S&P Global Ratings

RatingsDirect®

Ohio; Appropriations; General Obligation

Primary Credit Analyst:
Thomas J Zemetis, New York + 1 (212) 4381172; thomas.zemetis@spglobal.com

Secondary Contact:
Jillian Legnos, Hartford + 1 (617) 530 8243; jillian.legnos@spglobal.com

Table Of Contents

Ohio; Appropriations; General Obligation

Credit Profile		
Ohio GO		
Long Term Rating	AA+/Stable	Affirmed
Ohio State Treasurer, Ohio		
State of Ohio, Ohio		
Ohio St Treasurer (Ohio) APPROP		
Long Term Rating	AA/Stable	Affirmed

Rating Action

S&P Global Ratings assigned its 'AA+' long-term rating to the following series 2021 general obligation (GO) and GO refunding bonds (totaling approximately $566.035 million), issued by the Ohio Public Facilities Commission on behalf of Ohio, consisting of:

- $227.14 million Common Schools GO bonds, series 2021A (tax-exempt);
- $205.63 million Higher Education GO bonds, series 2021A (tax-exempt);
- $ 25.14 million Higher Education GO bonds, series 2021B (federally taxable); and
- $108.125 million Common Schools GO Refunding Bonds, series 2021B (tax-exempt);
- The outlook is stable.

S&P Global Ratings affirmed its 'AA+' long-term rating on the state's GO bonds, its 'AA' rating on Ohio's outstanding appropriation-backed (capital facilities lease-appropriation bonds and certificates of participation) debt outstanding, and its 'AA-' rating on the state's tax credit bonds, issued by the Columbus-Franklin County Finance Authority. For more information on the tax credit bonds, see our summary analysis, published Nov. 23, 2020, on RatingsDirect. The outlook on all long-term ratings is stable.

In addition, we affirmed our 'A-1+' short-term rating on the state's variable-rate demand obligations (VRDOs) outstanding, reflecting the short-term self-liquidity component of our 'AA+/A-1+' dual rating on the GO debt outstanding, and our 'AA/A-1+' dual rating on existing lease-appropriation debt.

Ohio's full faith and credit, revenue, and taxing power (excluding certain committed state receipts, such as state highway user receipts and net state lottery proceeds) are pledged and secure the series 2021 bonds, as well as the state's GO debt outstanding.

Proceeds from the Common School series 2021A bonds -- together with approximately $74.1 million of bond premium -- will be used to finance capital facilities for the system of state-supported common schools throughout the state. In addition, proceeds from the series 2021B Common School refunding bonds will be used to current refund certain outstanding obligations previously issued to finance capital facilities for the system of state-supported common schools throughout the state. The state will use the proceeds from the Higher Education series 2021A (tax-exempt) and series 2021B (federally taxable) bonds -- together with approximately $111.4 million of bond premium – to finance capital facilities for state-supported and state-assisted higher education institutions.

Credit overview

S&P Global Ratings believes Ohio's credit stability is underpinned by its disciplined government framework, active budget management, and very strong reserve profile as the state continues to navigate economic uncertainty and budgetary challenges brought on by public health and safety risks stemming from the federal and state response to the COVID-19 pandemic. Ohio entered the fiscal 2020-2021 biennium well positioned financially, having demonstrated proactive expenditure management and conservative financial forecasting during a strong period of economic growth over the last biennium, and the state set aside surpluses in its budget stabilization fund (BSF) to achieve the highest rainy day fund savings in state history at the end of the fiscal 2018-2019 biennium. At the end of fiscal 2020, the state maintains a current BSF balance of nearly $2.7 billion (or approximately 8% of general revenue fund expenditures) and the balance in the State Treasurer's liquidity fund is approximately $9.5 billion (as of Jan. 31, 2021), will in our view, afford it a degree of flexibility to manage budgetary challenges as they arise. Of assets held in the state's liquidity fund, Ohio received approximately $3.75 billion in Coronavirus Aid, Relief, and Economic Security (CARES) Act, which alleviated short-term liquidity pressures and offset direct costs related to the COVID-19 pandemic.

The state ended the first year of the fiscal 2020-2021 biennium reporting a $645.9 million (or 8.4%) net increase in general revenue fund balances, measured on a GAAP basis. Based on audited results for June 30, 2020, general revenue funds experienced a historical decline of nearly $1.1 billion, or 4.6% below the enacted budget estimate, of which approximately $719 million was attributable to the deferral of the income tax filing deadline to the ensuing fiscal year. However, total general revenue fund receipts in federal grant revenue for Medicaid and COVID-19 related expenditures (totaling approximately $659.4 million), partially offset the decline in state-generated revenue. In response to the estimated revenue shortfall at fiscal year-end, the administration also announced $781.9 million in general revenue fund reductions for the remainder of fiscal 2020. These cost measures were sufficient to close the fiscal 2020 structural budget gap and did not rely on BSF reserves or other one-time measures.

On February 1, 2021, the state published its preliminary 2020-2021 biennium revenue and fiscal 2022-2023 budget forecast concurrent with the governor's budget proposal. February revenue and economic baseline forecast estimates were considerably improved from OBM's June 2020 forecast. The June 2020 forecast estimated general revenue fund receipts and balances of approximately $2.43 billion, or nearly 7% below budgeted general revenue fund revenue (and transfers in) estimates for fiscal 2021. However, the February revenue estimate forecasted general fund tax receipts for fiscal 2021 to be $1.67 billion, or 7.4% above fiscal 2020-levels. Over the fiscal 2022-2023 biennium, the forecast estimates general fund tax revenue to increase by $495 million (or 2%) and $838 million (3.4%) year-over-year, respectively. The forecasted revenue estimates over the biennium will be aided largely a robust recovery in individual income tax (2.3% growth in 2022 and 4.3% growth in 2023) and sales tax (5.6% growth in 2022 and 3.4% growth in 2023).

