shares of closed-end funds are sold in the open market through a stock exchange and frequently trade at prices lower than their net asset value ("NAV"). NAV is total assets less total liabilities, which includes Preferred shares, divided by the number of common shares outstanding.

The performance data quoted represent past performance, which is no guarantee of future results. Investment return and principal value will fluctuate, and shares, when redeemed, may be worth more or less than their original cost.

Q: What contributed to the Trust's performance?

A: We kept the Trust diversified among sectors that generally perform well during a period of economic expansion. These sectors included transportation, public power, housing, education and water and sewer. We

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invested most of the assets in revenue bonds, whose interest and principal depend on revenues that are derived from the particular asset that the bond is financing. For example, a bond issued by an electric utility would be backed by the revenues the utility collects from its customers.

We also had a mix of investment-grade and below investment-grade bonds. The below-investment grade bonds, which have higher yields, made the biggest contribution to return. Many of these securities are long-term holdings that were issued by entities that were in significant financial difficulty at the time of purchase. As a result, we bought many of the bonds at substantial discounts to par. This was particularly true of airline/airport bonds (13.8% of net assets). For example, Delta and Northwest Airlines voluntarily declared bankruptcy; and early in the period, these bonds detracted from results. We liquidated all Delta bonds, which effectively removed a non-income producing asset from the portfolio, which we could then replace with another income-producing asset. Northwest remains a position in the portfolio because we

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Pioneer Municipal High Income Trust

believe back interest will be paid once they exit voluntary bankruptcy. The bond's value has appreciated substantially since the initial Chapter 11 filing.

The Trust's health/hospital bonds (32% of net assets) and special revenue bonds, called tobacco bonds (14% of net assets), were also factors in the Trust's outperformance. Tobacco bonds have been a core long-term holding in the Trust. They are backed by tobacco companies' payments to states as part of the Master Settlement Agreement, in which states agreed to drop their lawsuits against tobacco companies in return for a series of payments.

On April 30, 2006, 23% of the Trust was leveraged. We began leveraging the portfolio when interest rates were at historically low levels. Lower short-term rates provided an opportunity to borrow funds at attractive rates and invest those funds in higher-yielding bonds, which, in turn, boosted the Trust's returns. As short-term interest rates rose, the cost of leveraging also rose and reduced the overall effectiveness of leveraging the Trust, resulting in modest dividend cuts.

Q: What is your outlook?

A: We do not plan to make any significant changes to the Trust. We intend to keep the portfolio fully invested in a variety of sectors and maintain a mix of both investment-grade and below investment-grade bonds. While economic growth was robust in the first four months of 2006, we believe it could slow in the coming months, as higher oil prices and interest rates take their toll on business profits and consumer spending. Higher interest rates have also begun to affect the availability of new municipal bonds, as municipalities and other entities are reluctant to issue higher-yielding new debt. We view this supply/demand dynamic as positive for the Trust. As supply has tightened, demand for tax-free income has remained strong, potentially boosting the value of the bonds in the portfolio.

Investments in high yield or lower-rated securities are subject to greater-than-average risk. The Trust may invest in securities of issuers that are in default or that are in bankruptcy.

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A portion of income may be subject to state, federal, and/or alternative minimum tax. Capital gains, if any, are subject to a capital gains tax. When interest rates rise, the prices of fixed-income securities in the Trust will generally fall. Conversely, when interest rates fall the prices of fixed-income securities in the Trust

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Pioneer Municipal High Income Trust

 PORTFOLIO MANAGEMENT DISCUSSION 4/30/06

(continued)

will generally rise. By concentrating in municipal securities, the portfolio is more susceptible to adverse economic, political or regulatory developments than is a portfolio that invests more broadly.

Investments in the Trust are subject to possible loss due to the financial failure of underlying securities and their inability to meet their debt obligations.

The Trust may use leverage through the issuance of preferred shares with an aggregate liquidation preference of up to 25% of the Trust's total assets after such issuance. Leverage creates significant risks, including the risk that the Trust's income or capital appreciation will not be sufficient to cover the cost of leverage, which may adversely affect the return for the holders of common shares.

Risks of investing in the Trust are discussed in greater detail in the Trust's registration statement on Form N-2 relating to its common shares.

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Pioneer Municipal High Income Trust

 SCHEDULE OF INVESTMENTS 4/30/06

Principal Amount	S&P/Moody's Ratings (unaudited)		Va
		TAX EXEMPT OBLIGATIONS - 128.2% of Net Assets	
		Alabama - 0.5%	
\$ 1,500,000	BBB/NR	Camden Alabama Industrial Development Board, 6.125%, 12/1/24	\$ 1,649, -----
5,000,000	B+/Ba1	Arizona - 6.6% Apache County Industrial Development Authority, 5.85%, 3/1/28	\$ 5,001,

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5,000,000	B+/Ba1	Apache County Industrial Development Authority, 5.875%, 3/1/33	5,002,
7,000,000 (a)	NR/Aaa	Downtown Phoenix Hotel Corp., RIB, 6.917%, 7/1/40 (144A)	7,331,
3,000,000+	NR/NR	Maricopa County Industrial Development Authority, 7.875%, 4/1/27	3,159,
1,000,000	NR/Baa3	Pima County Industrial Development Authority, 7.25%, 7/1/31	1,074,
500,000	NR/Baa2	Yavapai County Industrial Development Authority, 6.0%, 8/1/33	528,

			\$ 22,098,

7,270,000	A/A2	California - 9.8% California State General Obligation, 5.25%, 2/1/28	\$ 7,581,
5,150,000	BBB/Baa3	Golden State Tobacco Securitization Corp., 7.8%, 6/1/42	6,106,
7,000,000	BBB/Baa3	Golden State Tobacco Securitization Corp., 7.875%, 6/1/42	8,331,
3,000,000	AAA/Aaa	San Diego Unified School District, 5.0%, 7/1/25	3,138,
2,500,000	AAA/Aaa	University of California Revenue, 5.0%, 5/15/25	2,577,
5,000,000	B+/NR	Valley Health System Hospital Revenue, 6.5%, 5/15/25	5,004,

			\$ 32,740,

2,000,000	NR/NR	Connecticut - 4.2% Bridgeport Senior Living Facility Revenue, 7.25%, 4/1/35	\$ 1,684,
2,205,000	BB+/Ba1	Connecticut State Health & Educational Facilities Authority Revenue, 5.375%, 7/1/17	2,212,
4,800,000	BB+/Ba1	Connecticut State Health & Educational Facilities Authority Revenue, 5.5%, 7/1/27	4,728,
5,000,000	BB+/NR	Mohegan Tribe Indians Gaming Authority, 6.25%, 1/1/31 (144A)	5,329,

			\$ 13,954,

The accompanying notes are an integral part of these financial statements. 11

Pioneer Municipal High Income Trust

SCHEDULE OF INVESTMENTS 4/30/06

(continued)

Principal Amount	S&P/Moody's Ratings (unaudited)		
\$ 5,000,000	BBB/Baa3	District of Columbia - 3.6% District of Columbia Tobacco Settlement Financing Corp., 6.5%, 5/15/33	\$ 5,668
6,000,000	BBB/Baa3	District of Columbia Tobacco Settlement Financing Corp., 6.75%, 5/15/40	6,470

