

Pioneer Municipal High Income Fund, Inc.

Ticker Symbol: MHI

Schedule of Investments | 7/31/23

(unaudited)

Principal Amount USD (\$)		Value
UNAFFILIATED ISSUERS — 154.2%		
MUNICIPAL BONDS — 154.2% of Net Assets(a)		
Arizona — 2.7%		
2,220,000	Industrial Development Authority of the City of Phoenix, 3rd & Indian School Assisted Living Project, 5.40%, 10/1/36	\$ 1,978,664
5,000,000	Maricopa County Industrial Development Authority, Commercial Metals Company, 4.00%, 10/15/47 (144A)	4,327,950
Total Arizona		\$ 6,306,614
Arkansas — 5.9%		
13,700,000	Arkansas Development Finance Authority, Green Bond, 5.45%, 9/1/52	\$ 13,537,929
Total Arkansas		\$ 13,537,929
California — 16.6%		
2,500,000	Bay Area Toll Authority, Series F-2, 2.60%, 4/1/56	\$ 1,703,475
535,000	California County Tobacco Securitization Agency, Series B-1, 5.00%, 6/1/49	548,204
10,000,000(b)	California County Tobacco Securitization Agency, Capital Appreciation, Stanislaus County, Subordinated, Series A, 6/1/46	2,341,700
1,400,000	California Statewide Communities Development Authority, Lancer Plaza Project, 5.625%, 11/1/33	1,404,228
2,000,000	California Statewide Communities Development Authority, Loma Linda University Medical Center, 5.50%, 12/1/58 (144A)	2,005,000
11,500,000	California Statewide Communities Development Authority, Loma Linda University Medical Center, Series A, 5.00%, 12/1/46 (144A)	11,270,000
3,500,000	California Statewide Communities Development Authority, Loma Linda University Medical Center, Series A, 5.25%, 12/1/56 (144A)	3,505,250
10,235,000	City of Oroville, Oroville Hospital, 5.25%, 4/1/49	8,467,722
8,690,000	City of Oroville, Oroville Hospital, 5.25%, 4/1/54	6,917,501
Total California		\$ 38,163,080
Colorado — 4.8%		
2,000,000	City & County of Denver, Airport System Revenue, Series B, 5.25%, 11/15/53	\$ 2,194,160

Principal Amount USD (\$)		Value
	Colorado — (continued)	
7,250,000	Dominion Water & Sanitation District, 5.875%, 12/1/52	\$ 7,201,135
1,665,000(c)	Tender Option Bond Trust Receipts/Certificates, RIB, 0.00%, Series 2018, 6/1/39 (144A)	1,715,549
	Total Colorado	\$ 11,110,844
	Connecticut — 1.5%	
3,380,000	Mohegan Tribal Finance Authority, 7.00%, 2/1/45 (144A)	\$ 3,386,895
	Total Connecticut	\$ 3,386,895
	District of Columbia — 3.6%	
5,825,000	District of Columbia Tobacco Settlement Financing Corp., Asset-Backed, 6.75%, 5/15/40	\$ 5,976,508
10,000,000(b)	District of Columbia Tobacco Settlement Financing Corp., Capital Appreciation, Asset-Backed, Series A, 6/15/46	2,253,900
	Total District of Columbia	\$ 8,230,408
	Florida — 3.6%	
3,220,000	City of Tampa, Hospital Revenue Bonds (H. LEE Moffit Cancer Center Project), Series B, 4.00%, 7/1/45	\$ 3,005,065
5,000,000	County of Miami-Dade, Water & Sewer System Revenue, Series A, 4.00%, 10/1/44	4,908,750
275,000	Florida Development Finance Corp., Glenridge On Palmer Ranch Project, 5.00%, 6/1/31 (144A)	267,685
	Total Florida	\$ 8,181,500
	Georgia — 6.3%	
3,010,000	Brookhaven Development Authority, Children's Healthcare of Atlanta, Inc., Series A, 4.00%, 7/1/49	\$ 2,914,222
10,000,000	Brookhaven Development Authority, Children's Healthcare Of Atlanta, Inc., Series A, 4.00%, 7/1/44	9,856,700
2,500,000	County of Fulton Water & Sewerage Revenue, Series A, 2.25%, 1/1/42	1,795,475
	Total Georgia	\$ 14,566,397
	Idaho — 2.2%	
5,000,000	Power County Industrial Development Corp., FMC Corp. Project, 6.45%, 8/1/32	\$ 5,015,550
	Total Idaho	\$ 5,015,550