Through the first seven months of fiscal 2021, Ohio's general revenue fund receipts and transfers are outperforming the states' June 2020 revenue forecast, supporting the state's view of a potentially improved revenue picture going into the second half of the current fiscal year. Fiscal year-to-date (through Jan. 31, 2021) general revenue fund tax receipts were approximately $539.1 million (or 3.7%) ahead of the state's biennial budget estimate and $1.06 billion (or 7.6%)

ahead of the previous fiscal year revenue. Ohio partially attributes this fiscal year-to-date tax revenue performance to a return to growth in withholding tax payments, but a substantial portion has been due to a shift in the income tax deadline. At the same time, the reopening of the state's economy over the third and fourth quarters of 2020 contributed to a rebound in economic activity and consumer spending on durable and non-durable goods that was likely boosted by pent-up demand and federally enhanced unemployment and assistance payments to individuals. Among its three leading sources, income tax receipts are approximately 2.5% above the fiscal year-to-date budget estimate, while auto sales tax (12.8%) and non-auto sales tax (4.9%) also performed well-ahead of the budget estimate.

Ohio's governor released a balanced executive budget recommendation for the fiscal 2022-2023 biennium, including a general fund agency appropriations plan totaling $35.38 billion for fiscal 2022 and $39.27 billion for fiscal 2023. In our view, the general fund recommendation calls for a substantial year-over-year expenditure increase of $1.1 billion (or 3.5% above the fiscal 2021 estimate) for fiscal 2022 to restore funding to previously cuts to state operations and local aid during the pandemic and provide one-time program investments to aid the state's recovery. A substantial $3.9 billion spending increase (or 11% above the proposed fiscal 2022 budget) is partly the product of an expected increases in the state's share of Medicaid and other agency programmatic currently being supplemented by federal grants and transfer payments in the current biennium.

We anticipate that there will likely be some legislative changes to the governor's proposal, particular if new federal aid that includes funding for state and local governments passes before the beginning of fiscal 2022-2023 biennium on July 1, 2021. However, the governor's budget does not include any potential federal aid that could come with the passage of proposed $1.9 trillion coronavirus relief package. We also expect that there will be negotiations between the governor on revenue adjustments, and one-time versus ongoing agency expenditure requests for the next biennium.

During periods of economic stress, Ohio has demonstrated a willingness to make necessary adjustments to correct structural imbalances, which we anticipate will continue as the current economic cycle evolves. We expect the state will continue to approach the remainder of the fiscal 2020-2021 biennium with an emphasis on proactive and structural solutions, and we consider this continuance integral to maintaining Ohio's credit quality. Based on its constitutional framework, Ohio is effectively precluded from ending a fiscal year or biennium in a deficit position. Reflecting the state's responsive financial oversight and management, in March and May 2020, by executive order of the governor, Office of Budget and Management (OBM) and the Ohio Department of Administrative Services (DAS) developed an expenditure reduction plan for state agencies, boards, and commissions. The plans were implemented over the final three months of fiscal 2020 and the state has maintained most of these measures in fiscal 2021, including hiring and spending freezes, state agency holdbacks, and other discretionary spending reductions.

Although optimism of a nascent economic recovery in the U.S. has been spurred on by the approval of vaccines and the stabilizing of certain revenues, we believe near-term public health and safety risks stemming from the federal and state policy response to combat the pandemic could curtail economic momentum and bear down on states' credit stability in 2021. Confirmed COVID-19 cases have risen to over 830,000 in Ohio since the start of the pandemic, and cases have declined since a spike between October 2020 and early January 2021. While the effects of this recent spike in confirmed COVID-19 infections and its near-term impacts remain uncertain for Ohio, we will continue to monitor the developments and the second-order effects to credit fundamentals across the sector. Should vaccinations progress smoothly and economic growth match expectations, some potential credit pressures could wane by mid-year. For more on our view of the U.S. state credit sector in 2021, see "Outlook For U.S. States: Symptoms Persist, But A Shot In The Arm Could Lead To Growth," published Jan. 5, 2021, on RatingsDirect.

In our view, a key credit consideration for the state's economic outlook will be the path its manufacturing sector follows through this contractionary period. At this juncture, a swifter recovery in statewide manufacturing conditions in Ohio has insulated near-term employment and cyclical economic losses in public and service-based sectors that have been more disproportionately affected by public health and social risks. Beyond the near-term direct effects of the COVID-19 pandemic, however, we believe Ohio's path out of the recession could be slower and weaken its overall credit metrics including employment, gross state product, and personal income gains relative to the nation. At the same time, the state has realized gains in education and health services, which could steady wealth and personal income metrics in the state during an economic recovery.

In our opinion, Ohio's longstanding 5% constitutional debt limit positions the state well to manage its fixed-cost profile relative to other states, and it lends to our view of the state's long-term credit stability. Ohio has historically maintained front-loaded debt service, and its amortization schedule remains relatively rapid with close to 75% of its tax-supported debt retired within the next 10 years. The state's annual tax-supported debt service remains low, in our view, at 1.6% of general government spending. At the same time, its tax-supported debt burden is $929 per capita and 4.5% of personal income, which we consider moderate.

We also expect that employer contributions to the state's pension plans will continue to meet or exceed actuarially determined levels. In our opinion, Ohio's active management of the Ohio Public Employees' Retirement System (OPERS) and meaningful postretirement-liability reform efforts over the past decade also support the state's credit stability. OPERS' three-year average pension funding ratio is 79%, which is somewhat weak relative to other well-funded plans, albeit improving. Over the medium-to-long term, however, we will continue to watch for latent credit stressors for the state, including the impact of market volatility on liquidity in Ohio's temporary investment and pension funds.