			\$ 12,139

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			Delaware - 0.3%	
500,000	NR/NR		Sussex County Delaware Revenue, 5.9%, 1/1/26	\$ 508,611
600,000	NR/NR		Sussex County Delaware Revenue, 6.0%, 1/1/35	611,000
				\$ 1,120,000
			Florida - 2.7%	
2,000,000	NR/NR		Beacon Lakes Community Development, 6.9%, 5/1/35	\$ 2,171,000
1,650,000	BBB-/Baa2		Polk County Industrial Development Revenue, 5.85%, 12/1/30	1,682,000
5,000,000	NR/Baa2		Tallahassee Health Facilities Revenue, 6.375%, 12/1/30	5,303,000
				\$ 9,157,000
			Georgia - 2.0%	
4,240,000 (a)	NR/Aaa		Atlanta Georgia Water & Waste Revenue, RIB, 7.072%, 11/1/43 (144A)	\$ 4,481,000
2,325,000	NR/NR		Brunswick & Glynn County Development Authority Revenue, 7.25%, 1/1/35	2,349,000
				\$ 6,830,000
			Idaho - 1.6%	
5,000,000	BBB-/Baa3		Power County Industrial Development Corp., 6.45%, 8/1/32	\$ 5,337,000
			Illinois - 3.9%	
1,000,000	NR/NR		Centerpoint Intermodal Center, 8.0%, 6/15/23 (144A)	\$ 1,007,000
1,500,000	NR/NR		Illinois Health Facilities Authority Revenue, 6.9%, 11/15/33	1,620,000
16,880,000 (b)	AAA/Aaa		Metropolitan Pier & Exposition Authority Dedicated State Tax Revenue, 0.0%, 6/15/22	10,315,000
				\$ 12,944,000

12 The accompanying notes are an integral part of these financial statements.

Pioneer Municipal High Income Trust

Principal Amount	S&P/Moody's Ratings (unaudited)		Val
\$ 1,000,000	BBB+/Baa1	Indiana - 1.6%	
		Indiana State Development Finance Authority Revenue, 5.6%, 12/1/32	\$ 1,030,300
4,300,000	BBB-/Ba1	Indiana State Development Finance Authority Revenue, 5.75%, 10/1/11	4,442,100
			\$ 5,472,400

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		Massachusetts - 11.3%	
5,000,000	AAA/Aa2	Massachusetts Bay Transportation Authority, 5.0%, 7/1/31	\$ 5,334,8
2,335,000	AAA/Aaa	Massachusetts Health & Educational Facilities Authority Revenue, 5.0%, 7/15/35	2,394,0
7,050,000	AAA/Aaa	Massachusetts Health & Educational Facilities Authority Revenue, 5.125%, 7/15/37	7,299,4
3,500,000	BBB/Baa3	Massachusetts Health & Educational Facilities Authority Revenue, 6.25%, 7/1/22	3,734,3
5,000,000	BBB-/NR	Massachusetts Health & Educational Facilities Authority Revenue, 6.75%, 10/1/33	5,392,3
75,000	BB/NR	Massachusetts State Development Finance Agency, 5.25%, 10/1/18	69,1
9,810,000 (a)	NR/Aaa	Massachusetts State Development Finance Agency, RIB, 7.034%, 10/1/39 (144A)	10,554,7
3,055,000	AA-/Aa3	Massachusetts State Housing Finance Agency, 5.25%, 12/1/33	3,098,1
			\$ 37,877,1
		Michigan - 3.5%	
1,500,000	BBB-/NR	John Tolfree Health System Corp., 6.0%, 9/15/23	\$ 1,520,0
2,000,000	BB-/Ba3	Michigan State Hospital Finance Authority Revenue, 5.5%, 8/15/23	1,920,0
4,010,000	BBB-/Ba1	Michigan State Hospital Finance Authority Revenue, 6.0%, 2/1/24	4,010,6
7,720,000 (c)	NR/NR	Wayne Charter County Michigan Special Airport Facilities Revenue, 6.75%, 12/1/15	4,246,4
			\$ 11,697,2
		Minnesota - 3.2%	
1,675,000	BB/NR	Duluth Economic Development Authority Health Care Facilities Revenue, 7.25%, 6/15/32	\$ 1,789,7
13,260,000 (c)	NR/NR	Minneapolis/St. Paul Metropolitan Airports, 7.0%, 4/1/25	8,884,0
			\$ 10,673,8

The accompanying notes are an integral part of these financial statements. 13

Pioneer Municipal High Income Trust

SCHEDULE OF INVESTMENTS 4/30/06

(continued)

Principal Amount	S&P/Moody's Ratings (unaudited)		Value
\$ 3,000,000	BBB-/Ba1	Mississippi - 0.9% Mississippi Business Finance Corp. Pollution Control Revenue, 5.9%, 5/1/22	\$ 3,025,620
5,500,000	NR/Caa2	Missouri - 1.3% St. Louis Industrial Development Authority	

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		Revenue, 7.25%, 12/15/35	\$ 4,399,780

1,600,000	NR/NR	Montana - 0.5% Two Rivers Authority, Inc. Correctional Facility Improvement Revenue, 7.375%, 11/1/27 (144A)	\$ 1,556,864

1,000,000	BBB-/Baa2	Nevada - 1.5% Clark County Industrial Development Revenue, 5.45%, 3/1/38	\$ 1,043,380
1,850,000	B-/NR	Clark County Industrial Development Revenue, 5.5%, 10/1/30	1,807,635
2,000,000	NR/NR	Nevada State Department of Business & Industry, 7.25%, 1/1/23	2,079,400

			\$ 4,930,415

3,000,000	AAA/Aaa	New Hampshire - 0.9% Manchester School Facilities Revenue, 5.125%, 6/1/28	\$ 3,118,920

2,000,000	B/Caa2	New Jersey - 9.9% New Jersey Economic Development Authority Revenue, 6.25%, 9/15/19	\$ 1,967,840
13,350,000	B/Caa2	New Jersey Economic Development Authority Revenue, 6.25%, 9/15/29	13,012,913
1,000,000	B/Caa2	New Jersey Economic Development Authority Revenue, 6.4%, 9/15/23	991,430
6,150,000	B/Caa2	New Jersey Economic Development Authority Revenue, 7.0%, 11/15/30	6,231,180
10,000,000	BBB/Baa3	Tobacco Settlement Financing Corp., 6.75%, 6/1/39	11,096,500

			\$ 33,299,863

3,700,000++	NR/NR	New Mexico - 1.6% New Mexico Hospital Equipment Loan Council, 6.4%, 6/1/16	\$ 3,781,178
1,350,000	BBB-/NR	Santa Fe Educational Facilities Revenue, 5.75%, 10/1/28	1,406,619

			\$ 5,187,797

14 The accompanying notes are an integral part of these financial statements.

Pioneer Municipal High Income Trust

Principal Amount	S&P/Moody's Ratings (unaudited)		Val
\$ 2,000,000	A/NR	New York - 8.8% New York City Industrial Development Agency, 5.375%, 6/1/23	\$ 2,058,5

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6,225,000	CCC/Caa2	New York City Industrial Development Agency, 6.9%, 8/1/24	5,785,9
5,000,000	AAA/Aaa	New York City Trust Cultural Resources Revenue, 5.125%, 7/1/31	5,161,10
7,040,000 (a)	NR/Aaa	New York State Dormitory Authority Revenue, RIB, 7.328%, 7/1/24 (144A)	8,272,2
2,000,000	NR/NR	Suffolk County Industrial Development Agency, 7.25%, 1/1/30	2,045,2
6,000,000	AAA/Aaa	Triborough Bridge & Tunnel Authority Revenue, 5.25%, 11/15/30	6,316,5

			\$ 29,639,5

North Carolina - 2.3%			
3,375,000	NR/NR	Charlotte North Carolina Special Facilities Revenue, 5.6%, 7/1/27	\$ 3,050,8
4,600,000	NR/NR	Charlotte North Carolina Special Facilities Revenue, 7.75%, 2/1/28	4,810,9

			\$ 7,861,8

Oklahoma - 6.4%			
3,000,000+	AAA/Aaa	Oklahoma Development Finance Authority Revenue, 5.625%, 8/15/19	\$ 3,190,6
8,000,000+	AAA/Aaa	Oklahoma Development Finance Authority Revenue, 5.625%, 8/15/29	8,508,4
4,100,000	B-/Caa2	Tulsa Municipal Airport Revenue, 5.65%, 12/1/35	4,031,1
1,225,000	B-/Caa2	Tulsa Municipal Airport Revenue, 6.25%, 6/1/20	1,197,0
4,350,000	B-/Caa2	Tulsa Municipal Airport Revenue, 7.35%, 12/1/11	4,352,1

