Vanguard°

Annual Report | November 30, 2023

Vanguard Ohio Long-Term Tax-Exempt Fund

See the inside front cover for important information about your fund's annual and semiannual shareholder reports.

Important information about shareholder reports

Beginning in July 2024, amendments adopted by the Securities and Exchange Commission will substantially impact the design, content, and transmission of shareholder reports. Shareholder reports will provide key fund information in a clear and concise format and must be mailed to each shareholder that has not elected to receive the reports electronically. Financial statements will no longer be included in the shareholder report but will be available at vanguard.com, can be mailed upon request, or can be accessed on the SEC's website at www.sec.gov.

You may elect to receive shareholder reports and other communications from the fund electronically by contacting your financial intermediary (such as a broker-dealer or bank) or, if you invest directly with the fund, by calling Vanguard at one of the phone numbers on the back cover of this report or by logging on to vanguard.com.

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Please note: The opinions expressed in this report are just that—informed opinions. They should not be considered promises or advice. Also, please keep in mind that the information and opinions cover the period through the date on the front of this report. Of course, the risks of investing in your fund are spelled out in the prospectus.

Your Fund's Performance at a Glance

- For the 12 months ended November 30, 2023, Vanguard Ohio Long-Term Tax-Exempt Fund returned 3.56%. It lagged the 3.96% return of its benchmark index, which includes state- and municipal-issued bonds across the maturity spectrum.
- For much of the period, inflation continued to ease amid interest rate hikes by the Federal Reserve. Unexpected resilience in the labor market and consumer spending dialed back expectations of an imminent recession. Although the prospect of higher interest rates for longer and heightened geopolitical tensions weighed on market sentiment at times toward the close of the period, global stocks and bonds rallied in November.
- On the whole, muni fundamentals remained solid and their yields fluctuated but ended not far from where they started the period. Munis outperformed the broad taxable investment-grade bond market, where yields ended higher and prices lower.
- Security selection among local government, hospital, and housing bonds detracted from the fund's relative performance. On the other hand, employing a barbell strategy on yield curve positioning, managing the fund's convexity profile, and having an overweight allocation to credit added value.

Market Barometer

Average Annual Total Returns Periods Ended November 30, 2023 One Year Three Years Five Years Stocks Russell 1000 Index (Large-caps) 13.57% 8.72% 12.25% -2.56 Russell 2000 Index (Small-caps) 1.13 4.78 Russell 3000 Index (Broad U.S. market) 12.61 8.26 11.77 FTSE All-World ex US Index (International) 2.12 5.49 9.64 Bonds Bloomberg U.S. Aggregate Float Adjusted Index (Broad taxable market) 1.32% -4.46% 0.79% Bloomberg Municipal Bond Index (Broad tax-exempt market) 4.28 -0.962.03 2.08 185 FTSE Three-Month U.S. Treasury Bill Index 5.12 CPI Consumer Price Index 3.14% 5.67% 4.03%

Advisor's Report

For the 12 months ended November 30, 2023, Vanguard Ohio Long-Term Tax-Exempt Fund returned 3.56%. The result lagged the 3.96% return of the benchmark, the Bloomberg OH Municipal Bond Index, which includes bonds across the maturity spectrum.

The fund's 30-day SEC yield climbed from 3.66% to 4.01%. The 30-day SEC yield is a proxy for a fund's potential annualized rate of income.

The fund is permitted to invest in securities that can generate income distributions subject to the alternative minimum tax (AMT). As of the end of the fiscal year, however, it didn't own such securities

The investment environment

For much of the period, concerns about inflation and whether policymakers' efforts to rein it in might spur a global recession were top of mind for many investors.

Early on, energy prices continued to cool amid an outlook for slower economic growth, but price increases then began to broaden to other categories, notably the services sector, which felt the effects of tight labor markets. With the prospect of inflation remaining stubbornly high, central banks including the Federal Reserve, the European Central Bank, and the Bank of England continued aggressively hiking interest rates even as their actions fanned fears of a global recession down the road.

Yields of Tax-Exempt Municipal Securities (National Averages, AAA-Rated General Obligation Issues)

Maturity	November 30, 2022	November 30, 2023
2 years	2.59%	2.85%
5 years	2.65	2.60
10 years	2.75	2.68
30 years	3.57	3.77

Source: Vanguard.

U.S. Treasury yields ended the period higher across the maturity spectrum. Central bank action and some banking sector stress in March drove very-short-term yields higher in the first part of the period. Longer-term yields started to climb in July as the market began to anticipate that resilient growth and sticky inflation would lead the Fed to keep rates higher for longer.

Although progress was slow in developed markets, signs of inflation moderating toward the end of the period and a growing belief that the Fed may have reached the end of its rate-hiking cycle contributed to a strong rally in stocks and bonds in November

At the national level, munis posted a much stronger performance than the taxable bond market, returning 4.28% for the 12 months, according to the Bloomberg Municipal Bond Index.

The State of Ohio's finances remained solid. For the fiscal year ended June 30, 2023, it's estimated that revenues exceeded the adopted budget by \$994 million because of high personal income tax revenues and continued strength in sales taxes. The state's revised budget for fiscal year 2024 is slightly smaller than the budget for fiscal year 2023 and is expected to generate a structural surplus. The general fund liquidity cushion, the Budget Stabilization Fund, increased to \$3.5 billion in fiscal year 2023, equivalent to a very healthy 8.2% of general revenues.

Ohio's credit quality has been bolstered by consecutive budget surpluses in the past three years and a liquidity cushion that is higher than pre-COVID levels.

Major cities in Ohio have benefited from continued federal aid, strong tax revenues, and continued state support.

Management of the fund

The fund's underperformance versus its benchmark was primarily due to security selection. The fund's exposure in segments of the muni bond market, including local governments, hospitals, and housing, in particular detracted.

On the other side of the ledger, our yield curve positioning modestly contributed to relative performance. We took a barbell approach, with an allocation to short-term bonds, which we expect will benefit from an eventual normalization in the yield curve, and an allocation to bonds further out on the curve, where we have locked in attractive returns.

The fund's overweight allocation to credit was a positive. With strong demand for AAA-rated munis having pushed their valuations into rich territory, and given the healthy fundamentals of this asset class, we felt comfortable focusing on lower-quality investment-grade munis, which were offering more yield and whose spreads nevertheless seemed unlikely to widen significantly if the economy slowed.

Our management of the fund's convexity profile also added value. (Convexity is a measure of how much a bond's duration

changes when interest rates change.) The duration of a callable bond tends to lengthen as interest rates rise—especially when rates rise above the bond's coupon rate—amplifying the decline in its price.

Outlook

Although some market participants are counting on a Goldilocks scenario in which inflation moderates without a slowdown in the economy, we see that as unlikely for several reasons. Even without further rate increases, the tightening in monetary policy that has already taken place will continue working its way through the financial system. There's a risk that wage gains could contribute to inflation remaining sticky and above target, and consumers have been spending down the savings they accumulated during the pandemic.

We therefore continue to expect a mild recession in the U.S. in late 2024, which will eventually bring inflation back to the Fed's 2% target. And while the Fed may eventually cut interest rates, they are likely for some time to remain well above the low levels we have become accustomed to since the global financial crisis.

Our outlook for the overall muni market is positive, given the strength of munis' fundamentals and our expectations that the default rate of this high-quality asset class is unlikely to pick up significantly even in a recession. Moreover, valuations toward the long end of the yield curve are especially compelling, as are those of lower-rated munis. And once the yield

curve begins to normalize, we expect cash flows into muni funds to pick up as investors reassess the reinvestment risk of cash and the cushion that munis may offer against equity declines or a risk sell-off.

Credit rating agencies recently upgraded Ohio—the state's debt is now rated Aaa by Moody's and AAA by Fitch. The state is well-positioned to manage through persistent inflation, changes in fiscal policy, and any economic uncertainty while keeping balanced budgets and strong levels of reserves.

Whatever the markets may bring, our experienced team of portfolio managers, traders, and credit analysts will continue to navigate this large, fragmented market to seek attractive investment opportunities that will add to the fund's performance.

Stephen McFee, CFA, Portfolio Manager

Grace Boraas, Portfolio Manager

Vanguard Fixed Income Group

December 13, 2023

About Your Fund's Expenses

As a shareholder of the fund, you incur ongoing costs, which include costs for portfolio management, administrative services, and shareholder reports (like this one), among others. Operating expenses, which are deducted from a fund's gross income, directly reduce the investment return of the fund.

A fund's expenses are expressed as a percentage of its average net assets. This figure is known as the expense ratio. The following examples are intended to help you understand the ongoing costs (in dollars) of investing in your fund and to compare these costs with those of other mutual funds. The examples are based on an investment of \$1,000 made at the beginning of the period shown and held for the entire period.

The accompanying table illustrates your fund's costs in two ways:

• Based on actual fund return. This section helps you to estimate the actual expenses that you paid over the period. The "Ending Account Value" shown is derived from the fund's actual return, and the third column shows the dollar amount that would have been paid by an investor who started with \$1,000 in the fund. You may use the information here, together with the amount you invested, to estimate the expenses that you paid over the period.

To do so, simply divide your account value by \$1,000 (for example, an \$8,600 account value divided by \$1,000 = 8.6), then multiply the result by the number given for your fund under the heading "Expenses Paid During Period."

• Based on hypothetical 5% yearly return. This section is intended to help you compare your fund's costs with those of other mutual funds. It assumes that the fund had a yearly return of 5% before expenses, but that the expense ratio is unchanged. In this case—because the return used is not the fund's actual return—the results do not apply to your investment. The example is useful in making comparisons because the Securities and Exchange Commission requires all mutual funds to calculate expenses based on a 5% return. You can assess your fund's costs by comparing this hypothetical example with the hypothetical examples that appear in shareholder reports of other funds.

Note that the expenses shown in the table are meant to highlight and help you compare *ongoing* costs only and do not reflect transaction costs incurred by the fund for buying and selling securities. Further, the expenses do not include any purchase, redemption, or account service fees described in the fund prospectus. If such fees were applied to your account, your costs would be higher. Your fund does not carry a "sales load."

The calculations assume no shares were bought or sold during the period. Your actual costs may have been higher or lower, depending on the amount of your investment and the timing of any purchases or redemptions.

You can find more information about the fund's expenses, including annual expense ratios, in the Financial Statements section of this report. For additional information on operating expenses and other shareholder costs, please refer to your fund's current prospectus.

Six Months Ended November 30, 2023

Ohio Long-Term Tax-Exempt Fund	Beginning Account Value 5/31/2023	Ending Account Value 11/30/2023	Expenses Paid During Period
Based on Actual Fund Return	\$1,000.00	\$1,017.40	\$0.66
Based on Hypothetical 5% Yearly Return	1,000.00	1,024.42	0.66

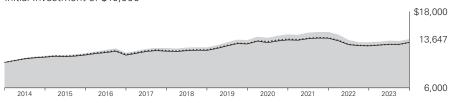
The calculations are based on expenses incurred in the most recent six-month period. The fund's annualized six-month expense ratio for that period is 0.13%. The dollar amounts shown as "Expenses Paid" are equal to the annualized expense ratio multiplied by the average account value over the period, multiplied by the number of days in the most recent six-month period, then divided by the number of days in the most recent 12-month period (183/365).

Ohio Long-Term Tax-Exempt Fund

Performance Summary

All of the returns in this report represent past performance, which is not a guarantee of future results that may be achieved by the fund. (Current performance may be lower or higher than the performance data cited. For performance data current to the most recent month-end, visit our website at vanguard.com/performance.) Note, too, that both investment returns and principal value can fluctuate widely, so an investor's shares, when sold, could be worth more or less than their original cost. The returns shown do not reflect taxes that a shareholder would pay on fund distributions or on the sale of fund shares.

Cumulative Performance: November 30, 2013, Through November 30, 2023 Initial Investment of \$10.000



Average Annual Total Returns Periods Ended November 30, 2023

	One Year	Five Years	Ten Years	Final Value of a \$10,000 Investment
Ohio Long-Term Tax-Exempt Fund	3.56%	2.01%	3.16%	\$13,647
······ Bloomberg OH Municipal Bond Index	3.96	1.86	2.75	13,120
Bloomberg Municipal Bond Index	4.28	2.03	2.77	13,143

Distribution by Stated Maturity As of November 30, 2023

Under 1 Year	6.0%
1 - 3 Years	4.7
3 - 5 Years	3.4
5 - 10 Years	12.0
10 - 20 Years	34.9
20 - 30 Years	31.1
Over 30 Years	7.9

The table reflects the fund's investments, except for short-term investments and derivatives.

Financial Statements

Schedule of Investments As of November 30, 2023

The fund files its complete schedule of portfolio holdings with the Securities and Exchange Commission (SEC) for the first and third quarters of each fiscal year as an exhibit to its reports on Form N-PORT. The fund's Form N-PORT reports are available on the SEC's website at www.sec.gov.

	Coupon	Maturity Date	Face Amount (\$000)	Market Value* (\$000)
Tax-Exempt Municipal Bonds (99.7%)				
Ohio (98.1%)				
Akron Bath Copley Joint Township Hospital District Health,				
Hospital, Nursing Home Revenue	5.000%	11/15/29	165	175
Akron Bath Copley Joint Township Hospital District Health,	E 0000/	11 /1 E /2 O	100	107
Hospital, Nursing Home Revenue Akron Bath Copley Joint Township Hospital District Health,	5.000%	11/15/30	100	107
Hospital, Nursing Home Revenue	5 000%	11/15/31	300	321
Akron Bath Copley Joint Township Hospital District Health,	3.000 /0	11/13/31	300	521
Hospital, Nursing Home Revenue	4.000%	11/15/33	555	549
Akron Bath Copley Joint Township Hospital District Health,		,,		
Hospital, Nursing Home Revenue	4.000%	11/15/35	1,600	1,567
Akron Bath Copley Joint Township Hospital District Health,				
Hospital, Nursing Home Revenue	4.000%	11/15/36	2,750	2,612
Akron Bath Copley Joint Township Hospital District Health,				
Hospital, Nursing Home Revenue	4.000%	11/15/37	2,185	2,040
Akron Bath Copley Joint Township Hospital District Health,		44.45.600	050	
Hospital, Nursing Home Revenue	4.000%	11/15/38	250	229
Akron Bath Copley Joint Township Hospital District Health, Hospital, Nursing Home Revenue	2 0000/	11/15/40	5.725	4.391
Akron Bath Copley Joint Township Hospital District Health,	3.000%	11/15/40	5,725	4,391
Hospital, Nursing Home Revenue	5 250%	11/15/41	500	506
Akron Bath Copley Joint Township Hospital District Health,	3.230 /0	11/10/41	300	300
Hospital, Nursing Home Revenue	4.000%	11/15/42	2,000	1,854
1,2 Akron City School District COP	5.000%	8/1/53	1,000	1,039
Akron OH Income Tax Revenue	4.000%	12/1/28	285	296
Akron OH Income Tax Revenue	3.000%	12/1/29	1,820	1,809
Akron OH Income Tax Revenue	4.000%	12/1/29	610	628
Akron OH Income Tax Revenue	3.000%	12/1/30	1,870	1,855
3 Akron OH Income Tax Revenue	4.000%	12/1/30	2,090	2,149
Akron OH Income Tax Revenue	4.000%	12/1/30	405	421
Akron OH Income Tax Revenue	3.000%	12/1/31	1,750	1,702
Akron OH Income Tax Revenue	4.000%	12/1/31	1,500	1,538
Akron OH Income Tax Revenue	4.000%	12/1/31	370	384
Akron OH Income Tax Revenue	3.000%	12/1/32	1,655	1,587
Akron OH Income Tax Revenue	4.000%	12/1/32	1,315	1,344
Akron OH Income Tax Revenue	4.000%	12/1/32	1,285	1,327
Akron OH Income Tax Revenue	4.000%	12/1/33	120	123
Akron OH Income Tax Revenue	4.000%	12/1/33	1,325	1,365
Akron OH Income Tax Revenue	4.000%	12/1/36	655	658
Akron OH Intergovernmental Agreement Revenue (Akron District				
Energy Project) COP	4.000%	12/1/30	535	544