The 'AA+' GO rating reflects what we view as Ohio's:

- Long track record of proactive financial and budget management, including the state's implementation of frequent and timely budget adjustments over time to mitigate revenue shortfalls;
- Commitment to funding budget reserves that have been, and are expected to remain, instrumental in managing budget gaps through the current and future economic cycles;
- Improved revenue and budget performance and the restoration of the BSF, which was increased to a statutory target of 8.5% of revenue as part of the enacted 2016-2017 budget;
- Vast, broad, and diverse economy that had benefitted from steady expansion following weak performance during the past two recessions, although there is some concentration in manufacturing relative to the U.S., which anchors the employment base and is sensitive to exogenous demand shocks;
- Low-to-moderate debt levels, with rapid amortization and a conservatively managed capital and debt program, with very strong self-liquidity to withstand temporary volatility to its existing VRDO and interest rate swaps; and
- Significant pension reform changes and steady progress in funding OPEB, although we continue to monitor the

state's funding policy to assess the sustainability of this progress trend under more subdued investment return conditions.

Environmental, social, and governance factors

Absent the implications of COVID-19, which we consider a health and safety social risk, that could weaken the state's economy, liquidity, and budgetary performance if sustained, we consider Ohio to have social risks that are generally in line with the sector, although it exhibits some demographic pressures due to its aging prime working-age population and low replacement rates statewide. While these longer-term social risks may slow statewide economic growth forecasts and alter current service demands that weigh on the state's financial position, Ohio's historically strong policies (including economic and financial forecasting) and recent economic diversification efforts help manage this risk.

S&P Global Ratings views the state's environmental risks as being in line with the sector, and Ohio has historically maintained a strong management and regulatory framework to respond to developing risks. At the same time, we view Ohio's long-term governance risks as aligned with the sector due to the relative strength of the state's government framework and transparency of its policies, reporting, and disclosures.

Stable Outlook

Downside scenario

Although unlikely based on recent operating trends and a strong budgetary framework for making fiscal policy decisions, sustained structural budget misalignment and a sharp decline in Ohio's reserve or liquidity position could pressure the rating. The state's concentration in the manufacturing sector could intensify this downside risk due to this exogenous economic shock or international trade conditions that significantly weaken the state's core economic metrics relative to the U.S. level. We recognize that state governments across the nation will continue to face unprecedented public health and economic challenges in the near term to contain ongoing public health and social risk due to the COVID-19 pandemic. The duration and severity of these events affecting the state's fiscal profile may result in deterioration of its credit quality should economic conditions change.

Upside scenario

While unlikely to occur over the outlook period, positive rating action would be predicated on Ohio's economic conditions strengthening and diversifying to a level that more closely aligns with that of the broader U.S. economy and higher-rated peers, and in a way that we believe better insulates the state from cyclicality. This would be in conjunction with the state preserving financial stability – including maintaining strong BSF balances and very strong liquidity – and managing around potential tail-end revenue and expenditure cliffs that occur through the fiscal recovery and as the state's share of enhanced federal transfer payments and stimulus wanes over time.

Based on the analytic factors we evaluate for states, we have assigned a total score of '1.6' to Ohio under our state ratings methodology, in which '1.0' is the strongest score and '4.0' the weakest. This score corresponds to a 'AA+' GO rating. (For more information, see our most recent analysis, published Nov. 23, 2020.)

Credit Opinion

Government Framework

Ohio'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 state is precluded 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.

Public disbursements for education and the state's share of Medicaid funding account for about 50% of total GRF spending, while primary and secondary education account for about 25% of spending. In our opinion, Ohio has demonstrated considerable flexibility to adjust financial assistance to local governments. The state does not have a constitutionally required education formula, education funding growth target, or requirement to set aside certain revenues for education funding. We believe previous litigation surrounding the system of school funding and federal mandates for Medicaid have contributed to cost pressures over time. However, the state reports that it is not facing any material education funding litigation at present.

In a recent legislative session (2020), however, House Bill 1 was introduced and passed by Ohio House of Representatives, which would implement a new school funding formula to take effect in fiscal 2022 that computes unique per pupil costs and a variable local capacity amount (not to exceed 2.5% for each school district). The proposed bill, if fully implemented is estimated to increase local education funding by $1.875 billion, or 22.2% more than current fiscal 2021 foundation aid. Other forms of aid could add an additional $123.3 million to that cost. While not enacted, we will continue to monitor the potential effect of an approved school funding formula on factors, such as the state's disbursement autonomy and flexibility to adjust aid to school districts and local government funding in the future.

Ohio's revised code allows citizens to propose laws and amendments to the constitution either directly to the general assembly or through a voter referendum. Ohio has not had voter initiatives that substantially constrained revenues.

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 GO bonds issuance regularly since 1921. Following voter approval, the legislature authorizes issuance amounts as part of each capital biennium budget provision to provide for sufficient revenue to cover principal and interest, 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 specifically authorizes the issuance of special obligation debt subject to appropriation. For appropriation obligations, they 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: Strong

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 financial 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 8.5% 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. Ohio adopted a debt and interest rate risk management policy in 2006 (as amended) that formalized various long-standing practices related to state debt issuance and management. 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

Ohio's economic metrics grew, albeit at a slightly slower rate than the national average, during a period of sustained economic expansion following the Great Recession, which featured increasing productivity and employment gains for many states. In our view, however, Ohio's rate of economic expansion had reached a high point by the end of fiscal 2019. At the onset of the COVID-19 induced recession in 2020, early economic indicators, including employment and gross state product, show that the state has experienced a comparatively similar contraction to the U.S. While the state has gradually reopened its economy with various social distancing measures in place, we believe Ohio will likely contend with these economic challenges for the remainder of the fiscal 2020-2021 biennium, and it could also endure a more subdued economic expansion relative to the U.S. beyond the outlook horizon.

