

State of Ohio; Appropriations; General Obligation

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State of Ohio; Appropriations; General Obligation

Credit Profile		
US\$391.225 mil GO bnds ser 2023A due 09/01/2037		
Long Term Rating	AAA/Stable	New
Ohio GO		
Long Term Rating	AAA/Stable	Upgraded
Ohio GO VRDBs		
Long Term Rating	AAA/A-1+/Stable	Upgraded
Ohio (Administrative Bldg Fd Projs) APPROP		
Long Term Rating	AA+/Stable	Upgraded
Columbus-Franklin County Finance Authority, Ohio		
Ohio		
Columbus-Franklin Cnty Fin Auth (Ohio) APPROP		
Long Term Rating	AA/Stable	Upgraded

Credit Highlights

- S&P Global Ratings raised its long-term rating on the State of Ohio's general obligation (GO) bonds to 'AAA' from 'AA+.'
- At the same time, we assigned our 'AAA' long-term rating to the State of Ohio's approximately \$391 million series 2023 refunding bonds.
- We also raised our long-term rating on the state's tax credit bonds, issued by the Columbus-Franklin County Finance Authority to 'AA' from 'AA-.'
- We raised our dual rating on the state's GO debt outstanding to 'AAA/A-1+' from 'AA+/A-1+'.
- We raised our dual rating on the state's lease-appropriation debt to 'AA+/A-1+' from 'AA/A-1+'.
- The outlook on all ratings is stable.
- The upgrades reflect our view of Ohio's demonstrated commitment to active budget management and building and maintaining reserves through recent periods of economic cycles.

Security

The bonds are general obligations of the state, secured by its full faith and credit, revenue, and taxing power. The bond proceeds will refund a portion of the GO debt outstanding for cost savings.

Credit overview

The upgrades reflect our view of Ohio's demonstrated commitment to active budget management and building and maintaining reserves through economic cycles. The upgrades also reflect the frequent and significant state-supported economic diversification efforts, which have resulted in positive business development and expansion across the state's traditionally heavy manufacturing base.

The 'AAA' GO rating and stable outlook on Ohio reflect what we view as the state's strong government framework, supported by significant flexibility to adjust funding levels, a high degree of disbursement autonomy, and balanced budget requirements that preclude it from ending the year with an operating deficit. Prudent financial and budgetary management practices, a moderate debt burden, and adequate pension funding discipline further support the rating.

JobsOhio, the state's private economic development corporation, remains a catalyst for economic growth and has successfully helped drive continued private-sector investment. Over the past several years, Ohio has received multiple large-scale investments in advanced manufacturing, data centers, life sciences and medical innovation, advanced air mobility, energy, and others.

Fiscal 2023 general revenue fund (GRF) tax receipts of \$28.9 billion exceeded fiscal 2022 by 2.7% and exceeded estimates by 3.6%, aided by strong growth in personal income tax receipts and modest sales tax growth.

Disbursements for the fiscal year were lower than estimates also resulting in a significant positive variance and increase in reserves. At the end of fiscal 2023, the state's budget stabilization fund (BSF) held \$3.5 billion, or a very strong approximately 11.8% of state-only GRF revenue and a total cash balance in the GRF of \$8.99 billion. BSF balances are expected to be maintained through the fiscal 2024-2025 biennium, but the state plans to use a large portion of unencumbered cash reserves to fund capital projects. Still, we anticipate the BSF balances will remain sufficient to mitigate disruptions from potential revenue declines.

The fiscal 2024-2025 biennial budget is conservative, in our view, and projects recurring tax revenue of \$28.4 billion in fiscal 2024 (a 1.7% decline compared with actual fiscal 2023) and \$29.2 billion in fiscal 2025 (a 2.7% increase from projected fiscal 2024). We believe there is significant cushion within the budget to manage potential revenue declines. The state intends to transfer \$850 million out of the GRF in fiscal years 2024 and 2025 to cash fund capital projects, which could be adjusted if revenues unexpectedly and significantly fall below expectations. In addition, the state's statutory set-aside requirement to maintain 0.5% of previous-year revenue (or \$212 million as of June 30, 2023) affords it a degree of flexibility to manage potential budgetary challenges.