		Coupon	Maturity Date	Face Amount (\$000)	Market Value• (\$000)
	Allen County OH Hospital Facilities Health, Hospital, Nursing Home Revenue	5.000%	8/1/26	4,520	4,724
	Allen County OH Hospital Facilities Health, Hospital, Nursing Home Revenue	5.000%	12/1/35	2,350	2,574
	Allen County OH Hospital Facilities Health, Hospital, Nursing Home Revenue	4.000%	8/1/37	1,900	1,902
	Allen County OH Hospital Facilities Health, Hospital, Nursing Home Revenue	4.000%	8/1/38	4,800	4,764
	Allen County OH Hospital Facilities Health, Hospital, Nursing Home Revenue	4.000%	12/1/40	3,995	3,892
	Allen County OH Hospital Facilities Health, Hospital, Nursing Home Revenue	4.000%	8/1/47	4,925	4,542
	Allen County Port Authority College & University Revenue	4.000%	12/1/31	1,415	1,340
	Allen County Port Authority College & University Revenue	4.000%	12/1/40	2,885	2,421
	American Municipal Power Inc. Electric Power & Light Revenue	5.000%	2/15/33	100	110
	American Municipal Power Inc. Electric Power & Light Revenue	4.000%	2/15/35	180	183
	American Municipal Power Inc. Electric Power & Light Revenue	4.000%	2/15/36	225	227
	American Municipal Power Inc. Electric Power & Light Revenue	4.000%	2/15/37	300	300
	American Municipal Power Inc. Electric Power & Light Revenue	4.000%	2/15/38	375	369
	American Municipal Power Inc. Electric Power & Light Revenue	4.000%	2/15/39	450	440
	American Municipal Power Inc. Electric Power & Light Revenue	4.000%	2/15/40	250	242
	American Municipal Power Inc. Electric Power & Light Revenue	4.000 70	2/10/40	200	272
	(Combination Hydroelectric Projects) American Municipal Power Inc. Electric Power & Light Nevenue	5.000%	2/15/29	100	104
	(Combination Hydroelectric Projects)	5.000%	2/15/41	175	178
	American Municipal Power Inc. Electric Power & Light Revenue (Fremont Energy Center Project)	4.000%	2/15/38	1,000	991
	American Municipal Power Inc. Electric Power & Light Revenue (Greenup Hydroelectric Project) American Municipal Power Inc. Electric Power & Light Revenue	5.000%	2/15/41	355	362
	(Meldahl Hydroelectric Project) American Municipal Power Inc. Electric Power & Light Revenue	5.000%	2/15/30	1,250	1,296
	(Meldahl Hydroelectric Project)	4.000%	2/15/34	1,380	1,388
	Apollo Joint Vocational School District GO	5.000%	12/1/28	705	763
	Apollo Joint Vocational School District GO	5.000%	12/1/29	1,195	1,292
	Apollo Joint Vocational School District GO	5.000%	12/1/23	365	393
	Apollo Joint Vocational School District GO	4.000%	12/1/35	1,470	1,496
	Apollo Joint Vocational School District GO	4.000%	12/1/36	1,000	1,013
	Ashland County-West Holmes Joint Vocational School District GO	4.000%	12/1/30	1,790	1,791
	Ashland County-West Holmes Joint Vocational School District GO	4.000%	12/1/41	3,200	2,994
	Athens City School District GO	4.000%	12/1/31	745	778
	Athens City School District GO Athens City School District GO	4.000%	12/1/23	380	396
	Athens City School District GO Athens City School District GO	4.000%	12/1/31	400	416
	Athens City School District GO Athens City School District GO				
	•	3.250%	12/1/48	2,000	1,503
	Barberton City OH BAN GO	4.625%	4/11/24	1,885	1,886
4	Beachwood City School District GO Bellefontaine Finance & Development Authority Lease	5.000%	12/1/48	2,000	2,116
4	(Appropriation) Revenue Bellefontaine Finance & Development Authority Lease		12/1/46	1,085	824
4	(Appropriation) Revenue Bellefontaine Finance & Development Authority Lease	3.000%	12/1/47	1,120	840
	(Appropriation) Revenue	3.000%	12/1/49	950	696
	Big Walnut Local School District GO	5.000%	12/1/42	920	971
	Big Walnut Local School District GO	3.250%	12/1/48	2,975	2,283
	Big Walnut Local School District GO	3.500%	12/1/55	290	221
	Bluffton OH Health, Hospital, Nursing Home Revenue	5.000%	12/1/24	125	126
	Bluffton OH Health, Hospital, Nursing Home Revenue	5.000%	12/1/29	2,110	2,207

		Coupon	Maturity Date	Face Amount (\$000)	Market Value• (\$000)
	Bluffton OH Health, Hospital, Nursing Home Revenue	4.000%	12/1/34	2,000	2,014
	Bowling Green State University College & University Revenue	5.000%	6/1/28	300	319
	Bowling Green State University College & University Revenue	5.000%	6/1/29	435	462
	Bowling Green State University College & University Revenue	5.000%	6/1/33	1,075	1,136
	Bowling Green State University College & University Revenue	5.000%	6/1/33	600	663
	Bowling Green State University College & University Revenue	5.000%	6/1/34	550	606
	Bowling Green State University College & University Revenue	5.000%	6/1/35	735	808
	Bowling Green State University College & University Revenue	5.000%	6/1/36	435	475
	Bowling Green State University College & University Revenue	5.000%	6/1/37	700	758
	Bowling Green State University College & University Revenue	4.000%	6/1/38	500	501
	Bowling Green State University College & University Revenue	4.000%	6/1/39	800	799
4	Brunswick City School District GO	0.000%	12/1/35	200	126
4	Brunswick City School District GO	0.000%	12/1/35	200	119
4	Brunswick City School District GO	4.125%	12/1/30	1,000	981
4	Brunswick City School District GO	5.250%	12/1/40		1,066
4	,			1,000	
-	Brunswick City School District GO Buckeye Tobacco Settlement Financing Authority Tobacco	5.500%	12/1/60	2,785	3,001
	Settlement Funded Revenue	5.000%	6/1/33	1,500	1,598
	Buckeye Tobacco Settlement Financing Authority Tobacco Settlement Funded Revenue	5.000%	6/1/35	9,280	9,844
	Buckeye Tobacco Settlement Financing Authority Tobacco Settlement Funded Revenue	5.000%	6/1/36	2,065	2,176
	Buckeye Tobacco Settlement Financing Authority Tobacco Settlement Funded Revenue	4.000%	6/1/37	2,000	1,988
	Buckeye Tobacco Settlement Financing Authority Tobacco Settlement Funded Revenue	4.000%	6/1/38	3,350	3,288
	Buckeye Tobacco Settlement Financing Authority Tobacco Settlement Funded Revenue	3.000%	6/1/48	7,525	5,464
	Buckeye Tobacco Settlement Financing Authority Tobacco Settlement Funded Revenue	4.000%	6/1/48	18,330	16,039
	Buckeye Tobacco Settlement Financing Authority Tobacco Settlement Funded Revenue	5.000%	6/1/55	2,530	2,232
	Butler County OH Health, Hospital, Nursing Home Revenue		11/15/24	675	678
	Butler County OH Health, Hospital, Nursing Home Revenue		11/15/26	150	153
	Butler County OH Health, Hospital, Nursing Home Revenue	5.000%	11/15/27	1,040	1,072
	Butler County OH Health, Hospital, Nursing Home Revenue	5.000%	11/15/28	1,075	1,109
	Butler County OH Health, Hospital, Nursing Home Revenue	4.000%	11/15/30	1,010	979
	Butler County OH Health, Hospital, Nursing Home Revenue	5.000%	11/15/30	400	412
	Butler County OH Health, Hospital, Nursing Home Revenue	4.000%	11/15/31	1,075	1,037
	Butler County OH Health, Hospital, Nursing Home Revenue	5.000%	11/15/31	250	257
	Butler County OH Health, Hospital, Nursing Home Revenue	4.000%	11/15/34	1,215	1,151
	Butler County OH Health, Hospital, Nursing Home Revenue Butler County Port Authority Health, Hospital, Nursing Home	4.000%	11/15/35	1,000	936
	Revenue Butler County Port Authority Health, Hospital, Nursing Home	4.000%	5/15/32	100	100
	Revenue Butler County Port Authority Health, Hospital, Nursing Home	4.000%	5/15/33	135	135
	Revenue Butler County Port Authority Health, Hospital, Nursing Home	4.000%	5/15/34	190	190
	Revenue Butler County Port Authority Health, Hospital, Nursing Home	4.000%	5/15/35	195	195
	Revenue Butler County Port Authority Health, Hospital, Nursing Home	4.000%	5/15/36	200	199
	Revenue Butler County Port Authority Health, Hospital, Nursing Home	4.000%	5/15/37	210	205
	Revenue	4.000%	5/15/38	215	205

		Coupon	Maturity Date	Face Amount (\$000)	Market Value* (\$000)
Butler County Port Authority F Revenue	lealth, Hospital, Nursing Home	4.000%	5/15/39	230	217
Butler County Port Authority F Revenue	ealth, Hospital, Nursing Home	4.000%	5/15/40	235	221
Butler County Port Authority F Revenue	lealth, Hospital, Nursing Home	4.000%	5/15/41	245	228
Revenue	lealth, Hospital, Nursing Home	4.000%	5/15/46	985	888
Revenue	lealth, Hospital, Nursing Home	4.000%	5/15/51	1,200	1,052
Revenue	mprovement District Tax Allocation	4.000%	12/1/28	2,200 1,555	2,238
Canton City School District GC		5.000%	12/1/43		1,663 373
Centerville OH Health, Hospita Centerville OH Health, Hospita		5.000% 5.250%	11/1/27 11/1/37	380 1,500	1,400
	=			1,500	101
Chillicothe OH Health, Hospita Chillicothe OH Health, Hospita		5.000% 5.000%	12/1/24	450	463
·			12/1/25		528
· ·	(School Improvement Project) COP	5.000%	6/15/31	500	
· ·	(School Improvement Project) COP	5.000%	6/15/32	400	421
· ·	(School Improvement Project) COP	5.000%	6/15/33	400	421
· ·	(School Improvement Project) COP	3.250%	6/15/34	565	551
· ·	(School Improvement Project) COP	3.375%	6/15/35	670	655
•	(School Improvement Project) COP	3.500%	6/15/36	445	431
•	(School Improvement Project) COP	3.500%	6/15/37	1,000	953
· ·	(School Improvement Project) COP	3.625%	6/15/38	700	671
Cincinnati OH GO Clark Shawnee Local School D	intrint CO	4.000%	12/1/30	500	519
		4.000%	11/1/31	400	413
Clark Shawnee Local School D		4.000%	11/1/32	660	680
	ic Utilities Division of Public Power	4.000%	11/1/34	860	885
	ic Utilities Division of Public Power		11/15/28	150	164
	ic Utilities Division of Public Power		11/15/29	210	228
	ic Utilities Division of Public Power		11/15/32	545	589
	ic Utilities Division of Public Power		11/15/34	760	818
	ic Utilities Division of Public Power		11/15/35	925	941
	ic Utilities Division of Public Power		11/15/36	1,000	1,065
	ic Utilities Division of Public Power		11/15/37	595	629
Electric Power & Light Reve			11/15/38	825	871
	y Heights City School District GO	4.000%	12/1/31	530	543
	y Heights City School District GO	4.000%	12/1/35	1,775	1,811
	y Heights City School District GO	4.000%	12/1/36	500	507
· ·	y Heights City School District GO	4.000%	12/1/37	2,200	2,218
_	y Heights City School District GO	3.500%	12/1/51	225	182
Cleveland OH GO		3.000%	12/1/28	895	896
Cleveland OH GO		3.000%	12/1/30	1,350	1,335
Cleveland OH GO		3.000%	12/1/31	1,500	1,446
Cleveland OH GO Cleveland OH GO		4.000%	12/1/31	385	403
Cleveland OH GO		3.000% 5.000%	12/1/32 12/1/32	1,825 225	1,740 244
Cleveland OH GO		3.000%	12/1/32	990	932
Cievelaliu Oi I GO		5.000 /0	12/1/00	330	332

	Coupon	Maturity Date	Face Amount (\$000)	Market Value• (\$000)
Cleveland OH GO	3.000%	12/1/35	750	690
Cleveland OH GO	3.000%	12/1/36	795	715
Cleveland OH GO	3.000%	12/1/37	1,000	875
Cleveland OH GO	5.000%	12/1/40	1,000	1,095
Cleveland OH GO	5.000%	12/1/41	860	936
Cleveland OH GO	5.000%	12/1/43	250	269
Cleveland OH GO	3.000%	12/1/49	2,370	1,757
Cleveland OH Income Tax Revenue	4.000%	10/1/28	390	406
Cleveland OH Income Tax Revenue	4.000%	10/1/28	500	520
Cleveland OH Income Tax Revenue	4.000%	10/1/29	400	415
Cleveland OH Income Tax Revenue	4.000%	10/1/29	300	311
Cleveland OH Income Tax Revenue	5.000%	10/1/32	500	534
Cleveland OH Income Tax Revenue	5.000%	10/1/33	500	533
Cleveland OH Income Tax Revenue	3.000%	10/1/36	700	629
Cleveland OH Income Tax Revenue	3.000%	10/1/38	550	472
Cleveland OH Income Tax Revenue	3.000%	10/1/39	500	419
Cleveland OH Income Tax Revenue	3.000%	10/1/40	1,725	1,416
Cleveland OH Income Tax Revenue	3.000%	10/1/41	1,290	1,048
Cleveland OH Income Tax Revenue	3.000%	10/1/45	3,420	2,556
Cleveland OH Income Tax Revenue	3.000%	10/1/46	1,710	1,261
Cleveland OH Income Tax Revenue	2.000%	10/1/47	1,000	583
Cleveland State University College & University Revenue	5.000%	6/1/27	205	212
Cleveland-Cuyahoga County Port Authority Lease (Appropriation)				
Revenue (Administrative Headquarters Project) Cleveland-Cuyahoga County Port Authority Local or Guaranteed	5.000%	7/1/37	1,820	2,032
Housing Revenue	5.000%	8/1/28	680	685
Cleveland-Cuyahoga County Port Authority Local or Guaranteed Housing Revenue	5.000%	8/1/30	3,020	3,043
Cleveland-Cuyahoga County Port Authority Local or Guaranteed				
Housing Revenue Cleveland-Cuyahoga County Port Authority Local or Guaranteed	4.000%	8/1/44	2,500	2,345
Housing Revenue (Euclid Avenue Dev Corp. Project)	5.000%	8/1/26	265	277
Cleveland-Cuyahoga County Port Authority Local or Guaranteed Housing Revenue (Euclid Avenue Dev Corp. Project)	5.000%	8/1/30	1,530	1,663
Cleveland-Cuyahoga County Port Authority Local or Guaranteed	5.000%	0/1/21	1 605	1 756
Housing Revenue (Euclid Avenue Dev Corp. Project) Cleveland-Cuyahoga County Port Authority Local or Guaranteed	5.000%	8/1/31	1,605	1,756
Housing Revenue (Euclid Avenue Dev Corp. Project) Cleveland-Cuyahoga County Port Authority Local or Guaranteed	5.000%	8/1/32	1,690	1,851
Housing Revenue (Euclid Avenue Dev Corp. Project)	5.000%	8/1/33	1,780	1,928
Cleveland-Cuyahoga County Port Authority Local or Guaranteed	=====	0/4/50	0.010	
Housing Revenue (Euclid Avenue Dev Corp. Project)	5.500%	8/1/52	6,010	6,320
Cleveland-Cuyahoga County Port Authority Recreational Revenue	5.000%	7/1/33	250	280
Cleveland-Cuyahoga County Port Authority Recreational Revenue	5.000%	7/1/35	300	333
Cleveland-Cuyahoga County Port Authority Recreational Revenue	4.000%	7/1/37	300	303
Cleveland-Cuyahoga County Port Authority Recreational Revenue	4.000%	7/1/40	350	342
Cleveland-Cuyahoga County Port Authority Recreational Revenue	4.000%	7/1/46	1,150	1,069
Cleveland-Cuyahoga County Port Authority Recreational Revenue	4.000%	7/1/51	1,100	1,006
Columbus City School District GO	3.000%	12/1/33	2,420	2,272
Columbus City School District GO	5.000%	12/1/42	450	466
Columbus Metropolitan Housing Authority Local or Guaranteed Housing Revenue	2.250%	8/1/36	2,000	1,610
Columbus Metropolitan Housing Authority Local or Guaranteed			,	,
Housing Revenue (Magnolia Trace II Project)	5.750%	8/1/36	1,500	1,614
Columbus OH GO	5.000%	4/1/30	130	147
Columbus OH GO	4.000%	7/1/30	1,200	1,208
Columbus OH GO	5.000%	4/1/37	3,835	4,266