Based on U.S. Census Bureau estimates, Ohio ranks as the seventh-most populous state in the nation with approximately 11.69 million residents in 2019, a 0.1% increase from 2018. The state's economy is expansive, in our view, with more than half of its residents living in the Cleveland, Cincinnati, and Columbus metropolitan statistical areas (MSAs). The economy has grown steadily during the economic expansion, particularly in the Columbus and Cincinnati MSAs. However, Ohio's population growth rate over the past decade was relatively weak, averaging only a 0.14% compounded annual growth rate, well below the U.S average of 0.68%. The state's economic growth prospects are likely to level off relative to other U.S. states, and IHS attributes this to somewhat faster aging patterns of Ohio's prime working-age population relative to that of the nation and net outmigration from northeast and northwest Ohio. Outmigration is consistent, particularly among young professionals aged 20-34, and is most prevalent in communities with a strong manufacturing presence. This trend is also illuminated by Ohio's age dependency (65.3%), which is above the national average (63.1%). In our view, this gap could widen over the next decade, somewhat dampening our view of the state's future economic gains and slow its pace of employment growth compared with that of the U.S over the long-term.

During the decade-long U.S. economic expansion, the state's unemployment rate significantly improved to 4.1% in 2019, although it remained above the U.S. rate of 3.7% for the same time period. At the onset of the pandemic, Ohio's employment losses were significant. At end of April, the U.S. Bureau of Labor Statistics (BLS) reported approximately 960,000 unemployed individuals and a steep rise in its 16.8% unemployment rate (from 5.8% in March) in Ohio, making it one of 17 states with a higher unemployment rate than the U.S. average (14.7%). However, by the end of May 2020, the national unemployment rate rebounded slightly to 13.3% as segments of the national economy have started to reopen. The state's unemployment rate has fallen in each month since, and as of December 2020, Ohio's unemployment rate was 5.5%, compared the U.S. average of 6.7% for the same period.

State wealth and income levels lag national averages. At $50,199 per capita, the 2020 personal income was 89% of the national level, which was below that of the region and the nation. Ohio's employment composition has become more balanced over time, because of continued loss of manufacturing jobs and growth in other sectors. The largest sectors in the state's economy, as of 2019 data, were: trade, transportation, and public utilities (18.4% of nonfarm payrolls), education and health services (16.8%), government (14%), and professional and business services (13.2%). Ohio's manufacturing employment (12.6%) remains significantly higher than that of the U.S. as a whole (8.5%). Major industries for this sector continue to be transportation equipment (vehicles) and fabricated metals and machinery industries.

We believe the state's manufacturing base is somewhat concentrated in automotive, transportation equipment, and fabricated metals manufacturing, which account for nearly one-third of manufacturing payrolls and approximately 16% of Ohio's real GDP. According to IHS, although Ohio's auto industry helped the state recover from the recession and contributed to recent job growth, peaking auto sales will likely force further manufacturing gains to come from other subsectors. While a four-year deal between GM and UAW workers in 2019, the UAW was unable to reverse the Lordstown GM plant closure, which could also adversely affect Ohio's small businesses and suppliers. Over the recovery period, IHS forecasts that Ohio's real GSP growth will increase by 3.8% in 2021 compared to a 4.1% contraction in 2020. However, IHS projects 2021 employment growth will accelerate by 3.5% in 2021, followed by 2.9% growth in 2022, and the potential to see employment slow of 0.3% and 0.31% in 2023 and 2024, respectively. In our view, Ohio's manufacturing sector will remain a significant component in the state's economy, but the sector's long-term performance is still not clear.

While international trade conditions are more subdued compared with a two years ago, a sudden flareup in international trade and geopolitical tensions could impair short- to medium-term recovery and overall GDP growth prospects for Ohio, as the state's nominal GDP and employment base centers on industries with ties to trade and are traditionally more sensitive to these external factors. Its largest export categories are transportation equipment, chemicals, and machinery and its leading trade partners are Canada (38.6% of its export market), and Mexico (13%).

Ohio's major metropolitan centers are home to significant employers, including being headquarters for major corporations. The state's leading employers reflect the transition to a service-based economy, with a strong emphasis on health services. In addition to a significant health care industry and major corporate employers, Ohio has a well-developed higher education system that, in our view, should continue to generate economic development opportunities for the state.

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

We believe that Ohio maintained overall steady and strong budgetary performance over the past four biennia, although the state's finances and reserve levels have declined significantly in prior economic recessions, which indicates some cyclical financial performance. State statute allows for Ohio to draw on all of 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.

In response to the early 2000's recession, Ohio depleted more than half of its reserves over two consecutive years; the BSF closed fiscal years 2001, 2002, and 2003 at $1 billion, $428 million, and $181 million, respectively. The BSF was restored to its $1 billion balance by fiscal year-end 2006, where it remained for three years until its depletion during the Great Recession. Ohio began adding to its reserves again in fiscal 2011, and by fiscal 2013, Ohio restored its budget stabilization fund (BSF). Since then, the state set aside surpluses in its budget stabilization fund (BSF) to achieve the highest rainy day fund savings in state history at the end of the fiscal 2018-2019 biennium. The state maintains a current BSF balance of nearly $2.691 billion (or approximately 8% of fiscal 2020 general revenue fund revenue, or 3.9% of fiscal 2020-2021 biennium revenue).

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 and IHS. 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 revenue adjustments. Ohio conducts a mid-biennium review process that was first implemented in 2013, which allows the state to make budget adjustments during the middle of the biennium.