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(unaudited) (continued)

Principal Amount USD (\$)		Value
	Illinois — 5.0%	
2,000,000(d)	Chicago Board of Education, Series A, 5.00%, 12/1/47	\$ 1,980,560
704,519(b)	Illinois Finance Authority, Cabs Clare Oaks Project, Series B1, 11/15/52	49,316
1,116,010(c)(e)	Illinois Finance Authority, Clare Oaks Project, Series A-3, 4.00%, 11/15/52	781,207
3,500,000	Illinois Finance Authority, The Admiral at the Lake Project, 5.25%, 5/15/42	2,735,775
4,000,000	Illinois Finance Authority, The Admiral at the Lake Project, 5.50%, 5/15/54	2,965,320
915,000	Illinois Housing Development Authority, Series B, 2.15%, 10/1/41 (GNMA FNMA FHLMC COLL Insured)	700,286
2,000,000	Metropolitan Pier & Exposition Authority, McCormick Place Expansion, 4.00%, 6/15/50	1,862,600
695,000(e)	Southwestern Illinois Development Authority, Village of Sauget Project, 5.625%, 11/1/26	521,250
	Total Illinois	\$ 11,596,314
	Indiana — 1.7%	
2,000,000	City of Evansville, Silver Birch Evansville Project, 5.45%, 1/1/38	\$ 1,702,940
1,500,000	City of Mishawaka, Silver Birch Mishawaka Project, 5.375%, 1/1/38 (144A)	1,258,905
1,000,000	Indiana Finance Authority, Multipurpose Educational Facilities, Avondale Meadows Academy Project, 5.375%, 7/1/47	1,006,360
	Total Indiana	\$ 3,968,205
	Iowa — 4.1%	
9,675,000	Iowa Finance Authority, Alcoa Inc. Projects, 4.75%, 8/1/42	\$ 9,443,767
	Total Iowa	\$ 9,443,767
	Maine — 1.2%	
3,000,000	Maine Health & Higher Educational Facilities Authority, Series A, 4.00%, 7/1/50	\$ 2,792,100
	Total Maine	\$ 2,792,100
	Maryland — 2.0%	
1,325,000	Maryland Health & Higher Educational Facilities Authority, City Neighbors, Series A, 6.75%, 7/1/44	\$ 1,328,498

Principal Amount USD (\$)		Value
	Maryland — (continued)	
3,000,000	Maryland State Transportation Authority, Series A, 3.00%, 7/1/47	\$ 2,331,780
1,250,000	Washington Suburban Sanitary Commission, 3.00%, 6/1/47 (CNTY GTD Insured)	1,018,338
	Total Maryland	\$ 4,678,616
	Massachusetts — 13.6%	
4,000,000(d)	Commonwealth of Massachusetts, Series C, 3.00%, 3/1/49	\$ 3,116,320
4,000,000	Massachusetts Development Finance Agency, Harvard University, Series A, 5.00%, 7/15/40	4,711,600
3,000,000	Massachusetts Development Finance Agency, Lowell General Hospital, Series G, 5.00%, 7/1/44	2,905,200
5,000,000	Massachusetts Development Finance Agency, Partner's Healthcare System, 4.00%, 7/1/41	4,965,950
1,000,000	Massachusetts Development Finance Agency, Partner's Healthcare System, 4.00%, 7/1/41	972,540
7,100,000	Massachusetts Development Finance Agency, WGBH Educational Foundation, Series A, 5.75%, 1/1/42 (AMBAC Insured)	9,031,768
1,000,000	Massachusetts Housing Finance Agency, Social Bonds, Series 223, 2.35%, 6/1/39 (GNMA FNMA FHLMC Insured)	777,000
1,000,000	Massachusetts Housing Finance Agency, Sustainability Bond, Series B-1, 2.875%, 12/1/51	690,610
2,800,000(d)	Town of Arlington, 2.00%, 9/15/41	1,965,040
2,270,000(d)	Town of Millbury, 4.00%, 8/15/51	2,189,211
	Total Massachusetts	\$ 31,325,239
	Michigan — 0.4%	
990,000	David Ellis Academy-West, 5.25%, 6/1/45	\$ 906,820
	Total Michigan	\$ 906,820
	Minnesota — 0.8%	
1,000,000	City of Ham Lake, DaVinci Academy, Series A, 5.00%, 7/1/47	\$ 928,170
1,000,000	City of Rochester, Health Care Facilities, Mayo Clinic, 4.00%, 11/15/48	981,530
	Total Minnesota	\$ 1,909,700
	Montana — 0.0%†	
1,600,000(e)	Two Rivers Authority, 7.375%, 11/1/27	\$ 80,000
	Total Montana	\$ 80,000

