

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

PIONEER MUNICIPAL HIGH INCOME TRUST
Form N-CSR
January 03, 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, 2004 through October 31, 2005

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

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

under the clearance requirements of 44 U.S.C. ss. 3507.

ITEM 1. REPORTS TO SHAREOWNERS.

PIONEER

MUNICIPAL
HIGH
INCOME
TRUST

Semiannual
Report

10/31/05

[LOGO] PIONEER
Investments (R)

Table of Contents

Letter to Shareowners	1
Portfolio Summary	2
Performance Update	3
Portfolio Management Discussion	5
Schedule of Investments	8
Financial Statements	17
Notes to Financial Statements	21
Results of Shareowner Meeting	29
Trustees, Officers and Service Providers	30

Pioneer Municipal High Income Trust

LETTER TO SHAREOWNERS 10/31/05

Dear Shareowner,

Questions about the economic outlook moved from theoretical to real when Hurricanes Katrina and Rita wreaked devastation on people and property across much of the Gulf Coast. Before the storms struck, the economy had been motoring forward, with strong profit growth and good jobs numbers being reported across a range of sectors. Despite 12 straight hikes by the Federal Reserve Board, interest rates were at tolerable levels, and businesses and households were managing to live with rising energy costs. The Fed raised rates again on November 1, 2005, suggesting continued concern that inflationary fires are merely banked, not extinguished. The stimulative effect of massive recovery spending may have been a factor in the Fed's decision. Damage to many Gulf area facilities may also keep oil and gasoline supplies tight and restrain GDP growth for a time. By late in the third quarter, energy prices had backed off peak levels, but remained high enough to prompt worries over their impact on consumers and the economy in general.

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

Consumers are key to the economy's direction. The national savings rate stands near zero, leaving households with little financial slack to continue absorbing punishing prices at the pump and in their heating and utility bills; confidence understandably sagged after the storms. However, U.S. consumers are notably resilient. If conditions in the job market rebound from storm-induced disruptions, their behavior seems unlikely to change very much.

Barring surprises, the hurricanes have not undercut our favorable expectations for the rest of the year. We believe carefully selected, high-quality stocks and bonds still show potential for solid results even in a slower-growth environment. With that in mind, our global investment experts are well positioned to seek attractive opportunities around the world.

Another Fund Group Joins the Pioneer Family

Pioneer Investment Management recently completed the acquisition of AmSouth Bancorporation's mutual fund management business. This transaction, our fifth in two years, adds seven new funds to our lineup and expands assets under management by over \$5 billion. Transactions such as these increase our ability to offer competitively priced products to our shareowners through the services of their financial advisors.

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. Please consider the fund's investment objectives, risks, charges and expenses. Contact your advisor or Pioneer investments for a prospectus containing this information. Please read the information carefully.

1

Pioneer Municipal High Income Trust

PORTFOLIO SUMMARY 10/31/05

Portfolio Diversification

(As a percentage of total investment portfolio)

[THE FOLLOWING DATA WAS REPRESENTED AS A PIE CHART IN THE PRINTED MATERIAL]

Utilities Revenue	0.2%
Housing Revenue	1.1%
Gaming Revenue	1.3%
Transportation Revenue	1.5%
General Obligation	2.1%

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

Facilities Revenue	3.9%
Development Revenue	5.5%
Power Revenue	6.3%
Education Revenue	6.9%
Pollution Control Revenue	7.1%
Tobacco Revenue	11.1%
Insured	11.9%
Airport Revenue	16.3%
Health Revenue	24.8%

Portfolio Maturity

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

[THE FOLLOWING DATA WAS REPRESENTED AS A PIE CHART IN THE PRINTED MATERIAL]

10+ years	14.9%
8-10 years	8.9%
6-8 years	18.2%
3-6 years	44.8%
1-3 years	5.4%
0-1 years	7.8%

Quality Distribution

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

[THE FOLLOWING DATA WAS REPRESENTED AS A PIE CHART IN THE PRINTED MATERIAL]

AAA	17.6%
AA	4.9%
A	2.7%
BBB	26.0%
BB & Lower	48.8%

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

2

Pioneer Municipal High Income Trust

PERFORMANCE UPDATE 10/31/05

Share Prices and Distributions

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

Market Value per Common Share	10/31/05	4/30/05
	\$14.38	\$14.33

Net Asset Value per Common Share	10/31/05	4/30/05
	\$14.82	\$15.62

Distributions per Common Share (5/1/05 - 10/31/05)	Income Dividends	Short-Term Capital Gains	Long-Term Capital Gains
	\$0.48	\$ -	\$ -

10 Largest Holdings

(As a percentage of long-term holdings)

1. Greenville County School District, 5.5%, 12/1/28	3.86%
2. Allegheny County Hospital Development Authority Revenue, 9.25%, 11/15/30	3.53
3. Tobacco Settlement Financing Corp., 6.75%, 6/1/39	2.75
4. New Jersey Economic Development Authority Revenue, 6.25%, 9/15/29	2.60
5. Massachusetts State Development Finance Agency, 9.449%, 10/1/39	2.53
6. Metropolitan Pier & Exposition Authority Dedicated State Tax Revenue, 0.0%, 6/15/22	2.44
7. Oklahoma Development Finance Authority Revenue, 5.625%, 8/15/29	2.09
8. Golden State Tobacco Securitization Corp., 7.875%, 6/1/42	2.06
9. Minneapolis/St. Paul Metropolitan Airports, 7.0%, 4/1/25	2.05
10. Johnson City Health & Educational Facilities Board Hospital Revenue, 7.5%, 7/1/33	1.96

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

3

Pioneer Municipal High Income Trust

PERFORMANCE UPDATE 10/31/05

Investment Returns

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

The mountain chart on the right shows the change in value 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 DATA WAS REPRESENTED AS A MOUNTAIN CHART IN THE PRINTED MATERIAL]

Value of a \$10,000 Investment

7/03	10000	10000	10000
10/03	10097	10319	10535
	10486	10941	11574
10/05	11261	11219	12663

Cumulative Annual Total Returns (As of October 31, 2005)

Period	Net Asset Value (NAV)	Market Price
Life-of-Trust (7/21/03)	21.49%	12.61%
1 Year	6.66	7.21

Call 1-800-225-6292 or visit www.pioneerfunds.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

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

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, dated date greater than 12-31-90, deal size over \$20 million, maturity size of at least \$3 trillion. 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.

4

Pioneer Municipal High Income Trust

PORTFOLIO MANAGEMENT DISCUSSION 10/31/05

In an environment of rising interest rates, surging energy prices and devastation in the Gulf of Mexico caused by hurricane Katrina, shareowners in Pioneer Municipal High Income Trust continued to earn a relatively high level of income over the six-month period ended October 31, 2005. In the following interview, David Eurkus, a member of the management team for Pioneer Municipal High Income Trust, reviews the factors that affected the Trust's performance over the six months.

Q: What was the investment environment like during the six-month period ended October 31, 2005?

A: Despite rising interest rates and record high oil prices, the economy continued to grow at a moderate rate. The Federal Reserve hiked interest rates five times during the last six months, each time by a quarter point. On October 31, 2005, the federal funds rate, the rate banks charge for overnight loans, stood at 4.00%, up from 2.75% on April 30, 2005. In the wake of the Fed's actions, yields on investment-grade municipal bonds (those rated BBB or better) rose across the maturity spectrum, with yields on shorter-term securities moving higher than those on longer-term securities. Yields on lower-quality bonds (those rated BB or lower) declined slightly.

Q: How did the Trust perform in this environment?

A: For the period, Pioneer Municipal High Income Trust produced a total return of -2.03% at net asset value and 3.62% at market price. As of October 31, 2005, the Trust was selling at a discount of market price to net asset value of 2.97%. The Lehman Brothers Municipal Bond Index, which tracks the performance only of investment-grade bonds, returned 0.59%. The Lehman Brothers Non-Investment Grade Municipal Bond Index returned 2.12% for the same period. At the end of the period, the Trust held 105 issues in various states and the District of Columbia. On October 31, 2005, the Trust's 30-day SEC yield was 6.65%. On October 31, 2005, the average credit quality of the Trust was BBB.

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

The performance data quoted represents past performance, which is no guarantee of future results. Investment return and principal value will

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

fluctuate, and shares, when redeemed, may be worth more or less than their original cost.

5

Pioneer Municipal High Income Trust

PORTFOLIO MANAGEMENT DISCUSSION 10/31/05

(continued)

Q: Why did the Trust underperform during the period?

A: Below investment-grade bonds, those rated BB and lower, accounted for about 49% of net assets. While most of the lower-quality bonds in the Trust performed well, some airline bonds, such as Delta and Northwest, detracted from results. Both of these companies voluntarily declared bankruptcy in the face of rising costs, especially those associated with pension benefits and the run-up in the price of jet fuel. While our position in airline bonds disappointed over the six-month reporting period, such bonds had been strong contributors to performance for more than a year.

Q: What contributed to performance?

A: The Trust was fully invested in a variety of economic sectors, and its holdings in the health care, education, public power and energy areas were positive for performance.

Tobacco bonds (11.1% of the portfolio holdings) gave performance the biggest boost. These bonds 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. Health care bonds, which accounted 24.8% of the portfolio holdings, turned in the next best performance.

Despite rising short-term interest rates, our leveraging strategy was also helpful and enabled the Trust to continue to provide a relatively high level of income. We leveraged a portion of the Trust more than a year ago when interest rates were at historically low levels. Low interest rates provided us with an opportunity to borrow funds at low rates and invest those funds in high-yield bonds. Over the six-month reporting period, the Trust continued to benefit from the income that the high-yield bonds generated.

Q: What is your outlook?

A: We believe economic growth will continue at a moderate pace. While some sectors, such as energy, appear to be inflationary, we do not expect core inflation to rise substantially over the near term. Nevertheless, we expect the Federal Reserve to continue its policy of raising rates at a measured pace. We plan to keep the Trust well diversified among economic sectors and to have a mix of investment-grade and below investment-grade bonds in the portfolio.

6

Pioneer Municipal High Income Trust

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

Investments in high yield or lower-rated securities are subject to greater-than-average risk. 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 will generally rise. 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. These risks may increase share price volatility.

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.