S&P Global Ratings considers the state's general fund revenues to be diverse, with personal income taxes and sales (auto and non-auto) taxes constituting 23.1% and 29% of fiscal 2020 revenue collections, respectively.

Fiscal 2020-2021 biennium budget

COVID-19's ripple effects upended steady revenue performance, but Ohio's expenditure reductions yielded fiscal 2020 budget balance

Based on its constitutional framework, Ohio is effectively precluded from ending a biennium in a deficit position. In response to the estimated revenue shortfall at fiscal year-end, the administration announced $781.9 million in general revenue fund reductions for the remainder of the fiscal year. The state reduced primary and secondary education appropriations by approximately $355.5 million, of which roughly $300 million had been cut from the foundation funding formula and student transportation for K-12 schools. In addition, the state's Medicaid (approximately $212 million), higher education institutions ($109.1 million), and other human services programs ($54.7 million) will be reductions. These cost measures were sufficient to close the fiscal 2020 revenue gap and Ohio did not rely on BSF reserves or one-time measures.

As a result, Ohio ended the first year of the fiscal 2020-2021 biennium reporting a $645.9 million (or 8.4%) net increase in general revenue fund balances, measured on a GAAP basis. Based on audited results for June 30, 2020, general revenue funds experienced a historical decline of nearly $1.1 billion, or 4.6%, below the enacted budget estimate, of which approximately $719 million was attributable to the deferral of the income tax filing deadline to July 15, 2020 from April 15, 2020. However, total general revenue fund receipts in federal grant revenue for Medicaid and COVID-19 related expenditures (totaling approximately $659.4 million), partially offset the decline in state-generated revenue. These, and other cost measures were sufficient to close the fiscal 2020 revenue gap and Ohio did not rely on BSF reserves or one-time measures.

General revenues, fiscal controls outperform budgeted estimates, reducing the prospect of a large projected fiscal 2021 budget shortfall

On June 1, 2020, Ohio's Office of Budget and Management (OBM) preliminary revenue forecast for fiscal 2021 reflects the austere effects the COVID-19 induced economic shock on Ohio's economy and finances for the remainder of the biennium. At that time, the state conservatively estimated that the general revenue fund receipts and balances were projected to be $2.43 billion (or nearly 7%) below original general revenue fund revenue (and transfers in) for fiscal 2021. As a result, the state maintained budgetary controls and cost savings measures put in place and achieved $321.6 million in cash flow savings produced by a combined debt restructuring and refinancing. Based on these budget adjustments and other measures and more resilient revenue collections thus far in fiscal 2021, the state estimates a balanced year-end operating result.

Just crossing the midpoint of the current fiscal year, Ohio's general revenue fund receipts and transfers are outperforming the states' June 2020 revenue forecast, supporting our view of that the state anticipates an improved revenue picture going into the second half of the current fiscal year. Fiscal year-to-date (through Jan. 31, 2021) general revenue fund tax receipts were approximately $539.1 million (or 3.7%) ahead of the state's biennial budget estimate and $1.06 billion (or 7.6%) ahead of the previous fiscal year revenue. Overall total general revenues trail budget estimates by $87.4 million due to timing of federal grant reimbursements, which we will continue to watch closely. Ohio partially attributes this fiscal year-to-date tax revenue performance to a return to growth in withholding tax payments, but a substantial portion has been due to a shift in the income tax deadline from April 15, 2020 to July 15, 2020. At the same time, the reopening of the state's economy over the third and fourth quarters of 2020 contributed to a rebound in economic activity and consumer spending on durable and non-durable goods that was likely boosted by pent-up demand and federally enhanced unemployment and assistance payments to individuals. Among its three leading sources, income tax receipts are approximately 2.5% above the fiscal year-to-date budget estimate, while auto sales tax (12.8%) and non-auto sales tax (4.9%) also performed well-ahead of the budget estimate.

As of Jan. 31, 2021, officials report the state's general fund disbursements (expenditures) for fiscal 2021 are $1.2 billion (or 3.6%) below general revenue fund estimates, due in large part to temporary enhancements to federal funding for Medicaid and certain social services programs during the public health emergency. Fiscal year-to-date, state-share Medicaid expenditures are approximately $323.3 billion (or 9.2%) below budget, due in part to lower-than-projected enrollment and utilization that has not materialized during a period of higher unemployment and the health effects of pandemic. In addition, by executive order in January 2021, the governor authorized the Department of Education to allot approximately $160 million of funding that was previously withheld in fiscal 2021.

Medicaid caseloads spiked at the beginning of the pandemic, and enrollment is expected to peak at 3.45 million individuals in Feb. 2022, and then steadily decline through the end of the 2022-2023 biennium. Under the Families First Coronavirus Response Act (FFCRA), the federal government raised FMAP rates by a flat 6.2% and mandated states maintain Medicaid coverage to all who were enrolled in the program during the pandemic-related public health emergency declared, providing an additional $300 million in federal funding to Ohio quarterly. As states recover from the lingering recessionary challenges of the most recent recession, however, we believe that cost growth could exceed revenue growth across the state sector as the temporary increases in federal matching rates expire. For fiscal 2022 and fiscal 2023, the state estimates a 7.3% and 30.4% year-over-year increase in state-share Medicaid spending relative to previous fiscal year.

Medicaid costs could continue to grow over the next decade, including for Ohio, due to aging populations and growing health services cost inflation. Ohio's general fund Medicaid spending (approximately 19.8% of state-only Medicaid spending as a share of state-only general revenue fund expenditures in fiscal 2020) is above with the states' sector average of 15.1% (see "Medicaid Diagnosis: U.S. States' Growing Caseloads Come With Rising Costs," published Dec. 8, 2020). In our opinion, given Ohio's comparatively high state-only share of Medicaid spending relative to that of other states, it faces a higher exposure to out-year structural budget gaps and fiscal uncertainty should a significant change in the federal-state Medicaid cost-sharing structure occur that caps future federal spending or reimbursements.