Ohio's general creditworthiness reflects what we view as the state's:

- Long track record of proactive financial and budget management, including the state's implementation of frequent and timely budget adjustments to mitigate revenue shortfalls;
- Well-embedded financial oversight and a commitment to structural budgetary performance and funding budget reserves that have been, and are expected to remain, instrumental in managing budget gaps through economic cycles;
- Seventh-largest state economy as measured by total real gross state product (GSP) that benefitted from steady expansion and some industry diversification;
- Low-to-moderate debt levels, with rapid amortization and a conservatively managed capital and debt program, and very strong self-liquidity to withstand temporary volatility to its existing variable-rate debt obligation (VRDO) and interest rate swaps; and
- Significant pension-reform changes that have contributed to improved funding progress and significant benefit flexibility to adjust other postemployment benefits (OPEB).

The Ohio GO rating is eligible to be rated above the sovereign because we believe the state can maintain better credit characteristics than the U.S. in a stress scenario. Under our criteria "Ratings Above The Sovereign: Corporate And Government Ratings—Methodology And Assumptions" (published Nov. 19, 2013), U.S. states are considered to have moderate sensitivity to country risk. The institutional framework in the U.S. is predictable with significant state autonomy and flexibility demonstrated by serial bond amortization, as well as independent treasury management.

Environmental, social, and governance

Environmental, social, and governance (ESG) factors do not have a material influence on our credit rating analysis for Ohio. Social capital risks related to regional and local demographics vary widely, partially due to outmigration, and low population-replacement rates, and these risks could be influential for regional or local government credit ratings. In our view, Ohio's historically strong economic and financial forecasting and policy efforts aimed at diversifying the state's economic base are key state-level mitigants.

Outlook

The stable outlook reflects our expectation that Ohio will continue its commitment to active budget management and reducing its pension and OPEB liabilities over time while also adhering to its longstanding 5% constitutional debt service limit, which both support a predictable fixed-cost profile and our view of the state's long-term credit stability.

Downside scenario

Although unlikely based on recent operating trends and a strong framework for making fiscal policy decisions, sustained or significant structural budget misalignment (due to economic pressures or otherwise) leading to a sharp decline in Ohio's reserve or liquidity position without a replenishment plan could pressure the rating.

Based on the analytic factors that we evaluate for states, on a scale of '1.0' (strongest) to '4.0' (weakest), we have assigned a composite score of '1.5' to Ohio, an anchor of a 'AAA' rating.

Credit Opinion

Government Framework

A well-embedded and generally stable government framework supports Ohio's credit quality. The state's constitution requires the General Assembly to provide sufficient revenue to meet expenses from the state and to fund principal and interest payments as they become due. The constitution also precludes the state from ending the year in a deficit. Ohio has adjusted its tax structure over time and there are no constitutional limitations or other restrictions on major tax sources.

Ohio has significant flexibility to adjust financial assistance to local governments, and a demonstrated history of making reductions, if necessary. The state does not have a constitutionally required education formula, education-funding growth target, or requirement to set aside certain revenues for education funding.

Citizens can propose laws and amendments to the state's constitution either directly to the General Assembly or

through voter referendum, but, historically, voter initiatives have not negatively affected operations or limited flexibility.

The state can issue up to \$750,000 in debt to supply casual deficits, failures in revenues, or to meet expenses not otherwise provided for. Voters, however, must authorize the issuance of GO bonds for various purposes (such as transportation or schools). Historically, voters have approved the issuance of GO bonds regularly since 1921. Following voter approval, the legislature authorizes issuance amounts as part of each capital biennium budget. Revenues are committed to debt service without the need for an appropriation. If there is an insufficiency, the Office of Budget and Management (OBM) is required to transfer sufficient funds from the GRF to cover GO debt service. The state's constitution authorizes the issuance of special obligation debt subject to appropriation. For appropriation obligations, there have typically been provisions included in each budget that allow for resources to be shifted without further appropriation to cover any amounts necessary for appropriation-backed debt service.