		Coupon	Maturity Date	Face Amount (\$000)	Market Value• (\$000)
	Columbus OH GO	5.000%	4/1/39	4,500	4,918
	Columbus OH GO	5.000%	4/1/40	3,000	3,269
	Columbus OH GO	5.000%	4/1/41	2,400	2,606
	Confluence Community Authority Lease (Appropriation) Revenue (Stadium & Sports Project)	5.000%	5/1/26	150	157
	Confluence Community Authority Lease (Appropriation) Revenue (Stadium & Sports Project)	5.000%	5/1/30	335	368
	Confluence Community Authority Lease (Appropriation) Revenue (Stadium & Sports Project)	5.000%	5/1/32	700	766
	Confluence Community Authority Lease (Appropriation) Revenue (Stadium & Sports Project)	4.000%	5/1/39	1,345	1,319
	Confluence Community Authority Lease (Appropriation) Revenue (Stadium & Sports Project)	3.000%	5/1/44	6,810	5,241
	Confluence Community Authority Lease (Appropriation) Revenue (Stadium & Sports Project)	3.000%	5/1/48	3,000	2,202
	Copley-Fairlawn City School District GO	5.000%	12/1/44	2,140	2,233
	Coshocton County OH BAN GO	4.250%	4/6/24	3,540	3,539
	Coshocton OH BAN GO		12/28/23	7,200	7,201
	Cuyahoga Community College District College & University		-,,	.,=	.,= -
	Revenue	4.000%	2/1/27	1,000	1,023
	Cuyahoga Community College District GO	4.000%	12/1/30	1,800	1,833
	Cuyahoga Community College District GO	5.000%	12/1/37	55	57
	Cuyahoga County OH (Convention Hotel Project) COP	4.000%	12/1/34	1,700	1,697
	Cuyahoga County OH (Convention Hotel Project) COP	5.000%	12/1/36	450	451
	Cuyahoga County OH GO	3.000%	12/1/36	1,050	922
	Cuyahoga County OH Health, Hospital, Nursing Home Revenue	5.000%	2/15/28	200	208
	Cuyahoga County OH Health, Hospital, Nursing Home Revenue	4.000%	2/15/29	505	509
	Cuyahoga County OH Health, Hospital, Nursing Home Revenue	5.250%	2/15/47	5,035	5,058
	Cuyahoga County OH Health, Hospital, Nursing Home Revenue	5.500%	2/15/52	6,975	7,057
4	Cuyahoga Falls City School District GO	4.000%	12/1/29	405	421
4	Cuyahoga Falls City School District GO	4.000%	12/1/31	500	516
4	Cuyahoga Falls City School District GO	4.000%	12/1/33	500	513
	Cuyahoga Metropolitan Housing Authority Local or Guaranteed Housing Revenue	2.000%	12/1/31	1,000	887
	Cuyahoga Metropolitan Housing Authority Local or Guaranteed Housing Revenue PUT Cuyahoga Metropolitan Housing Authority Local or Guaranteed	4.000%	6/1/25	3,010	3,012
	Housing Revenue PUT	4.750%	12/1/25	2,170	2,200
	Dayton OH Water System Water Revenue	4.000%	12/1/29	265	2,200
	Dayton OH Water System Water Revenue	4.000%	12/1/20	200	205
	Dayton OH Water System Water Revenue	4.000%	12/1/31	280	286
	Dayton OH Water System Water Revenue	4.000%	12/1/32	300	307
	Dayton OH Water System Water Revenue	4.000%	12/1/34	970	990
	Delaware County OH Sales Tax Supported Sales Tax Revenue	3.500%	12/1/31	2.750	2,759
	Delhi Township OH GO	4.000%	12/1/29	150	157
	Delhi Township OH GO	4.000%	12/1/30	160	169
	Delhi Township OH GO	4.000%	12/1/31	145	154
	Delhi Township OH GO	4.000%	12/1/32	310	329
	Delhi Township OH GO	4.000%	12/1/33	400	422
	Delhi Township OH GO	4.000%	12/1/34	815	862
	Delhi Township OH GO	4.000%	12/1/35	430	451
	Delhi Township OH GO	4.000%	12/1/36	320	334
5,6	·	3.900%	12/1/23	11,760	11,760
	Dublin OH GO	5.000%	12/1/31	500	551
	Dublin OH GO	5.000%	12/1/32	550	606
	Dublin OH GO	3.000%	12/1/35	375	351

		Coupon	Maturity Date	Face Amount (\$000)	Market Value• (\$000)
-	Dublin OH GO	3.000%	12/1/36	990	908
	East Knox Local School District GO	3.000%	11/1/56	1,100	792
	Elyria OH GO	4.000%	12/1/25	470	479
	Elyria OH GO	4.000%	12/1/27	670	688
	Elyria OH GO	4.000%	12/1/28	695	713
	Elyria OH GO	4.000%	12/1/31	225	230
	Elyria OH GO	4.000%	12/1/32	280	285
	Elyria OH GO	4.000%	12/1/33	440	448
	Euclid City School District GO	4.750%	1/15/54	800	801
	Fairborn City School District GO	3.000%	12/1/55	7,320	4,917
4	Fairborn City School District Lease (Appropriation) Revenue	4.000%	12/1/28	150	157
4	Fairborn City School District Lease (Appropriation) Revenue	4.000%	12/1/31	110	114
4	Fairborn City School District Lease (Appropriation) Revenue	4.000%	12/1/32	125	130
4	Fairborn City School District Lease (Appropriation) Revenue	4.000%	12/1/34	175	182
4	Fairborn City School District Lease (Appropriation) Revenue	4.000%	12/1/35	175	181
4	Fairborn City School District Lease (Appropriation) Revenue	4.000%	12/1/37	290	291
4	Fairborn City School District Lease (Appropriation) Revenue	3.000%	12/1/40	1,000	839
4	Fairborn City School District Lease (Appropriation) Revenue	3.000%	12/1/45	2,000	1,546
4	Fairborn City School District Lease (Appropriation) Revenue	3.000%	12/1/50	2,640	1,900
	Fairborn OH BAN GO	4.500%	2/27/24	6,170	6,183
4	Fairfield County OH GO	2.000%	12/1/41	800	537
4	Fairless Local School District (School Facilities Project) COP	3.000%	12/1/45	4,210	3,195
4	Fairless Local School District (School Facilities Project) COP	3.000%	12/1/49	3,365	2,437
	Franklin City School District GO	3.000%	11/1/40	400	326
	Franklin City School District GO	3.000%	11/1/50 11/1/57	1,500	1,063
	Franklin City School District GO Franklin County Convention Facilities Authority Industrial Revenue	3.000% 5.000%	12/1/32	6,180 565	4,197 570
	Franklin County Convention Facilities Authority Industrial Revenue	5.000%	12/1/35	500	497
	Franklin County Convention Facilities Authority Industrial Revenue	5.000%	12/1/35	1,360	1,332
	Franklin County Convention Facilities Authority Industrial Revenue	5.000%	12/1/38	620	594
	Franklin County Convention Facilities Authority Industrial Revenue	5.000%	12/1/39	515	489
	Franklin County Convention Facilities Authority Industrial Revenue	5.000%	12/1/51	6,560	5,963
	Franklin County Convention Facilities Authority Lease		, .,	-,	-,
	(Appropriation) Revenue	5.000%	12/1/26	200	210
	Franklin County Convention Facilities Authority Lease				
	(Appropriation) Revenue	5.000%	12/1/28	500	543
	Franklin County Convention Facilities Authority Lease				
	(Appropriation) Revenue	5.000%	12/1/29	530	583
	Franklin County Convention Facilities Authority Lease	E 0000/	10/1/00	105	140
	(Appropriation) Revenue	5.000%	12/1/32	135	149
	Franklin County Convention Facilities Authority Lease (Appropriation) Revenue	5.000%	12/1/34	100	110
	Franklin County Convention Facilities Authority Lease	5.000 /0	12/1/04	100	110
	(Appropriation) Revenue	4.000%	12/1/40	1,225	1,212
	Franklin County Convention Facilities Authority Lease			, -	,
	(Appropriation) Revenue	5.000%	12/1/46	3,385	3,523
	Franklin County OH Health, Hospital, Nursing Home Revenue	4.000%	11/1/38	485	483
	Franklin County OH Health, Hospital, Nursing Home Revenue	4.000%	11/1/40	1,000	978
	Franklin County OH Health, Hospital, Nursing Home Revenue	5.250%	7/1/41	1,500	1,408
	Franklin County OH Health, Hospital, Nursing Home Revenue	4.000%	12/1/44	4,445	4,294
	Franklin County OH Health, Hospital, Nursing Home Revenue	4.000%	5/15/47	5,000	4,659
	Franklin County OH Health, Hospital, Nursing Home Revenue	5.000%	5/15/47	800	824
	Franklin County OH Health, Hospital, Nursing Home Revenue	4.000%	11/1/47	2,445	2,271
	Franklin County OH Health, Hospital, Nursing Home Revenue	5.000%	11/1/48	1,000	1,073
	Franklin County OH Health, Hospital, Nursing Home Revenue	4.000%	12/1/49	4,900	4,503
	Franklin County OH Health, Hospital, Nursing Home Revenue	5.250%	11/15/55	1,100	915