			\$ 21,279,3

Oregon - 4.2%			
1,000,000	NR/NR	Klamath Falls Electric Revenue, 5.75%, 1/1/13 (144A)	\$ 891,1
7,000,000	NR/NR	Klamath Falls Electric Revenue, 6.0%, 1/1/25 (144A)	5,678,4
7,500,000	NR/NR	Western Generation Agency Cogeneration Project Revenue, 7.125%, 1/1/21	7,553,8

			\$ 14,123,4

The accompanying notes are an integral part of these financial statements. 15

Pioneer Municipal High Income Trust

SCHEDULE OF INVESTMENTS 4/30/06

(continued)

Principal Amount	S&P/Moody's Ratings (unaudited)		Va
\$1,550,000	NR/Baa1	Pennsylvania - 5.9% Allegheny County Hospital Development Authority Revenue, 5.125%, 5/1/25	\$ 1,450,
12,300,000	B+/Ba3	Allegheny County Hospital Development Authority	

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		Revenue, 9.25%, 11/15/30	14,626,
1,000,000	BB-/NR	Columbia County Hospital Authority Health Care Revenue, 5.9%, 6/1/29	879,
1,000,000	BBB/Ba2	Hazleton Health Services Authority Hospital Revenue, 5.625%, 7/1/17	945,
1,280,000	NR/B2	Langhorne Manor Borough Higher Education & Health Authority Revenue, 7.35%, 7/1/22	1,280,
500,000	BBB+/NR	Pennsylvania Higher Educational Facilities Authority Revenue, 5.4%, 7/15/36	516,

			\$ 19,699,

		Rhode Island - 1.3%	
4,000,000	NR/NR	Central Falls Detention Facilities Revenue, 7.25%, 7/15/35	\$ 4,368,

		South Carolina - 4.6%	
3,000,000	AA-/Aa3	Greenville County School District, 5.0%, 12/1/23	\$ 3,102,
5,000,000+	AA-/Aa3	Greenville County School District, 5.5%, 12/1/28	5,482,
5,185,000+	BBB+/Baa1	South Carolina Jobs Economic Development Authority Revenue, 6.375%, 8/1/34	5,924,
665,000	BBB+/Baa1	South Carolina Jobs Economic Development Authority Revenue, 6.375%, 8/1/34	737,

			\$ 15,246,

		Tennessee - 3.8%	
7,000,000	BBB+/Baa2	Johnson City Health & Educational Facilities Board Hospital Revenue, 7.5%, 7/1/33	\$ 8,086,
4,480,000	NR/Baa3	Knox County Health Educational & Housing Facilities Board Hospital Revenue, 6.375%, 4/15/22	4,719,

			\$ 12,806,

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Pioneer Municipal High Income Trust

Principal Amount	S&P/Moody's Ratings (unaudited)		
		Texas - 11.7%	
\$ 7,500,000	CCC/Caa2	Alliance Airport Authority Special Facilities Revenue, 7.5%, 12/1/29	\$ 7,250
1,345,000	NR/Ba1	Bexar County Housing Finance Corp., 8.0%, 12/1/36	1,370
1,000,000	CCC/Caa2	Dallas-Fort Worth International Airport Revenue, 6.0%, 11/1/14	889
5,000,000	CCC/Caa2	Dallas-Fort Worth International Airport Revenue, 6.15%, 5/1/29	4,918
4,000,000	NR/NR	Decatur Hospital Authority Revenue, 7.0%, 9/1/25	4,318
1,000,000+	BB/NR	Georgetown Health Facilities Development Corp.,	

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		6.25%, 8/15/29	1,090
3,750,000	B-/Caa2	Houston Airport System Special Facilities Revenue, 5.7%, 7/15/29	3,236
5,340,000	NR/NR	Lubbock Health Facilities Development Corp., 6.625%, 7/1/36	5,249
2,450,000 (a)	NR/NR	Northside Independent School District, RIB, 7.484%, 6/15/33 (144A)	2,702
500,000	BBB-/Baa2	Sabine River Authority Pollution Control Revenue, 6.15%, 8/1/22	543
7,040,000 (a)	NR/Aa1	Texas State, RIB, 7.002%, 4/1/30 (144A)	7,692

			\$ 39,262

1,500,000	A-/A3	Vermont - 0.5% Vermont Educational & Health Buildings Financing Agency Revenue, 6.0%, 10/1/28	\$ 1,656

1,000,000	BBB/Baa2	Virginia - 1.5% Peninsula Ports Authority, 6.0%, 4/1/33	\$ 1,066
4,000,000	BB-/Ba3	Pocahontas Parkway Association of Virginia Toll Road Revenue, 5.5%, 8/15/28	4,074

			\$ 5,140

4,710,000	AAA/Aaa	Washington - 5.8% Spokane Public Facilities District Hotel/Motel Tax & Sales, 5.75%, 12/1/27	\$ 5,177
7,025,000	BBB/Baa3	Tobacco Settlement Authority Revenue, 6.625%, 6/1/32	7,674
14,315,000	AAA/Aaa	Washington State General Obligation, 0.0%, 6/1/22	6,558

			\$ 19,410

		TOTAL TAX-EXEMPT OBLIGATIONS	
		(Cost \$396,235,158)	\$429,707

The accompanying notes are an integral part of these financial statements. 17

Pioneer Municipal High Income Trust

SCHEDULE OF INVESTMENTS 4/30/06

(continued)

Shares		Value
	TAX-EXEMPT MONEY MARKET MUTUAL FUND - 0.0% of Net Assets	
6,536	BlackRock Provident Institutional Municipal Fund	\$ 6,536

	TOTAL TAX-EXEMPT MONEY MARKET MUTUAL FUND	
	(Cost \$6,536)	\$ 6,536

	TOTAL INVESTMENTS IN SECURITIES - 128.2%	
	(Cost \$396,241,694) (d) (e)	\$ 429,714,372

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OTHER ASSETS AND LIABILITIES - 1.9%	\$ 6,452,852

PREFERRED SHARES AT REDEMPTION VALUE, INCLUDING DIVIDENDS PAYABLE - (30.1)%	\$ (101,046,023)

NET ASSETS APPLICABLE TO COMMON SHAREOWNERS - 100.0%	\$ 335,121,201
	=====

NR Security not rated by S&P or Moody's.

(144A) Security is exempt from registration under Rule 144A of the Securities Act of 1933. Such securities may be resold normally to qualified institutional buyers in a transaction exempt from registration. At April 30, 2006 the value of these securities amounted to \$55,498,331 or 16.6% of net assets applicable to common shareowners.

+ Prerefunded bonds have been collateralized by U.S. Treasury securities which are held in escrow to pay interest and principal on the tax exempt issue and to retire the bonds in full at the earliest refunding date.

++ Prerefunded bonds have been collateralized by cash sufficient to pay interest and principal on the tax exempt issue and to retire the bonds in full at the earliest refunding date.

(a) The interest rate is subject to change periodically and inversely based upon prevailing market rates. The interest rate shown was the rate at April 30, 2006.

(b) Debt obligation initially issued at one coupon which converts to a higher coupon at a specific date. The rate shown was the rate at period end.

(c) Security is in default and is non-income producing.