On a scale ranging from '1.0' (strongest) to '4.0' (weakest), S&P Global Ratings has assigned a '1.1' to Ohio's governmental framework.

Financial Management

Financial Management Assessment:

Ohio's financial management practices are strong under our Financial Management Assessment (FMA) methodology. In our framework, an FMA of strong indicates that practices are well-embedded and likely sustainable. Based on a review of several key financial practices, the state has a well-established revenue-estimating process that typically includes a multiyear forecast. It conducts monthly reporting on the economic outlook, revenues, disbursements, and fund balance. The governor has broad power to reduce expenditures and restore budgetary balance. There is a formal BSF with a target of 10% of the GRF revenue for the preceding fiscal year under current law. The state has a two-year capital budget, but each agency estimates its capital requirements for six years as part of the budget process. The constitution limits debt service to 5% of GRF revenues plus net state lottery proceeds. In addition, Ohio has a comprehensive investment policy and regularly reports on investment performance.

Budget management framework

Once the budget is approved, the state monitors both revenue and expenditure performance monthly and formally reports results in addition to an economic update. Budget adjustments have historically been implemented regularly and on a timely basis. The governor has executive authority to adjust the budget and a track record of doing so and the legislature has also implemented timely adjustments when needed. Deficits are not carried forward into future fiscal years.

On a scale ranging from '1.0' (strongest) to '4.0' (weakest), S&P Global Ratings has assigned a '1.0' to Ohio's financial management.

Economy

With approximately 11.8 million residents, a labor force of approximately 5.8 million, and GSP of approximately \$826 billion in fiscal 2022, we view Ohio's economy as expansive. More than half of the state's population reside in the Cleveland, Cincinnati, and Columbus metropolitan statistical areas (MSAs), and while Columbus remains one of the fastest-growing MSAs in the Midwest, statewide economic growth has generally been slower than the U.S. (as measured by GSP, population, and employment growth). Ohio's population contracted 0.07% in 2022 compared with 0.38% growth for the U.S., and over the past decade its 0.16% compound annual growth rate (CAGR) trails the U.S. CAGR of 0.59%.

Real GSP growth is also generally slower than the U.S., although there are periods where it outperforms national averages, which most recently occurred in 2019. In 2021 and 2022, Ohio's real GSP growth increased 4.83% and 0.51% respectively, compared with 5.8% and 1.94% growth for the U.S. S&P Global Economics forecasts that through 2026, Ohio's GSP will increase 3.9%, trailing the U.S. rate of 6.9%.

The state's employment composition is largely in line with the U.S., with the exception of manufacturing, which comprised 12.3% of its employment base in 2022 compared with 8.4% for the U.S. However, over the past decade Ohio's exposure to the sector has decreased and other sectors, including finance, insurance, real estate, rental, and leasing, have improved. Within the manufacturing sector, there was a shift in the product mix over the past decade, primarily away from petroleum and coal products manufacturing and toward food and beverage and chemical manufacturing.

As of May 2023, the state had regained all of the jobs lost during the 2020 recession. As of October 2023, employment was at approximately 101% of pre-pandemic levels. There have been notable gains within the health care and social services sector and leisure and hospitality, which also recognized the largest losses following the pandemic. Overall state employment is projected to grow at a slower rate than the U.S., increasing 2.3% through 2026 compared with 3.4% for the U.S. We anticipate economic-development efforts, aided through JobsOhio and various incentive packages, will continue to attract substantial business investment and continued diversification aiding stability within the state's economy.

On a scale ranging from '1.0' (strongest) to '4.0' (weakest), S&P Global Ratings has assigned a '2.3' to Ohio's economy.

Budgetary Performance

Ohio maintained strong budgetary performance over the past several years, aided by conservative revenue and spending assumptions and strong revenue performance. State statute allows Ohio to draw on all its total operating funds, which include the general fund, BSF, and other specified funds to manage cash-flow imbalances throughout the year, which we view as credit strength. We consider the state's general fund revenues to be stable and diverse, with personal income taxes and sales (auto and non-auto) taxes constituting 36% and 47%, respectively, of fiscal 2023 GRF total tax receipts.