7

Pioneer Municipal High Income Trust

SCHEDULE OF INVESTMENTS 10/31/05 (unaudited)

Principal Amount	S&P/Moody's Ratings (unaudited)		Value
		TAX EXEMPT OBLIGATIONS - 126.6% of Net Assets	
		Alabama - 2.1%	
\$ 5,000,000	AAA/Aaa	Birmingham Alabama General Obligation, 5.0%, 12/1/32	\$ 5,113,5
1,500,000	BBB/NR	Camden Alabama Industrial Development Board, 6.125%, 12/1/24	1,652,0
			----- \$ 6,765,5
		Arizona - 6.5%	
5,000,000	B+/Ba1	Apache County Industrial Development Authority, 5.85%, 3/1/28	\$ 5,000,8
5,000,000	B+/Ba1	Apache County Industrial Development Authority, 5.875%, 3/1/33	5,000,9
11,630,000	D/NR	Gila County Industrial Development Authority, 5.55%, 1/1/27*	6,559,3
3,000,000	NR/NR	Maricopa County Industrial Development Authority, 7.875%, 4/1/27	3,117,7
1,000,000	NR/Baa3	Pima County Industrial Development Authority, 7.25%, 7/1/31	1,078,5
500,000	NR/Baa2	Yavapai County Industrial Development Authority, 6.0%, 8/1/33	531,4
			----- \$ 21,288,8
		California - 11.4%	
7,270,000	A/A2	California State General Obligation, 5.25%, 2/1/28	\$ 7,593,8
5,150,000	BBB/Baa3	Golden State Tobacco Securitization Corp., 7.8%, 6/1/42	6,260,9
7,000,000	BBB/Baa3	Golden State Tobacco Securitization Corp., 7.875%, 6/1/42	8,543,5
4,000,000	AAA/Aaa	Palm Desert Financing Authority Tax Allocation Revenue, 5.0%, 4/1/30	4,097,8
3,000,000	AAA/Aaa	San Diego Unified School District, 5.0%, 7/1/25	3,185,4

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

2,500,000	AAA/Aaa	University of California Revenue, 5.0%, 5/15/25	2,591,9
5,000,000	B+/NR	Valley Health System Hospital Revenue, 6.5%, 5/15/25	5,003,2

			\$ 37,276,7

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

Pioneer Municipal High Income Trust

Principal Amount	S&P/Moody's Ratings (unaudited)		Value
		Connecticut - 4.3%	
\$ 2,000,000	NR/NR	Bridgeport Senior Living Facility Revenue, 7.25%, 4/1/35	\$ 1,958,600
2,205,000	BB+/Ba1	Connecticut State Health & Educational Facilities Authority Revenue, 5.375%, 7/1/17	2,177,592
4,800,000	BB+/Ba1	Connecticut State Health & Educational Facilities Authority Revenue, 5.5%, 7/1/27	4,646,208
5,000,000	BB+/NR	Mohegan Tribe Indians Gaming Authority, 6.25%, 1/1/31 (144A)	5,346,900

			\$ 14,129,300

		District of Columbia - 3.8%	
5,000,000	BBB/Baa3	District of Columbia Tobacco Settlement Financing Corp., 6.5%, 5/15/33	\$ 5,783,550
6,000,000	BBB/Baa3	District of Columbia Tobacco Settlement Financing Corp., 6.75%, 5/15/40	6,593,820

			\$ 12,377,370

		Florida - 3.1%	
2,000,000	NR/NR	Beacon Lakes Community Development, 6.9%, 5/1/35	\$ 2,098,160
4,140,000	D/C	Hillsborough County Aviation Authority Revenue, 6.8%, 1/1/24*	910,800
1,650,000	BBB-/Baa2	Polk County Industrial Development Revenue, 5.85%, 12/1/30	1,698,362
5,000,000	NR/Baa2	Tallahassee Health Facilities Revenue, 6.375%, 12/1/30	5,335,000

			\$ 10,042,322

		Georgia - 0.6%	
1,325,000	NR/NR	Brunswick & Glynn County Development Authority Revenue, 7.25%, 1/1/35	\$ 1,385,022
450,000	D/C	Fulton County Development Authority Revenue, 5.3%, 5/1/13*	72,000
3,400,000	D/C	Fulton County Development Authority Revenue, 6.85%, 11/1/07*	544,000

			\$ 2,001,022

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

5,000,000	BBB-/Baa3	Idaho - 1.6% Power County Industrial Development Corp., 6.45%, 8/1/32	\$ 5,236,950
-----------	-----------	---	--------------

The accompanying notes are an integral part of these financial statements. 9

Pioneer Municipal High Income Trust

SCHEDULE OF INVESTMENTS 10/31/05 (unaudited) (continued)

Principal Amount	S&P/Moody's Ratings (unaudited)		V
\$ 1,000,000	NR/NR	Illinois - 3.8% Centerpoint Intermodal Center, 8.0%, 6/15/23 (144A)	\$ 9
1,500,000	NR/NR	Illinois Health Facilities Authority Revenue, 6.9%, 11/15/33	1,6
16,880,000 (a)	AAA/Aaa	Metropolitan Pier & Exposition Authority Dedicated State Tax Revenue, 0.0%, 6/15/22	10,1
			\$ 12,6
1,000,000	BBB+/Baa1	Indiana - 1.7% Indiana State Development Finance Authority Revenue, 5.6%, 12/1/32	\$ 1,0
4,300,000	BBB-/Ba3	Indiana State Development Finance Authority Revenue, 5.75%, 10/1/11	4,4
			\$ 5,4
2,335,000	AAA/Aaa	Massachusetts - 10.2% Massachusetts Health & Educational Facilities Authority Revenue, 5.0%, 7/15/35	\$ 2,3
7,050,000	AAA/Aaa	Massachusetts Health & Educational Facilities Authority Revenue, 5.125%, 7/15/37	7,3
1,000,000	AA/Aa3	Massachusetts Health & Educational Facilities Authority Revenue, 5.25%, 10/15/33	1,0
3,500,000	BBB/Baa3	Massachusetts Health & Educational Facilities Authority Revenue, 6.25%, 7/1/22	3,7
5,000,000	BBB-/NR	Massachusetts Health & Educational Facilities Authority Revenue, 6.75%, 10/1/33	5,4
75,000	BB/NR	Massachusetts State Development Finance Agency, 5.25%, 10/1/18	
9,810,000 (b)	NR/Aaa	Massachusetts State Development Finance Agency, RIB, 9.449%, 10/1/39 (144A)	10,4
3,055,000	AA-/Aa3	Massachusetts State Housing Finance Agency, 5.25%, 12/1/33	3,1
			\$ 33,5

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

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

Pioneer Municipal High Income Trust

Principal Amount	S&P/Moody's Ratings (unaudited)		Value
		Michigan - 4.1%	
\$ 1,500,000	BBB-/NR	John Tolfree Health System Corp., 6.0%, 9/15/23	\$ 1,512,45
2,000,000	BB-/Ba3	Michigan State Hospital Finance Authority Revenue, 5.5%, 8/15/23	1,914,54
4,010,000	BBB-/Ba1	Michigan State Hospital Finance Authority Revenue, 6.0%, 2/1/24	4,011,72
2,000,000+	NR/NR	Michigan State Hospital Finance Authority Revenue, 6.4%, 1/1/15	2,050,96
7,690,000	NR/NR	Wayne Charter County Michigan Special Airport Facilities Revenue, 6.75%, 12/1/15*	4,094,92
			----- \$ 13,584,59
		Minnesota - 3.1%	
1,675,000	BB/NR	Duluth Economic Development Authority Health Care Facilities Revenue, 7.25%, 6/15/32	\$ 1,791,44
13,260,000	NR/NR	Minneapolis/St. Paul Metropolitan Airports, 7.0%, 4/1/25*	8,486,40
			----- \$ 10,277,84
		Mississippi - 0.9%	
3,000,000	BBB-/Ba1	Mississippi Business Finance Corp. Pollution Control Revenue, 5.9%, 5/1/22	\$ 3,055,50
		Missouri - 1.4%	
5,500,000	NR/B3	St. Louis Industrial Development Authority Revenue, 7.25%, 12/15/35	\$ 4,687,21
		Nevada - 1.5%	
1,000,000	BBB-/Baa2	Clark County Industrial Development Revenue, 5.45%, 3/1/38	\$ 1,054,88
1,850,000	B-/NR	Clark County Industrial Development Revenue, 5.5%, 10/1/30	1,814,49
2,000,000	NR/NR	Nevada State Department of Business & Industry, 7.25%, 1/1/23	2,081,96
			----- \$ 4,951,33
		New Hampshire - 1.0%	
3,000,000	AAA/Aaa	Manchester School Facilities Revenue, 5.125%, 6/1/28	\$ 3,126,06

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

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

Pioneer Municipal High Income Trust

 SCHEDULE OF INVESTMENTS 10/31/05 (unaudited) (continued)

Principal Amount	S&P/Moody's Ratings (unaudited)		Value
		New Jersey - 9.2%	
\$ 2,000,000	B/Caa2	New Jersey Economic Development Authority Revenue, 6.25%, 9/15/19	\$ 1,698,50
13,350,000	B/Caa2	New Jersey Economic Development Authority Revenue, 6.25%, 9/15/29	10,793,07
1,000,000	B/Caa2	New Jersey Economic Development Authority Revenue, 6.4%, 9/15/23	842,85
6,150,000	B/Caa2	New Jersey Economic Development Authority Revenue, 7.0%, 11/15/30	5,297,85
10,000,000	BBB/Baa3	Tobacco Settlement Financing Corp., 6.75%, 6/1/39	11,397,20
			\$ 30,029,48
		New Mexico - 1.6%	
3,700,000++	NR/NR	New Mexico Hospital Equipment Loan Council, 6.4%, 6/1/16	\$ 3,836,34
1,350,000	BBB-/NR	Santa Fe Educational Facilities Revenue, 5.75%, 10/1/28	1,358,34
			\$ 5,194,68
		New York - 6.2%	
2,000,000	A/NR	New York City Industrial Development Agency, 5.375%, 6/1/23	\$ 2,063,44
6,225,000	CCC/Caa2	New York City Industrial Development Agency, 6.9%, 8/1/24	4,584,96
5,000,000	AAA/Aaa	New York City Trust Cultural Resources Revenue, 5.125%, 7/1/31	5,172,15
2,000,000	NR/NR	Suffolk County Industrial Development Agency, 7.25%, 1/1/30	1,995,18
6,000,000	AAA/Aaa	Triborough Bridge & Tunnel Authority Revenue, 5.25%, 11/15/30	6,354,54
			\$ 20,170,27
		North Carolina - 1.2%	
4,600,000	NR/NR	Charlotte North Carolina Special Facilities Revenue, 7.75%, 2/1/28	\$ 3,945,19

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

Pioneer Municipal High Income Trust

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

Principal Amount	S&P/Moody's Ratings (unaudited)		
		Oklahoma - 6.4%	
\$ 3,000,000+	AAA/Aaa	Oklahoma Development Finance Authority Revenue, 5.625%, 8/15/19	\$ 3,2
8,000,000+	AAA/Aaa	Oklahoma Development Finance Authority Revenue, 5.625%, 8/15/29	8,6
4,100,000	B-/Caa2	Tulsa Municipal Airport Revenue, 5.65%, 12/1/35	3,8
1,225,000	B-/Caa2	Tulsa Municipal Airport Revenue, 6.25%, 6/1/20	1,0
4,350,000	B-/Caa2	Tulsa Municipal Airport Revenue, 7.35%, 12/1/11	4,2

			\$ 21,1

		Oregon - 4.4%	
1,000,000	NR/NR	Klamath Falls Electric Revenue, 5.75%, 1/1/13	\$ 8
7,000,000	NR/NR	Klamath Falls Electric Revenue, 6.0%, 1/1/25	5,9
7,500,000	NR/NR	Western Generation Agency Cogeneration Project Revenue, 7.125%, 1/1/21	7,6