18 The accompanying notes are an integral part of these financial statements.

Pioneer Municipal High Income Trust

(d) The concentration of investments by type of obligation/market sector is as follows:

Insured	12.1%
General Obligation	3.8
Revenue Bonds:	
Health Revenue	24.7
Airport Revenue	16.7
Tobacco Revenue	10.6
Education Revenue	6.9
Power Revenue	6.0
Pollution Control Revenue	4.6
Development Revenue	4.0
Facilities Revenue	3.1
Transportation Revenue	2.7
Utilities Revenue	1.3
Gaming Revenue	1.2

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Housing Revenue	1.1
School District Revenue	0.6
Other Revenue	0.6

	100.0%
	=====

(e) At April 30, 2006, the net unrealized gain on investments based on cost for federal income tax purposes of \$394,854,987 was as follows:

Aggregate gross unrealized gain for all investments in which there is an excess of value over tax cost	\$44,99
Aggregate gross unrealized loss for all investments in which there is an excess of tax cost over value	(10,13

Net unrealized gain	\$34,85
	=====
For financial reporting purposes net unrealized gain on investments was \$33,472,678 and cost of investments aggregated \$396,241,694	

RIB Residual Interest Bonds

Purchases and sales of securities (excluding temporary cash investments) for the period ended April 30, 2006, aggregated \$89,913,667 and \$84,620,516, respectively.

The accompanying notes are an integral part of these financial statements. 19

Pioneer Municipal High Income Trust

STATEMENT OF ASSETS AND LIABILITIES 4/30/06

ASSETS:

Investments in securities, at value (cost \$396,241,694)	\$429,714,372
Receivables -	
Interest	7,853,561
Unrealized appreciation on interest rate swaps	1,361,145
Prepaid expenses	30,402

Total assets	\$438,959,480

LIABILITIES:

Dividends payable to common shareowners	\$ 1,415,737
Due to custodian	1,053,250
Due to affiliate	215,230
Administration fee payable	25,104
Accrued expenses	82,935

Total liabilities	\$ 2,792,256

PREFERRED SHARES AT REDEMPTION VALUE:

\$25,000 liquidation value per share applicable to 4,040 shares, including dividends payable of \$46,023	\$101,046,023

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NET ASSETS APPLICABLE TO COMMON SHAREOWNERS:		
Paid-in capital		\$315,162,552
Distributions in excess of net investment income		(37,943)
Accumulated net realized loss on investments and interest rate swaps		(14,837,231)
Net unrealized gain on investments		33,472,678
Net unrealized gain on interest rate swaps		1,361,145

Net assets applicable to common shareowners		\$335,121,201
		=====
NET ASSET VALUE PER SHARE:		
No par value, (unlimited number of shares authorized)		
Based on \$335,121,201/22,120,893 common shares		\$ 15.15
		=====

20 The accompanying notes are an integral part of these financial statements.

Pioneer Municipal High Income Trust

STATEMENT OF OPERATIONS

For the Year Ended 4/30/06

INVESTMENT INCOME:		
Interest		\$ 25,998,110

EXPENSES:		
Management fees	\$ 2,638,673	
Administration fees and reimbursement	342,187	
Transfer agent fees and expenses	52,316	
Auction agent fees	267,788	
Custodian fees	30,089	
Registration fees	23,750	
Professional fees	56,882	
Printing expense	23,336	
Trustees' fees	13,155	
Pricing fees	16,971	
Insurance fees	14,792	
Miscellaneous	14,242	

Total expenses		\$ 3,494,181
Less fees paid indirectly		(38)

Net expenses		\$ 3,494,143

Net investment income		\$ 22,503,967

REALIZED AND UNREALIZED GAIN (LOSS) ON INVESTMENTS AND INTEREST RATE SWAPS:		
Net realized gain (loss) from:		
Investments	\$ (13,037,515)	
Interest rate swaps	47,240	\$ (12,990,275)
	-----	-----
Change in net unrealized gain from:		
Investments	\$ 1,945,843	
Interest rate swaps	543,838	\$ 2,489,681
	-----	-----

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Net loss on investments and interest rate swaps	(10,500,594)

DISTRIBUTIONS TO PREFERRED SHAREOWNERS FROM NET INVESTMENT INCOME:	\$ (2,704,921)

Net increase in net assets applicable to common shareowners resulting from operations	\$ 9,298,452
=====	

The accompanying notes are an integral part of these financial statements. 21

Pioneer Municipal High Income Trust

STATEMENTS OF CHANGES IN NET ASSETS

For the Years Ended 4/30/06 and 4/30/05

	Year Ended 4/30/06	Year Ended 4/30/05
FROM OPERATIONS:		
Net investment income	\$ 22,503,967	\$ 25,177,837
Net realized gain (loss) on investments and interest rate swaps	(12,990,275)	258,653
Change in net unrealized gain on investments and interest rate swaps	2,489,681	20,621,102
Dividends and distributions to preferred shareowners from:		
Net investment income	(2,704,921)	(1,444,764)
Net realized gains	-	(90,681)

Net increase in net assets applicable to common shareowners	\$ 9,298,452	\$ 44,522,147

DIVIDENDS AND DISTRIBUTIONS TO COMMON SHAREOWNERS FROM:		
Net investment income (\$0.89 and \$1.07 per share, respectively)	\$ (19,731,837)	\$ (23,669,356)
Net realized gains (\$0.00 and \$0.09 per share, respectively)	-	(2,011,719)

Total distributions to common shareowners	\$ (19,731,837)	\$ (25,681,075)

FROM TRUST SHARE TRANSACTIONS:		
Changes in estimated common share offering costs previously charged to paid-in capital	\$ -	\$ 123,849

Net increase in net assets applicable to common shareowners resulting from Trust share transactions	\$ -	\$ 123,849

Net increase (decrease) in net assets applicable to common shareowners	\$ (10,433,385)	\$ 18,964,921
NET ASSETS APPLICABLE TO COMMON SHAREOWNERS:		
Beginning of year	345,554,586	326,589,665

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End of year (including undistributed (distributions in excess of) net investment income of (\$37,943) and \$203,603, respectively)	\$ 335,121,201	\$ 345,554,586
	=====	=====

22 The accompanying notes are an integral part of these financial statements.

Pioneer Municipal High Income Trust

FINANCIAL HIGHLIGHTS

	Year Ended 4/30/06	Year Ended 4/30/05
Per Common Share Operating Performance		
Net asset value, beginning of period	\$ 15.62	\$ 14.76
Increase (decrease) from investment operations (a)		
Net investment income	\$ 1.02	\$ 1.14
Net realized and unrealized gain (loss) on investments and interest rate swaps	(0.48)	0.95
Dividends and distributions to preferred shareowners from:		
Net investment income	(0.12)	(0.07)
Net realized gains	-	- (d)
Net increase (decrease) from investment operations	\$ 0.42	\$ 2.02
Dividends and distributions to common shareowners from:		
Net investment income	(0.89)	(1.07)
Net realized gains	-	(0.09)
Capital change with respect to issuance of:		
Common shares	-	- (d)
Preferred shares	-	-
Net increase (decrease) in net asset value	\$ (0.47)	\$ 0.86
Net asset value, end of period(e)	\$ 15.15	\$ 15.62
Market value, end of period(e)	\$ 13.22	\$ 14.33
Total return(f)	(1.85)%	13.34%
Ratios to average net assets of common shareowners		
Net expenses(g)	1.03%	1.04%
Net investment income before preferred share dividends	6.64%	7.60%
Preferred share dividends	0.80%	0.43%
Net investment income available to common shareowners	5.84%	7.17%
Portfolio turnover	20%	25%
Net assets of common shareowners, end of period (in thousands)	\$335,121	\$345,555
Preferred shares outstanding (in thousands)	\$101,000	\$101,000
Asset coverage per preferred share, end of period	\$107,962	\$110,533
Average market value per preferred share	\$ 25,000	\$ 25,000
Liquidation value, including dividends payable, per preferred share	\$ 25,011	\$ 25,000
Ratios to average net assets of common shareowners before reimbursement of organization expenses and expense reductions		
Net expenses(g)		1.04%
Net investment income before preferred share dividends		7.60%

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Preferred share dividends

0.43%

Net investment income available to common shareowners

7.17%

- (a) The per common share data presented above is based upon the average common shares outstanding for the periods presented.
- (b) Trust shares were first publicly offered on July 18, 2003.
- (c) Net asset value immediately after the closing of the first public offering was \$14.30.
- (d) Amount is less than \$0.01 per share.