2022-2023 biennium governor's budget proposal

On Feb. 1, 2021, Ohio's governor released a balanced executive budget recommendation for the fiscal 2021-2023 biennium, including a general fund agency appropriations plan totaling $35.38 billion for fiscal 2022 and $39.27 billion for fiscal 2023. In our view, the general fund recommendation calls for a modest year-over-year expenditure increase of $1.1 billion (or 3.5% above the fiscal 2021 estimate) for fiscal 2022, and a $3.9 billion spending increase (or 11% above the proposed fiscal 2022 budget). At the same time, the executive budget recommendation conservatively forecasts tax revenue growth of approximately 2.0% for 2022 and 3.4% for 2023.

Increased spending is primarily directed toward Medicaid expenditures, which would actually receive a $76.7 million less (or a 0.5% annual decrease) in funding for 2022 and $3.9 billion (or 23.7% annual increase) in 2023, which would largely reflect an increase in federal funds. Other major general fund spending categories, including health and human services (approximately $250.7 million over the biennium), K-12 education ($222.4 million) and higher education ($159.6 million), would also receive a sizable increase in appropriations. The budget recommendation would also direct over $1 billion of one-time "surge" funding in fiscal 2022, including $460 million to assist small businesses and hard hit sectors (such as entertainment and hospitality) in recovering from the pandemic, $250 million to provide grants that expand broadband access, and $200 million in grants for community infrastructure projects, and other targeted workforce development programs. The state will also invest in other health initiatives and broad-based community renewal programs.

At this time, we anticipate that there will likely be some legislative changes to the governor's proposal, as well as any new federal aid that may be passed by the beginning of fiscal 2022-2023 biennium on July 1, 2021. However, the governor's budget does not include any potential federal aid that could come with the passage of proposed $1.9 trillion coronavirus relief package. We also expect that there will be negotiations between the governor and the state use of any potential federal aid to states and one-time versus ongoing agency expenditure requests for the next biennium.

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

Debt And Other Long-Term Liabilities

Ohio's debt burden is moderate, in our view, with some key strengths such as rapid amortization of debt service, which does not exceed 20 years and is front loaded and a formal annual debt service limitation. In 1999, Ohio adopted a constitutional amendment that limited annual debt service on GO and special obligations 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 in the midrange compared with those of other states. Total tax-supported debt is about $10.86 billion (net of unamortized premium) as of fiscal 2020, which includes GO-, highway-, and appropriation-backed debt. Current debt ratios (including highway debt) are moderate, in our view, at about $929 per capita and low at 1.9% of personal income. Ohio's tax-supported debt represents approximately 4.5% of general government spending and approximately 1.6% of Ohio's GSP.

Ohio's legislature approved a two-year capital budget, totaling approximately $2.5 billion, including $452 million in capital funding for higher education institutions, $300 million for primary and secondary education, $281 million for prisons, $280 million for the Public Works Commission (e.g. community and essential services), and $253 million to preserve natural resources and critical infrastructure (e.g. dams and wastewater treatment facilities). In our view, the two-year capital budget is comparable with capital budget approved in previous biennia, and projected issuance of new debt does not materially alter our view of Ohio's overall debt profile. Ohio's overall debt structure and the amortization schedule remains relatively rapid, with about 75% of tax-supported debt amortized in the next 10 years.

Variable-rate debt and self-liquidity

Ohio currently has $389.88 million of variable-rate debt, representing approximately 3.0% of total debt. Another $75.4 million in variable rate debt was issued by the state on behalf of Cleveland Clinic, and are supported by a stand-by purchase agreement between the state and the clinic. In addition, the state has five floating-to-fixed-rate swaps outstanding with a notional amount of $171.4 million and a negative mark-to-market of $14 million associated with variable-rate debt outstanding. Liquidity on variable-rate debt is provided by the state.

In our view, the risk of higher interest costs under the maximum interest rate is mitigated by the relatively small amount of variable-rate debt compared with both Ohio's overall debt profile and the state's sufficient liquidity to absorb higher interest rate costs on the bonds for the duration of the interest-rate period. As of Jan. 31, 2021, the state held more than $9.5 billion of cash and high quality, short-term, fixed-income securities ('A' or better long-term ratings, and 'A-1/P-1' short-term ratings), primarily consisting of U.S. treasury and agency securities, high-grade U.S. corporate notes and commercial paper, and money market funds rated 'AA' or better. These assets, in our opinion, provide ample coverage for the $465.3 million in VRDOs (approximately 3% of direct debt outstanding) and $300 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 and OPEB liabilities

Ohio maintains its commitment to addressing its pension and OPEB system's significant liabilities. When determining the state's liabilities, we view in aggregate its proportionate share of liabilities in its three defined-benefit pension systems.

- We view the state's pension funding discipline as adequate, due to total annual plan contributions performing under the level necessary to maintain static funding (covering a portion of the amortization in unfunded liability as well as interest and service cost drivers of the annual change in the liability), and an amount below our minimum funding progress metric for fiscal 2020. However, we believe the statutorily required contributions for all pension plans are informed by the annual actuarial valuation and the state has a track record of modifying benefit levels when necessary to align pension contributions to its assumptions.

- The state has made progress on funding its OPEB obligations, as Ohio has assessed its OPEB liabilities regularly and has been one of the few states to actively manage this liability and accumulate assets to fund the liability. Health care benefits are not vested and benefits and contributions are subject to adjustment according to the state. Consequently, we view the state's net OPEB liability as comparatively low compared with other states.