		Coupon	Maturity Date	Face Amount (\$000)	Market Value• (\$000)
	Franklin County OH Health, Hospital, Nursing Home Revenue				
	VRDO	3.200%	12/1/23	12,000	12,000
	Franklin County OH Sales Tax Revenue	5.000%	6/1/37	1,155	1,234
	Franklin County OH Sales Tax Revenue	5.000%	6/1/38	2,500	2,652
	Franklin County OH Sales Tax Revenue	5.000%	6/1/43	8,000	8,393
	Fremont City School District GO	5.000%	1/15/40	200	204
4	Gahanna-Jefferson City School District (School Facilities Project)	0.0000/	40/4/04	4 400	4.045
4	COP	3.000%	12/1/34	1,430	1,315
1	Gahanna-Jefferson City School District GO	3.000%	12/1/57	5,565	3,860
	Grandview Heights City School District GO	3.125%	12/1/55	245	181
	Great Oaks Career Campuses Board of Education COP	4.000%	12/1/29	500	531
	Great Oaks Career Campuses Board of Education COP	3.000%	12/1/37	1,085	955
	Great Oaks Career Campuses Board of Education COP	3.000%	12/1/41	2,000	1,647
	Great Oaks Career Campuses Board of Education COP	3.000%	12/1/44	4,975	3,908
	Great Oaks Career Campuses Board of Education COP	3.000%	12/1/46	7,065	5,449
	Greene County Vocational School District GO	5.000%	12/1/29	300	329
	Greene County Vocational School District GO	4.000%	12/1/34	700	721
	Hamilton County OH Health, Hospital, Nursing Home Revenue	5.000%	2/1/29	940	941
	Hamilton County OH Health, Hospital, Nursing Home Revenue	5.000%	6/1/34	1,000	1,061
	Hamilton County OH Health, Hospital, Nursing Home Revenue	5.000%	1/1/36	2,750	2,675
	Hamilton County OH Health, Hospital, Nursing Home Revenue	5.000%	6/1/38	1,000	1,030
	Hamilton County OH Health, Hospital, Nursing Home Revenue	5.000%	8/15/39	1,515	1,582
	Hamilton County OH Health, Hospital, Nursing Home Revenue	5.000%	6/1/42	1,000	1,013
	Hamilton County OH Health, Hospital, Nursing Home Revenue	5.000%	8/15/42	2,620	2,674
	Hamilton County OH Health, Hospital, Nursing Home Revenue	5.000%	1/1/46	3,400	3,025
	Hamilton County OH Health, Hospital, Nursing Home Revenue	3.750%	8/15/50	6,680	5,864
	Hamilton County OH Health, Hospital, Nursing Home Revenue	4.000%	8/15/50	3,500	3,152
	Hamilton County OH Health, Hospital, Nursing Home Revenue	4.000%	9/15/50	2,945	2,299
	Hamilton County OH Health, Hospital, Nursing Home Revenue	5.000%	9/15/50	6,000	6,010
	Hamilton County OH Health, Hospital, Nursing Home Revenue	5.000%	1/1/51	2,210	1,916
	Hamilton County OH Health, Hospital, Nursing Home Revenue (Cincinnati Children's Hospital Project)	5.000%	11/15/49	2,000	2,174
	Hamilton County OH Health, Hospital, Nursing Home Revenue (Life Enriching Communities Project)	5.000%	1/1/32	1,465	1,465
	Hamilton County OH Health, Hospital, Nursing Home Revenue (Life Enriching Communities Project)	5.000%	1/1/42	4,655	4,261
	Hamilton County OH Health, Hospital, Nursing Home Revenue				
	(Life Enriching Communities Project)	5.000%	1/1/46	850	756
1,7	Hamilton County OH Sales Tax Revenue	0.000%	12/1/27	370	323
	Hamilton County OH Sales Tax Revenue	5.000%	12/1/29	1,235	1,306
	Hamilton County OH Sales Tax Revenue	5.000%	12/1/30	2,550	2,691
	Hamilton County OH Sales Tax Revenue	4.000%	12/1/31	1,300	1,316
	Hamilton County OH Sales Tax Revenue	4.000%	12/1/32	2,110	2,135
4	Hamilton OH Wastewater System Sewer Revenue	4.000%	10/1/30	200	207
4	Hamilton OH Wastewater System Sewer Revenue	4.000%	10/1/34	400	415
4	Hamilton OH Wastewater System Sewer Revenue	4.000%	10/1/36	350	359
	Hilliard OH Income Tax Revenue	5.000%	12/1/34	855	977
	Hilliard OH Income Tax Revenue	5.000%	12/1/38	1,655	1,837
	Hilliard OH Income Tax Revenue	5.000%	12/1/40	1,825	2,008
	Hilliard OH Income Tax Revenue	5.000%	12/1/41	1,915	2,094
	Hilliard OH Income Tax Revenue	5.000%	12/1/42	510	555
	Hilliard OH Income Tax Revenue	5.000%	12/1/58	10,000	10,623
4	Hillsdale Local School District COP	4.000%	12/1/34	1,235	1,263
4	Hillsdale Local School District COP	4.000%	12/1/39	1,325	1,310
	Hudson City OH School District GO Indian Hill Exempted Village School District GO	4.000% 2.000%	12/1/33 12/1/40	420 1,250	425 863
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		Coupon	Maturity Date	Face Amount (\$000)	Market Value• (\$000)
	Indian Hill Exempted Village School District GO	2.125%	12/1/41	1,265	875
	Kent City School District GO	3.000%	12/1/40	1,000	835
	Kent State University College & University Revenue	5.000%	5/1/29	100	110
	Kent State University College & University Revenue	5.000%	5/1/30	175	195
	Kent State University College & University Revenue	5.000%	5/1/31	175	194
	Kent State University College & University Revenue	5.000%	5/1/32	150	166
	Kent State University College & University Revenue	5.000%	5/1/33	250	275
	Kent State University College & University Revenue	5.000%	5/1/34	315	346
	Kent State University College & University Revenue	5.000%	5/1/35	350	383
	Kent State University College & University Revenue	5.000%	5/1/36	400	434
	Kent State University College & University Revenue	5.000%	5/1/37	225	242
	Kent State University College & University Revenue	5.000%	5/1/38	300	320
	Kent State University College & University Revenue	5.000%	5/1/39	300	319
	Kent State University College & University Revenue	5.000%	5/1/40	450	477
	Kent State University College & University Revenue	5.000%	5/1/45	1,300	1,370
	Kent State University College & University Revenue Kenton City School District GO	5.000% 4.000%	5/1/50 11/1/52	1,620 1,405	1,695 1,323
	Kenton City School District GO Kenton City School District GO	4.000%	11/1/52	3,700	3,457
	Kettering City School District COP	5.000%	12/1/31	260	285
	Kettering City School District COP	4.000%	12/1/31	270	279
	Kettering City School District COP	4.000%	12/1/35	375	385
	Kettering City School District COP	3.375%	12/1/46	295	241
1	Kettering City School District GO	5.250%	12/1/31	1,000	1,102
	Lake Local School District/Wood County OH GO	4.000%	12/1/58	7,000	6,173
	Lakewood City School District GO	4.000%	11/1/30	235	243
	Lakewood City School District GO	4.000%	11/1/31	440	454
	Lakewood City School District GO	4.000%	11/1/32	245	252
	Lakewood City School District GO	4.000%	11/1/33	375	384
	Lakewood City School District GO	4.000%	11/1/34	380	389
	Lakewood OH GO	4.500%	3/14/24	5,000	5,011
	Lancaster Port Authority Natural Gas Revenue	5.000%	2/1/24	555	556
	Lancaster Port Authority Natural Gas Revenue	5.000%	2/1/25	360	365
	Lancaster Port Authority Natural Gas Revenue PUT	5.000%	2/1/25	17,220	17,386
	Lexington Local School District GO	3.000%	10/1/44	490	387
	Liberty Community Infrastructure Financing Authority Special Assessment Revenue	3.125%	12/1/46	540	407
	Liberty-Benton Local School District GO	4.000%	11/1/44	2,000	1,949
	Liberty-Benton Local School District GO	3.000%	11/1/54	2,000	1,419
	Licking Heights Local School District GO	4.500%	10/1/51	1,900	1,912
	Licking Heights Local School District GO	3.500%	10/1/54	200	159
	Licking Heights Local School District GO	5.500%	10/1/59	6,565	7,066
	Logan Elm Local School District GO	4.000%	11/1/55	975	896
	Lorain County OH BAN GO	4.125%	5/2/24	2,225	2,226
5	Lucas County OH GO TOB VRDO	3.350%	12/1/23	8,635	8,635
1	Lucas County OH Health, Hospital, Nursing Home Revenue	4.125%	11/15/42	480	462
	Lucas County OH Health, Hospital, Nursing Home Revenue		11/15/45	1,350	935
	Lucas County OH Health, Hospital, Nursing Home Revenue	5.250%	11/15/48	1,600	1,357
	Mahoning County OH Sewer System Sewer Revenue	3.000%	12/1/28	100	101
	Mahoning County OH Sewer System Sewer Revenue	3.000%	12/1/29	100	100
	Mahoning County OH Sewer System Sewer Revenue	3.000%	12/1/30	200	199
	Mahoning County OH Sewer System Sewer Revenue	3.000%	12/1/31	180	174
	Mahoning County OH Sewer System Sewer Revenue	3.000%	12/1/35	800	736
	Mahoning County OH Sewer System Sewer Revenue	2.125%	12/1/40	100	71
	Mariemont City School District GO	3.000%	12/1/34	555	518
	Marysville OH BAN GO	4.500%	3/20/24	3,000	3,001

		Coupon	Maturity Date	Face Amount (\$000)	Market Value• (\$000)
	Maumee OH GO	3.000%	12/1/33	1,225	1,155
	Medina County OH GO	4.000%	12/1/29	165	169
	Medina County OH GO	4.000%	12/1/31	160	163
	Medina County OH GO	3.000%	12/1/35	270	246
	Medina County OH GO	3.000%	12/1/37	500	436
	Miami County OH Health, Hospital, Nursing Home Revenue	5.000%	8/1/28	100	108
	Miami County OH Health, Hospital, Nursing Home Revenue	5.000%	8/1/45	2,615	2,652
	Miami Trace Local School District GO, Prere.	5.000%	12/1/25	2,230	2,319
	Miami University OH College & University Revenue	5.000%	9/1/31	640	720
	Miami University OH College & University Revenue	5.000%	9/1/32	345	392
	Miami University OH College & University Revenue	5.000%	9/1/33	1,055	1,205
	Miami University OH College & University Revenue	5.000%	9/1/34	1,035	1,179
	Miami University OH College & University Revenue	5.000%	9/1/34	1,100	1,247
	Miami University OH College & University Revenue	5.000%	9/1/35	760	859
	Miami University OH College & University Revenue	5.000%	9/1/36	685	767
	Miami Valley Career Technology Center GO	4.000%	12/1/33	725	744
	Miami Valley Career Technology Center GO	5.000%	12/1/44	4,550	4,769
	Middleburg Heights OH Health, Hospital, Nursing Home Revenue	4.000%	8/1/41	1,630	1,484
	Middleburg Heights OH Health, Hospital, Nursing Home Revenue	4.000%	8/1/41	550	500
	Middleburg Heights OH Health, Hospital, Nursing Home Revenue	4.000%	8/1/47	550	471
4	Middletown OH GO Midview Local School District COP	4.050% 4.000%	12/1/52 11/1/28	2,840 810	2,680 846
4	Midview Local School District COP	4.000%	11/1/29	870	912
	Milford Exempt Village School District GO	4.000%	12/1/34	300	315
	Milford Exempt Village School District GO	4.000%	12/1/35	250	261
	Milford Exempt Village School District GO	4.000%	12/1/36	150	155
	Milford Exempt Village School District GO	4.000%	12/1/37	250	255
	Milford Exempt Village School District GO	4.000%	12/1/38	205	208
	Milford Exempt Village School District GO	4.000%	12/1/39	260	262
	Milford Exempt Village School District GO	4.000%	12/1/40	305	306
	Milford Exempt Village School District GO	4.000%	12/1/41	385	385
	Milford Exempt Village School District GO	4.000%	12/1/42	200	199
	Milford Exempt Village School District GO	4.000%	12/1/47	3,000	2,869
	Milford Exempt Village School District GO	4.000%	12/1/51	1,785	1,670
	Montgomery County OH Health, Hospital, Nursing Home				
	Revenue	5.000%	11/15/26	130	134
	Montgomery County OH Health, Hospital, Nursing Home Revenue	5.000%	11/15/28	230	243
	Montgomery County OH Health, Hospital, Nursing Home	E 0000/	11 /1E /01	E00	EOO
	Revenue Montgomery County OH Health, Hospital, Nursing Home Revenue		11/15/31 11/15/33	500 2,000	522 2,086
	Montgomery County OH Health, Hospital, Nursing Home Revenue	5.000%	8/1/34	175	192
	Montgomery County OH Health, Hospital, Nursing Home Revenue	5.000%	8/1/36	300	323
	Montgomery County OH Health, Hospital, Nursing Home Revenue		11/15/36	1,530	1,231
	Montgomery County OH Health, Hospital, Nursing Home Revenue	4.000%	8/1/37	450	446
	Montgomery County OH Health, Hospital, Nursing Home Revenue	4.000%	8/1/38	1,950	1,926
	Montgomery County OH Health, Hospital, Nursing Home Revenue	5.000%	8/1/38	375	396
	Montgomery County OH Health, Hospital, Nursing Home Revenue	4.000%	8/1/39	1,000	980

		Coupon	Maturity Date	Face Amount (\$000)	Market Value• (\$000)
	Montgomery County OH Health, Hospital, Nursing Home Revenue	5.000%	8/1/39	270	284
	Montgomery County OH Health, Hospital, Nursing Home Revenue	3.000%	8/1/40	4,060	3,215
	Montgomery County OH Health, Hospital, Nursing Home Revenue	4.000%	8/1/40	3,000	2,916
	Montgomery County OH Health, Hospital, Nursing Home Revenue	4.000%	8/1/41	1,995	1,902
	Montgomery County OH Health, Hospital, Nursing Home Revenue	4.000%	11/15/42	4,120	3,646
	Montgomery County OH Health, Hospital, Nursing Home Revenue	4.000%	8/1/46	2,695	2,500
	Montgomery County OH Health, Hospital, Nursing Home Revenue	3.000%	8/1/51	1,700	1,146
	Montgomery County OH Health, Hospital, Nursing Home Revenue Montgomery County OH Health, Hospital, Nursing Home	4.000%	8/1/51	2,280	2,003
	Revenue North Canton City School District GO	4.000% 3.000%	8/1/51 11/1/56	1,925 4,060	1,729 2,726
	North Olmsted City School District GO		10/15/53	2,000	1,875
	Northeast Ohio Medical University College & University Revenue	3.000%	12/1/23	75	75
	Northeast Ohio Medical University College & University Revenue	5.000%	12/1/24	100	101
	Northeast Ohio Medical University College & University Revenue	5.000%	12/1/25	125	127
	Northeast Ohio Medical University College & University Revenue	5.000%	12/1/26	100	103
	Northeast Ohio Medical University College & University Revenue	5.000%	12/1/28	100	105
	Northeast Ohio Medical University College & University Revenue	5.000%	12/1/29	230	243
	Northeast Ohio Medical University College & University Revenue	5.000%	12/1/30	150	159
	Northeast Ohio Medical University College & University Revenue	4.000%	12/1/35	750	733
	Northeast Ohio Medical University College & University Revenue	3.000%	12/1/40	1,990	1,549
	Northeast Ohio Medical University College & University Revenue	4.000%	12/1/45	450	391
1	Northeast Ohio Regional Sewer District Sewer Revenue	3.000%	11/15/40	205	170
1	Northeastern Local School District/Clark County GO Northeastern Local School District/Clark County GO	4.000%	12/1/29	785 865	818
1	Northeastern Local School District/Clark County GO Northeastern Local School District/Clark County GO	4.000% 4.000%	12/1/30 12/1/34	865 790	896 809
1	Northeastern Local School District/Clark County GO Northeastern Local School District/Clark County GO	4.000%	12/1/55	6,750	6,034
	Northridge Local School District/Licking Knox & Del Counties GO	4.000%	10/1/30	100	105
	Northridge Local School District/Licking Knox & Del Counties GO	4.000%	10/1/31	200	208
	Northridge Local School District/Licking Knox & Del Counties GO	4.000%	10/1/32	260	271
	Northridge Local School District/Licking Knox & Del Counties GO	4.000%	10/1/33	180	187
	Northridge Local School District/Licking Knox & Del Counties GO	3.000%	10/1/34	425	395
	Northridge Local School District/Licking Knox & Del Counties GO	3.000%	10/1/35	380	348
	Ohio (Voting System Acquisition Project) COP Ohio Air Quality Development Authority Electric Power & Light	5.000%	9/1/29	220	245
	Revenue Ohio Air Quality Development Authority Electric Power & Light	3.250%	9/1/29	1,000	956
	Revenue (Duke Energy Corp. Project) PUT	4.000%	6/1/27	12,600	12,604
	Ohio Appropriations Revenue	5.000%	12/15/26	1,035	1,101
	Ohio Auto Parking Revenue	3.125%	11/15/34	435	414
	Ohio Auto Parking Revenue	3.375%	11/15/39	2,020	1,842
	Ohio GO	5.000%	5/1/25	670	689
	Ohio GO	5.000%	8/1/25	1,000	1,034
	Ohio GO	5.000%	9/15/25	1,170	1,213
	Ohio GO	4.000%	6/15/26	2,500	2,571
	Ohio GO	5.000%	9/15/26	2,000	2,117
	Ohio GO	5.000%	5/1/27	235	252
	Ohio GO	5.000%	5/1/28	215	236
	Ohio GO	5.000%	5/1/29	360	402

		0		Face Amount	Market Value•
		Coupon	Date	(\$000)	(\$000)
	Ohio GO	5.000%	5/1/30	350	398
	Ohio GO	5.000%	5/1/31	775	894
	Ohio GO	5.000%	5/1/32	600	702
	Ohio GO	5.000%	3/1/33	100	115
	Ohio GO Ohio GO	5.000% 5.000%	5/1/33 5/1/34	650 1,190	755 1,215
	Ohio GO	5.000%	5/1/34	700	812
	Ohio GO	5.000%	2/1/35	4,395	4,549
	Ohio GO	5.000%	6/15/35	2,150	2,373
	Ohio GO	5.000%	5/1/36	1,255	1,330
	Ohio GO	5.000%	6/15/36	120	132
	Ohio GO	4.000%	5/1/38	1,665	1,698
	Ohio GO	5.000%	3/1/39	1,585	1,655
	Ohio GO	5.000%	3/1/39	500	549
	Ohio GO, Prere.	5.000%	5/1/25	2,500	2,570
	Ohio Government Fund/Grant Revenue		12/15/29	155	174
	Ohio Health, Hospital, Nursing Home Revenue		11/15/27	125	130
	Ohio Health, Hospital, Nursing Home Revenue	5.000%	1/15/29	35	36
	Ohio Health, Hospital, Nursing Home Revenue	5.000%	1/15/30	100	109
	Ohio Health, Hospital, Nursing Home Revenue		11/15/35 1/1/37	1,230	1,277
	Ohio Health, Hospital, Nursing Home Revenue Ohio Health, Hospital, Nursing Home Revenue	5.000% 5.000%	1/15/37	500 1,000	559 1,058
	Ohio Health, Hospital, Nursing Home Revenue		1/15/37	1,670	1,544
	Ohio Health, Hospital, Nursing Home Revenue		11/15/38	1,900	1,727
	Ohio Health, Hospital, Nursing Home Revenue	4.000%	1/15/39	2,395	2,336
	Ohio Health, Hospital, Nursing Home Revenue	4.000%	1/1/43	5,000	4,905
	Ohio Health, Hospital, Nursing Home Revenue	3.000%	1/15/45	850	640
4	Ohio Health, Hospital, Nursing Home Revenue	3.000%	1/15/45	1,500	1,119
	Ohio Health, Hospital, Nursing Home Revenue	3.550%	1/1/46	3,000	2,533
	Ohio Health, Hospital, Nursing Home Revenue	4.000%	1/1/46	9,035	8,693
	Ohio Health, Hospital, Nursing Home Revenue	3.000%	1/15/46	1,060	782
	Ohio Health, Hospital, Nursing Home Revenue	2.250%	1/1/49	8,000	4,897
	Ohio Health, Hospital, Nursing Home Revenue	4.000%	1/15/50	15,300	13,665
F.6	Ohio Health, Hospital, Nursing Home Revenue	5.000%	1/15/50	630	646
5,6	Ohio Health, Hospital, Nursing Home Revenue TOB VRDO Ohio Higher Educational Facility Commission Auto Parking	3.400%	12/1/23	10,100	10,100
	Revenue Ohio Higher Educational Facility Commission College & University	5.000%	1/15/50	2,500	2,377
	Revenue Ohio Higher Educational Facility Commission College & University Revenue	5.000%	5/1/24	1,000	1,006
	Revenue Ohio Higher Educational Facility Commission College & University	5.000%	10/1/24	500	505
	Revenue Ohio Higher Educational Facility Commission College & University	5.000%	5/1/25	1,500	1,530
	Revenue Ohio Higher Educational Facility Commission College & University	5.000%	10/1/25	955	978
	Revenue Ohio Higher Educational Facility Commission College & University	5.000%	10/1/26	475	494
	Revenue Ohio Higher Educational Facility Commission College & University	5.000%	5/1/27	1,000	1,018
	Revenue Ohio Higher Educational Facility Commission College & University	5.000%	10/1/27	105	112
	Revenue Ohio Higher Educational Facility Commission College & University	5.000%	10/1/27	980	1,035
	Revenue Ohio Higher Educational Facility Commission College & University	5.000%	10/1/28	1,140	1,220
	Revenue	5.000%	10/1/29	1,015	1,098