			\$ 14,4

		Pennsylvania - 6.0%	
1,550,000	NR/Baa1	Allegheny County Hospital Development Authority Revenue, 5.125%, 5/1/25	\$ 1,4
12,300,000	B/B1	Allegheny County Hospital Development Authority Revenue, 9.25%, 11/15/30	14,6
1,000,000	BB-/NR	Columbia County Hospital Authority Health Care Revenue, 5.9%, 6/1/29	8
1,000,000	BBB/Ba2	Hazleton Health Services Authority Hospital Revenue, 5.625%, 7/1/17	9
1,280,000	NR/B2	Langhorne Manor Borough Higher Education & Health Authority Revenue, 7.35%, 7/1/22	1,2
500,000	BBB+/NR	Pennsylvania Higher Educational Facilities Authority Revenue, 5.4%, 7/15/36	5

			\$ 19,7

		Rhode Island - 1.3%	
4,000,000	NR/NR	Central Falls Detention Facilities Revenue, 7.25%, 7/15/35	\$ 4,1

		South Carolina - 8.3%	
4,250,000	BBB/Baa2	Georgetown County Environmental Improvement Revenue, 5.95%, 3/15/14	\$ 4,6
15,000,000	AA-/Aa3	Greenville County School District, 5.5%, 12/1/28	16,0
5,850,000	BBB+/Baa1	South Carolina Jobs Economic Development Authority Revenue, 6.375%, 8/1/34	6,4

			\$ 27,1

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

Pioneer Municipal High Income Trust

 SCHEDULE OF INVESTMENTS 10/31/05 (unaudited) (continued)

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

Principal Amount	S&P/Moody's Ratings (unaudited)		Value
\$ 7,000,000	BBB+/Baa2	Tennessee - 3.9% Johnson City Health & Educational Facilities Board Hospital Revenue, 7.5%, 7/1/33	\$ 8,154,02
4,480,000	NR/Baa3	Knox County Health Educational & Housing Facilities Board Hospital Revenue, 6.375%, 4/15/22	4,711,39
			----- \$ 12,865,41
7,500,000	CCC/Caa2	Texas - 7.5% Alliance Airport Authority Special Facilities Revenue, 7.5%, 12/1/29	\$ 5,649,07
1,345,000	NR/Ba1	Bexar County Housing Finance Corp., 8.0%, 12/1/36	1,375,28
1,000,000	CCC/Caa2	Dallas-Fort Worth International Airport Revenue, 6.0%, 11/1/14	758,86
5,000,000	CCC/Caa2	Dallas-Fort Worth International Airport Revenue, 6.15%, 5/1/29	4,629,60
20,800,000	D/C	Dallas-Fort Worth International Airport Revenue, 7.125%, 11/1/26*	3,432,00
4,000,000	NR/NR	Decatur Hospital Authority Revenue, 7.0%, 9/1/25	4,299,12
1,000,000	BB/NR	Georgetown Health Facilities Development Corp., 6.25%, 8/15/29	1,035,15
3,750,000	B-/Caa2	Houston Airport System Special Facilities Revenue, 5.7%, 7/15/29	2,745,63
500,000	BBB-/Baa2	Sabine River Authority Pollution Control Revenue, 6.15%, 8/1/22	544,71
			----- \$ 24,469,44
1,500,000	A-/A3	Vermont - 0.5% Vermont Educational & Health Buildings Financing Agency Revenue, 6.0%, 10/1/28	\$ 1,662,30
1,000,000	BBB/Baa3	Virginia - 1.6% Peninsula Ports Authority, 6.0%, 4/1/33	\$ 1,068,11
4,000,000	BB-/Ba3	Pocahontas Parkway Association of Virginia Toll Road Revenue, 5.5%, 8/15/28	4,119,08
			----- \$ 5,187,19

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)		Value
------------------	---------------------------------	--	-------

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

\$ 4,710,000	AAA/Aaa	Washington - 5.9% Spokane Public Facilities District Hotel/Motel Tax & Sales, 5.75%, 12/1/27	\$ 5,243,360
7,025,000	BBB/Baa3	Tobacco Settlement Authority Washington, 6.625%, 6/1/32	7,663,713
14,315,000	AAA/Aaa	Washington State General Obligation, 0.0%, 6/1/22	6,404,960

			\$ 19,312,033

5,000,000	BBB-/Baa3	Wyoming - 1.5% Sweetwater County Solid Waste Disposal Revenue, 6.9%, 9/1/24	\$ 5,046,000

		TOTAL TAX-EXEMPT OBLIGATIONS (Cost \$393,222,981)	\$ 414,966,003

Shares			
		TAX-EXEMPT MONEY MARKET MUTUAL FUND - 0.0% of Net Assets BlackRock Provident Institutional Municipal Fund	\$ 65,887
65,887			-----
		TOTAL TAX-EXEMPT MONEY MARKET MUTUAL FUND (Cost \$65,887)	\$ 65,887

		TOTAL INVESTMENTS IN SECURITIES - 126.6% (Cost \$393,288,868) (c) (d)	\$ 415,031,890

		OTHER ASSETS AND LIABILITIES - 4.2%	\$ 13,759,754

		PREFERRED SHARES AT REDEMPTION VALUE - (30.8)%	\$ (101,000,000)

		NET ASSETS APPLICABLE TO COMMON SHAREOWNERS - 100.0%	\$ 327,791,644
			=====

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

Pioneer Municipal High Income Trust

SCHEDULE OF INVESTMENTS 10/31/05 (unaudited) (continued)

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 October 31, 2005 the value of these securities amounted to \$16,796,276 or 5.1% of net assets applicable to common shareowners.

* Security is in default and is non-income producing.

+ 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.

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

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

(b) The interest rate is subject to change periodically and inversely based upon prevailing market rates. The interest rate shown was the rate at October 31, 2005.

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

Insured	11.9%
General Obligation	2.1
Revenue Bonds:	
Health Revenue	24.8
Airport Revenue	16.3
Tobacco Revenue	11.1
Pollution Control Revenue	7.1
Education Revenue	6.9
Power Revenue	6.3
Development Revenue	5.5
Facilities Revenue	3.9
Transportation Revenue	1.5
Gaming Revenue	1.3
Housing Revenue	1.1
Utilities Revenue	0.2

	100.0%
	=====

(d) At October 31, 2005, the net unrealized gain on investments based on cost for federal income tax purposes of \$392,037,990 was as follows:

Aggregate gross unrealized gain for all investments in which there is an excess of value over tax cost	\$38,788
Aggregate gross unrealized loss for all investments in which there is an excess of tax cost over value	(15,794)

Net unrealized gain	\$22,993
	=====
For financial reporting purposes net unrealized gain on investments was \$21,743,022 and cost of investments aggregated \$393,288,868	

RIB Residual Interest Bonds

Purchases and sales of securities (excluding temporary cash investments) for the period ended October 31, 2005, aggregated \$24,938,788 and \$25,889,669, respectively.

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

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

Pioneer Municipal High Income Trust

STATEMENT OF ASSETS AND LIABILITIES 10/31/05

ASSETS:

Investments in securities, at value (cost \$393,288,868)	\$415,031,890
Receivables -	
Investment securities sold	6,640,648
Interest	7,469,387
Unrealized appreciation on interest rate swaps	1,321,730
Prepaid expenses and other assets	82,141

Total assets	\$430,545,796

LIABILITIES:

Due to custodian	\$ 1,361,001
Due to affiliate	219,978
Administration fee payable	25,684
Accrued expenses	147,489

Total liabilities	\$ 1,754,152

PREFERRED SHARES AT REDEMPTION VALUE:

\$25,000 liquidation value per share applicable to 4,040 shares	\$101,000,000

NET ASSETS APPLICABLE TO COMMON SHAREOWNERS:

Paid-in capital	\$315,162,552
Distributions in excess of net investment income	(484,726)
Accumulated net realized loss on investments and interest rate swaps	(9,950,934)
Net unrealized gain on investments	21,743,022
Net unrealized gain on interest rate swaps	1,321,730

Net assets applicable to common shareowners	\$327,791,644
	=====

NET ASSET VALUE PER SHARE:

No par value, (unlimited number of shares authorized)	
Based on \$327,791,644/22,120,893 common shares	\$ 14.82
	=====

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

Pioneer Municipal High Income Trust

STATEMENT OF OPERATIONS

For the Six Months Ended 10/31/05

INVESTMENT INCOME:

Interest	\$ 12,898,176

EXPENSES:

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

Management fees	\$ 1,347,189	
Administration fees and reimbursement	174,464	
Transfer agent fees and expenses	25,353	
Auction agent fees	134,934	
Custodian fees	6,556	
Registration fees	11,876	
Professional fees	29,468	
Printing expense	9,744	
Trustees' fees	6,904	
Pricing fees	8,484	
Insurance fees	9,602	
Miscellaneous	7,347	

Total expenses		\$ 1,771,921

Net investment income		\$ 11,126,255

REALIZED AND UNREALIZED GAIN (LOSS) ON INVESTMENTS AND INTEREST RATE SWAPS:		
Net realized loss from:		
Investments	\$ (7,762,604)	
Interest rate swaps	(32,619)	\$ (7,795,223)
	-----	-----
Change in net unrealized gain on:		
Investments	\$ (9,783,813)	
Interest rate swaps	504,423	\$ (9,279,390)
	-----	-----
Net loss on investments and interest rate swaps		\$ (17,074,613)

DIVIDENDS TO PREFERRED SHAREOWNERS FROM NET INVESTMENT INCOME:		
		\$ (1,196,555)

Net decrease in net assets applicable to common shareowners resulting from operations		
		\$ (7,144,913)
		=====

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

Pioneer Municipal High Income Trust

STATEMENTS OF CHANGES IN NET ASSETS

For the Six Months Ended 10/31/05 and the Year Ended 4/30/05

	Six Months Ended 10/31/05 (unaudited)	Year Ended 4/30/05
FROM OPERATIONS:		
Net investment income	\$ 11,126,255	\$ 25,177,837
Net realized gain (loss) on investments and interest rate swaps	(7,795,223)	258,653
Change in net unrealized gain on investments and interest rate swaps	(9,279,390)	20,621,102
Dividends and distributions to preferred		

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

shareowners from:		
Net investment income	(1,196,555)	(1,444,764)
Net realized gains	-	(90,681)
	-----	-----
Net increase (decrease) in net assets applicable to common shareowners resulting from operations	\$ (7,144,913)	\$ 44,522,147
	-----	-----
DIVIDENDS AND DISTRIBUTIONS TO COMMON SHAREOWNERS FROM:		
Net investment income (\$0.48 and \$1.07 per share, respectively)	\$ (10,618,029)	\$ (23,669,356)
Net realized gains (\$0.00 and \$0.09 per share, respectively)	-	(2,011,719)
	-----	-----
Total distributions to common shareowners	\$ (10,618,029)	\$ (25,681,075)
	-----	-----
FROM TRUST SHARE TRANSACTIONS:		
Changes in (estimated) common share offering expenses	\$ -	\$ 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	\$ (17,762,942)	\$ 18,964,921
NET ASSETS APPLICABLE TO COMMON SHAREOWNERS:		
Beginning of period	345,554,586	326,589,665
	-----	-----
End of period (including undistributed net investment income (loss) of \$(484,726) and \$203,603, respectively)	\$ 327,791,644	\$ 345,554,586
	=====	=====

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

Pioneer Municipal High Income Trust

FINANCIAL HIGHLIGHTS

	Six Months Ended 10/31/05 (unaudited)	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 (d)	\$ 0.50	\$ 1.14
Net realized and unrealized gain (loss) on investments and interest rate swaps	(0.77)	0.95
Dividends and distributions to preferred shareowners from:		
Net investment income	(0.05)	(0.07)