- (e) Net asset value and market value are published in Barron's on Saturday, The Wall Street Journal on Monday and The New York Times on Monday and Saturday.
- (f) Total investment return is calculated assuming a purchase of common shares at the current market value on the first day and a sale at the current market value on the last day of the periods reported. Dividends and distributions, if any, are assumed for purposes of this calculation to be reinvested at prices obtained under the Trust's dividend reinvestment plan. Total investment return does not reflect shareowner brokerage commissions. Total investment return less than a full period is not annualized. Past performance is not a guarantee of future results.
- (g) Expense ratios do not reflect the effect of dividend payments to preferred shareowners.
- (h) Annualized.

The information above represents the audited operating performance data for a share of common stock outstanding, total investment return, ratios to average net assets of common shareowners and other supplemental data for the periods indicated. This information has been determined based upon financial information provided in the financial statements and market value data for the Trust's common shares.

The accompanying notes are an integral part of these financial statements. 23

Pioneer Municipal High Income Trust

NOTES TO FINANCIAL STATEMENTS 4/30/06

1. Organization and Significant Accounting Policies

Pioneer Municipal High Income Trust (the "Trust") was organized as a Delaware statutory trust on March 13, 2003. Prior to commencing operations on July 21, 2003, the Trust had no operations other than matters relating to its organization and registration as a diversified, closed-end management investment company under the Investment Company Act of 1940, as amended.

The Trust may invest in municipal securities with a broad range of maturities and credit ratings, including both investment grade and below investment grade municipal securities.

The Trust invests in below investment grade (high-yield) municipal securities. Debt securities rated below investment grade are commonly referred to as "junk bonds" and are considered speculative. These securities involve greater risk of loss, are subject to greater price volatility, and are less liquid, especially during periods of economic uncertainty or change, than higher rated debt securities.

The Trust's financial statements have been prepared in conformity with U.S. generally accepted accounting principles that require the management of the Trust to, among other things, make estimates and assumptions that affect the reported amounts of assets and liabilities, and the reported amounts of income,

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expenses and gains and losses on investments during the reporting period. Actual results could differ from those estimates.

The following is a summary of significant accounting policies followed by the Trust in the preparation of its financial statements, which are consistent with those policies generally accepted in the investment company industry:

A. Security Valuation

Security transactions are recorded as of trade date. Securities are valued at prices supplied by independent pricing services, which consider such factors as Treasury spreads, yields, maturities and ratings. Valuations may be supplemented by dealers and other sources, as required. The values of interest rate swaps are determined by obtaining dealer quotations. Securities for which market quotations are not readily available are valued at their fair values as determined by, or under the direction of, the Board of Trustees.

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Pioneer Municipal High Income Trust

At April 30, 2006, there were no securities fair valued. Temporary cash investments are valued at amortized cost.

Discount and premium on debt securities are accreted or amortized, respectively, daily on an effective yield to maturity basis and are included in interest income. Interest income, including interest bearing cash accounts, is recorded on an accrual basis.

Gains and losses on sales of investments are calculated on the identified cost method for both financial reporting and federal income tax purposes.

Information regarding the Trust's principal risks is contained in the Trust's original offering prospectus. Please refer to those documents when considering the Trust's risks. At times, the Trust's investments may represent industries or industry sectors that are interrelated or have common risks, making it more susceptible to any economic, political, or regulatory developments or other risks affecting those industries and sectors.

B. Federal Income Taxes

It is the Trust's policy to comply with the requirements of the Internal Revenue Code applicable to regulated investment companies and to distribute all of its taxable income and net realized capital gains, if any, to its shareowners. Therefore, no federal income tax provision is required.

The amounts and characterizations of distributions to shareowners for financial reporting purposes are determined in accordance with federal income tax rules. Therefore, the source of the Trust's distributions may be shown in the accompanying financial statements as either from or in excess of net investment income or net realized gain on investment transactions, or from paid in-capital, depending on the type of book/tax differences that may exist.

At April 30, 2006 the Trust reclassified \$308,755 to decrease undistributed net investment income and to decrease accumulated net realized loss on

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investments. The reclassification has no impact on the net asset value of the Trust and presents the Trust's capital accounts on a tax basis.

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Pioneer Municipal High Income Trust

NOTES TO FINANCIAL STATEMENTS 4/30/06

(continued)

At April 30, 2006, the Trust had a capital loss carryforward of \$9,706,870 which will expire in 2014 if not utilized.

The tax character of distributions paid to common and preferred shareowners during the year ended April 30, 2006 and April 30, 2005 was as follows:

	2006	2005
Distributions paid from:		
Tax exempt income	\$22,436,758	\$25,094,466
Ordinary income	-	1,196,946
Net long-term capital gains	-	925,108
Total	\$22,436,758	\$27,216,520

The following shows the components of distributable earnings on a federal income tax basis at April 30, 2006.

	2006
Undistributed tax-exempt income	\$ 491,874
Undistributed ordinary income	149,127
Capital loss carryforward	(9,706,870)
Dividend payable	(1,461,760)
Unrealized appreciation	35,616,623
Post-October loss deferred	(5,130,345)
Total	\$19,958,649

The difference between book-basis and tax-basis unrealized appreciation is primarily attributable to the difference between book and tax amortization methods for premiums and discounts on fixed income securities, tax deferral of losses on wash sales and accrual of income on defaulted bond interest.

C. Automatic Dividend Reinvestment Plan

All common shareowners automatically participate in the Automatic Dividend

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Reinvestment Plan (the "Plan"), under which participants receive all dividends and capital gain distributions (collectively, "dividends") in full and fractional common shares of the Trust in

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Pioneer Municipal High Income Trust

lieu of cash. Shareowners may elect not to participate in the Plan. Shareowners not participating in the Plan receive all dividends and capital gain distributions in cash. Participation in the Plan is completely voluntary and may be terminated or resumed at any time without penalty by notifying Mellon Investor Services LLC, the agent for shareowners in administering the Plan (the "Plan Agent"), in writing prior to any dividend record date; otherwise such termination or resumption will be effective with respect to any subsequently declared dividend or other distribution.

Whenever the Trust declares a dividend on common shares payable in cash, participants in the Plan will receive the equivalent in common shares acquired by the Plan Agent either (i) through receipt of additional unissued but authorized common shares from the Trust or (ii) by purchase of outstanding common shares on the New York Stock Exchange or elsewhere. If, on the payment date for any dividend the net asset value per common share is equal to or less than the market price per share plus estimated brokerage trading fees ("market premium"), the Plan Agent will invest the dividend amount in newly issued common shares. The number of newly issued common shares to be credited to each account will be determined by dividing the dollar amount of the dividend by the net asset value per common share on the date the shares are issued, provided that the maximum discount from the then current market price per share on the date of issuance does not exceed 5%. If, on the payment date for any dividend, the net asset value per common share is greater than the market value ("market discount"), the Plan Agent will invest the dividend amount in common shares acquired in open-market purchases. There are no brokerage charges with respect to newly issued common shares. However, each participant will pay a pro rata share of brokerage trading fees incurred with respect to the Plan Agent's open-market purchases. Participating in the Plan does not relieve shareowners from any federal, state or local taxes which may be due on dividends paid in any taxable year. Shareowners holding Plan shares in a brokerage account may not be able to transfer the shares to another broker and continue to participate in the Plan.

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Pioneer Municipal High Income Trust

NOTES TO FINANCIAL STATEMENTS 4/30/06

(continued)

2. Management Agreement

Pioneer Investment Management, Inc. ("PIM"), a wholly owned indirect subsidiary of Unicredito Italiano S.p.A. ("Unicredito Italiano"), manages the Trust's portfolio. Management fees are calculated daily at the annual rate of 0.60% of the Trust's average daily managed assets. "Managed assets" is the average daily value of the Trust's total assets minus the sum of the Trust's liabilities, which liabilities exclude debt related to leverage, short-term debt and the

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aggregate liquidation preference of any outstanding preferred shares. At April 30, 2006, \$215,230 was payable to PIM related to management fees.