	Coupon	Maturity Date	Face Amount (\$000)	Market Value• (\$000)
Ohio Higher Educational Facility Commission College & University Revenue	5.000%	10/1/30	740	799
Ohio Higher Educational Facility Commission College & University Revenue	5.000%	12/1/30	600	642
Ohio Higher Educational Facility Commission College & University Revenue	5.000%	10/1/31	200	216
Ohio Higher Educational Facility Commission College & University Revenue	5.000%	11/1/31	2,040	2,127
Ohio Higher Educational Facility Commission College & University Revenue	5.000%	2/1/33	130	142
Ohio Higher Educational Facility Commission College & University Revenue	5.000%	2/1/34	875	953
Ohio Higher Educational Facility Commission College & University Revenue	5.000%	10/1/34	1,510	1,634
Ohio Higher Educational Facility Commission College & University Revenue	5.000%	2/1/35	800	868
Ohio Higher Educational Facility Commission College & University Revenue	5.000%	10/1/35	150	157
Ohio Higher Educational Facility Commission College & University Revenue	4.000%	2/1/36	250	254
Ohio Higher Educational Facility Commission College & University Revenue Ohio Higher Educational Facility Commission College & University	3.000%	2/1/37	250	223
Revenue Ohio Higher Educational Facility Commission College & University Revenue Ohio Higher Educational Facility Commission College & University	4.000%	2/1/38	925	920
Revenue Ohio Higher Educational Facility Commission College & University Revenue	3.000%	2/1/40	400	328
Revenue Ohio Higher Educational Facility Commission College & University Revenue	4.000%	2/1/41	680	660
Revenue Ohio Higher Educational Facility Commission College & University	5.000%	11/1/41	4,000	4,062
Revenue Ohio Higher Educational Facility Commission College & University	3.000%	2/1/42	640	507
Revenue Ohio Higher Educational Facility Commission College & University	5.000%	10/1/42	450	464
Revenue Ohio Higher Educational Facility Commission College & University	4.000%	7/1/44	2,000	1,857
Revenue (College of Wooster Project) Ohio Higher Educational Facility Commission College & University	5.000%	9/1/38	1,225	1,292
Revenue (College of Wooster Project) Ohio Higher Educational Facility Commission College & University	5.000%	9/1/45	950	979
Revenue (Denison University 2017 Project) Ohio Higher Educational Facility Commission College & University	5.250%	11/1/46	1,500	1,552
Revenue (Denison University 2021 Project) Ohio Higher Educational Facility Commission College & University	3.000%	11/1/36	720	630
Revenue (Denison University 2021 Project) Ohio Higher Educational Facility Commission College & University	3.000%	11/1/37	720	613
Revenue (Denison University 2021 Project) Ohio Higher Educational Facility Commission College & University	4.000%	11/1/38	300	304
Revenue (Denison University 2021 Project) Ohio Higher Educational Facility Commission College & University	4.000%	11/1/39	300	302
Revenue (Denison University 2021 Project) Ohio Higher Educational Facility Commission College & University	4.000%	11/1/40	500	503
Revenue (Denison University 2021 Project) Ohio Higher Educational Facility Commission College & University	3.000%	11/1/50	4,250	2,995
Revenue (Denison University 2023 Project) Ohio Higher Educational Facility Commission College & University	5.000%	11/1/48	1,000	1,063
Revenue (Denison University 2023 Project)	5.000%	11/1/53	2,000	2,107

	Coupon	Maturity Date	Face Amount (\$000)	Market Value• (\$000)
Ohio Higher Educational Facility Commission College & University				
Revenue (John Carroll University Project)	5.000%	3/1/39	2,895	2,759
Ohio Higher Educational Facility Commission College & University Revenue (John Carroll University Project)	4.000%	10/1/45	1,000	869
Ohio Higher Educational Facility Commission College & University	4.000%	10/1/47	1,940	1,656
Revenue (John Carroll University Project) Ohio Higher Educational Facility Commission College & University	4.000 /6	10/1/47	1,340	1,050
Revenue (John Carroll University Project) Ohio Higher Educational Facility Commission College & University	4.000%	10/1/50	4,000	3,346
Revenue (John Carroll University Project)	4.000%	10/1/52	3,300	2,731
Ohio Higher Educational Facility Commission College & University Revenue (John Carroll University Project), Prere.	5.000%	12/1/26	1,505	1,597
Ohio Higher Educational Facility Commission College & University	3.000 %	12/1/20	1,000	1,007
Revenue (Kenyon College 2023 Project) Ohio Higher Educational Facility Commission College & University	5.000%	7/1/35	2,000	2,272
Revenue (Kenyon College 2023 Project)	5.000%	7/1/36	3,500	3,936
Ohio Higher Educational Facility Commission College & University Revenue (Kenyon College Project)	5.000%	7/1/30	300	317
Ohio Higher Educational Facility Commission College & University	3.000 %	771700	000	317
Revenue (Kenyon College Project) Ohio Higher Educational Facility Commission College & University	5.000%	7/1/31	550	581
Revenue (Kenyon College Project)	5.000%	7/1/32	275	290
Ohio Higher Educational Facility Commission College & University Revenue (Otterbein University 2022 Project)	4.000%	12/1/46	1,975	1,644
Ohio Higher Educational Facility Commission College & University Revenue (Otterbein University Project), ETM	5.000%	12/1/26	1,360	1,443
Ohio Higher Educational Facility Commission College & University				
Revenue (Otterbein University Project), Prere. Ohio Higher Educational Facility Commission College & University	5.000%	12/1/26	1,430	1,518
Revenue (Tiffin University 2019 Project)	5.000%	11/1/34	2,875	2,838
Ohio Higher Educational Facility Commission College & University Revenue (Tiffin University 2019 Project)	5.000%	11/1/39	4,890	4,537
Ohio Higher Educational Facility Commission College & University Revenue (Tiffin University 2019 Project)	5.000%	11/1/44	1,980	1,766
Ohio Higher Educational Facility Commission College & University				
Revenue (Tiffin University 2019 Project) Ohio Higher Educational Facility Commission College & University	4.000%	10/1/49	1,680	1,477
Revenue (University Findlay Project)	5.000%	3/1/44	2,890	2,673
Ohio Higher Educational Facility Commission College & University Revenue (University of Dayton 2018 Project)	5.000%	12/1/28	200	215
Ohio Higher Educational Facility Commission College & University	4.000%	0/1/50	0.105	1.042
Revenue (University of Dayton 2022 Project) Ohio Higher Educational Facility Commission College & University	4.000 /6	2/1/52	2,125	1,942
Revenue (Xavier University 2020 Project) Ohio Higher Educational Facility Commission College & University	5.000%	5/1/30	1,810	1,996
Revenue (Xavier University 2020 Project)	5.000%	5/1/36	645	697
Ohio Higher Educational Facility Commission College & University Revenue (Xavier University 2020 Project)	4.000%	5/1/37	595	596
Ohio Higher Educational Facility Commission College & University				
Revenue (Xavier University 2020 Project) Ohio Higher Educational Facility Commission College & University	4.000%	5/1/38	170	169
Revenue (Xavier University 2020 Project)	4.000%	5/1/39	930	919
Ohio Higher Educational Facility Commission College & University Revenue (Xavier University 2020 Project)	4.000%	5/1/40	600	588
Ohio Higher Educational Facility Commission Health, Hospital,				
Nursing Home Revenue Ohio Higher Educational Facility Commission Health, Hospital,	4.000%	7/1/26	935	931
Nursing Home Revenue	4.000%	7/1/27	975	972

	Coupon	Maturity Date	Face Amount (\$000)	Market Value• (\$000)
Ohio Higher Educational Facility Commission Health, Hospital, Nursing Home Revenue	4.000%	7/1/28	1,015	1,012
Ohio Higher Educational Facility Commission Health, Hospital, Nursing Home Revenue	4.000%	7/1/29	1,055	1,047
Ohio Higher Educational Facility Commission Health, Hospital, Nursing Home Revenue	4.000%	7/1/30	1,000	990
Ohio Higher Educational Facility Commission Health, Hospital, Nursing Home Revenue	4.000%	7/1/32	375	370
Ohio Higher Educational Facility Commission Health, Hospital, Nursing Home Revenue	4.000%	7/1/34	405	396
Ohio Higher Educational Facility Commission Health, Hospital, Nursing Home Revenue	4.000%	7/1/35	420	409
Ohio Higher Educational Facility Commission Health, Hospital, Nursing Home Revenue	4.000%	7/1/36	440	423
Ohio Higher Educational Facility Commission Health, Hospital, Nursing Home Revenue	4.000%	7/1/39	1,000	924
Ohio Higher Educational Facility Commission Health, Hospital, Nursing Home Revenue	5.000%	12/1/42	1,310	1,188
Ohio Higher Educational Facility Commission Health, Hospital, Nursing Home Revenue	5.000%	12/1/45	1,325	1,175
Ohio Higher Educational Facility Commission Health, Hospital, Nursing Home Revenue	4.000%	7/1/46	350	299
Ohio Higher Educational Facility Commission Health, Hospital, Nursing Home Revenue	5.250%	1/1/47	2,000	2,021
Ohio Higher Educational Facility Commission Health, Hospital,	5.000%			
Nursing Home Revenue Ohio Higher Educational Facility Commission Health, Hospital,		12/1/50	3,600	3,100
Nursing Home Revenue Ohio Higher Educational Facility Commission Local or Guaranteed	5.250%	1/1/52	5,000	5,024
Housing Revenue Ohio Housing Finance Agency Local or Guaranteed Housing	6.000%	12/1/52	2,000	2,084
Revenue Ohio Housing Finance Agency Local or Guaranteed Housing	5.000%	9/1/25	935	963
Revenue Ohio Housing Finance Agency Local or Guaranteed Housing	2.700%	9/1/46	5,740	4,034
Revenue Ohio Housing Finance Agency Local or Guaranteed Housing	3.250%	3/1/50	1,040	1,013
Revenue Ohio Housing Finance Agency Local or Guaranteed Housing	2.450%	9/1/51	1,575	1,064
Revenue Ohio Housing Finance Agency Local or Guaranteed Housing	3.000%	3/1/52	3,570	3,447
Revenue Ohio Housing Finance Agency Local or Guaranteed Housing	5.000%	3/1/52	14,405	14,783
Revenue Ohio Housing Finance Agency Local or Guaranteed Housing	5.750%	3/1/54	4,965	5,249
Revenue (First-Time Homebuyer Program) Ohio Housing Finance Agency Local or Guaranteed Housing	3.000%	3/1/50	2,135	1,763
Revenue (First-Time Homebuyer Program) Ohio Housing Finance Agency Local or Guaranteed Housing	3.750%	9/1/50	1,410	1,391
Revenue (Mortgage-Backed Securities Program) Ohio Housing Finance Agency Local or Guaranteed Housing	2.450%	9/1/37	5,235	4,100
Revenue (Mortgage-Backed Securities Program) Ohio Housing Finance Agency Local or Guaranteed Housing	4.500%	3/1/47	985	987
Revenue (Mortgage-Backed Securities Program)	4.000%	3/1/48	2,040	2,030
Ohio Housing Finance Agency Local or Guaranteed Housing Revenue (Mortgage-Backed Securities Program)	3.250%	9/1/52	3,575	3,462
Ohio Housing Finance Agency Local or Guaranteed Housing Revenue (Mortgage-Backed Securities Program)	6.000%	3/1/55	4,100	4,478