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

Net realized gains	-	0.00 (d)
	-----	-----
Net increase (decrease) from investment operations	\$ (0.32)	\$ 2.02
Dividends and distributions to common shareowners from:		
Net investment income	(0.48)	(1.07)
Net realized gains	-	(0.09)
Changes in (estimated) with respect to issuance of:		
Common shares	-	0.00 (d)
Preferred shares	-	-
	-----	-----
Net increase (decrease) in net asset value	\$ (0.80)	\$ 0.86
	-----	-----
Net asset value, end of period(e)	\$ 14.82	\$ 15.62
	=====	=====
Market value, end of period(e)	\$ 14.38	\$ 14.33
	-----	-----
Total return(f)	3.62%	13.34%
Ratios to average net assets of common shareowners		
Net expenses(g)	1.02% (h)	1.04%
Net investment income before preferred share dividends(h)	6.41% (h)	7.60%
Preferred share dividends	0.69% (h)	0.43%
Net investment income available to common shareowners	5.72% (h)	7.17%
Portfolio turnover	6%	25%
Net assets of common shareowners, end of period (in thousands)	\$327,792	\$345,555
Preferred shares outstanding (in thousands)	\$101,000	\$101,000
Asset coverage per preferred share, end of period	\$106,137	\$110,533
Average market value per preferred share	\$25,000	\$25,000
Liquidation value per preferred share	\$25,000	\$25,000
Ratios to average net assets of common shareowners before reimbursement of organization expenses and expense reductions		
Net expenses(h)	1.02% (h)	1.04%
Net investment income before preferred share dividends(h)	6.41% (h)	7.60%
Preferred share dividends	0.69% (h)	0.43%
Net investment income available to common shareowners	5.72% (h)	7.17%

- (a) The per 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 brokerage commissions. Total investment return less than a full period is not annualized. Past performance is not a guarantee of future results.
- (g) Ratios do not reflect the effect of dividend payments to preferred shareowners.
- (h) Annualized.
- The information above represents the 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.

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

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

Pioneer Municipal High Income Trust

NOTES TO FINANCIAL STATEMENTS 10/31/05

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, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of income, 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.

21

Pioneer Municipal High Income Trust

NOTES TO FINANCIAL STATEMENTS 10/31/05

(continued)

As of October 31, 2005, there were no securities fair valued. Temporary cash investments are valued at amortized cost.

Discount and premium on debt securities are accreted or amortized daily, respectively, on an effective yield to maturity basis and are included in

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

interest income. Interest income 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.

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.

The tax character of current year distributions will be determined at the end of the fiscal year. The tax character of distributions paid to common and preferred shareowners during the year ended April 30, 2005 was as follows:

2005	

Distributions paid from:	
Tax exempt income	\$25,094,466
Ordinary income	1,196,946
Net long-term capital gains	925,108

Total	\$27,216,520
	=====

22

Pioneer Municipal High Income Trust

The following shows the components of distributable earnings on a federal income tax basis at April 30, 2005.

2005	

Undistributed tax-exempt income	\$ 1,074,362
Dividend payable - common shares	(1,769,671)
Unrealized appreciation	33,243,038
Post-October loss deferred	(2,155,695)

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

Total -----
\$ 30,392,034
=====

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 other book/tax differences.

C. Automatic Dividend Reinvestment Plan

All common shareowners automatically participate in the Automatic Dividend 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 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 by notifying Mellon Investor Services LLC, the agent for shareowners in administering the Plan (the "Plan Agent"), 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.

23

Pioneer Municipal High Income Trust

NOTES TO FINANCIAL STATEMENTS 10/31/05

(continued)

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.

2. Management Agreement

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

PIM 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 aggregate liquidation preference of any outstanding preferred shares. At October 31, 2005, \$219,978 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 six months ended October 31, 2005, the Trust recorded \$17,218 in reimbursements and is included in "Administration fees and reimbursement" on the Statement of Operations.

The Trust has retained Princeton Administrators, L.P., ("Princeton") an affiliate of Merrill Lynch, Pierce, Fenner & Smith Incorporated, 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.

24

Pioneer Municipal High Income Trust

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 October 31, 2005, 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 services related to the Trust's common shares at negotiated rates which are paid by the Trust. 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. 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 rising short-term interest rates would have on the Trust's leveraging costs.

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

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/

25

Pioneer Municipal High Income Trust

 NOTES TO FINANCIAL STATEMENTS 10/31/05

(continued)

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 market 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 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 October 31, 2005 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 October 31, 2005 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	\$1,321,730

5. 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 October 31, 2005, PIM owned 6,981 shares.

26

Pioneer Municipal High Income Trust

 Transactions in common shares of beneficial interest for the six months ended

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

October 31, 2005 and the year ended April 30, 2005 were as follows:

	10/2005	4/2005
Shares outstanding at beginning of period	22,120,893	22,120,893
Reinvestment of distributions	-	-
Shares outstanding at end of period	22,120,893	22,120,893

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 October 31, 2005, there were 4,040 APS as follows: Series A-2,000 and Series B-2,040.

Dividends on Series A and Series B APS 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 2.80% during the six months ended October 31, 2005.

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%.

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

27

Pioneer Municipal High Income Trust

NOTES TO FINANCIAL STATEMENTS 10/31/05

(continued)

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.

6. Subsequent Events

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

Subsequent to October 31, 2005, the Board of Trustees of the Trust declared a dividend from undistributed net investment income of \$0.08 per common share payable November 30, 2005, to shareowners of record on November 15, 2005.

For the period November 1, 2005 to November 30, 2005, dividends declared on preferred stock totaled \$251,144 in aggregate for the two outstanding preferred share series.

ADDITIONAL INFORMATION (unaudited)

During the period, there have been no material changes in the Trust's investment objective or fundamental policies that have not been approved by the shareowners. There have been 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 have been no changes in the principal risk factors associated with investment in the Trust. There have been 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.

28

Pioneer Municipal High Income Trust

RESULTS OF SHAREOWNER MEETING

On August 16, 2005, Pioneer Municipal High Income Trust held its annual meeting of shareowners to elect three Class I Trustees. All three Trustees were elected. Here are the detailed results of the votes.

Proposal 1 - To elect Class II Trustees.

Nominee	Affirmative	Withheld
Margaret B.W. Graham	22,145,070	390,510
Osbert M. Hood	22,148,571	387,009
John Winthrop	22,139,000	396,580

29

Pioneer Municipal High Income Trust

TRUSTEES, OFFICERS AND SERVICE PROVIDERS

Trustees
John F. Cogan, Jr., Chairman
David R. Bock
Mary K. Bush

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

Margaret B.W. Graham
Osbert M. Hood
Marguerite A. Piret
Stephen K. West
John Winthrop

Officers
John F. Cogan, Jr., President
Osbert M. Hood, Executive
Vice President
Vincent Nave, Treasurer
Dorothy E. Bourassa, Secretary

Investment Adviser
Pioneer Investment Management, Inc.

Custodian
Brown Brothers Harriman & Co.

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.

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 months ended June 30, is publicly available to shareowners at www.pioneerfunds.com. This information is also available on our web site at www.pioneerfunds.com and on the Securities and Exchange Commission's web site at <http://www.sec.gov>.

30

This page for your notes.

This page for your notes.

This page for your notes.

This page for your notes.

This page for your notes.

This page for your notes.

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

HOW TO CONTACT PIONEER

We are pleased to offer a variety of convenient ways for you to contact Mellon for assistance or information.

You can call Mellon Investor Services LLC for:

Account Information 1-800-710-0935

Telecommunications Device for the Deaf (TDD) 1-800-231-5469

Or write to Mellon Investor Services LLC:

For	Write to
General inquiries, lost dividend checks	P.O. Box 3315 South Hackensack, NJ 07606-1915
Change of address, account consolidation	P.O. Box 3316 South Hackensack, NJ 07606-1916
Lost stock certificates	P.O. Box 3317 South Hackensack, NJ 07606-1917
Stock transfer	P.O. Box 3312 South Hackensack, NJ 07606-1912
Dividend reinvestment plan (DRIP)	P.O. Box 3338 South Hackensack, NJ 07606-1938

For additional information, please contact your investment advisor or visit our web site www.pioneerfunds.com.

The Trust files a complete statement of investments with the Securities and Exchange Commission for the first and third quarters for each fiscal year on Form N-Q. Shareholders may view the filed Form N-Q by visiting the Commission's web site at <http://www.sec.gov>. The filed form may also be viewed and copied at the Commission's Public Reference Room in Washington, DC. Information regarding the operations of the Public Reference Room may be obtained by calling 1-800-SEC-0330.

ITEM 2. CODE OF ETHICS.

(a) Disclose whether, as of the end of the period covered by the report, the registrant has adopted a code of ethics that applies to the registrant's principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, regardless of whether these individuals are employed by the registrant or a third party. If the registrant has not adopted such a code of ethics, explain why it has not done so.

The registrant has adopted, as of the end of the period covered by this report, a code of ethics that applies to the registrant's principal executive officer, principal financial officer, principal accounting officer and controller.

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

(b) For purposes of this Item, the term "code of ethics" means written standards that are reasonably designed to deter wrongdoing and to promote:

- (1) Honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationships;
- (2) Full, fair, accurate, timely, and understandable disclosure in reports and documents that a registrant files with, or submits to, the Commission and in other public communications made by the registrant;
- (3) Compliance with applicable governmental laws, rules, and regulations;
- (4) The prompt internal reporting of violations of the code to an appropriate person or persons identified in the code; and
- (5) Accountability for adherence to the code.

(c) The registrant must briefly describe the nature of any amendment, during the period covered by the report, to a provision of its code of ethics that applies to the registrant's principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, regardless of whether these individuals are employed by the registrant or a third party, and that relates to any element of the code of ethics definition enumerated in paragraph (b) of this Item. The registrant must file a copy of any such amendment as an exhibit pursuant to Item 10(a), unless the registrant has elected to satisfy paragraph (f) of this Item by posting its code of ethics on its website pursuant to paragraph (f)(2) of this Item, or by undertaking to provide its code of ethics to any person without charge, upon request, pursuant to paragraph (f)(3) of this Item.

The registrant has made no amendments to the code of ethics during the period covered by this report.

(d) If the registrant has, during the period covered by the report, granted a waiver, including an implicit waiver, from a provision of the code of ethics to the registrant's principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, regardless of whether these individuals are employed by the registrant or a third party, that relates to one or more of the items set forth in paragraph (b) of this Item, the registrant must briefly describe the nature of the waiver, the name of the person to whom the waiver was granted, and the date of the waiver.

Not applicable.

(e) If the registrant intends to satisfy the disclosure requirement under paragraph (c) or (d) of this Item regarding an amendment to, or a waiver from, a provision of its code of ethics that applies to the registrant's principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions and that relates to any element of the code of ethics definition enumerated in paragraph (b) of this Item by posting such information on its Internet website, disclose the registrant's Internet address and such intention.

Not applicable.