Pension liabilities

We consider Ohio well positioned to manage its pension liabilities. Over the past several years the state has committed to paying contributions in excess of its actuarially determined contribution across all its plans. As of June 30, 2020, the state's overall average pension funded ratio across all plans declined to 74.2%, which we view as adequate. The three-year average pension funded ratio for was 78.7%. The total unfunded liability of all plans is about $394 per capita, or a low 0.8% of state personal income. Plans representing a significant portion of the state's unfunded pension liability as of June 30, 2020, include (from largest to smallest):

- Ohio Public Employee Retirement System (PERS): 82.4% funded with the state's applicable net pension liability totaling $4.1 billion (about 96% of state employees are in OPERS);
- Ohio State HPRS: 64.7% funded with the state's applicable pension liability totaling $445.8 million; and
- Ohio STRS: 77.3% funded with the state's applicable net pension liability totaling $87.1 million.

We consider the funding discipline of Ohio's pension plans to be average. Full funding is expected within a closed 30-year amortization period (of which the pension liability will be amortized in 27 years as of the most recent reporting year). Over the past five fiscal years, the state has met or exceeded its full statutorily required contribution to the plan. However, according to our calculations, the state did not make minimum funding progress toward full funding in the most recent fiscal year, as total annual plan contributions performed under the level necessary to maintain minimum funding progress. We believe this could weaken the strength of the state's pension liability profile over time.

The state's funding policy for OPERS is statutorily based, but the annual actuarial report (most recent: Dec. 31, 2018) informs the OPERS board's certification, which is presented to the legislature when determining such rates. In addition, we believe the system incorporates experience trends and industry standards in its experience study, which it produces every five years, and in which actuarial methods and assumptions are reviewed. OPERS uses the level percentage of pay method (currently 3.25%), which assumes rising future payroll and results in escalating absolute pension contributions over time due to the method's deferral of current contributions. The current statutory limit is 14.0% for OPERS and STRS and 26.5% for HPRS. With a discount rate of 7.2%, OPERS is close to median for states (7.25%), but we see some risk of cost escalation due to market volatility, as well as cost deferrals due to a static mortality assumption and the requirement to maintain the payroll growth assumption. The plan reported an actual 5.9% five-year average annual money weighted rate of return, below its assumed rate of return.

The OPERS ratio of active members to beneficiaries is 1.3, which is slightly above with the national median of 1.2. We believe the active-to-beneficiary ratio is currently sustainable, and we do expect this active-to-beneficiary ratio to impair future contribution levels.

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 With the exception of OPERS, the legislation also authorized each retirement system's board to adjust certain pension benefits levels within limits without general assembly approval. Recently, OPERS' governing board recently voted on a proposal to lawmakers that could freeze the COLA in 2022 and 2023 for all retirees and delay COLA for all new retirees for two years, which is estimated to reduce the $24 billion unfunded liability by $3.4 billion and smooth investment losses from previous years. OPERS has also considered an increase in the retirement age to 62 from the current 55, and increase employees' salary set-aside to 11% from the current 10%. While any of these actions ultimately require legislative approval, we view the proposal as a potential credit strength, and we will monitor the impact of recommended reforms on future OPERS contributions and the unfunded pension liability.

For additional information on states' funding progress for pension liabilities, see our report "Assessing U.S. Public Finance Pension And Other Postemployment Obligations For GO Debt, Local Government GO Ratings, And State Ratings" published on Oct. 7, 2019, and "Credit FAQ: Pension And OPEB Guidance In U.S. Public Finance Credit Analysis", published on July 21, 2020.

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 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 OPEB plan administered by OPERS. The plan is a cost-sharing, multiple-employer health care plan, which includes hospitalization, medical expenses, and prescription drug coverage for non-Medicare retirees and eligible dependents. Each plan limits coverage by requiring Medicare eligible retirees to select coverage through the OPERS Medicare Connector. After reaching Medicare eligibility, the state may provide an allowance (deposited into a Health Retirement Account) to offset a portion of monthly insurance premium to retirees and reimburse eligible medical expenses.

In our view, this plan feature reduces Ohio's exposure to rising and volatile health care costs. Ohio has 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, STRS, and HPRS are 47.8%, 174.7%, and 19.1%, respectively.

On a combined basis, Ohio's NOL was $3.33 billion in fiscal 2020, which translates into a NOL per capita of $284. The state's proportionate share of OPERS' NOL was 20.71% based on employer contributions of $177.1 million as of Dec. 31, 2019. The proportionate share of the NOL is 0.4% and 100% of STRS and HPRS, but these represent a small share of the overall liability. Each plan uses a single discount rate of 3.16% to measure the OPEB liability on the Dec. 31, 2019 measurement date, and this is based on the OPERS retirement board's projected rate of return on the health care investment portfolio and municipal bond rate, which, in our view, fluctuates with market conditions. Management reports there are further reform efforts being pursued to preserve the OPEB plan's solvency.

For additional information on states' funding progress for retiree healthcare liabilities, see "Sudden-Stop Recession Pressures U.S. States' Funding For Pension And Other Retirement Liabilities," published on Aug. 3, 2020.

On a scale ranging from '1.0' (strongest) to '4.0' (weakest), S&P Global Ratings has assigned a '1.9' to Ohio's debt and liability profile score.