Ohio has a well-established revenue-estimating process that typically includes a multiyear forecast. OBM produces forecasts informed by the Governor's Council of Economic Advisors. Separate, non-partisan legislative staff also produce a revenue estimate that management reports is typically close to OBM's forecast. However, the legislature has traditionally used the executive forecast. In our opinion, the state has a strong track record of making timely budget adjustments. Ohio conducts a mid-biennium review that was first implemented in 2013, which allows the state to make budget adjustments during the middle of the biennium.

Audited fiscal 2022 results

On a generally accepted account principles (GAAP) basis fiscal 2022 general fund revenue increased 3.2% to \$44.3 billion supporting a \$3.6 billion (9.2% of general fund expenditures) net change in fund balance, or approximately \$3.3 billion when excluding bond proceeds and associated premiums. The positive change in fund balance resulted in an ending general fund balance of \$15.6 billion, of which \$13.3 billion is classified assigned or unassigned, which we view as very strong at 34.3% of the years general fund expenditures.

On a scale ranging from '1.0' (strongest) to '4.0' (weakest), S&P Global Ratings has assigned a '1.5' to Ohio's budgetary performance.

Debt And Other Long-Term Liabilities

Ohio's debt burden remains moderate with key strengths such as front-loaded debt service and rapid amortization (77% principal retirement within 10-years), coupled with a constitutional requirement that annual debt service on GO and special obligations be limited to 5% of general fund revenues plus net state lottery proceeds Ohio's debt ratios, as measured on a per capita basis and as a percent of personal income are average compared with those of other states. Total tax-supported debt was approximately \$10.5 billion (net of unamortized premium) as of fiscal 2022, which includes GO-, highway-, and appropriation-backed debt. Current debt ratios (including highway debt) are moderate at about \$896 per capita and low at 1.6% of personal income. Ohio's tax-supported debt represents approximately 4.6% of general government spending and approximately 1.3% of Ohio's GSP.

Ohio's two-year capital budget (2023-2024) totals approximately \$3.3 billion, including \$600 million for kindergarten through grade 12 school construction and renovation of public-school buildings, a \$515 million investment in natural resources, primarily to fund improvements to lodges, campgrounds, and natural areas, \$482 million for the Public Works Commission, and \$460 million to support higher education. Provided strong budgetary performance in recent years, the state intends to fund its capital budget with up to \$2.8 billion of unencumbered available cash. Because the state is planning to cash fund a significant portion of its capital budget, we expect its debt ratios could modestly improve over the next two-years.

Variable-rate debt and self-liquidity

As of September 2023, Ohio held \$560.3 million of variable-rate debt, representing approximately 5.3% of total tax-supported debt outstanding. There are four floating-to-fixed rate swaps outstanding with a notional amount of \$87.9 million associated with variable-rate debt. Liquidity on variable-rate debt is provided by the state.

As of September 2023, the Liquidity Fund of the Treasury held approximately \$6.9 billion, of which \$6.5 billion

available with same day liquidity, consisting of cash and cash equivalents, money market funds, and short-term, highly rated ('A-1' or 'A-1+') money market instruments. These assets, in our opinion, provide ample coverage for the state's VRDOs outstanding and \$750 million of the liquidity to be available for notes sponsored by the Ohio Market Access Program. S&P Global Ratings Fund Ratings And Evaluations Group regularly monitors the credit quality, liquidity, and sufficiency of the treasurer-pledged assets.

Pension liabilities

We consider Ohio in a good position to manage its pension liabilities. Over the past several years, the state committed to paying contributions equal to or above its actuarially determined contribution across all its plans. As of June 30, 2022, the state's overall average pension funded ratio across all plans increased to 86.3%. The three-year average pension funded ratio was 84.3% for all plans, and the total unfunded liability was approximately \$183 per capita, or a low 0.3% of state personal income. The General Assembly has the power to amend the structure and benefit levels, impose or revise contribution rates, or make other changes, and in our view has a track record of doing so. With the exception of Ohio Public Employee Retirement System (OPERS), the legislation also authorized each retirement system's board to adjust certain pension benefits levels within limits without general assembly approval.