(f) The registrant must:

- (1) File with the Commission, pursuant to Item 10(a), a copy of its code

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

of ethics that applies to the registrant's principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, as an exhibit to its annual report on this Form N-CSR;

(2) Post the text of such code of ethics on its Internet website and disclose, in its most recent report on this Form N-CSR, its Internet address and the fact that it has posted such code of ethics on its Internet website; or

(3) Undertake in its most recent report on this Form N-CSR to provide to any person without charge, upon request, a copy of such code of ethics and explain the manner in which such request may be made.
See Item 10(2)

ITEM 3. AUDIT COMMITTEE FINANCIAL EXPERT.

(a) (1) Disclose that the registrant's board of trustees has determined that the registrant either:

(i) Has at least one audit committee financial expert serving on its audit committee; or

(ii) Does not have an audit committee financial expert serving on its audit committee.

The registrant's Board of Trustees has determined that the registrant has at least one audit committee financial expert.

(2) If the registrant provides the disclosure required by paragraph (a)(1)(i) of this Item, it must disclose the name of the audit committee financial expert and whether that person is "independent." In order to be considered "independent" for purposes of this Item, a member of an audit committee may not, other than in his or her capacity as a member of the audit committee, the board of trustees, or any other board committee:

(i) Accept directly or indirectly any consulting, advisory, or other compensatory fee from the issuer; or

(ii) Be an "interested person" of the investment company as defined in Section 2(a)(19) of the Act (15 U.S.C. 80a-2(a)(19)).

Ms. Marguerite A. Piret, an independent trustee, is such an audit committee financial expert.

(3) If the registrant provides the disclosure required by paragraph (a)(1)(ii) of this Item, it must explain why it does not have an audit committee financial expert.

Not applicable.

ITEM 4. PRINCIPAL ACCOUNTANT FEES AND SERVICES.

(a) Disclose, under the caption AUDIT FEES, the aggregate fees billed for each of the last two fiscal years for professional services rendered by the principal accountant for the audit of the registrant's annual financial statements or services that are normally provided by the accountant in connection with statutory and regulatory filings or engagements for those fiscal years.

N/A

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

(b) Disclose, under the caption AUDIT-RELATED FEES, the aggregate fees billed in each of the last two fiscal years for assurance and related services by the principal accountant that are reasonably related to the performance of the audit of the registrant's financial statements and are not reported under paragraph (a) of this Item. Registrants shall describe the nature of the services comprising the fees disclosed under this category.

N/A

(c) Disclose, under the caption TAX FEES, the aggregate fees billed in each of the last two fiscal years for professional services rendered by the principal accountant for tax compliance, tax advice, and tax planning. Registrants shall describe the nature of the services comprising the fees disclosed under this category.

N/A

(d) Disclose, under the caption ALL OTHER FEES, the aggregate fees billed in each of the last two fiscal years for products and services provided by the principal accountant, other than the services reported in paragraphs (a) through (c) of this Item. Registrants shall describe the nature of the services comprising the fees disclosed under this category.

N/A

(e) (1) Disclose the audit committee's pre-approval policies and procedures described in paragraph (c) (7) of Rule 2-01 of Regulation S-X.

PIONEER Trusts

APPROVAL OF AUDIT, AUDIT-RELATED, TAX AND OTHER SERVICES
PROVIDED BY THE INDEPENDENT AUDITOR

SECTION I - POLICY PURPOSE AND APPLICABILITY

The Pioneer Trusts recognize the importance of maintaining the independence of their outside auditors. Maintaining independence is a shared responsibility involving Pioneer Investment Management, Inc ("PIM"), the audit committee and the independent auditors.

The Trusts recognize that a Trust's independent auditors: 1) possess knowledge of the Trusts, 2) are able to incorporate certain services into the scope of the audit, thereby avoiding redundant work, cost and disruption of Trust personnel and processes, and 3) have expertise that has value to the Trusts. As a result, there are situations where it is desirable to use the Trust's independent auditors for services in addition to the annual audit and where the potential for conflicts of interests are minimal. Consequently, this policy, which is intended to comply with Rule 210.2-01(C)(7), sets forth guidelines and procedures to be followed by the Trusts when retaining the independent audit firm to perform audit, audit-related tax and other services under those circumstances, while also maintaining independence.

Approval of a service in accordance with this policy for a Trust shall also constitute approval for any other Trust whose pre-approval is required pursuant to Rule 210.2-01(c)(7)(ii).

In addition to the procedures set forth in this policy, any non-audit services that may be provided consistently with Rule 210.2-01 may be approved by the Audit Committee itself and any pre-approval that may be waived in accordance with Rule 210.2-01(c)(7)(i)(C) is hereby waived.

Selection of a Trust's independent auditors and their compensation shall be

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

determined by the Audit Committee and shall not be subject to this policy.

SECTION II - POLICY

SERVICE CATEGORY	SERVICE CATEGORY DESCRIPTION	SPECIFIC PRE-APPROVED SERVICE SUBCATEGORIES
I. AUDIT SERVICES	Services that are directly related to performing the independent audit of the Trusts	<ul style="list-style-type: none"> o Accounting research assistance o SEC consultation, registration statements, and reporting o Tax accrual related matters o Implementation of new accounting standards o Compliance letters (e.g. rating agency letters) o Regulatory reviews and assistance regarding financial matters o Semi-annual reviews (if requested) o Comfort letters for closed end offerings
II. AUDIT-RELATED SERVICES	Services which are not prohibited under Rule 210.2-01(C)(4) (the "Rule") and are related extensions of the audit services support the audit, or use the knowledge/expertise gained from the audit procedures as a foundation to complete the project. In most cases, if the Audit-Related Services are not performed by the Audit firm, the scope of the Audit Services would likely increase. The Services are typically well-defined and governed by accounting professional standards (AICPA, SEC, etc.)	<ul style="list-style-type: none"> o AICPA attest and agreed-upon procedures o Technology control assessments o Financial reporting control assessments o Enterprise security architecture assessment

AUDIT COMMITTEE APPROVAL POLICY

AUDIT COMMITTEE REPORTING POLICY

o "One-time" pre-approval for the audit period for all pre-approved specific service subcategories. Approval of the independent auditors as auditors for a Trust shall constitute pre approval for these services.

o A summary of all such services and related fees reported at each regularly scheduled Audit Committee meeting.

o "One-time" pre-approval

o A summary of all such

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

for the Trust fiscal year within a specified dollar limit for all pre-approved specific service subcategories

services and related fees (including comparison to specified dollar limits) reported quarterly.

- o Specific approval is needed to exceed the pre-approved dollar limit for these services (see general Audit Committee approval policy below for details on obtaining specific approvals)
- o Specific approval is needed to use the Trust's auditors for Audit-Related Services not denoted as "pre-approved", or to add a specific service subcategory as "pre-approved"

SECTION III - POLICY DETAIL, CONTINUED

SERVICE CATEGORY	SERVICE CATEGORY DESCRIPTION	SPECIFIC PRE-APPROVED SERVICE SUBCATEGORIES
III. TAX SERVICES	Services which are not prohibited by the Rule, if an officer of the Trust determines that using the Trust's auditor to provide these services creates significant synergy in the form of efficiency, minimized disruption, or the ability to maintain a desired level of confidentiality.	<ul style="list-style-type: none"> o Tax planning and support o Tax controversy assistance o Tax compliance, tax returns, excise tax returns and support o Tax opinions

AUDIT COMMITTEE APPROVAL POLICY	AUDIT COMMITTEE REPORTING POLICY
<ul style="list-style-type: none"> o "One-time" pre-approval for the Trust fiscal year within a specified dollar limit o Specific approval is needed to exceed the pre-approved dollar limits for 	<ul style="list-style-type: none"> o A summary of all such services and related fees (including comparison to specified dollar limits) reported quarterly.

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

these services (see general Audit Committee approval policy below for details on obtaining specific approvals)

- o Specific approval is needed to use the Trust's auditors for tax services not denoted as pre-approved, or to add a specific service subcategory as "pre-approved"

SECTION III - POLICY DETAIL, CONTINUED

SERVICE CATEGORY	SERVICE CATEGORY DESCRIPTION	SPECIFIC PRE-APPROVED SERVICE SUBCATEGORIES
IV. OTHER SERVICES A. SYNERGISTIC, UNIQUE QUALIFICATIONS	Services which are not prohibited by the Rule, if an officer of the Trust determines that using the Trust's auditor to provide these services creates significant synergy in the form of efficiency, minimized disruption, the ability to maintain a desired level of confidentiality, or where the Trust's auditors possess unique or superior qualifications to provide these services, resulting in superior value and results for the Trust.	<ul style="list-style-type: none"> o Business Risk Management support o Other control and regulatory compliance projects

AUDIT COMMITTEE APPROVAL POLICY	AUDIT COMMITTEE REPORTING POLICY
<ul style="list-style-type: none"> o "One-time" pre-approval for the Trust fiscal year within a specified dollar limit o Specific approval is needed to exceed the pre-approved dollar limits for these services (see general Audit Committee approval policy below for details on obtaining specific approvals) 	<ul style="list-style-type: none"> o A summary of all such services and related fees (including comparison to specified dollar limits) reported quarterly.

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

- o Specific approval is needed to use the Trust's auditors for "Synergistic" or "Unique Qualifications" Other Services not denoted as pre-approved to the left, or to add a specific service subcategory as "pre-approved"

SECTION III - POLICY DETAIL, CONTINUED

SERVICE CATEGORY	SERVICE CATEGORY DESCRIPTION	SPECIFIC PROHIBITED SERVICE SUBCATEGORIES
PROHIBITED SERVICES	Services which result in the auditors losing independence status under the Rule.	<ol style="list-style-type: none"> 1. Bookkeeping or other services related to the accounting records or financial statements of the audit client* 2. Financial information systems design and implementation* 3. Appraisal or valuation services, fairness* opinions, or contribution-in-kind reports 4. Actuarial services (i.e., setting actuarial reserves versus actuarial audit work)* 5. Internal audit outsourcing services* 6. Management functions or human resources 7. Broker or dealer, investment advisor, or investment banking services 8. Legal services and expert services unrelated to the audit 9. Any other service that the Public Company Accounting Oversight Board determines, by regulation, is impermissible

AUDIT COMMITTEE APPROVAL POLICY

- o These services are not to be performed with the exception of the(*) services that may be permitted if they would not be subject to audit procedures at the audit client (as defined in rule 2-01(f)(4)) level the firm providing the service.

AUDIT COMMITTEE REPORTING POLICY

- o A summary of all services and related fees reported at each regularly scheduled Audit Committee meeting will serve as continual confirmation that has not provided any restricted services.

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

GENERAL AUDIT COMMITTEE APPROVAL POLICY:

- o For all projects, the officers of the Trusts and the Trust's auditors will each make an assessment to determine that any proposed projects will not impair independence.
 - o Potential services will be classified into the four non-restricted service categories and the "Approval of Audit, Audit-Related, Tax and Other Services" Policy above will be applied. Any services outside the specific pre-approved service subcategories set forth above must be specifically approved by the Audit Committee.
 - o At least quarterly, the Audit Committee shall review a report summarizing the services by service category, including fees, provided by the Audit firm as set forth in the above policy.
-

(2) Disclose the percentage of services described in each of paragraphs (b) through (d) of this Item that were approved by the audit committee pursuant to paragraph (c) (7) (i) (C) of Rule 2-01 of Regulation S-X.

N/A

(f) If greater than 50 percent, disclose the percentage of hours expended on the principal accountant's engagement to audit the registrant's financial statements for the most recent fiscal year that were attributed to work performed by persons other than the principal accountant's full-time, permanent employees.