In addition, under PIM's management and administration agreements, certain other services and costs are paid by PIM and reimbursed by the Trust. For the year ended April 30, 2006, the Trust recorded \$34,331 in reimbursements, which is included in "Administration fees and reimbursement" on the Statement of Operations.

The Trust has retained Princeton Administrators, L.P., ("Princeton") to provide certain administrative services to the Trust on its behalf. The Trust pays Princeton a monthly fee at an annual rate of 0.07% of the average weekly value of the Trust's managed assets, subject to a minimum monthly fee of \$10,000.

Also, PIM has agreed for the first three years of the Trust's investment operations to limit the Trust's total annual expenses [excluding organizational and offering costs for common and preferred shares, interest expense, the cost of defending or prosecuting any claim or litigation to which the Trust is a party, (together with any amount in judgment or settlement), indemnification expenses or taxes incurred due to the failure of the Trust to qualify as a regulated investment company under the Code or any other non-recurring or non-operating expenses] to 0.80% of the Trust's average daily managed assets. The dividend on any preferred shares is not an expense for this purpose. As of April 30, 2006, the Trust's expenses were not reduced under such arrangements.

3. Transfer Agents

Pioneer Investment Management Shareholder Services, Inc. ("PIMSS"), a wholly owned indirect subsidiary of UniCredito Italiano, through a sub-transfer agency agreement with Mellon Investor Services LLC, provides substantially all transfer agent and shareowner

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Pioneer Municipal High Income Trust

services related to the Trust's common shares at negotiated rates. Deutsche Bank Trust Company Americas is the transfer agent, registrar, dividend paying agent and redemption agent with respect to the Trust's Auction Preferred Shares ("APS"). The Trust pays Deutsche Bank Trust Company Americas an annual fee, as is agreed to from time to time by the Trust and Deutsche Bank Trust Company Americas, for providing such services.

4. Expense Offset Arrangements

The Trust has entered into an arrangement with its custodian whereby credits realized as a result of uninvested cash balances are used to reduce a portion of the Trust's custodian expenses. For the year ended April 30, 2006 the Trust expenses were reduced by \$38 under such arrangement.

5. Interest Rate Swaps

The Trust may enter into interest rate swap transactions to attempt to protect itself from increasing dividend or interest expense on its leverage resulting from increasing short-term interest rates. The cost of leverage may rise with an increase in interest rates, generally having the effect of lower yields and potentially lower dividends to common shareowners. Interest rate swaps can be used to "lock in" the cost of leverage and reduce the negative impact that

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rising short-term interest rates would have on the Trust's leveraging costs.

An interest rate swap is an agreement between two parties, which involves exchanging a floating rate and fixed rate interest payments for a specified period of time. Interest rate swaps involve the accrual of the net interest payments between the parties on a daily basis, with the net amount recorded within the unrealized appreciation/ depreciation of interest rate swaps on the Statement of Assets and Liabilities. Once the interim payments are settled in cash, at the pre-determined dates specified in the agreement, the net amount is recorded as realized gain or loss from interest rate swaps on the Statement of Operations. During the term of the swap, changes in the value of the swap are recognized as unrealized gains and losses by "marking-to-market" the value of the swap based on values obtained from dealer quotations. When the swap is terminated, the Trust will record a realized gain or loss equal to the difference, if any, between

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Pioneer Municipal High Income Trust

NOTES TO FINANCIAL STATEMENTS 4/30/06

(continued)

the proceeds from (or cost of) closing the contract and the cost basis of the contract. The Trust is exposed to credit risk in the event of non-performance by the other party to the interest rate swap. However, at April 30, 2006 the Trust does not anticipate non-performance by any counterparty. Risk may also arise with regard to market movements in the value of the swap arrangement that do not exactly offset the changes in the related dividend requirement or interest expense on the Trust's leverage.

Under the terms of the agreement entered into by the Trust, the Trust receives a floating rate of interest and pays a fixed rate of interest for the term. Details of the swap agreement outstanding as of April 30, 2006 were as follows:

Counterparty	Termination Date	Notional Amount (000)	Fixed Rate	Floating Rate	Unrealized Appreciation
UBS AG	April 5, 2009	\$50,000	2.665%	1 month BMA	\$1,361,145

6. Trust Shares

There are an unlimited number of common shares of beneficial interest authorized. Of the 22,120,893 common shares of beneficial interest outstanding at April 30, 2006, PIM owned 6,981 shares.

During the years ended April 30, 2006 and April 30, 2005, there were no share transactions by the Trust. All reinvested distributions were satisfied with previously issued shares purchased in the open market by the Plan Agent and credited to shareowner accounts.

The Trust may classify or reclassify any unissued common shares of beneficial interest into one or more series of preferred shares of beneficial interest. As of April 30, 2006, there were 4,040 APS as follows: Series A-2,000 and Series

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B-2,040.

Dividends on Series A and Series B are cumulative at a rate which is reset every seven days based on the results of an auction. Dividend rates ranged from 1.78% to 3.70% during the year ended April 30, 2006.

The Trust may not declare dividends or make other distributions on its common shares or purchase any such shares if, at the time of the declaration, distribution or purchase, asset coverage with respect to the outstanding preferred shares would be less than 200%.

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Pioneer Municipal High Income Trust

The APS are redeemable at the option of the Trust, in whole or in part, on any dividend payment date at \$25,000 per share plus any accumulated or unpaid dividends, whether or not declared. The APS are also subject to mandatory redemption at \$25,000 per share plus any accumulated or unpaid dividends, whether or not declared, if certain requirements relating to the composition of the assets and liabilities of the Trust as set forth in the Agreement and Declaration of Trust are not satisfied.

The holders of APS have voting rights equal to the holders of the Trust's common shares (one vote per share) and will vote together with holders of the common shares as a single class. However, holders of APS are also entitled to elect two of the Trust's Trustees. In addition, the Investment Company Act of 1940, as amended, requires that along with approval by shareowners that might otherwise be required, the approval of the holders of a majority of any outstanding preferred shares, voting separately as a class, would be required to (a) adopt any plan of reorganization that would adversely affect the preferred shares and (b) take any action requiring a vote of security holders, including, among other things, changes in the Trust's subclassification as a closed-end management investment company or changes in its fundamental investment restrictions.

7. Subsequent Events

Subsequent to April 30, 2006, the Board of Trustees of the Trust declared a dividend from undistributed net investment income of \$0.064 per common share payable May 31, 2006, to shareowners of record on May 16, 2006.

For the period May 1, 2006 to May 31, 2006, dividends declared on preferred stock totaled \$340,686 in aggregate for the two outstanding preferred share series.

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Pioneer Municipal High Income Trust

NOTES TO FINANCIAL STATEMENTS 4/30/06

(continued)

ADDITIONAL INFORMATION (unaudited)

During the period, there were no material changes in the Trust's investment objective or fundamental policies that were not approved by the shareowners.

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There were no changes in the Trust's charter or By-Laws that would delay or prevent a change in control of the Trust which have not been approved by the shareowners. There were no changes in the principal risk factors associated with investment in the Trust. There were no changes in the persons who are primarily responsible for the day-to-day management of the Trust's portfolio.

Notice is hereby given in accordance with Section 23(c) of the Investment Company Act of 1940 that the Trust may purchase, from time to time, its common shares in the open market.

CEO CERTIFICATION DISCLOSURE (unaudited)

The Trust's Chief Executive Officer has submitted to the New York Stock Exchange the annual CEO certification as required by Section 303A.12(a) of the NYSE Listed Company Manual. In addition, the Trust has filed with the Securities and Exchange Commission the certification of its Chief Executive Officer and Chief Financial Officer required by Section 302 of the Sarbanes-Oxley Act.