OPERS is by far the largest plan, comprising 94% of the state's total pension liability at \$6.2 billion. As of Dec. 31, 2022, the plan was 76% funded, down from 93% in 2021 following negative investment performance.

OPEB liabilities

In our view, Ohio's OPEB liabilities present a low-to-moderate overall risk to the state, as indicated by the state's active management and its record of enacting benefit limitations, when necessary, which are likely to curb growth in its net OPEB liability (NOL) in future years. Each of the state's public retirement systems offer postemployment health care benefits, but we note that these benefits are not vested, and benefits and contributions are subject to adjustment according to the governing board for each system. Ohio participates in an OPEB plan administered by OPERS.

In our view, the cost-sharing, multiple-employer health care plan feature reduces Ohio's exposure to rising and volatile health care costs. Each plan limits coverage by requiring Medicare-eligible retirees to select coverage through the OPERS Medicare Connector. After reaching Medicare eligibility, the state could provide an allowance (deposited into a Health Retirement Account) to offset a portion of monthly insurance premium to retirees and reimburse eligible medical expenses.

Ohio substantially improved its unfunded OPEB ratios in recent years as it accumulated assets for its retiree health care liabilities. Under Governmental Accounting Standards Board Statement No. 74, funded ratios for OPEB plans under OPERS, State Teachers Retirement System, and Highway Patrol Retirement System are 128.2%, 174.7%, and 25.5%, respectively. The state's proportionate share of OPERS' NOL was approximately 21%, equal to a \$132.7 million liability on Dec. 31, 2022..

On a scale ranging from '1.0' (strongest) to '4.0' (weakest), S&P Global Ratings has assigned a '1.4' to Ohio's debt and liability profile score.

Related Research

Through The ESG Lens 3.0: The Intersection Of ESG Credit Factors And U.S. Public Finance Credit Factors, March 2, 2022

Ratings Detail (As Of December 8, 2023)		
Ohio GO		
<i>Long Term Rating</i>	AAA/Stable	Upgraded
Ohio APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio (Administrative Bldg Fund Projs) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio (Adult Correctional Bldg Fd Projs) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio (Adult Correctional Bldg Fd Proj) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio (Cultural & Sports Facs Bldg Fd Projs) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio (Juvenile Correctional Building Fnd Projs) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio (Juv Correctional Bldg Fd Projs) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio (Mental Health Facs Imp Fd Projs) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio (Mental Hlth Facs Imp Fnd Projs) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
State of Ohio cap facs lease - approp bnds (Transportation Building Fund Projects) ser 2023A due 04/01/2038		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
State of Ohio cap facs lease-approp bnds (Mental Health Facilities Improvement Fund Projects)		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
State of Ohio cap facs lease-approp rfdg bnds (Administrative Building Fund Projects)		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
State of Ohio cap facs lease-approp rfdg bnds (Adult Correctional Building Fund Projects)		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
State of Ohio cap facs lse approp bnds (Federally Taxable) (Admin Bldg Fd Proj)		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
State of Ohio cap facs lse approp bnds (Federally Taxable) (Admin Bldg Fd Proj) ser 2020D due 10/01/2036		
<i>Long Term Rating</i>	AA+/Stable	Upgraded

Ratings Detail (As Of December 8, 2023) (cont.)