N/A

(g) Disclose the aggregate non-audit fees billed by the registrant's accountant for services rendered to the registrant, and rendered to the registrant's investment adviser (not including any sub-adviser whose role is primarily portfolio management and is subcontracted with or overseen by another investment adviser), and any entity controlling, controlled by, or under common control with the adviser that provides ongoing services to the registrant for each of the last two fiscal years of the registrant.

N/A

(h) Disclose whether the registrant's audit committee of the board of trustees has considered whether the provision of non-audit services that were rendered to the registrant's investment adviser (not including any subadviser whose role is primarily portfolio management and is subcontracted with or overseen by another investment adviser), and any entity controlling, controlled by, or under common control with the investment adviser that provides ongoing services to the registrant that were not pre-approved pursuant to paragraph (c) (7) (ii) of Rule 2-01 of Regulation S-X is compatible with maintaining the principal accountant's independence.

The Trust's independent auditor, Ernst & Young LLP ("E&Y"), has advised the Audit Committee of the Trust's Board of Trustees that E&Ys Spanish affiliate (E&Y Spain) performed certain non-audit work for Pioneer Global Investments Limited ("PGIL"), an affiliate of the Trusts investment adviser. The services involved the receipt and disbursement of monies transferred

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

to E&Y Spain by PGIL in payment of individual payroll and related income tax withholdings due on returns prepared by E&Y Spain for certain PGIL employees located in Spain from February 2001 to October 2005. E&Y became auditors of the Trust in May 2002. These payroll and tax services were discontinued in November 2005. The annual fee received by E&Y Spain for all such services totaled approximately 9,000 Euro per year. E&Y has informed the Audit Committee that based on its internal reviews and the de minimus nature of the services provided and fees received, E&Y does not believe its independence with respect to the Trust has been impaired or that it is disqualified from acting as independent auditors to the Trust.

N/A

Item 5. Audit Committee of Listed Registrants

(a) If the registrant is a listed issuer as defined in Rule 10A-3 under the Exchange Act (17 CFR 240.10A-3), state whether or not the registrant has a separately-designated standing audit committee established in accordance with Section 3(a)(58)(A) of the Exchange Act (15 U.S.C. 78c(a)(58)(A)). If the registrant has such a committee, however designated, identify each committee member. If the entire board of directors is acting as the registrants audit committee as specified in Section 3(a)(58)(B) of the Exchange Act (15 U.S.C. 78c(a)(58)(B)), so state.

The registrant has a separately-designated standing audit committee established in accordance with Section 3(a)(58)(A) of the Exchange Act (15 U.S.C. 78c(a)(58)(A)).

(b) If applicable, provide the disclosure required by Rule 10A-3(d) under the Exchange Act (17 CFR 240.10A-3(d)) regarding an exemption from the listing standards for audit committees.

N/A

Item 6. Schedule of Investments.

File Schedule I Investments in securities of unaffiliated issuers as of the close of the reporting period as set forth in 210.12-12 of Regulation S-X [17 CFR 210.12-12], unless the schedule is included as part of the report to shareholders filed under Item 1 of this Form.

Included in Item 1

ITEM 7. DISCLOSURE OF PROXY VOTING POLICIES AND PROCEDURES FOR CLOSED-END MANAGEMENT INVESTMENT COMPANIES.

A closed-end management investment company that is filing an annual report on this Form N-CSR must, unless it invests exclusively in non-voting securities,

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

describe the policies and procedures that it uses to determine how to vote proxies relating to portfolio securities, including the procedures that the company uses when a vote presents a conflict between the interests of its shareholders, on the one hand, and those of the company's investment adviser; principal underwriter; or any affiliated person (as defined in Section 2(a)(3) of the Investment Company Act of 1940 (15 U.S.C. 80a-2(a)(3)) and the rules thereunder) of the company, its investment adviser, or its principal underwriter, on the other. Include any policies and procedures of the company's investment adviser, or any other third party, that the company uses, or that are used on the company's behalf, to determine how to vote proxies relating to portfolio securities.

Proxy Voting Policies and Procedures of
Pioneer Investment Management, Inc.

VERSION DATED July, 2004

Overview

Pioneer Investment Management, Inc. ("Pioneer") is a fiduciary that owes each of its client's duties of care and loyalty with respect to all services undertaken on the client's behalf, including proxy voting. When Pioneer has been delegated proxy-voting authority for a client, the duty of care requires Pioneer to monitor corporate events and to vote the proxies. To satisfy its duty of loyalty, Pioneer must place its client's interests ahead of its own and must cast proxy votes in a manner consistent with the best interest of its clients. Pioneer will vote all proxies presented in a timely manner.

The Proxy Voting Policies and Procedures are designed to complement Pioneer's investment policies and procedures regarding its general responsibility to monitor the performance and/or corporate events of companies that are issuers of securities held in accounts managed by Pioneer. Pioneer's Proxy Voting Policies summarize Pioneer's position on a number of issues solicited by companies held by Pioneer's clients. The policies are guidelines that provide a general indication on how Pioneer would vote but do not include all potential voting scenarios.

Pioneer's Proxy Voting Procedures detail monitoring of voting, exception votes, and review of conflicts of interest and ensure that case-by-case votes are handled within the context of the overall guidelines (i.e. best interest of client). The overriding goal is that all proxies for US and non-US companies that are received promptly will be voted in accordance with Pioneer's policies or specific client instructions. All shares in a company held by Pioneer-managed accounts will be voted alike, unless a client has given us specific voting instructions on an issue or has not delegated authority to us or the Proxy Voting Oversight Group determines that the circumstances justify a different approach.

Pioneer does not delegate the authority to vote proxies relating to its clients to any of its affiliates, which include other subsidiaries of UniCredito.

Any questions about these policies and procedures should be directed to the Proxy Coordinator.

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

Pioneer has engaged an independent proxy voting service to assist in the voting of proxies. The proxy voting service works with custodians to ensure that all proxy materials are received by the custodians and are processed in a timely fashion. To the extent applicable, the proxy voting service votes all proxies in accordance with the proxy voting policies established by Pioneer. The proxy voting service will refer proxy questions to the Proxy Coordinator (described below) for instructions under circumstances where: (1) the application of the proxy voting guidelines is unclear; (2) a particular proxy question is not covered by the guidelines; or (3) the guidelines call for specific instructions on a case-by-case basis. The proxy voting service is also requested to call to the Proxy Coordinator's attention specific proxy questions that, while governed by a guideline, appear to involve unusual or controversial issues. Pioneer reserves the right to attend a meeting in person and may do so when it determines that the company or the matters to be voted on at the meeting are strategically important to its clients.

Proxy Coordinator

Pioneer's Director of Investment Operations (the "Proxy Coordinator") coordinates the voting, procedures and reporting of proxies on behalf of Pioneer's clients. The Proxy Coordinator will deal directly with the proxy voting service and, in the case of proxy questions referred by the proxy voting service, will solicit voting recommendations and instructions from the Director of Portfolio Management US or, to the extent applicable, investment sub-advisers. The Proxy Coordinator is responsible for ensuring that these questions and referrals are responded to in a timely fashion and for transmitting appropriate voting instructions to the proxy voting service. The Proxy Coordinator is responsible for verifying with the Compliance Department whether Pioneer's voting power is subject to any limitations or guidelines issued by the client (or in the case of an employee benefit plan, the plan's trustee or other fiduciaries).

Referral Items

From time to time, the proxy voting service will refer proxy questions to the Proxy Coordinator that are described by Pioneer's policy as to be voted on a case-by-case basis, that are not covered by Pioneer's guidelines or where Pioneer's guidelines may be unclear with respect to the matter to be voted on. Under such certain circumstances, the Proxy Coordinator will seek a written voting recommendation from the Director of Portfolio Management US. Any such recommendation will include: (i) the manner in which the proxies should be voted; (ii) the rationale underlying any such decision; and (iii) the disclosure of any contacts or communications made between Pioneer and any outside parties concerning the proxy proposal prior to the time that the voting instructions are provided. In addition, the Proxy Coordinator will ask the Compliance Department to review the question for any actual or apparent conflicts of interest as described below under "Conflicts of

2

Interest." The Compliance Department will provide a "Conflicts of Interest Report," applying the criteria set forth below under "Conflicts of Interest," to the Proxy Coordinator summarizing the results of its review. In the absence of a conflict of interest, the Proxy Coordinator will vote in accordance with the recommendation of the Director of Portfolio Management US.

If the matter presents a conflict of interest for Pioneer, then the Proxy Coordinator will refer the matter to the Proxy Voting Oversight Group for a decision. In general, when a conflict of interest is present, Pioneer will vote according to the recommendation of the Director of Portfolio

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

Management US where such recommendation would go against Pioneer's interest or where the conflict is deemed to be immaterial. Pioneer will vote according to the recommendation of its proxy voting service when the conflict is deemed to be material and the Pioneer's internal vote recommendation would favor Pioneer's interest, unless a client specifically requests Pioneer to do otherwise. When making the final determination as to how to vote a proxy, the Proxy Voting Oversight Group will review the report from the Director of Portfolio Management US and the Conflicts of Interest Report issued by the Compliance Department.

Conflicts of Interest

A conflict of interest occurs when Pioneer's interests interfere, or appear to interfere with the interests of Pioneer's clients. Occasionally, Pioneer may have a conflict that can affect how its votes proxies. The conflict may be actual or perceived and may exist when the matter to be voted on concerns:

- o An affiliate of Pioneer, such as another company belonging to the UniCredito Italiano S.p.A. banking group (a "UniCredito Affiliate");
- o An issuer of a security for which Pioneer acts as a sponsor, advisor, manager, custodian, distributor, underwriter, broker, or other similar capacity (including those securities specifically declared by PGAM to present a conflict of interest for Pioneer);
- o An issuer of a security for which UniCredito has informed Pioneer that a UniCredito Affiliate acts as a sponsor, advisor, manager, custodian, distributor, underwriter, broker, or other similar capacity; or
- o A person with whom Pioneer (or any of its affiliates) has an existing, material contract or business relationship that was not entered into in the ordinary course of Pioneer's business.
- o Pioneer will abstain from voting with respect to companies directly or indirectly owned by UniCredito Italiano Group, unless otherwise directed by a client. In addition, Pioneer will inform PGAM Global Compliance and the PGAM Independent Directors before exercising such rights.

Any associate involved in the proxy voting process with knowledge of any apparent or actual conflict of interest must disclose such conflict to the Proxy Coordinator and the Compliance Department. The Compliance Department will review each item referred to Pioneer to determine whether an actual or potential conflict of interest with Pioneer exists in connection with the proposal(s) to be voted upon. The review will be conducted by comparing the apparent parties affected by the proxy proposal being

3

voted upon against the Compliance Department's internal list of interested persons and, for any matches found, evaluating the anticipated magnitude and possible probability of any conflict of interest being present. For each referral item, the determination regarding the presence or absence of any actual or potential conflict of interest will be documented in a Conflicts of Interest Report to the Proxy Coordinator.