IMPORTANT TAX INFORMATION (unaudited)

All of the net investment income distributions paid by Pioneer Municipal High Income Trust during the taxable year ended April 30, 2006 qualify as tax-exempt interest dividends for federal income tax purposes.

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Pioneer Municipal High Income Trust

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Trustees and the Shareowners of
Pioneer Municipal High Income Trust:

We have audited the accompanying statement of assets and liabilities of Pioneer Municipal High Income Trust (the "Trust"), including the schedule of investments, as of April 30, 2006, and the related statement of operations for the year then ended, the statements of changes in net assets for each of the two years in the period then ended, and the financial highlights for each of the periods indicated therein. These financial statements and financial highlights are the responsibility of the Trust's management. Our responsibility is to express an opinion on these financial statements and financial highlights based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements and financial highlights are free of material misstatement. We were not engaged to perform an audit of the Trust's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Trust's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements and financial highlights, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our procedures included confirmation of securities owned as of April 30, 2006, by correspondence with the custodian and brokers. We believe that our audits provide a reasonable

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basis for our opinion.

In our opinion, the financial statements and financial highlights referred to above present fairly, in all material respects, the financial position of Pioneer Municipal High Income Trust at April 30, 2006, the results of its operations for the year then ended, the changes in its net assets for each of the two years in the period then ended, and the financial highlights for each of the periods indicated therein, in conformity with U.S. generally accepted accounting principles.

Ernst & Young LLP

Boston, Massachusetts
June 2, 2006

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Pioneer Municipal High Income Trust

FACTORS CONSIDERED BY THE INDEPENDENT TRUSTEES IN
APPROVING THE MANAGEMENT CONTRACT

The Investment Company Act of 1940 requires that both the Board of Trustees and a majority of the Independent Trustees (collectively "the Trustees") voting separately annually approve the Trust's management contract (the "Management Contract"). The Trustees have determined that the terms of the Management Contract are fair and reasonable and that renewal of the contract will enable the Trust to receive quality investment advisory services at a cost deemed reasonable and in the best interests of the Trust and its shareowners. In making such determinations, the Independent Trustees relied upon the assistance of counsel to the Independent Trustees and counsel to the Trust.

Throughout the year, the Independent Trustees regularly met in executive sessions separately from the Interested Trustees of the Trust and any officers of Pioneer Investment Management, Inc., the Trust's adviser (the "Investment Adviser"), or its affiliates. While the Trustees, including the Independent Trustees, act on all major matters relating to the Trust, a significant portion of the activities of the Board of Trustees (including certain of those described herein) is conducted through committees, the members of which are comprised exclusively of Independent Trustees. Such committee meetings are attended by officers of the Trust or the Investment Adviser to the extent requested by the members of the committee.

In evaluating the Management Contract, the Trustees conducted a review that was specifically focused upon the renewal of the Management Contract and also relied upon their knowledge, resulting from their meetings throughout the year, of the Investment Adviser, its services and the Trust. Both in meetings specifically dedicated to renewal of the Management Contract and at other meetings during the course of the year, the Trustees, including the Independent Trustees, received materials relating to the Investment Adviser's investment and management services under the Management Contract. These materials included (i) information on the investment performance of the Trust, a peer group of funds and an index, in each case selected by the Independent Trustees for this purpose, (ii) the general investment outlook in the markets in which the Trust invests, (iii) the procedures employed to determine the value of each of the Trust's assets, (iv) the Investment Adviser's management of the relationships with the Trust's unaffiliated service providers, (v) the record of compliance with the Trust's investment policies and restrictions and with the Trust's Code of Ethics and the structure and responsibilities of the Investment Adviser's compliance department, (vi) the nature, cost and

Pioneer Municipal High Income Trust

character of non-investment management services provided by the Investment Adviser and its affiliates, (vii) the disclosures included in the Trust's reports to shareowners, (viii) analyses of the benefits and costs of the use of leverage through the issuance of the Trust's preferred shares and sensitivity analyses based on changes in interest rates and (ix) the discount or premium of the market price of the Trust's common stock relative to its net asset value and measures that are or could be taken to address any discount.

Specifically in connection with the Independent Trustees' review of the Management Contract, the Independent Trustees requested and the Investment Adviser provided additional information in order to evaluate the quality of the Investment Adviser's services and the reasonableness of the fees under the Management Contract. Among other items, this information included data or analyses of (1) investment performance for one year period for the Trust and a peer group selected by the Independent Trustees for this purpose, (2) management and other fees incurred by a peer group of funds selected by the Independent Trustees for this purpose, (3) the advisory fees of other comparable portfolios managed by the Investment Adviser, (4) expense ratios for the Trust and a peer group of funds selected by the Independent Trustees for this purpose, (5) the overall organization of the Investment Adviser, (6) the Investment Adviser's financial results and condition, including its and certain of its affiliates' profitability from services per formed for the Trust, (7) administrative reimbursements paid to the Investment Adviser or affiliates, (8) investment management staffing, and (9) operating expenses paid to third parties.

The following summarizes factors considered by the Trustees in connection with reviewing the information described above and their renewal of the Trust's Management Contract. The Trustees did not identify any single factor as all-important or controlling, and the summary does not detail all the matters that were considered.

- A. Ancillary Benefits to Shareowners. The Trustees considered the benefits to shareowners of investing in a closed-end fund that is part of an established group of open and closed-end funds. The Trustees also noted that the relationship of the market price relative to the Trust's net assets attributed to its common shares was at least comparable to other closed-end funds with similar investment approaches.

Pioneer Municipal High Income Trust

FACTORS CONSIDERED BY THE INDEPENDENT TRUSTEES IN APPROVING THE MANAGEMENT CONTRACT

(continued)

- B. Compliance and Investment Performance. The Trustees determined that the Investment Adviser had policies and systems reasonably designed to achieve compliance with the Trust's investment objectives and regulatory requirements. The Trustees also reviewed the Trust's investment

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performance, based on total return, as well as the Trust's performance compared to both the performance of a peer group and the results of an index, in each case selected by the Independent Trustees for this purpose. The Trust's performance, on the basis of total return, was in the fifth quintile for the 12 months ended June 30, 2005. (In all quintile rankings referred to throughout this discussion first quintile is most favorable to the Trust's shareowners. Thus, highest relative performance would be first quintile and lowest relative expenses also would be first quintile.) The Trustees also considered the yield (gross of expense) to the Trust's common shareowners relative to the yield (at June 30, 2005) of the Lehman Municipal Bond Index. The Trustees concluded that the performance of the Trust supported the continuation of the Management Contract.

- C. The Investment Adviser's Personnel and Methods. The Trustees reviewed the background of members of the team responsible for the daily management of the Trust and the Trust's investment objective and discipline. The Independent Trustees also have had discussions with senior management of the Investment Adviser responsible for investment operations and the senior management of the Investment Adviser's fixed income group. Among other things, the Trustees considered the number, education and experience of the Investment Adviser's investment staff and their use of technology and emphasis on analytics in view of the risk profile of securities in which the Trust invests. The Trustees concluded that the Investment Adviser had the quality and depth of personnel and the well-developed methods essential to performing its duties under the Management Contract.
- D. Nature and Quality of Other Services. The Trustees considered the nature, quality, cost and extent of other services provided to shareowners of the Trust, including administrative and shareowner services performed by the Investment Adviser under the Management Contract. The Trustees also considered the reasonableness of the arrangements for reimbursement of the Investment Adviser's out-of-pocket costs and expenses, including overhead, for certain administrative services that the Investment

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Pioneer Municipal High Income Trust

Adviser is not required to provide under the Management Contract. The Trustees also considered the nature and extent of the other services provided by the Investment Adviser's affiliates under other contracts and its supervision of third party service providers. Based on these considerations, the Trustees concluded that the nature, quality, cost and extent of such services are satisfactory and reliable and serve the shareowners of the Trust well.