State of Ohio cap facs lse approp bnds (Tax-Exempt) (Admin Bldg Fd Proj)		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
State of Ohio cap facs lse-approp bnds (Cultural & Sports Facs Bldg Fd Proj) ser 2020A due 10/01/2030		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
State of Ohio cap facs lse-approp bnds (Juvenile Correctional Building Fund Projs)		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
State of Ohio cap facs lse-approp bnds (Juvenile Correctional Building Fund Projs)		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
State of Ohio cap facs lse-approp rfdg bnds (Juvenile Correctional Bldg Fd Proj) ser 2020A due 10/01/2024		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
State of Ohio certs of part (Ohio Attorney General Claims Fd Proj)		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
State of Ohio certs of part (Voting System Acquisition Proj) ser 2021 due 09/01/2029		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
State of Ohio common schs GO rfdg bnds		
<i>Long Term Rating</i>	AAA/Stable	Upgraded
State of Ohio conservation proj GO rfdg bnds		
<i>Long Term Rating</i>	AAA/Stable	Upgraded
State of Ohio infrastructure imp GO bnds		
<i>Long Term Rating</i>	AAA/Stable	Upgraded
State of Ohio infrastructure imp GO rfdg bnds		
<i>Long Term Rating</i>	AAA/Stable	Upgraded
State of Ohio infrastructure imp GO rfdg bnds		
<i>Long Term Rating</i>	AAA/Stable	Upgraded
State of Ohio rfdg certs of part (federally taxable) (Bureau of Criminal Investigation Sys Proj) ser 2021 due 09/01/2026		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
State of Ohio rfdg certs of part (federally taxable) (State Taxation Accounting & Rev Sys Proj) ser 2021 due 03/01/2027		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
State of Ohio rfdg certs of part (Multi-Agency Radio Communications Sys Proj) ser 2021 due 09/01/2027		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Columbus-Franklin County Finance Authority, Ohio		
Ohio		
Columbus-Franklin Cnty Fin Auth (Ohio) APPROP		
<i>Long Term Rating</i>	AA/Stable	Upgraded
Columbus-Franklin Cnty Fin Auth (Ohio) APPROP		
<i>Long Term Rating</i>	AA/Stable	Upgraded
Columbus-Franklin Cnty Fin Auth (State of Ohio) taxable R&D rfdg rev bnds (ohio capital fd financing) (State of Ohio) ser 2020A due 02/15/2027		
<i>Long Term Rating</i>	AA/Stable	Upgraded
Ohio Building Authority, Ohio		
Ohio		

Ratings Detail (As Of December 8, 2023) (cont.)

Ohio Bldg Auth (Ohio) admin bldg APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio Bldg Auth (Ohio) adult correctional APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio Bldg Auth (Ohio) highway safety APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio Bldg Auth (Ohio) juvenile correctional APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio Bldg Auth (Ohio) (Admin Bldg Fd Proj) APPROP (AGM)		
<i>Unenhanced Rating</i>	AA+(SPUR)/Stable	Upgraded
Ohio Bldg Auth (Ohio) (Adult Correctional Bldg Fd Projs) APPROP (MBIA) (National)		
<i>Unenhanced Rating</i>	AA+(SPUR)/Stable	Upgraded
Ohio Department of Admin Services, Ohio		
Ohio		
Ohio Dept of Admin Svc (Ohio) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio Dept of Admin Svc (Ohio) (Administrative Knowledge Sys) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio Dept of Admin Svc (Ohio) (Enterprise Data Center Solutions) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio Dept of Admin Svc (State of Ohio) certs of part (Ohio Enterprise Data Center Solutions Proj) ser 2020 dtd 05/21/2020 due 09/01/2020-2029		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio Dept of Admin Svc (State of Ohio) certs of part (Unemployment Insurance Sys Proj) ser 2020 dtd 05/21/2020 due 03/01/2021-2030		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio Dept of Admin Svc (State of Ohio) (Enterprise Data Ctr Solutions)		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio Dept of Admin Svc (State of Ohio) (Voting Sys Acquisition) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio Public Facilities Commission, Ohio		
Ohio		
Ohio Pub Facs Comm (Ohio)		
<i>Long Term Rating</i>	AAA/Stable	Upgraded
Ohio Pub Facs Comm (Ohio)		
<i>Long Term Rating</i>	AAA/Stable	Upgraded
Ohio Pub Facs Comm (Ohio)		
<i>Long Term Rating</i>	AAA/Stable	Upgraded
Ohio Pub Facs Comm (Ohio) GO		
<i>Long Term Rating</i>	AAA/Stable	Upgraded
Ohio Pub Facs Comm (Ohio) GO		
<i>Long Term Rating</i>	AAA/Stable	Upgraded
Ohio Pub Facs Comm (Ohio) GO		
<i>Long Term Rating</i>	AAA/Stable	Upgraded

Ratings Detail (As Of December 8, 2023) (cont.)