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(unaudited) (continued)

Principal Amount USD (\$)		Value
	New Hampshire — 2.9%	
6,000,000	New Hampshire Health and Education Facilities Authority Act, Series A, 5.00%, 8/1/59	\$ 6,316,500
375,000	New Hampshire Health and Education Facilities Authority Act, Catholic Medical Centre, 3.75%, 7/1/40	321,889
	Total New Hampshire	\$ 6,638,389
	New Jersey — 1.8%	
2,500,000	New Jersey Economic Development Authority, Continental Airlines, 5.75%, 9/15/27	\$ 2,505,025
1,000,000	New Jersey Economic Development Authority, Marion P. Thomas Charter School, Inc., Project, Series A, 5.375%, 10/1/50 (144A)	912,440
1,000,000	New Jersey Infrastructure Bank, Green Bond, 2.00%, 9/1/41	702,420
	Total New Jersey	\$ 4,119,885
	New Mexico — 1.2%	
2,960,000(c)	County of Otero, Otero County Jail Project, Certificate Participation, 9.00%, 4/1/28	\$ 2,871,200
	Total New Mexico	\$ 2,871,200
	New York — 16.8%	
2,000,000	Erie Tobacco Asset Securitization Corp., Asset-Backed, Series A, 5.00%, 6/1/45	\$ 1,890,200
6,175,000	Metropolitan Transportation Authority, Green Bond, Series C-1, 4.75%, 11/15/45	6,272,133
2,000,000	Metropolitan Transportation Authority, Green Bond, Series C-1, 5.25%, 11/15/55	2,080,820
2,000,000	Metropolitan Transportation Authority, Green Bond, Series D-2, 4.00%, 11/15/48	1,868,800
3,000,000	Metropolitan Transportation Authority, Green Bond, Series E, 4.00%, 11/15/45	2,871,540
2,500,000	New York Counties Tobacco Trust IV, Settlement pass through, Series A, 5.00%, 6/1/45	2,338,450
3,000,000	New York Counties Tobacco Trust VI, Settlement pass through, Series 2B, 5.00%, 6/1/51	2,813,670
2,365,000	New York State Dormitory Authority, Columbia University, Series A, 5.00%, 10/1/50	2,788,122
2,500,000	New York State Dormitory Authority, Group 3, Series A, 3.00%, 3/15/41	2,116,500
2,000,000	New York State Housing Finance Agency, Sustainability Bonds, Series D-1, 4.20%, 11/1/52 (SONYMA FHA 542c Insured)	1,800,560

Principal Amount USD (\$)		Value
New York — (continued)		
3,000,000	New York State Urban Development Corp., Group 3, Series A, 3.00%, 3/15/49	\$ 2,351,370
5,580,000	New York Transportation Development Corp., Delta Airlines Inc-LaGuardia, 5.00%, 10/1/40	5,637,028
1,000,000	Troy Capital Resource Corp., 4.00%, 9/1/40	930,180
2,205,177	Westchester County Healthcare Corp., Series A, 5.00%, 11/1/44	2,154,237
1,000,000	Westchester County Local Development Corp., Purchase Senior Learning Community, 4.50%, 7/1/56 (144A)	710,130
Total New York		\$ 38,623,740
North Carolina — 2.7%		
2,500,000(d)	County of Mecklenburg, 2.00%, 3/1/41	\$ 1,825,275
4,225,000(c)	Tender Option Bond Trust Receipts/Certificates, RIB, 0.00%, Series 2018, 1/1/38 (144A)	4,385,381
Total North Carolina		\$ 6,210,656
Ohio — 6.5%		
15,275,000	Buckeye Tobacco Settlement Financing Authority, Senior Class 2, Series B2, 5.00%, 6/1/55	\$ 14,240,271
1,000,000	Ohio Housing Finance Agency, Sanctuary Springboro Project, 5.45%, 1/1/38 (144A)	809,940
Total Ohio		\$ 15,050,211
Oregon — 1.6%		
5,000,000	Oregon Health & Science University, Green Bond, Series A, 3.00%, 7/1/51	\$ 3,653,300
Total Oregon		\$ 3,653,300
Pennsylvania — 6.7%		
5,000,000	Montgomery County Higher Education and Health Authority, Thomas Jefferson University, Series B, 4.00%, 5/1/52	\$ 4,373,100
3,500,000	Montgomery County Higher Education and Health Authority, Thomas Jefferson University, Series B, 5.00%, 5/1/57	3,590,230
4,335,000	Pennsylvania Higher Educational Facilities Authority, University of Pennsylvania, 4.00%, 8/15/49	4,115,606
2,000,000	Pennsylvania Housing Finance Agency, Series 134A, 2.05%, 4/1/41	1,403,700
500,000	Philadelphia Authority for Industrial Development, 5.50%, 6/1/49 (144A)	511,025