	Coupon	Maturity Date	Face Amount (\$000)	Market Value• (\$000)
Ohio Housing Finance Agency Local or Guaranteed Housing				
Revenue PUT	5.000%	8/1/25	3,916	3,983
Ohio Housing Finance Agency Local or Guaranteed Housing	E 0000/	10/1/05	0.005	0.700
Revenue PUT Ohio Logge (Appropriation) Revenue	5.000%	12/1/25	2,665 200	2,722 214
Ohio Lease (Appropriation) Revenue Ohio Lease (Appropriation) Revenue	5.000% 5.000%	4/1/27 6/1/28	160	175
Ohio Lease (Appropriation) Revenue	5.000%	4/1/30	275	308
Ohio Lease (Appropriation) Revenue	5.000%	4/1/33	1,000	1,118
Ohio Lease (Appropriation) Revenue	5.000%	4/1/36	2,045	2,148
Ohio Lease (Appropriation) Revenue	5.000%	10/1/36	1,000	1,058
Ohio Lease (Appropriation) Revenue	5.000%	10/1/37	115	121
Ohio Lease (Appropriation) Revenue	5.000%	4/1/38	5,585	6,053
Ohio Lease (Appropriation) Revenue	5.000%	4/1/40	4,000	4,299
Ohio Lease (Appropriation) Revenue (Administrative Building Fund	0.00070	., ., .	.,000	1,200
Project)	5.000%	4/1/41	750	815
Ohio Lease (Appropriation) Revenue (Improvement Fund Projects)	5.000%	12/1/29	1,120	1,209
Ohio Special Obligation Revenue (Administrative Building Fund				
Project)	5.000%	4/1/32	890	1,009
Ohio State University College & University Revenue	4.000%	12/1/33	4,000	4,009
Ohio State University College & University Revenue	4.000%	12/1/38	1,000	1,027
Ohio State University College & University Revenue	4.000%	12/1/39	2,230	2,280
Ohio State University College & University Revenue	4.000%	12/1/40	4,000	4,073
Ohio State University College & University Revenue	4.000%	12/1/41	1,000	1,014
Ohio State University College & University Revenue	4.000%	12/1/42	1,000	1,010
Ohio State University College & University Revenue	4.000%	12/1/43	2,000	2,012
Ohio State University College & University Revenue	4.000%	12/1/48	6,240	6,134
Ohio State University College & University Revenue	2.500%	12/1/51	3,450	2,235
Ohio State University College & University Revenue (Multiyear	E 0500/	40/4/40	0.075	0.040
Debt Issuance Program)	5.250%	12/1/46	8,975	9,940
Ohio State University College & University Revenue (Multiyear Debt Issuance Program)	4.250%	12/1/56	2,845	2,836
Ohio Turnpike & Infrastructure Commission Highway Revenue	5.000%	2/15/28	125	136
Ohio Turnpike & Infrastructure Commission Highway Revenue	5.000%	2/15/20	865	936
Ohio Turnpike & Infrastructure Commission Highway Revenue	5.000%	2/15/33	495	534
Ohio Turnpike & Infrastructure Commission Highway Revenue	5.700%	2/15/34	500	590
Ohio Turnpike & Infrastructure Commission Highway Revenue	0.000%	2/15/36	1,825	1,144
Ohio Turnpike & Infrastructure Commission Highway Revenue	0.000%	2/15/37	7,975	4,717
Ohio Turnpike & Infrastructure Commission Highway Revenue	0.000%	2/15/38	9,615	5,297
Ohio Turnpike & Infrastructure Commission Highway Revenue	5.000%	2/15/38	430	482
Ohio Turnpike & Infrastructure Commission Highway Revenue	5.000%	2/15/39	8,355	9,318
Ohio Turnpike & Infrastructure Commission Highway Revenue	0.000%	2/15/40	3,155	1,550
Ohio Turnpike & Infrastructure Commission Highway Revenue	0.000%	2/15/43	1,500	627
Ohio Turnpike & Infrastructure Commission Highway Revenue	5.000%	2/15/46	2,000	2,136
Ohio Turnpike & Infrastructure Commission Highway Revenue	5.000%	2/15/51	7,905	8,379
Ohio Turnpike & Infrastructure Commission Highway Revenue				
(Infrastructure Projects)	4.000%	2/15/37	1,210	1,224
Ohio Water Development Authority Intergovernmental Agreement				
Revenue	5.000%	12/1/35	135	154
Ohio Water Development Authority Lease Revenue	5.000%	6/1/31	105	118
Ohio Water Development Authority Lease Revenue	5.000%	12/1/35	1,500	1,663
Ohio Water Development Authority Lease Revenue	5.000%	12/1/37	1,125	1,228
Ohio Water Development Authority Lease Revenue	5.000%	12/1/38	3,625	3,942
Ohio Water Development Authority Water Pollution Control Loan Fund Lease Revenue	E 0000/	19/1/95	2 600	2 071
Ohio Water Development Authority Water Pollution Control Loan	5.000%	12/1/35	2,680	2,971
Fund Lease Revenue	5.000%	12/1/36	7,000	7,699
	2.230,0	, .,00	.,000	.,000

	Coupon	Maturity Date	Face Amount (\$000)	Market Value• (\$000)
Ohio Water Development Authority Water Pollution Control Loan Fund Lease Revenue	5.000%	12/1/44	1,885	2,014
Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue	5.000%	12/1/35	1,000	1,141
Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue	5.000%	12/1/36	1,340	1,484
Fund Water Revenue	4.000%	12/1/37	125	128
Fund Water Revenue	5.000%	12/1/37	8,000	8,787
Fund Water Revenue	5.000%	12/1/38	4,915	5,374
Fund Water Revenue	5.000%	12/1/39	4,340	4,727
Fund Water Revenue	5.000%	12/1/40	2,705	2,936
Fund Water Revenue	4.000%	12/1/41	125	127
Fund Water Revenue	4.000%	12/1/46	8,185	8,131
Fund Water Revenue	5.000%	12/1/46	5,625	6,069
Fund Water Revenue	5.000%	12/1/50	5,500	5,848
· · · · · · · · · · · · · · · · · · ·				468
Ohio Water Development Authority Water Revenue	5.000%	6/1/26	300	316
Ohio Water Development Authority Water Revenue	5.000%	12/1/26	475	506
Ohio Water Development Authority Water Revenue	5.000%	6/1/27	400	430
Ohio Water Development Authority Water Revenue	5.000%	12/1/27	385	419
Ohio Water Development Authority Water Revenue	5.000%	6/1/32	350	403
	5.000%	12/1/32	250	288
				575
				862
				572
				1,133
				505
				1,901
				3,373
· · · · · · · · · · · · · · · · · · ·				3,358
0,				486
				611
				1,052
				1,021
				1,015
			1,000	1,012
Pickerington Local School District GO	4.000%	12/1/40	1,000	1,007
Pickerington Local School District GO	4.375%	12/1/49	2,000	2,015
Pickerington Local School District GO	5.250%	12/1/59	2,000	2,145
Polaris Career Center COP	5.000%	11/1/36	410	420
Port of Greater Cincinnati Development Authority Revenue PUT	4.375%	6/15/26	1,000	963
Reynoldsburg OH GO	3.550%		640	564
,				563
,				240
				340
	0.000 /0	141177	300	0-10
Project) COP	5.000%	12/1/37	900	983
	Fund Lease Revenue Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue Ohio Water Development Authority Water Revenue Ohio Water Developmen	Ohio Water Development Authority Water Pollution Control Loan Fund Lease Revenue Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue Ohio Water Development Authority Water Revenue Ohio W	Ohio Water Development Authority Water Pollution Control Loan Fund Lease Revenue 5,000% 12/1/35 Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue 5,000% 12/1/36 Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue 5,000% 12/1/36 Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue 4,000% 12/1/37 Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue 5,000% 12/1/39 Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue 5,000% 12/1/39 Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue 5,000% 12/1/39 Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue 4,000% 12/1/40 Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue 5,000% 12/1/40 Ohio Water Development Authority Water Pollution Control Loan Fund Water Revenue 5,000% 12/1/40 Ohio Water Development Authority Water Revenue 5,000% 12/1/25 Ohio Water Development Authority Water Revenue 5,000% 12/1/25 Ohio Water Development Authority Water Revenue 5,000% 6/1/27	Drio Water Development Authority Water Pollution Control Loan Fund Water Povelopment Authority Water Pollution Control Loan Fund Water Revenue

		Coupon	Maturity Date	Face Amount (\$000)	Market Value• (\$000)
	Rossford Exempted Village School District (School Facilities				
	Project) COP Rossford Exempted Village School District (School Facilities	4.000%	12/1/42	670	637
	Project) COP Resofard Evernated Village School District (School Equilities	4.000%	12/1/47	1,000	912
	Rossford Exempted Village School District (School Facilities Project) COP	4.125%	12/1/51	900	823
	Rossford Exempted Village School District GO	4.000%	12/1/53	2,180	1,978
	Sharonville OH Income Tax Revenue	4.000%	12/1/39	550	554
	Sharonville OH Income Tax Revenue	4.000%		560	562
	Sharonville OH Income Tax Revenue	4.000%	12/1/41	550	549
	Sharonville OH Income Tax Revenue	4.000%		750	744
4	Sharonville OH Sales Tax Revenue	4.000%		1,400	1,471
4	Sharonville OH Sales Tax Revenue	4.000%	12/1/31	1,510	1,577
4	Southeast Wayne County Local School District COP	4.000%	12/1/36	350	357
4	Southeast Wayne County Local School District COP	4.000%	12/1/37	350	351
	Southwest Licking Local School District GO	4.000%	11/1/34	500	506
	Southwest Licking Local School District GO	3.375%	11/1/47	120	98
	Southwest Local School District/Hamilton County GO	5.000%	1/15/30	1,295	1,404
	Southwest Local School District/Hamilton County GO	4.000%	1/15/55	2,810	2,617
	South-Western City School District GO	3.000%	12/1/33	250	234
	South-Western City School District GO	3.000%	12/1/34	75	70
	South-Western City School District GO	3.000%	12/1/35	145	133
	Streetsboro City School District GO	4.000%	12/1/49	1,865	1,731
	Summit County Development Finance Authority Auto Parking Revenue (University Of Akron Parking Project)	5.750%	12/1/53	1,950	1,972
	Summit County Development Finance Authority Auto Parking				
	Revenue (University Of Akron Parking Project)	6.000%	12/1/58	2,690	2,751
	Summit County Green Local School District GO	5.000%		4,545	4,751
	Summit County OH GO	4.000%		1,000	1,020
	Summit County OH GO	4.000%		1,000	1,033
	Summit County OH GO	5.000%	12/1/30	1,000	1,134
	Toledo OH Water System Water Revenue	5.000%	11/15/37	5,040	5,565
	Toledo-Lucas County Port Authority Auto Parking Revenue (University of Toledo Parking Project)	4.000%	1/1/57	2,000	1,485
	Toledo-Lucas County Port Authority Local or Guaranteed Housing Revenue	5.000%	7/1/34	950	927
4	Toledo-Lucas County Port Authority Local or Guaranteed Housing Revenue	5.000%	7/1/39	950	907
4	Tuscarawas Valley Local School District (School Facilities Project) COP	4.000%	12/1/29	365	378
4	Tuscarawas Valley Local School District (School Facilities Project) COP	4.000%	12/1/30	375	388
4	Tuscarawas Valley Local School District (School Facilities Project) COP Tuscarawas Valley Local School District (School Facilities Project)	4.000%	12/1/31	480	495
4	COP Tuscarawas Valley Local School District (School Facilities Project)	4.000%	12/1/32	400	412
4	COP Tuscarawas Valley Local School District (School Facilities Project)	4.000%	12/1/33	435	449
4	COP Tuscarawas Valley Local School District (School Facilities Project)	3.000%	12/1/34	315	287
4	COP Tuscarawas Valley Local School District (School Facilities Project)	3.000%	12/1/35	450	406
4	COP Tuscarawas Valley Local School District (School Facilities Project)	3.000%	12/1/36	850	747
	COP Union County OH GO	3.000% 5.000%	12/1/49 12/1/27	1,395 215	982 231
	,				

		Coupon	Maturity Date	Face Amount (\$000)	Market Value• (\$000)
	Union County OH GO	5.000%	12/1/37	950	997
	Union County OH GO	5.000%	12/1/38	615	645
	Union County OH GO	5.000%	12/1/47	2,585	2,677
	University of Akron College & University Revenue	5.000%	1/1/30	530	583
	University of Cincinnati College & University Revenue	3.500%	6/1/32	1,230	1,208
	University of Cincinnati College & University Revenue	5.000%	6/1/36	180	191
	University of Cincinnati College & University Revenue	3.000%	6/1/39	1,530	1,276
	University of Toledo College & University Revenue	5.000%	6/1/25	600	615
	University of Toledo College & University Revenue	5.000%	6/1/26	100	104
	University of Toledo College & University Revenue	5.000%	6/1/27	100	106
	University of Toledo College & University Revenue	5.000%	6/1/29	1,250	1,324
	University of Toledo College & University Revenue	5.000%	6/1/30	1,230	1,361
	Upper Arlington OH Income Tax Revenue	5.000%	12/1/55	3,000	3,144
	Upper Arlington OH Nontax Miscellaneous Revenue	4.000%	12/1/33	175	184
	Upper Arlington OH Nontax Miscellaneous Revenue	4.000%	12/1/34	150	156
	Upper Arlington OH Nontax Miscellaneous Revenue	4.000%	12/1/36	320	329
	Upper Arlington OH Nontax Miscellaneous Revenue	5.000%	12/1/46	2,590	2,697
	Upper Arlington OH Nontax Miscellaneous Revenue	4.000%	12/1/51	3,000	2,807
	Valley View Local School District GO	3.000%	11/1/51	2,400	1,709
	Warren County OH Health, Hospital, Nursing Home Revenue	5.000%	7/1/26	350	352
	Warren County OH Health, Hospital, Nursing Home Revenue	5.000%	7/1/28	830	862
	Warren County OH Health, Hospital, Nursing Home Revenue	5.000%	7/1/30	570	593
	Warren County OH Health, Hospital, Nursing Home Revenue	5.000%	7/1/31	570	573
	Warren County OH Health, Hospital, Nursing Home Revenue	5.000%	7/1/32	625	650
	Warren County OH Health, Hospital, Nursing Home Revenue	4.000%	7/1/36	1,000	957
	Warren County OH Health, Hospital, Nursing Home Revenue	4.000%	7/1/37	1,000	941
	Warren County OH Health, Hospital, Nursing Home Revenue	4.000%	7/1/45	1,695	1,464
4	Warrensville Heights City School District GO	5.000%	12/1/34	115	117
	West Carrollton City School District GO	3.000%	12/1/39	1,125	942
	West Carrollton City School District GO	4.000%	12/1/56	1,410	1,285
	Westerville City School District Lease Revenue (School Facilities Project) COP	5.000%	12/1/36	475	502
	Westfall Local School District GO	4.000%	12/1/31	100	106
	Westfall Local School District GO	4.000%	12/1/33	200	210
	Westfall Local School District GO	4.000%	12/1/36	250	259
	Westfall Local School District GO	2.375%	12/1/50	425	265
	Wickliffe City School District GO	3.000%	12/1/39	400	335
	Wickliffe City School District GO	3.000%	12/1/40	215	178
	Wickliffe City School District GO	4.000%	12/1/50	3,080	2,799
	Winton Woods City School District GO	0.000%	11/1/29	885	724
	Winton Woods City School District GO	0.000%	11/1/30	1,005	791
	Winton Woods City School District GO	0.000%	11/1/31	1,020	773
	Winton Woods City School District GO	0.000%	11/1/32	1,140	831
4	Winton Woods City School District GO	4.000%	11/1/53	3,000	2,798
	Worthington City School District GO	5.000%	12/1/41	2,000	2,202
	Worthington City School District GO	3.750%	12/1/48	1,425	1,238
	Worthington City School District GO	5.000%	12/1/48	2,000	2,166
	Worthington City School District GO	5.500%	12/1/54	6,000	6,637
4	Wright State University College & University Revenue	5.000%	5/1/28	570	617
4	Wright State University College & University Revenue	5.000%	5/1/29	595	653
4	Wright State University College & University Revenue	5.000%	5/1/30	240	267
4	Wright State University College & University Revenue	5.000%	5/1/31	840	945
4	Wright State University College & University Revenue	5.000%	5/1/31	245	276
4	Wright State University College & University Revenue	5.000%	5/1/32	265	300
	Wynford Local School District GO	3.750%	11/1/54	325	263

Ohio Long-Term Tax-Exempt Fund

		Coupon	Maturity Date	Face Amount (\$000)	Market Value• (\$000)
1	Youngstown State University College & University Revenue	4.000%	12/15/30	250	261
1	Youngstown State University College & University Revenue	4.000%	12/15/31	1,160	1,210
1	Youngstown State University College & University Revenue	4.000%	12/15/32	1,250	1,301
1	Youngstown State University College & University Revenue	3.000%	12/15/33	3,045	2,800
					1,228,715
Gu	am (0.0%)				
	Guam Miscellaneous Taxes Revenue	4.000%	1/1/42	305	276
Pue	erto Rico (1.6%)				
	Commonwealth of Puerto Rico GO	0.000%	7/1/24	67	66
	Commonwealth of Puerto Rico GO	5.375%	7/1/25	740	752
	Commonwealth of Puerto Rico GO	5.625%	7/1/27	3,365	3,513
	Commonwealth of Puerto Rico GO	5.625%	7/1/29	2,421	2,559
	Commonwealth of Puerto Rico GO	5.750%	7/1/31	1,513	1,627
	Commonwealth of Puerto Rico GO	0.000%	7/1/33	405	247
	Commonwealth of Puerto Rico GO	4.000%	7/1/33	816	762
	Commonwealth of Puerto Rico GO	4.000%	7/1/35	185	169
	Commonwealth of Puerto Rico GO	4.000%	7/1/37	145	129
	Commonwealth of Puerto Rico GO	4.000%	7/1/46	54	45
5	Puerto Rico Commonwealth Aqueduct & Sewer Authority Water Revenue	5.000%	7/1/30	635	642
5	Puerto Rico Commonwealth Aqueduct & Sewer Authority Water Revenue	5.000%	7/1/33	500	505
5	Puerto Rico Commonwealth Aqueduct & Sewer Authority Water		, ,		
	Revenue	5.000%	7/1/33	750	757
	Puerto Rico Highway & Transportation Authority Highway Revenue	0.000%	7/1/32	154	100
	Puerto Rico Sales Tax Financing Corp. Sales Tax Revenue	0.000%	7/1/24	104	101
	Puerto Rico Sales Tax Financing Corp. Sales Tax Revenue	0.000%	7/1/27	1,172	1,011
	Puerto Rico Sales Tax Financing Corp. Sales Tax Revenue	0.000%	7/1/29	403	318
	Puerto Rico Sales Tax Financing Corp. Sales Tax Revenue	0.000%	7/1/31	676	487
	Puerto Rico Sales Tax Financing Corp. Sales Tax Revenue	0.000%	7/1/33	199	130
	Puerto Rico Sales Tax Financing Corp. Sales Tax Revenue	4.329%	7/1/40	3,845	3,639
	Puerto Rico Sales Tax Financing Corp. Sales Tax Revenue	0.000%	7/1/46	2,177	640
	Puerto Rico Sales Tax Financing Corp. Sales Tax Revenue	4.750%	7/1/53	325	307

	Coupon	Maturity Date	Face Amount (\$000)	Market Value• (\$000)
Puerto Rico Sales Tax Financing Corp. Sales Tax Revenue	4.784%	7/1/58	1,000	940
				19,446
Total Tax-Exempt Municipal Bonds (Cost \$1,332,869)				1,248,437
Total Investments (99.7%) (Cost \$1,332,869)				1,248,437
Other Assets and Liabilities—Net (0.3%)				3,720
Net Assets (100%)				1,252,157

Cost is in \$000.