Securities Lending

In conjunction with industry standards Proxies are not available to be voted when the shares are out on loan through either Pioneer's lending

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

program or a client's managed security lending program. However, Pioneer will reserve the right to recall lent securities so that they may be voted according to the Pioneer's instructions. If a portfolio manager would like to vote a block of previously lent shares, the Proxy Coordinator will work with the portfolio manager and Investment Operations to recall the security, to the extent possible, to facilitate the vote on the entire block of shares.

Share-Blocking

"Share-blocking" is a market practice whereby shares are sent to a custodian (which may be different than the account custodian) for record keeping and voting at the general meeting. The shares are unavailable for sale or delivery until the end of the blocking period (typically the day after general meeting date).

Pioneer will vote in those countries with "share-blocking." In the event a manager would like to sell a security with "share-blocking", the Proxy Coordinator will work with the Portfolio Manager and Investment Operations Department to recall the shares (as allowable within the market time-frame and practices) and/or communicate with executing brokerage firm. A list of countries with "share-blocking" is available from the Investment Operations Department upon request.

Record Keeping

The Proxy Coordinator shall ensure that Pioneer's proxy voting service:

- o Retains a copy of the proxy statement received (unless the proxy statement is available from the SEC's Electronic Data Gathering, Analysis, and Retrieval (EDGAR) system);
- o Retains a record of the vote cast;
- o Prepares Form N-PX for filing on behalf of each client that is a registered investment company; and
- o Is able to promptly provide Pioneer with a copy of the voting record upon its request.

4

The Proxy Coordinator shall ensure that for those votes that may require additional documentation (i.e. conflicts of interest, exception votes and case-by-case votes) the following records are maintained:

- o A record memorializing the basis for each referral vote cast;
- o A copy of any document created by Pioneer that was material in making the decision on how to vote the subject proxy; and
- o A copy of any conflict notice, conflict consent or any other written communication (including emails or other electronic communications) to or from the client (or in the case of an employee benefit plan, the plan's trustee or other fiduciaries) regarding the subject proxy vote cast by, or the vote recommendation of, Pioneer.
- o Pioneer shall maintain the above records in the client's file for a period not less than ten (10) years.

Disclosure

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

Pioneer shall take reasonable measures to inform its clients of the process or procedures clients must follow to obtain information regarding how Pioneer voted with respect to assets held in their accounts. In addition, Pioneer shall describe to clients its proxy voting policies and procedures and will furnish a copy of its proxy voting policies and procedures upon request. This information may be provided to clients through Pioneer's Form ADV (Part II) disclosure, by separate notice to the client, or through Pioneer's website.

Proxy Voting Oversight Group

The members of the Proxy Voting Oversight Group are Pioneer's: Director of Portfolio Management US, Head of Investment Operations, and Director of Compliance. Other members of Pioneer will be invited to attend meetings and otherwise participate as necessary. The Head of Investment Operations will chair the Proxy Voting Oversight Group.

The Proxy Voting Oversight Group is responsible for developing, evaluating, and changing (when necessary) Pioneer's Proxy Voting Policies and Procedures. The group meets at least annually to evaluate and review these policies and procedures and the services of its third-party proxy voting service. In addition, the Proxy Voting Oversight Group will meet as necessary to vote on referral items and address other business as necessary.

Amendments

Pioneer may not amend its Proxy Voting Policies And Procedures without the prior approval of the Proxy Voting Oversight Group and its corporate parent, Pioneer Global Asset Management S.p.A

5

Proxy Voting Policies

Pioneer's sole concern in voting proxies is the economic effect of the proposal on the value of portfolio holdings, considering both the short- and long-term impact. In many instances, Pioneer believes that supporting the company's strategy and voting "for" management's proposals builds portfolio value. In other cases, however, proposals set forth by management may have a negative effect on that value, while some shareholder proposals may hold the best prospects for enhancing it. Pioneer monitors developments in the proxy-voting arena and will revise this policy as needed.

All proxies that are received promptly will be voted in accordance with the specific policies listed below. All shares in a company held by Pioneer-managed accounts will be voted alike, unless a client has given us specific voting instructions on an issue or has not delegated authority to us. Proxy voting issues will be reviewed by Pioneer's Proxy Voting Oversight Group, which consists of the Director of Portfolio Management US, the Director of Investment Operations (the Proxy Coordinator), and the Director of Compliance.

Pioneer has established Proxy Voting Procedures for identifying and reviewing conflicts of interest that may arise in the voting of proxies.

Clients may request, at any time, a report on proxy votes for securities held in their portfolios and Pioneer is happy to discuss our proxy votes with company management. Pioneer retains a proxy voting service to provide research on proxy issues and to process proxy votes.

Administrative

While administrative items appear infrequently in U.S. issuer proxies, they are quite common in non-U.S. proxies.

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

We will generally support these and similar management proposals:

- o Corporate name change.
- o A change of corporate headquarters.
- o Stock exchange listing.
- o Establishment of time and place of annual meeting.
- o Adjournment or postponement of annual meeting.
- o Acceptance/approval of financial statements.
- o Approval of dividend payments, dividend reinvestment plans and other dividend-related proposals.
- o Approval of minutes and other formalities.

6

- o Authorization of the transferring of reserves and allocation of income.
- o Amendments to authorized signatories.
- o Approval of accounting method changes or change in fiscal year-end.
- o Acceptance of labor agreements.
- o Appointment of internal auditors.

Pioneer will vote on a case-by-case basis on other routine business; however, Pioneer will oppose any routine business proposal if insufficient information is presented in advance to allow Pioneer to judge the merit of the proposal. Pioneer has also instructed its proxy voting service to inform Pioneer of its analysis of any administrative items inconsistent, in its view, with supporting the value of Pioneer portfolio holdings so that Pioneer may consider and vote on those items on a case-by-case basis.

Auditors

We normally vote for proposals to:

- o Ratify the auditors. We will consider a vote against if we are concerned about the auditors' independence or their past work for the company. Specifically, we will oppose the ratification of auditors and withhold votes from audit committee members if non-audit fees paid by the company to the auditing firm exceed the sum of audit fees plus audit-related fees plus permissible tax fees according to the disclosure categories proposed by the Securities and Exchange Commission.
- o Restore shareholder rights to ratify the auditors.

We will normally oppose proposals that require companies to:

- o Seek bids from other auditors.
- o Rotate auditing firms, except where the rotation is statutorily required or where rotation would demonstrably strengthen financial

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

disclosure.

- o Indemnify auditors.
- o Prohibit auditors from engaging in non-audit services for the company.

Board of Directors

On issues related to the board of directors, Pioneer normally supports management. We will, however, consider a vote against management in instances where corporate performance has been very poor or where the board appears to lack independence.

7

General Board Issues

Pioneer will vote for:

- o Audit, compensation and nominating committees composed of independent directors exclusively.
- o Indemnification for directors for actions taken in good faith in accordance with the business judgment rule. We will vote against proposals for broader indemnification.
- o Changes in board size that appear to have a legitimate business purpose and are not primarily for anti-takeover reasons.
- o Election of an honorary director.

We will vote against:

- o Minimum stock ownership by directors.
- o Term limits for directors. Companies benefit from experienced directors, and shareholder control is better achieved through annual votes.
- o Requirements for union or special interest representation on the board.
- o Requirements to provide two candidates for each board seat.

We will vote on a case-by case basis on these issues:

- o Separate chairman and CEO positions. We will consider voting with shareholders on these issues in cases of poor corporate performance.

Elections of Directors

In uncontested elections of directors we will vote against:

- o Individual directors with absenteeism above 25% without valid reason. We support proposals that require disclosure of director attendance.
- o Insider directors and affiliated outsiders who sit on the audit, compensation, stock option or nominating committees. For the purposes of our policy, we accept the definition of affiliated directors provided by our proxy voting service.

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

We will also vote against:

- o Directors who have failed to act on a takeover offer where the majority of shareholders have tendered their shares.
- o Directors who appear to lack independence or are associated with very poor corporate performance.

8

We will vote on a case-by case basis on these issues:

- o Re-election of directors who have implemented or renewed a dead-hand or modified dead-hand poison pill (a "dead-hand poison pill" is a shareholder rights plan that may be altered only by incumbent or "dead " directors. These plans prevent a potential acquirer from disabling a poison pill by obtaining control of the board through a proxy vote).
- o Contested election of directors.
- o Prior to phase-in required by SEC, we would consider supporting election of a majority of independent directors in cases of poor performance.
- o Mandatory retirement policies.
- o Directors who have ignored a shareholder proposal that has been approved by shareholders for two consecutive years.

Takeover-Related Measures

Pioneer is generally opposed to proposals that may discourage takeover attempts. We believe that the potential for a takeover helps ensure that corporate performance remains high.

Pioneer will vote for:

- o Cumulative voting.
- o Increase ability for shareholders to call special meetings.
- o Increase ability for shareholders to act by written consent.
- o Restrictions on the ability to make greenmail payments.
- o Submitting rights plans to shareholder vote.
- o Rescinding shareholder rights plans ("poison pills").
- o Opting out of the following state takeover statutes:
 - o Control share acquisition statutes, which deny large holders voting rights on holdings over a specified threshold.
 - o Control share cash-out provisions, which require large holders to acquire shares from other holders.
 - o Freeze-out provisions, which impose a waiting period on large holders before they can attempt to gain control.
 - o Stakeholder laws, which permit directors to consider interests of

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

non-shareholder constituencies.

9

- o Disgorgement provisions, which require acquirers to disgorge profits on purchases made before gaining control.
- o Fair price provisions.
- o Authorization of shareholder rights plans.
- o Labor protection provisions.
- o Mandatory classified boards.

We will vote on a case-by-case basis on the following issues:

- o Fair price provisions. We will vote against provisions requiring supermajority votes to approve takeovers. We will also consider voting against proposals that require a supermajority vote to repeal or amend the provision. Finally, we will consider the mechanism used to determine the fair price; we are generally opposed to complicated formulas or requirements to pay a premium.
- o Opting out of state takeover statutes regarding fair price provisions. We will use the criteria used for fair price provisions in general to determine our vote on this issue.
- o Proposals that allow shareholders to nominate directors.

We will vote against:

- o Classified boards, except in the case of closed-end mutual funds.
- o Limiting shareholder ability to remove or appoint directors. We will support proposals to restore shareholder authority in this area. We will review on a case-by-case basis proposals that authorize the board to make interim appointments.
- o Classes of shares with unequal voting rights.
- o Supermajority vote requirements.
- o Severance packages ("golden" and "tin" parachutes). We will support proposals to put these packages to shareholder vote.
- o Reimbursement of dissident proxy solicitation expenses. While we ordinarily support measures that encourage takeover bids, we believe that management should have full control over corporate funds.
- o Extension of advance notice requirements for shareholder proposals.
- o Granting board authority normally retained by shareholders (e.g., amend charter, set board size).
- o Shareholder rights plans ("poison pills"). These plans generally allow shareholders to buy additional shares at a below-market price in the event of a change in control and may deter some bids.

10

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

Capital Structure

Managements need considerable flexibility in determining the company's financial structure, and Pioneer normally supports managements' proposals in this area. We will, however, reject proposals that impose high barriers to potential takeovers.

Pioneer will vote for:

- o Changes in par value.
- o Reverse splits, if accompanied by a reduction in number of shares.
- o Share repurchase programs, if all shareholders may participate on equal terms.
- o Bond issuance.
- o Increases in "ordinary" preferred stock.
- o Proposals to have blank-check common stock placements (other than shares issued in the normal course of business) submitted for shareholder approval.
- o Cancellation of company treasury shares.