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(unaudited) (continued)

Principal Amount USD (\$)		Value
Pennsylvania — (continued)		
1,000,000	Philadelphia Authority for Industrial Development, Global Leadership Academy Charter School Project, Series A, 5.00%, 11/15/50	\$ 896,090
460,000	Philadelphia Authority for Industrial Development, Greater Philadelphia Health Action, Inc., Project, Series A, 6.625%, 6/1/50	454,829
	Total Pennsylvania	\$ 15,344,580
Puerto Rico — 13.7%		
5,510,777(d)	Commonwealth of Puerto Rico, Restructured Series A1, 4.00%, 7/1/41	\$ 4,739,268
3,000,000(d)	Commonwealth of Puerto Rico, Restructured Series A1, 4.00%, 7/1/46	2,543,850
2,000,000	Puerto Rico Commonwealth Aqueduct & Sewer Authority, Series A, 5.00%, 7/1/37 (144A)	2,011,300
11,500,000	Puerto Rico Commonwealth Aqueduct & Sewer Authority, Series A, 5.00%, 7/1/47 (144A)	11,341,530
5,740,000	Puerto Rico Commonwealth Aqueduct & Sewer Authority, Series B, 5.00%, 7/1/37 (144A)	5,766,576
1,000,000	Puerto Rico Electric Power Authority, Series AAA, 5.25%, 7/1/21	370,000
2,500,000	Puerto Rico Sales Tax Financing Corp. Sales Tax Revenue, Restructured Series A-1, 5.00%, 7/1/58	2,439,400
2,500,000	Puerto Rico Sales Tax Financing Corp. Sales Tax Revenue, Restructured Series A-2, 4.784%, 7/1/58	2,348,450
	Total Puerto Rico	\$ 31,560,374
Rhode Island — 1.5%		
5,900,000(e)	Central Falls Detention Facility Corp., 7.25%, 7/15/35	\$ 1,062,000
2,500,000(c)	Tender Option Bond Trust Receipts/Certificates, RIB, 0.00%, Series 2019, 9/1/47 (144A)	2,504,725
	Total Rhode Island	\$ 3,566,725
South Carolina — 1.2%		
2,850,000	City of Charleston Waterworks & Sewer System Revenue, 4.00%, 1/1/49	\$ 2,779,292
	Total South Carolina	\$ 2,779,292
Texas — 11.2%		
500,000	Arlington Higher Education Finance Corp., 5.45%, 3/1/49 (144A)	\$ 524,390
1,000,000	Arlington Higher Education Finance Corp., Universal Academy, Series A, 7.00%, 3/1/34	1,011,710
5,465,000	Board of Regents of the University of Texas System, Series B, 5.00%, 8/15/49	6,413,505

Principal Amount USD (\$)		Value
	Texas — (continued)	
8,000,000	City of Houston Airport System Revenue, 4.00%, 7/15/41	\$ 7,160,880
3,960,000(e)	Sanger Industrial Development Corp., Texas Pellets Project, Series B, 8.00%, 7/1/38	975,150
953,705	Texas Department of Housing & Community Affairs, Series 2020-HOLL, 2.30%, 7/1/37 (FNMA HUD SECT 8 Insured)	798,136
350,000	Texas Municipal Gas Acquisition & Supply Corp. III, 5.00%, 12/15/31	365,614
8,450,000	Texas Private Activity Bond Surface Transportation Corp., Segment 3C Project, 5.00%, 6/30/58	8,553,344
	Total Texas	\$ 25,802,729
	Virginia — 7.4%	
2,500,000(d)	City of Alexandria, Series A, 3.00%, 7/15/46 (ST AID WITHHLDG Insured)	\$ 2,059,800
1,000,000	City of Richmond Public Utility Revenue, Series A, 3.00%, 1/15/45	828,750
5,000,000	Tobacco Settlement Financing Corp., Series B1, 5.00%, 6/1/47	4,687,500
4,000,000	Virginia Commonwealth Transportation Board, Capital Projects, 3.00%, 5/15/37	3,630,360
1,000,000	Virginia Small Business Financing Authority, Senior Lien 95 Express Lanes LLC Project, 4.00%, 1/1/48	897,710
3,500,000	Virginia Small Business Financing Authority, Transform 66-P3 Project, 5.00%, 12/31/49	3,543,400
1,500,000	Virginia Small Business Financing Authority, Transform 66-P3 Project, 5.00%, 12/31/56	1,507,860
	Total Virginia	\$ 17,155,380
	Washington — 2.0%	
4,595,000(c)	Tender Option Bond Trust Receipts/Certificates, RIB, 0.00%, Series 2018, 1/1/45 (144A)	\$ 4,504,295
	Total Washington	\$ 4,504,295