- . See Note A in Notes to Financial Statements.
- 1 Scheduled principal and interest payments are guaranteed by Assured Guaranty Municipal Corp.
- 2 Includes securities purchased on a when-issued or delayed-delivery basis for which the fund has not taken delivery as of November 30, 2023
- 3 Securities with a value of \$158,000 have been segregated as initial margin for open futures contracts.
- 4 Scheduled principal and interest payments are guaranteed by Build America Mutual Assurance Co.
- 5 Security exempt from registration under Rule 144A of the Securities Act of 1933. Such securities may be sold in transactions exempt from registration, normally to qualified institutional buyers. At November 30, 2023, the aggregate value was \$32,399,000, representing 2.6% of net assets.
- 6 Scheduled principal and interest payments are guaranteed by bank letter of credit.
- 7 Scheduled principal and interest payments are guaranteed by Ambac Assurance Corp.

BAN—Bond Anticipation Note.

COP—Certificate of Participation.

ETM-Escrowed to Maturity.

GO-General Obligation Bond.

Prere.—Prerefunded.

PUT—Put Option Obligation.

TOB-Tender Option Bond.

VRDO—Variable Rate Demand Obligation.

Derivative Financial Instruments Outstanding as of Period End **Futures Contracts** (\$000)Value and Number of Unrealized Long (Short) Notional Appreciation Expiration Contracts (Depreciation) Amount Long Futures Contracts 5-Year U.S. Treasury Note March 2024 179 19.126 86 **Short Futures Contracts** Ultra Long U.S. Treasury Bond March 2024 (44)(5,412)(102)(16)

Statement of Assets and Liabilities

As of November 30, 2023

(\$000s, except shares, footnotes, and per-share amounts)	Amount
Assets	
Investments in Securities, at Value—Unaffiliated Issuers (Cost \$1,332,869)	1,248,437
Investment in Vanguard	42
Cash	62
Receivables for Investment Securities Sold	3,506
Receivables for Accrued Income	19,009
Receivables for Capital Shares Issued	1,251
Other Assets	30
Total Assets	1,272,337
Liabilities	
Payables for Investment Securities Purchased	18,427
Payables for Capital Shares Redeemed	796
Payables for Distributions	885
Payables to Vanguard	65
Variation Margin Payable—Futures Contracts	7
Total Liabilities	20,180
Net Assets	1,252,157
At November 30, 2023, net assets consisted of:	
Paid-in Capital	1,376,594
Total Distributable Earnings (Loss)	(124,437)
Net Assets	1,252,157
Net Assets	
Applicable to 109,588,689 outstanding \$.001 par value shares of beneficial interest (unlimited authorization)	1,252,157
Net Asset Value Per Share	\$11.43

Investment Income

Statement of Operations

(\$000)

Year Ended November 30, 2023

Income	
Interest	42,095
Total Income	42,095
Expenses	
The Vanguard Group—Note B	
Investment Advisory Services	70
Management and Administrative	1,414
Marketing and Distribution	82
Custodian Fees	10
Auditing Fees	29
Shareholders' Reports	34
Trustees' Fees and Expenses	1
Other Expenses	25
Total Expenses	1,665
Expenses Paid Indirectly	(10)
Net Expenses	1,655
Net Investment Income	40,440
Realized Net Gain (Loss)	
Investment Securities Sold	(16,310)
Futures Contracts	(400)
Realized Net Gain (Loss)	(16,710)
Change in Unrealized Appreciation (Depreciation)	
Investment Securities	18,375
Futures Contracts	(39)
Change in Unrealized Appreciation (Depreciation)	18,336
Net Increase (Decrease) in Net Assets Resulting from Operations	42,066

Statement of Changes in Net Assets

	Year Ended	Year Ended November 30,	
	2023 (\$000)	2022 (\$000)	
Increase (Decrease) in Net Assets			
Operations			
Net Investment Income	40,440	38,290	
Realized Net Gain (Loss)	(16,710)	(23,181)	
Change in Unrealized Appreciation (Depreciation)	18,336	(200,662)	
Net Increase (Decrease) in Net Assets Resulting from Operations	42,066	(185,553)	
Distributions			
Total Distributions	(39,993)	(51,684)	
Capital Share Transactions			
Issued	223,984	283,630	
Issued in Lieu of Cash Distributions	28,802	37,958	
Redeemed	(296,306)	(532,989)	
Net Increase (Decrease) from Capital Share Transactions	(43,520)	(211,401)	
Total Increase (Decrease)	(41,447)	(448,638)	
Net Assets			
Beginning of Period	1,293,604	1,742,242	
End of Period	1,252,157	1,293,604	

Financial Highlights

For a Share Outstanding	nding Year Ended November 30,				
Throughout Each Period	2023	2022	2021	2020	2019
Net Asset Value, Beginning of Period	\$11.39	\$13.21	\$13.29	\$12.89	\$12.19
Investment Operations					
Net Investment Income ¹	.362	.308	.320	.355	.387
Net Realized and Unrealized Gain (Loss) on Investments	.036	(1.718)	.018	.488	.730
Total from Investment Operations	.398	(1.410)	.338	.843	1.117
Distributions					
Dividends from Net Investment Income	(.358)	(.307)	(.320)	(.354)	(.387)
Distributions from Realized Capital Gains	_	(.103)	(.098)	(.089)	(.030)
Total Distributions	(.358)	(.410)	(.418)	(.443)	(.417)
Net Asset Value, End of Period	\$11.43	\$11.39	\$13.21	\$13.29	\$12.89
Total Return ²	3.56%	-10.81%	2.59%	6.68%	9.28%
Ratios/Supplemental Data					
Net Assets, End of Period (Millions)	\$1,252	\$1,294	\$1,742	\$1,584	\$1,409
Ratio of Total Expenses to Average Net Assets	0.13%3	0.13%3	0.13%	0.13%	0.13%
Ratio of Net Investment Income to Average Net Assets	3.18%	2.58%	2.42%	2.73%	3.05%
Portfolio Turnover Rate	60%	86%	43%	30%	26%

¹ Calculated based on average units outstanding.

² Total returns do not include account service fees that may have applied in the periods shown. Fund prospectuses provide information about any applicable account service fees.

³ The ratio of expenses to average net assets for the period net of reduction from custody fee offset arrangements was 0.13%.

Notes to Financial Statements

Vanguard Ohio Long-Term Tax-Exempt Fund is registered under the Investment Company Act of 1940 as an open-end investment company, or mutual fund.

- A. The following significant accounting policies conform to generally accepted accounting principles for U.S. investment companies. The fund consistently follows such policies in preparing its financial statements.
- 1. Security Valuation: Securities are valued as of the close of trading on the New York Stock Exchange (generally 4 p.m., Eastern time) on the valuation date. Bonds and other temporary cash investments are valued using the latest bid prices or using valuations based on a matrix system (which considers such factors as security prices, yields, maturities, and ratings), both as furnished by independent pricing services. Securities for which market quotations are not readily available, or whose values have been affected by events occurring before the fund's pricing time but after the close of the securities' primary markets, are valued by methods deemed by the valuation designee to represent fair value and subject to oversight by the board of trustees.
- 2. Futures Contracts: The fund uses futures contracts to invest in fixed income asset classes with greater efficiency and lower cost than is possible through direct investment, to add value when these instruments are attractively priced, or to adjust sensitivity to changes in interest rates. Counterparty risk involving futures is mitigated because a regulated clearinghouse is the counterparty instead of the clearing broker. To further mitigate counterparty risk, the fund trades futures contracts on an exchange, monitors the financial strength of its clearing brokers and clearinghouse, and has entered into clearing agreements with its clearing brokers. The clearinghouse imposes initial margin requirements to secure the fund's performance and requires daily settlement of variation margin representing changes in the market value of each contract. Any securities pledged as initial margin for open contracts are noted in the Schedule of Investments.

Futures contracts are valued at their quoted daily settlement prices. The notional amounts of the contracts are not recorded in the Statement of Assets and Liabilities. Fluctuations in the value of the contracts are recorded in the Statement of Assets and Liabilities as an asset (liability) and in the Statement of Operations as unrealized appreciation (depreciation) until the contracts are closed, when they are recorded as realized gains (losses) on futures contracts.

During the year ended November 30, 2023, the fund's average investments in long and short futures contracts represented 1% and less than 1% of net assets, respectively, based on the average of the notional amounts at each quarter-end during the period.

- 3. Federal Income Taxes: The fund intends to continue to qualify as a regulated investment company and distribute virtually all of its income. The fund's tax returns are open to examination by the relevant tax authorities until expiration of the applicable statute of limitations, which is generally three years after the filing of the tax return. Management has analyzed the fund's tax positions taken for all open federal and state income tax years, and has concluded that no provision for income tax is required in the fund's financial statements.
- 4. Distributions: Distributions from net investment income are declared daily and paid on the first business day of the following month. Annual distributions from realized capital gains, if any, are recorded on the ex-dividend date. Distributions are determined on a tax basis at the fiscal year-end and may differ from net investment income and realized capital gains for financial reporting purposes.

5. Credit Facilities and Interfund Lending Program: The fund and certain other funds managed by The Vanguard Group ("Vanguard") participate in a \$4.3 billion committed credit facility provided by a syndicate of lenders pursuant to a credit agreement and an uncommitted credit facility provided by Vanguard. Both facilities may be renewed annually. Each fund is individually liable for its borrowings, if any, under the credit facilities. Borrowings may be utilized for temporary or emergency purposes and are subject to the fund's regulatory and contractual borrowing restrictions. With respect to the committed credit facility, the participating funds are charged administrative fees and an annual commitment fee of 0.10% of the undrawn committed amount of the facility, which are allocated to the funds based on a method approved by the fund's board of trustees and included in Management and Administrative expenses on the fund's Statement of Operations. Any borrowings under either facility bear interest at an agreed-upon spread plus the higher of the federal funds effective rate, the overnight bank funding rate, or the Daily Simple Secured Overnight Financing Rate inclusive of an additional agreed-upon spread. However, borrowings under the uncommitted credit facility may bear interest based upon an alternate rate agreed to by the fund and Vanguard.

In accordance with an exemptive order (the "Order") from the SEC, the fund may participate in a joint lending and borrowing program that allows registered open-end Vanguard funds to borrow money from and lend money to each other for temporary or emergency purposes (the "Interfund Lending Program"), subject to compliance with the terms and conditions of the Order, and to the extent permitted by the fund's investment objective and investment policies. Interfund loans and borrowings normally extend overnight but can have a maximum duration of seven days. Loans may be called on one business day's notice. The interest rate to be charged is governed by the conditions of the Order and internal procedures adopted by the board of trustees. The board of trustees is responsible for overseeing the Interfund Lending Program.

For the year ended November 30, 2023, the fund did not utilize the credit facilities or the Interfund Lending Program.

- 6. Other: Interest income is accrued daily. Premiums and discounts on debt securities are amortized and accreted, respectively, to interest income over the lives of the respective securities, except for premiums on certain callable debt securities that are amortized to the earliest call date. Security transactions are accounted for on the date securities are bought or sold. Costs used to determine realized gains (losses) on the sale of investment securities are those of the specific securities sold
- **B.** In accordance with the terms of a Funds' Service Agreement (the "FSA") between Vanguard and the fund, Vanguard furnishes to the fund investment advisory, corporate management, administrative, marketing, and distribution services at Vanguard's cost of operations (as defined by the FSA). These costs of operations are allocated to the fund based on methods and guidelines approved by the board of trustees and are generally settled twice a month.

Upon the request of Vanguard, the fund may invest up to 0.40% of its net assets as capital in Vanguard. At November 30, 2023, the fund had contributed to Vanguard capital in the amount of \$42,000, representing less than 0.01% of the fund's net assets and 0.02% of Vanguard's capital received pursuant to the FSA. The fund's trustees and officers are also directors and employees, respectively, of Vanguard.

- C. The fund's custodian bank has agreed to reduce its fees when the fund maintains cash on deposit in the non-interest-bearing custody account. For the year ended November 30, 2023, custodian fee offset arrangements reduced the fund's expenses by \$10,000 (an annual rate of less than 0.01% of average net assets).
- **D.** Various inputs may be used to determine the value of the fund's investments and derivatives. These inputs are summarized in three broad levels for financial statement purposes. The inputs or methodologies used to value securities are not necessarily an indication of the risk associated with investing in those securities.
- Level 1—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 risk, etc.).
- **Level 3**—Significant unobservable inputs (including the fund's own assumptions used to determine the fair value of investments). Any investments and derivatives valued with significant unobservable inputs are noted on the Schedule of Investments.

The following table summarizes the market value of the fund's investments and derivatives as of November 30, 2023, based on the inputs used to value them:

	Level 1 (\$000)	Level 2 (\$000)	Level 3 (\$000)	Total (\$000)
Investments				
Assets				
Tax-Exempt Municipal Bonds	_	1,248,437	_	1,248,437
Derivative Financial Instruments				
Assets				
Futures Contracts ¹	86	_	_	86
Liabilities				
Futures Contracts ¹	102	_	_	102
	1 4			

¹ Includes cumulative appreciation (depreciation) on futures contracts and centrally cleared swaps, if any, as reported in the Schedule of Investments. Only current day's variation margin is reported within the Statement of Assets and Liabilities.