- E. Management Fee and Expenses. The Trustees considered the Investment Adviser's fee under the Management Contract relative to the management fees charged by a peer group of funds selected by the Independent Trustees for this purpose using data provided by an independent third party. The Trust's management fee for the 12 months ended June 30, 2005 was in the third quintile relative to the management fees paid by the other funds in that peer group for the comparable period. The Trustees determined that the fee under the Management Contract was reasonable and fair in light of both the overall nature and quality of services provided by the Investment Adviser and the fees charged by the funds in the peer group. The Trustees also considered the Trust's expense ratio for the 12 months ended June 30, 2005

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and expense ratios for the comparable period of a peer group of funds selected by the Independent Trustees for this purpose. The Trust's expense ratio (after giving effect to expense limitations) was in the first quintile of the applicable peer group for the most recent fiscal year of the peer group. The Trustees concluded that the Trust's expense ratio was capped at a level that was reasonable relative to comparable funds.

- F. Profitability. The Trustees considered the level of the Investment Adviser's profits with respect to the management of the Pioneer funds, including details with respect to the Trust. This consideration included a review of the Investment Adviser's methodology in allocating certain of its costs to the management of each fund. The Trustees also considered the financial results realized by the Investment Adviser in connection with the operation of the Trust. They further considered the profits realized by the Investment Adviser and its affiliates from non-fund businesses that may benefit from or be related to the Trust's business. The Trustees considered the Investment Adviser's profit margins in comparison with the limited available industry data. The Trustees concluded that the Investment Adviser's profits from management

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Pioneer Municipal High Income Trust

FACTORS CONSIDERED BY THE INDEPENDENT TRUSTEES IN
APPROVING THE MANAGEMENT CONTRACT

(continued)

of the Pioneer funds, including the financial results derived from the Trust, bear a reasonable relationship to the services rendered and are fair for the management of the Trust.

- G. Economies of Scale. The Trustees considered whether the Trust had appropriately benefited from any economies of scale, and whether there was potential for realization of any further economies of scale. Since the Trust is a closed-end fund and its size is relatively stable at an asset level that was anticipated when the management fee was initially set, the Trustees concluded that economies of scale were not a relevant consideration.
- H. Other Benefits to the Investment Adviser. The Trustees also considered the character and amount of fees paid by the Trust, other than under the Management Contract, for services provided by the Investment Adviser and affiliates. The Trustees further considered the revenues and profitability of the Investment Adviser's businesses other than the fund business, including the Investment Adviser's institutional investment advisory business. The Trustees considered the intangible benefits that accrue to the Investment Adviser and its affiliates by virtue of its relationship with the Trust and the Pioneer funds as a group. The Trustees concluded that all these types of benefits accruing to the Investment Adviser were reasonable in the context of the overall relationship between the Investment Adviser and the Trust.

Conclusion. The Trustees, in light of the Investment Adviser's overall performance, considered it appropriate to continue to retain the management services of the Investment Adviser. Based on their evaluation of all material factors deemed relevant and the advice of independent counsel, the Trustees concluded that the Management Contract with the Trust is fair and reasonable and voted to approve the continuation of the Management Contract for another year.

Pioneer Municipal High Income Trust

TRUSTEES, OFFICERS AND SERVICE PROVIDERS

Investment Adviser
Pioneer Investment Management, Inc.

Custodian
Brown Brothers Harriman & Co.

Independent Registered Public Accounting Firm
Ernst & Young LLP

Legal Counsel
Wilmer Cutler Pickering Hale and Dorr LLP

Transfer Agent
Pioneer Investment Management Shareholder Services, Inc.

Shareowner Services and Sub-Transfer Agent
Mellon Investor Services LLC

Preferred Share Auction/Transfer Agent and Registrar
Deutsche Bank Trust Company Americas

Sub-Administrator
Princeton Administrators, L.P.

Trustees and Officers
The Trust's Board of Trustees provides broad supervision over the Trust's affairs. The officers of the Trust are responsible for the Trust's operations. The Trust's Trustees and officers are listed below, together with their principal occupations during the past five years. Trustees who are interested persons of the Trust within the meaning of the Investment Company Act of 1940 are referred to as Interested Trustees. Trustees who are not interested persons of the Trust are referred to as Independent Trustees. Each of the Trustees (except Mr. Hood and Mr. West) serve as a Trustee of the 91 U.S. registered investment portfolios for which Pioneer Investment Management, Inc. ("Pioneer") serves as investment adviser (the "Pioneer Funds"). Mr. Hood and Mr. West serve as Trustees for 35 of the 91 Pioneer Funds. The address for all Interested Trustees and all officers of the Trust is 60 State Street, Boston, Massachusetts 02109.

The Trust's statement of additional information provides more detailed information regarding the Trust's Trustees and is available upon request, without charge, by calling 1-800-225-6292.

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TRUSTEES, OFFICERS AND SERVICE PROVIDERS

Proxy Voting Policies and Procedures of the Trust are available without charge, upon request, by calling our toll free number (1-800-225-6292). Information regarding how the Trust voted proxies relating to portfolio securities during the most recent 12-month period ended June 30 is publicly available to

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shareowners at pioneerinvestments.com and on the SEC's web site at
<http://www.sec.gov>.

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Pioneer Municipal High Income Trust

INTERESTED TRUSTEES

Name and Age	Positions Held With the Fund	Length of Service and Term of Office
John F. Cogan, Jr. (79)*	Chairman of the Board, Trustee and President	Class I Trustee since 2003. Term expires in 2007. Elected by Preferred Shares

*Mr. Cogan is an Interested Trustee because he is an officer or director of Pioneer and certain o

Osbert M. Hood (53)**	Trustee and Executive Vice President	Class II Trustee since 2003. Term expires in 2008.
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**Mr. Hood is an Interested Trustee because he is an officer or director of Pioneer and certain o

Pioneer Municipal High Income Trust

INTERESTED TRUSTEES

Name and Age	Principal Occupation During Past Five Years	Other by
John F. Cogan, Jr. (79)*	Deputy Chairman and a Director of Pioneer Global Asset Management S.p.A. ("PGAM"); Non-Executive Chairman and a Director of Pioneer Investment Management USA Inc. ("PIM-USA"); Chairman and a Director of Pioneer; Director of Pioneer Alternative Investment Management Limited (Dublin); President and a Director of Pioneer Alternative Investment Management (Burmuda) Limited and affiliated funds; Director of PIOGLOBAL Real Estate Investment Fund (Russia); Director of Nano-C, Inc. (since 2003); Director of Cole Investment Corporation (since 2004); Director of Fiduciary Counseling Inc.; President and Director of Pioneer Funds Distributor, Inc. ("PFD"); President of all of the Pioneer Funds; and of Counsel, Wilmer Cutler Pickering Hale and Dorr LLP (counsel to PIM-USA and the Pioneer Funds).	Cha of Com of Com

Osbert M. Hood (53)**	President and Chief Executive Officer, PIM-USA since May 2003 (Director since January 2001); President and Director of Pioneer since May 2003; Chairman and Director of Pioneer Investment Management	Non
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Shareholder Services, Inc. ("PIMSS") since May 2003;
Executive Vice President of all of the Pioneer Funds
since June 2003; Executive Vice President and Chief
Operating Officer of PIM-USA, November 2000 to May 2003.

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Pioneer Municipal High Income Trust

INDEPENDENT TRUSTEES

Name, Age and Address	Positions Held With the Fund	Length of Service and Term of Office
David R. Bock **(62) 3050 K. Street NW, Washington, DC 20007	Trustee	Class I Trustee since 2005. Term expires in 2007.

**Mr. Bock became a Trustee of the Fund on January 1, 2005.

Mary K. Bush (58) 3509 Woodbine Street, Chevy Chase, MD 20815	Trustee	Class III Trustee since 2003. Term expires in 2006.
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