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(unaudited) (continued)

Principal Amount USD (\$)		Value
1,500,000	Wisconsin — 1.0% Public Finance Authority, Gardner Webb University, 5.00%, 7/1/31 (144A)	\$ 1,576,260
750,000	Public Finance Authority, Roseman University Health Sciences Project, 5.875%, 4/1/45	756,773
	Total Wisconsin	\$ 2,333,033
	TOTAL MUNICIPAL BONDS (Cost \$379,458,909)	\$ 355,413,767
	TOTAL INVESTMENTS IN UNAFFILIATED ISSUERS — 154.2% (Cost \$379,458,909)	\$ 355,413,767
	OTHER ASSETS AND LIABILITIES — (54.2)%	\$(124,995,873)
	NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS — 100.0%	\$ 230,417,894

AMBAC	Ambac Assurance Corporation.
CNTY GTD	County Guaranteed.
COLL	Collateral.
FHLMC	Federal Home Loan Mortgage Corporation.
FNMA	Federal National Mortgage Association.
FNMA HUD SECT 8	Federal National Mortgage Association U.S. Department of Housing and Urban Development Section 8.
GNMA	Government National Mortgage Association.
RIB	Residual Interest Bond is purchased in a secondary market. The interest rate is subject to change periodically and inversely based upon prevailing market rates. The interest rate shown is the rate at July 31, 2023.
SONYMA FHA 542c	State of New York Mortgage Agency Federal Housing Administration Section 542c.
ST AID WITHHLDG (144A)	State Aid Withholding. The resale of such security is exempt from registration under Rule 144A of the Securities Act of 1933. Such securities may be resold normally to qualified institutional buyers. At July 31, 2023, the value of these securities amounted to \$63,295,226, or 27.5% of net assets applicable to common stockholders.
(a)	Consists of Revenue Bonds unless otherwise indicated.
(b)	Security issued with a zero coupon. Income is recognized through accretion of discount.
(c)	The interest rate is subject to change periodically. The interest rate and/or reference index and spread shown at July 31, 2023.

- (d) Represents a General Obligation Bond.
(e) Security is in default.
† Amount rounds to less than 0.1%.

The concentration of investments as a percentage of total investments by type of obligation/market sector is as follows:

Revenue Bonds:

Health Revenue	27.8%
Development Revenue	19.7
Transportation Revenue	10.5
Tobacco Revenue	10.4
Water Revenue	10.4
Education Revenue	9.3
Other Revenue	3.3
Utilities Revenue	1.5
Facilities Revenue	1.1
Power Revenue	0.2
	<hr/>
	94.2%
General Obligation Bonds:	<hr/>
	5.8%
	<hr/>
	100.0%

Various inputs are used in determining the value of the Fund's investments. These inputs are summarized in the three broad levels below.

- Level 1 - unadjusted quoted prices in active markets for identical securities.
- Level 2 - other significant observable inputs (including quoted prices for similar securities, interest rates, prepayment speeds, credit risks, etc.).
- Level 3 - significant unobservable inputs (including the Adviser's own assumptions in determining fair value of investments).

The following is a summary of the inputs used as of July 31, 2023, in valuing the Fund's investments:

	Level 1	Level 2	Level 3	Total
Municipal Bonds	\$—	\$355,413,767	\$—	\$355,413,767
Total Investments in Securities	\$—	\$355,413,767	\$—	\$355,413,767

During the period ended July 31, 2023, there were no transfers in or out of Level 3.