We will vote on a case-by-case basis on the following issues:

- o Reverse splits not accompanied by a reduction in number of shares, considering the risk of delisting.
- o Increase in authorized common stock. We will make a determination considering, among other factors:
 - o Number of shares currently available for issuance;
 - o Size of requested increase (we would normally approve increases of up to 100% of current authorization);
 - o Proposed use of the additional shares; and
 - o Potential consequences of a failure to increase the number of shares outstanding (e.g., delisting or bankruptcy).
- o Blank-check preferred. We will normally oppose issuance of a new class of blank-check preferred, but may approve an increase in a class already outstanding if the company has demonstrated that it uses this flexibility appropriately.
- o Proposals to submit private placements to shareholder vote.
- o Other financing plans.

We will vote against preemptive rights that we believe limit a company's financing flexibility.

11

Compensation

Pioneer supports compensation plans that link pay to shareholder returns

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

and believes that management has the best understanding of the level of compensation needed to attract and retain qualified people. At the same time, stock-related compensation plans have a significant economic impact and a direct effect on the balance sheet. Therefore, while we do not want to micromanage a company's compensation programs, we will place limits on the potential dilution these plans may impose.

Pioneer will vote for:

- o 401(k) benefit plans.
- o Employee stock ownership plans (ESOPs), as long as shares allocated to ESOPs are less than 5% of outstanding shares. Larger blocks of stock in ESOPs can serve as a takeover defense. We will support proposals to submit ESOPs to shareholder vote.
- o Various issues related to the Omnibus Budget and Reconciliation Act of 1993 (OBRA), including:
 - o Amendments to performance plans to conform with OBRA;
 - o Caps on annual grants or amendments of administrative features;
 - o Adding performance goals; and
 - o Cash or cash-and-stock bonus plans.
 - o Establish a process to link pay, including stock-option grants, to performance, leaving specifics of implementation to the company.
 - o Require that option repricings be submitted to shareholders.
 - o Require the expensing of stock-option awards.
 - o Require reporting of executive retirement benefits (deferred compensation, split-dollar life insurance, SERPs, and pension benefits).
 - o Employee stock purchase plans where the purchase price is equal to at least 85% of the market price, where the offering period is no greater than 27 months and where potential dilution (as defined below) is no greater than 10%.

12

We will vote on a case-by-case basis on the following issues:

- o Executive and director stock-related compensation plans. We will consider the following factors when reviewing these plans:
- o The program must be of a reasonable size. We will approve plans where the combined employee and director plans together would generate less than 15% dilution. We will reject plans with 15% or more potential dilution.

Dilution = $(A + B + C) / (A + B + C + D)$, where

A = Shares reserved for plan/amendment,

B = Shares available under continuing plans,

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

C = Shares granted but unexercised and

D = Shares outstanding.

- o The plan must not:
 - o Explicitly permit unlimited option repricing authority or that have repriced in the past without shareholder approval.
 - o Be a self-replenishing "evergreen" plan, plans that grant discount options and tax offset payments.
- o We are generally in favor of proposals that increase participation beyond executives.
- o We generally support proposals asking companies to adopt rigorous vesting provisions for stock option plans such as those that vest incrementally over, at least, a three- or four-year period with a pro rata portion of the shares becoming exercisable on an annual basis following grant date.
- o We generally support proposals asking companies to disclose their window period policies for stock transactions. Window period policies ensure that employees do not exercise options based on insider information contemporaneous with quarterly earnings releases and other material corporate announcements.
- o We generally support proposals asking companies to adopt stock holding periods for their executives.
 - o All other employee stock purchase plans.
 - o All other compensation-related proposals, including deferred compensation plans, employment agreements, loan guarantee programs and retirement plans.
 - o All other proposals regarding stock compensation plans, including extending the life of a plan, changing vesting restrictions, repricing options, lengthening exercise periods or accelerating distribution of awards and pyramiding and cashless exercise programs.

13

We will vote against:

- o Pensions for non-employee directors. We believe these retirement plans reduce director objectivity.
- o Elimination of stock option plans.

We will vote on a case-by case basis on these issues:

- o Limits on executive and director pay.
- o Stock in lieu of cash compensation for directors.

Corporate Governance
Pioneer will vote for:

- o Confidential Voting.

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

- o Equal access provisions, which allow shareholders to contribute their opinion to proxy materials.
- o Proposals requiring directors to disclose their ownership of shares in the company.

We will vote on a case-by-case basis on the following issues:

- o Change in the state of incorporation. We will support reincorporations supported by valid business reasons. We will oppose those that appear to be solely for the purpose of strengthening takeover defenses.
- o Bundled proposals. We will evaluate the overall impact of the proposal.
- o Adopting or amending the charter, bylaws or articles of association.
- o Shareholder appraisal rights, which allow shareholders to demand judicial review of an acquisition price.

We will vote against:

- o Shareholder advisory committees. While management should solicit shareholder input, we prefer to leave the method of doing so to management's discretion.
- o Limitations on stock ownership or voting rights.
- o Reduction in share ownership disclosure guidelines.

14

Mergers and Restructurings

Pioneer will vote on the following and similar issues on a case-by-case basis:

- o Mergers and acquisitions.
- o Corporate restructurings, including spin-offs, liquidations, asset sales, joint ventures, conversions to holding company and conversions to self-managed REIT structure.
- o Debt restructurings.
- o Conversion of securities.
- o Issuance of shares to facilitate a merger.
- o Private placements, warrants, convertible debentures.
- o Proposals requiring management to inform shareholders of merger opportunities.

We will normally vote against shareholder proposals requiring that the company be put up for sale.

Mutual Funds

Many of our portfolios may invest in shares of closed-end mutual funds or exchange-traded funds. The non-corporate structure of these investments

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

raises several unique proxy voting issues.

Pioneer will vote for:

- o Establishment of new classes or series of shares.
- o Establishment of a master-feeder structure.

Pioneer will vote on a case-by-case on:

- o Changes in investment policy. We will normally support changes that do not affect the investment objective or overall risk level of the fund. We will examine more fundamental changes on a case-by-case basis.
- o Approval of new or amended advisory contracts.
- o Changes from closed-end to open-end format.
- o Authorization for, or increase in, preferred shares.
- o Disposition of assets, termination, liquidation, or mergers.
- o Classified boards of closed-end mutual funds, but will typically support such proposals.

15

Social Issues

Pioneer will abstain on stockholder proposals calling for greater disclosure of corporate activities with regard to social issues. "Social Issues" may generally be described as shareholder proposals for a company to:

- o Conduct studies regarding certain issues of public concern and interest;
- o Study the feasibility of the company taking certain actions with regard to such issues; or
- o Take specific action, including ceasing certain behavior and adopting company standards and principles, in relation to issues of public concern and interest.

We believe these issues are important and should receive management attention.

Pioneer will vote against proposals calling for substantial changes in the company's business or activities. We will also normally vote against proposals with regard to contributions, believing that management should control the routine disbursement of funds.

16

Item 8. Portfolio Managers of Closed-End Management Investment Companies.

(a) If the registrant is a closed-end management investment company that is filing an annual report on this Form N-CSR, provide the following information:

(1) State the name, title, and length of service of the person or persons

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

employed by or associated with the registrant or an investment adviser of the registrant who are primarily responsible for the day-to-day management of the registrants portfolio (Portfolio Manager). Also state each Portfolio Managers business experience during the past 5 years.

Item 9. Purchases of Equity Securities by Closed-End Management Investment Company and Affiliated Purchasers.

(a) If the registrant is a closed-end management investment company, in the following tabular format, provide the information specified in paragraph (b) of this Item with respect to any purchase made by or on behalf of the registrant or any affiliated purchaser, as defined in Rule 10b-18(a)(3) under the Exchange Act (17 CFR 240.10b-18(a)(3)), of shares or other units of any class of the registrants equity securities that is registered by the registrant pursuant to Section 12 of the Exchange Act (15 U.S.C. 781). Instruction to paragraph (a). Disclose all purchases covered by this Item, including purchases that do not satisfy the conditions of the safe harbor of Rule 10b-18 under the Exchange Act (17 CFR 240.10b-18), made in the period covered by the report. Provide disclosures covering repurchases made on a monthly basis. For example, if the reporting period began on January 16 and ended on July 15, the chart would show repurchases for the months from January 16 through February 15, February 16 through March 15, March 16 through April 15, April 16 through May 15, May 16 through June 15, and June 16 through July 15.

During the period covered by this report, there were no purchases made by or on behalf of the registrant or any affiliated purchaser as defined in Rule 10b-18(a)(3) under the Securities Exchange Act of 1934 (the Exchange Act), of shares of the registrants equity securities that are registered by the registrant pursuant to Section 12 of the Exchange Act.

Item 10. Submission of Matters to a Vote of Security Holders.

Describe any material changes to the procedures by which shareholders may recommend nominees to the registrants board of directors, where those changes were implemented after the registrant last provided disclosure in response to the requirements of Item 7(d)(2)(ii)(G) of Schedule 14A (17 CFR 240.14a-101), or this Item.

There have been no material changes to the procedures by which the shareholders may recommend nominees to the registrants board of directors since the registrant last provided disclosure in response to the requirements of Item 7(d)(2)(ii)(G) of Schedule 14(A) in its definitive proxy statement, or this Item.

ITEM 11. CONTROLS AND PROCEDURES.

(a) Disclose the conclusions of the registrant's principal executive officer or officers and principal financial officer or officers, or persons performing similar functions, about the effectiveness of the registrant's disclosure

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

controls and procedures (as defined in Rule 30a-2(c) under the Act (17 CFR 270.30a-2(c))) based on their evaluation of these controls and procedures as of a date within 90 days of the filing date of the report that includes the disclosure required by this paragraph.

The registrant's principal executive officer and principal financial officer have concluded, that the registrant's disclosure controls and procedures are effective based on their evaluation of these controls and procedures as of a date within 90 days of the filing date of this report.

(b) Disclose whether or not there were significant changes in the registrant's internal controls or in other factors that could significantly affect these controls subsequent to the date of their evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

There were no significant changes in the registrant's internal controls or in other factors that could significantly affect these controls subsequent to the date of their evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

ITEM 12. EXHIBITS.

File the exhibits listed below as part of this Form. Letter or number the exhibits in the sequence indicated.

(a) Any code of ethics, or amendment thereto, that is the subject of the disclosure required by Item 2, to the extent that the registrant intends to satisfy the Item 2 requirements through filing of an exhibit.

(b) A separate certification for each principal executive officer and principal financial officer of the registrant as required by Rule 30a-2 under the Act (17 CFR 270.30a-2).

Filed herewith.

SIGNATURES

[See General Instruction F]

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

(Registrant) Pioneer Municipal High Income Trust

By (Signature and Title)* /s/ John F. Cogan, Jr.
John F. Cogan, Jr, President

Date December 29, 2005

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME TRUST - Form N-CSR

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

By (Signature and Title)* /s/ John F. Cogan, Jr.
John F. Cogan, Jr., President

Date December 29, 2005

By (Signature and Title)* /s/ Vincent Nave
Vincent Nave, Treasurer

Date December 29, 2005

* Print the name and title of each signing officer under his or her signature.