Ohio Pub Facs Comm (Ohio) GO		
<i>Long Term Rating</i>	AAA/Stable	Upgraded
Ohio Pub Facs Comm (Ohio) GO		
<i>Long Term Rating</i>	AAA/Stable	Upgraded
Ohio Pub Facs Comm (Ohio) GO		
<i>Long Term Rating</i>	AAA/Stable	Upgraded
Ohio Pub Facs Comm (Ohio) GO		
<i>Long Term Rating</i>	AAA/Stable	Upgraded
Ohio Pub Facs Comm (Ohio) GO		
<i>Long Term Rating</i>	AAA/Stable	Upgraded
Ohio Pub Facs Comm (Ohio) GO VRDBs		
<i>Long Term Rating</i>	AAA/A-1+/Stable	Upgraded
Ohio Pub Facs Comm (Ohio) GO		
<i>Long Term Rating</i>	AAA/Stable	Upgraded
Ohio State Treasurer, Ohio		
Ohio		
Ohio State Treasurer (Ohio) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio State Treasurer (Ohio) APPROP		
<i>Long Term Rating</i>	AA+/A-1+/Stable	Upgraded
Ohio State Treasurer (State of Ohio) cap facs lse-approp bnds (tax-exempt) (Parks & Recreation Improvement Fund Projs) ser 2020A due 12/01/2032		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio State Treasurer (State of Ohio) cap facs lse-approp bnds (Administration Building Fund Projs)		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio State Treasurer (State of Ohio) cap facs lse-approp bnds (Ohio) (Mental Health Facilities Improvement Fund Projs)		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio State Treasurer (State of Ohio) cap facs lse-approp bnds (State of Ohio) (Cultural & Sports Facs Bldg Fund Projs)		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio State Treasurer (State of Ohio) cap facs lse-approp bnds (State of Ohio) (Pks & Recreation Imp Fd Projs) ser 2022A due 12/01/2031		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio State Treasurer (State of Ohio) cap facs lse-approp rfdg bnds (federally taxable) (Administrative Bldg Fd Projs) ser 2020D due 10/01/2036		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio State Treasurer (State of Ohio) cap facs lse-approp rfdg bnds (State of Ohio) (Administrative Bldg Fd Projs) ser 2022A due 04/01/2031		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio State Treasurer (State of Ohio) cap facs lse-approp variable rate bnds (Parks & Recreation Improvement Fund Projs) ser 2020B due 12/01/2040		
<i>Long Term Rating</i>	AA+/A-1+/Stable	Upgraded
Ohio State Treasurer (State of Ohio) cap facs lse-approp var rate bnds (State of Ohio) (Pks & Recreation Imp Fd Projs) ser 2022B due 12/01/2041		
<i>Long Term Rating</i>	AA+/A-1+/Stable	Upgraded
Ohio St Treasurer (Ohio) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded

Ratings Detail (As Of December 8, 2023) (cont.)

Ohio St Treasurer (Ohio) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio St Treasurer (Ohio) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio St Treasurer (Ohio) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio St Treasurer (Ohio) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio St Treasurer (Ohio) APPROP		
<i>Long Term Rating</i>	AA+/A-1+/Stable	Upgraded
Ohio St Treasurer (Ohio) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio St Treasurer (Ohio) (Admin Bldg Fd Proj) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio St Treasurer (Ohio) (Adult Correctional Bldg Fd Proj) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio St Treasurer (Ohio) (Cultural & Sports Facs Bldg Fd Projs)		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio St Treasurer (Ohio) (Juvenile Correctional Bldg Fd Projs) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio St Treasurer (Ohio) (Mental Hlth Facs Imp Fd Proj) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio St Treasurer (Ohio) (Mental Hlth Facs Imp Proj) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio St Treasurer (Ohio) (Pks & Rec Imp Fd Projs) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio St Treasurer (Ohio) (Pks & Rec Imp Fd Proj) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio St Treasurer (Ohio) (Transp Bldg Fnd Projs) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded
Ohio St Treasurer (Ohio) (Treasury Mgmt Sys Proj) APPROP		
<i>Long Term Rating</i>	AA+/Stable	Upgraded

Many issues are enhanced by bond insurance.

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