E. Permanent differences between book-basis and tax-basis components of net assets, if any, are reclassified among capital accounts in the financial statements to reflect their tax character. These reclassifications have no effect on net assets or net asset value per share. As of period end, permanent differences primarily attributable to the accounting for amortization were reclassified between the individual components of total distributable earnings (loss).

Temporary differences between book-basis and tax-basis components of total distributable earnings (loss) arise when certain items of income, gain, or loss are recognized in different periods for financial statement and tax purposes; these differences will reverse at some time in the future. The differences are primarily related to capital loss carryforwards; the deferral of losses from wash sales; the recognition of unrealized gains or losses from certain derivative contracts; the timing of payables for distributions; and the treatment of amortization adjustments from certain fixed

income securities. As of period end, the tax-basis components of total distributable earnings (loss) are detailed in the table as follows:

	Amount (\$000)
Undistributed Ordinary Income	_
Undistributed Tax-Exempt Income	897
Undistributed Long-Term Gains	_
Net Unrealized Gains (Losses)	(84,180)
Capital Loss Carryforwards	(40,269)
Qualified Late-Year Losses	_
Other Temporary Differences	(885)
Total	(124,437)

The tax character of distributions paid was as follows:

	Year Ended November 30,	
	2023 Amount (\$000)	2022 Amount (\$000)
Tax-Exempt Income	39,993	38,143
Ordinary Income*	_	2,980
Long-Term Capital Gains	_	10,561
Total	39,993	51,684

^{*} Includes short-term capital gains, if any.

As of November 30, 2023, gross unrealized appreciation and depreciation for investments and derivatives based on cost for U.S. federal income tax purposes were as follows:

	Amount (\$000)
Tax Cost	1,332,617
Gross Unrealized Appreciation	6,888
Gross Unrealized Depreciation	(91,068)
Net Unrealized Appreciation (Depreciation)	(84,180)

F. During the year ended November 30, 2023, the fund purchased \$758,266,000 of investment securities and sold \$791,491,000 of investment securities, other than temporary cash investments.

The fund purchased securities from and sold securities to other Vanguard funds or accounts managed by Vanguard or its affiliates, in accordance with procedures adopted by the board of trustees in compliance with Rule 17a-7 of the Investment Company Act of 1940. For the year ended November 30, 2023, such purchases were \$28,895,000 and sales were \$73,390,000, resulting in net realized gain (loss) of \$0; these amounts, other than temporary cash investments, are included in the purchases and sales of investment securities noted above.

G. Capital shares issued and redeemed were:

	Year Ended November 30,	
	2023 Shares (000)	2022 Shares (000)
Issued	19,670	24,068
Issued in Lieu of Cash Distributions	2,539	3,122
Redeemed	(26,215)	(45,458)
Net Increase (Decrease) in Shares Outstanding	(4,006)	(18,268)

H. Significant market disruptions, such as those caused by pandemics (e.g., COVID-19 pandemic), natural or environmental disasters, war (e.g., Russia's invasion of Ukraine), acts of terrorism, or other events, can adversely affect local and global markets and normal market operations. Any such disruptions could have an adverse impact on the value of the fund's investments and fund performance.

To the extent the fund's investment portfolio reflects concentration in a particular market, industry, sector, country or asset class, the fund may be adversely affected by the performance of these concentrations and may be subject to increased price volatility and other risks.

Credit risk is the risk that a counterparty to a transaction or an issuer of a financial instrument will fail to pay interest and principal when due, or that perceptions of the issuer's ability to make such payments will cause the price of an investment to decline. Investment in debt securities will generally increase credit risk.

The use of derivatives may expose the fund to various risks. Derivatives can be highly volatile, and any initial investment is generally small relative to the notional amount so that transactions may be leveraged in terms of market exposure. A relatively small market movement may have a potentially larger impact on derivatives than on standard securities. Leveraged derivatives positions can, therefore, increase volatility. Additional information regarding the fund's use of derivative(s) and the specific risks associated is described under significant accounting policies.

I. Management has determined that no events or transactions occurred subsequent to November 30, 2023, that would require recognition or disclosure in these financial statements.

Report of Independent Registered Public Accounting Firm

To the Board of Trustees of Vanguard Ohio Tax-Free Funds and Shareholders of Vanguard Ohio Long-Term Tax-Exempt Fund

Opinion on the Financial Statements

We have audited the accompanying statement of assets and liabilities, including the schedule of investments, of Vanguard Ohio Long-Term Tax-Exempt Fund (the "Fund") as of November 30, 2023, the related statement of operations for the year ended November 30, 2023, the statement of changes in net assets for each of the two years in the period ended November 30, 2023, including the related notes, and the financial highlights for each of the five years in the period ended November 30, 2023 (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Fund as of November 30, 2023, the results of its operations for the year then ended, the changes in its net assets for each of the two years in the period ended November 30, 2023 and the financial highlights for each of the five years in the period ended November 30, 2023 in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Fund's management. Our responsibility is to express an opinion on the Fund's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Fund in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits of these financial statements in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. Our procedures included confirmation of securities owned as of November 30, 2023 by correspondence with the custodian and brokers; when replies were not received from brokers, we performed other auditing procedures. We believe that our audits provide a reasonable basis for our opinion.

/s/PricewaterhouseCoopers LLP Philadelphia, Pennsylvania January 19, 2024

We have served as the auditor of one or more investment companies in The Vanguard Group of Funds since 1975

Tax information (unaudited)

The fund designates 100% of its income dividends as exempt-interest dividends.

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The People Who Govern Your Fund

The trustees of your mutual fund are there to see that the fund is operated and managed in your best interests since, as a shareholder, you are a part owner of the fund. Your fund's trustees also serve on the board of directors of The Vanguard Group, Inc., which is owned by the Vanguard funds and provides services to them.

A majority of Vanguard's board members are independent, meaning that they have no affiliation with Vanguard or the funds they oversee, apart from the sizable personal investments they have made as private individuals. The independent board members have distinguished backgrounds in business, academia, and public service. Each of the trustees and executive officers oversees 206 Vanguard funds.

Information for each trustee and executive officer of the fund appears below. That information, as well as the Vanguard fund count, is as of the date on the cover of this fund report. The mailing address of the trustees and officers is P.O. Box 876, Valley Forge, PA 19482. More information about the trustees is in the *Statement of Additional Information*, which can be obtained, without charge, by contacting Vanguard at 800-662-7447, or online at vanguard.com.

Interested Trustee¹

Mortimer J. Buckley

Born in 1969. Trustee since January 2018. Principal occupation(s) during the past five years and other experience: chairman of the board (2019-present) of Vanguard and of each of the investment companies served by Vanguard; chief executive officer (2018-present) of Vanguard: chief executive officer. president, and trustee (2018-present) of each of the investment companies served by Vanguard; president and director (2017-present) of Vanguard; and president (2018-present) of Vanguard Marketing Corporation. Chief investment officer (2013–2017), managing director (2002-2017), head of the Retail Investor Group (2006–2012), and chief information officer (2001-2006) of Vanguard. Member of the board of governors of the Investment Company Institute and the board of governors of FINRA.

Independent Trustees

Tara Bunch

Born in 1962. Trustee since November 2021. Principal occupation(s) during the past five years and other experience: head of global operations at Airbnb (2020–present). Vice president of AppleCare (2012–2020). Member of the board of directors of Out & Equal, the advisory board of the University of California, Berkeley School of Engineering, and the advisory board of Santa Clara University's Leavey School of Business.

Emerson U. Fullwood

Born in 1948. Trustee since January 2008. Principal occupation(s) during the past five years and other experience: executive chief staff and marketing officer for North America and corporate vice president (retired 2008) of Xerox Corporation (document management products and services). Former president of the Worldwide Channels Group, Latin America, and Worldwide Customer Service and executive chief staff officer of Developing Markets of Xerox. Executive in residence and 2009–2010 Distinguished Minett Professor at the Rochester Institute of Technology. Member of the board of directors of the University of Rochester Medical Center, the Monroe Community College Foundation, the United Way of Rochester, North Carolina A&T University, Roberts Wesleyan College, and the Rochester Philharmonic Orchestra. Trustee of the University of Rochester.

F. Joseph Loughrey

Born in 1949. Trustee since October 2009. Principal occupation(s) during the past five years and other experience: president and chief operating officer (retired 2009) and vice chairman of the board (2008–2009) of Cummins Inc. (industrial machinery). Director of the V Foundation. Member of the advisory council for the College of Arts and Letters at the University of Notre Dame. Chairman of the board of Saint Anselm College.

Mark Loughridge

Born in 1953. Trustee since March 2012. Principal occupation(s) during the past five years and other experience: senior vice president and chief financial

¹ Mr. Buckley is considered an "interested person," as defined in the Investment Company Act of 1940, because he is an officer of the Vanquard funds.

officer (retired 2013) of IBM (information technology services). Fiduciary member of IBM's Retirement Plan Committee (2004–2013), senior vice president and general manager (2002–2004) of IBM (Global Financing, vice president and controller (1998–2002) of IBM, and a variety of other prior management roles at IBM. Member of the Council on Chicago Booth.

Scott C. Malpass

Born in 1962. Trustee since March 2012. Principal occupation(s) during the past five years and other experience: co-founder and managing partner (2022–present) of Grafton Street Partners (investment advisory firm). Chief investment officer (retired 2020) and vice president (retired 2020) of the University of Notre Dame. Chair of the board of Catholic Investment Services, Inc. (investment advisors). Member of the board of superintendence of the Institute for the Works of Religion, the Notre Dame 403(b) Investment Committee, and the board of directors of Paxos Trust Company (finance).

Deanna Mulligan

Born in 1963. Trustee since January 2018. Principal occupation(s) during the past five years and other experience: chief executive officer of Purposeful (advisory firm for CEOs and C-level executives; 2021–present). Board chair (2020), chief executive officer (2011–2020), and president (2010–2019) of The Guardian Life Insurance Company of America. Chief operating officer (2010–2011) and executive vice president (2008–2010) of Individual Life and Disability of the Guardian Life Insurance Company of America. Director of DuPont. Member of the board of the Economic Club of New York. Trustee of the Partnership for New York City (business leadership), Chief Executives for Corporate Purpose, and the NewYork-Presbyterian Hospital.

André F. Perold

Born in 1952. Trustee since December 2004. Principal occupation(s) during the past five years and other experience: George Gund Professor of Finance and Banking, Emeritus at the Harvard Business School (retired 2011). Chief investment officer and partner of HighVista Strategies (private investment firm). Member of the board of RIT Capital Partners (investment firm).

Sarah Bloom Raskin

Born in 1961. Trustee since January 2018. Principal occupation(s) during the past five years and other experience: deputy secretary (2014–2017) of the United States Department of the Treasury. Governor (2010–2014) of the Federal Reserve Board. Commissioner (2007–2010) of financial regulation for the State of Maryland. Colin W. Brown Distinguished Professor of the Practice of Law, Duke Law School (2021–present); Rubenstein Fellow, Duke University (2017–2020); Distinguished Fellow of the Global

Financial Markets Center, Duke Law School (2020–2022); and Senior Fellow, Duke Center on Risk (2020–present). Partner of Kaya Partners (climate policy advisory services). Member of the board of directors of Arcadia (energy solution technology).

Grant Reid

Born in 1959. Trustee since July 2023. Principal occupation(s) during the past five years and other experience: chief executive officer and president (2014–2022) and member of the board of directors (2015–2022) of Mars, Incorporated (multinational manufacturer). Member of the board of directors of Marriott International, Inc. Chair of Agribusiness Task Force. Sustainable Markets Initiative.

David Thomas

Born in 1956. Trustee since July 2021. Principal occupation(s) during the past five years and other experience: president of Morehouse College (2018–present). Professor of business administration, emeritus at Harvard University (2017–2018). Dean (2011–2016) and professor of management (2016–2017) at the Georgetown University McDonough School of Business. Director of DTE Energy Company. Trustee of Common Fund.

Peter F. Volanakis

Born in 1955. Trustee since July 2009. Principal occupation(s) during the past five years and other experience: president and chief operating officer (retired 2010) of Corning Incorporated (communications equipment) and director of Corning Incorporated (2000–2010) and Dow Corning (2001–2010). Director (2012) of SPX Corporation (multi-industry manufacturing). Overseer of the Amos Tuck School of Business Administration, Dartmouth College (2001–2013). Member of the BMW Group Mobility Council.

Executive Officers

Jacqueline Angell

Born in 1974. Principal occupation(s) during the past five years and other experience: principal of Vanguard. Chief compliance officer (November 2022–present) of Vanguard and of each of the investment companies served by Vanguard. Chief compliance officer (2018–2022) and deputy chief compliance officer (2017–2019) of State Street.

Christine M. Buchanan

Born in 1970. Principal occupation(s) during the past five years and other experience: principal of Vanguard. Chief financial officer (2021–present) and treasurer (2017–2022) of each of the investment companies served by Vanguard. Partner (2005–2017) at KPMG (audit, tax, and advisory services).

John Galloway

Born in 1973. Principal occupation(s) during the past five years and other experience: principal of Vanguard. Investment stewardship officer (September 2020–present) of each of the investment companies served by Vanguard. Head of Investor Advocacy (February 2020–present) and head of Marketing Strategy and Planning (2017–2020) at Vanguard. Special assistant to the President of the United States (2015).

Ashley Grim

Born in 1984. Principal occupation(s) during the past five years and other experience: treasurer (February 2022–present) of each of the investment companies served by Vanguard. Fund transfer agent controller (2019–2022) and director of Audit Services (2017–2019) at Vanguard. Senior manager (2015–2017) at PriceWaterhouseCoopers (audit and assurance, consulting, and tax services).

Jodi Miller

Born in 1980. Principal occupation(s) during the past five years and other experience: principal of Vanguard. Finance director (2022–present) of each of the investment companies served by Vanguard. Head of Enterprise Investment Services (2020–present), head of Retail Client Services and Operations (2020–2022), and head of Retail Strategic Support (2018–2020) at Vanguard.

Anne E. Robinson

Born in 1970. Principal occupation(s) during the past five years and other experience: general counsel (2016–present) of Vanguard. Secretary (2016–present) of Vanguard and of each of the investment companies served by Vanguard. Managing director (2016–present) of Vanguard. Managing director and general counsel of Global Cards and Consumer Services (2014–2016) at Citigroup. Counsel (2003–2014) at American Express. Nonexecutive director (2022–present) of the board of National Grid (energy).

Michael Rollings

Born in 1963. Principal occupation(s) during the past five years and other experience: finance director (2017–present) and treasurer (2017) of each of the investment companies served by Vanguard. Managing director (2016–present) of Vanguard. Chief financial officer (2016–present) of Vanguard. Director (2016–present) of Vanguard Marketing Corporation. Executive vice president and chief financial officer (2006–2016) of MassMutual Financial Group.

Vanguard Senior Management Team

Matthew Benchener Joseph Brennan Mortimer J. Buckley Gregory Davis John James Chris D. McIsaac Thomas M. Rampulla Karin A. Risi Anne E. Robinson Michael Rollings Nitin Tandon Lauren Valente

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All comparative mutual fund data are from Morningstar, Inc., unless otherwise noted.

You can obtain a free copy of Vanguard's proxy voting guidelines by visiting vanguard.com/proxyreporting or by calling Vanguard at 800-662-2739. The guidelines are also available from the SEC's website, www.sec.gov. In addition, you may obtain a free report on how your fund voted the proxies for securities it owned during the 12 months ended June 30. To get the report, visit either vanguard.com/proxyreporting or www.sec.gov.

You can review information about your fund on the SEC's website, and you can receive copies of this information, for a fee, by sending a request via email addressed to publicinfo@sec.gov.

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