RELATED RESEARCH

- Criteria Guidance: Assessing U.S. Public Finance Pension And Other Postemployment Obligations For GO Debt, Local Government GO Ratings, And State Ratings, Oct. 7, 2019
- Through The ESG Lens 2.0: A Deeper Dive Into U.S. Public Finance Credit Factors, April 28, 2020

Ratings Detail (As Of February 23, 2021)		
Ohio APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio GO		
Long Term Rating	AA+/Stable	Affirmed
Ohio GO VRDBs		
Long Term Rating	AA+/A-1+/Stable	Affirmed
Ohio GO VRDBs		
Long Term Rating	AA+/A-1+/Stable	Affirmed
Ohio (Administrative Bldg Fd Projs) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio (Administrative Bldg Fund Projs) APPROP		
Long Term Rating	AA/Stable	Affirmed

Ratings Detail (As Of February 23, 2021) (cont.)		
Ohio (Adult Correctional Bldg Fd Projs) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio (Adult Correctional Bldg Fd Proj) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio (Adult Correctional Bldg Fd Proj) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio (Cultural & Sports Facs Bldg Fd Projs) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio (Juvenile Correctional Building Fnd Projs) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio (Juv Correctional Bldg Fd Projs) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio (Mental Health Facs Imp Fd Projs) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio (Mental Hlth Facs Imp Fnd Projs) APPROP		
Long Term Rating	AA/Stable	Affirmed
State of Ohio cap facs lease-approp bnds (Mental Health Facilities Improvement Fund Projects)		
Long Term Rating	AA/Stable	Affirmed
State of Ohio cap facs lease-approp rfdg bnds (Administrative Building Fund Projects)		
Long Term Rating	AA/Stable	Affirmed
State of Ohio cap facs lease-approp rfdg bnds (Adult Correctional Building Fund Projects)		
Long Term Rating	AA/Stable	Affirmed
State of Ohio cap facs lse approp bnds (Federally Taxable) (Admin Bldg Fd Proj)		
Long Term Rating	AA/Stable	Affirmed
State of Ohio cap facs lse approp bnds (Federally Taxable) (Admin Bldg Fd Proj) ser 2020D due 10/01/2036		
Long Term Rating	AA/Stable	Affirmed
State of Ohio cap facs lse approp bnds (Tax-Exempt) (Admin Bldg Fd Proj)		
Long Term Rating	AA/Stable	Affirmed
State of Ohio cap facs lse-approp bnds (Cultural & Sports Facs Bldg Fd Proj) ser 2020A due 10/01/2030		
Long Term Rating	AA/Stable	Affirmed
State of Ohio cap facs lse-approp bnds (Juvenile Correctional Building Fund Projs)		
Long Term Rating	AA/Stable	Affirmed
State of Ohio cap facs lse-approp bnds (Juvenile Correctional Building Fund Projs)		
Long Term Rating	AA/Stable	Affirmed
State of Ohio cap facs lse-approp rfdg bnds (Juvenile Correctional Bldg Fd Proj) ser 2020A due 10/01/2024		
Long Term Rating	AA/Stable	Affirmed
State of Ohio certs of part (Voting System Acquisition Proj) ser 2021 due 09/01/2029		
Long Term Rating	AA/Stable	Affirmed
State of Ohio rfdg certs of part (federally taxable) (Bureau of Criminal Investigation Sys Proj) ser 2021 due 09/01/2026		
Long Term Rating	AA/Stable	Affirmed

Ratings Detail (As Of February 23, 2021) (cont.)		
State of Ohio rfdg certs of part (federally taxable) (State Taxation Accounting & Rev Sys Proj) ser 2021 due 03/01/2027		
Long Term Rating	AA/Stable	Affirmed
State of Ohio rfdg certs of part (Multi-Agency Radio Communications Sys Proj) ser 2021 due 09/01/2027		
Long Term Rating	AA/Stable	Affirmed
Columbus-Franklin Cnty Fin Auth, Ohio		
State of Ohio, Ohio		
Columbus-Franklin Cnty Fin Auth (Ohio) APPROP		
Long Term Rating	AA-/Stable	Affirmed
Columbus-Franklin Cnty Fin Auth (Ohio) APPROP		
Long Term Rating	AA-/Stable	Affirmed
Columbus-Franklin Cnty Fin Auth (Ohio) APPROP		
Long Term Rating	AA-/Stable	Affirmed
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		
Long Term Rating	AA-/Stable	Affirmed
Ohio Bldg Auth, Ohio		
State of Ohio, Ohio		
Ohio Bldg Auth (Ohio) admin bldg APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio Bldg Auth (Ohio) adult correctional APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio Bldg Auth (Ohio) highway safety APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio Bldg Auth (Ohio) juvenile correctional APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio Bldg Auth (Ohio) (Admin Bldg Fd Proj) APPROP (AGM)		
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
Ohio Bldg Auth (Ohio) (Adult Correctional Bldg Fd Projs) APPROP (MBIA) (National)		
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
Ohio Dept of Admin Svc, Ohio		
State of Ohio, Ohio		
Ohio Dept of Adim Svcs (Ohio) (Multi-Agy Radio Comm) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio Dept of Admin Svc (Ohio) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio Dept of Admin Svc (Ohio) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio Dept of Admin Svc (Ohio) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio Dept of Admin Svc (Ohio) (Administrative Knowledge Sys) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio Dept of Admin Svc (Ohio) (Bureau of Criminal Investigation Records) APPROP		
Long Term Rating	AA/Stable	Affirmed

Ratings Detail (As Of February 23, 2021) (cont.)		
Ohio Dept of Admin Svc (Ohio) (Enterprise Data Center Solutions) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio Dept of Admin Svc (Ohio) (State Taxation Accounting) APPROP		
Long Term Rating	AA/Stable	Affirmed
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		
Long Term Rating	AA/Stable	Affirmed
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		
Long Term Rating	AA/Stable	Affirmed
Ohio Dept of Admin Svc (State of Ohio) (Enterprise Data Ctr Solutions)		
Long Term Rating	AA/Stable	Affirmed
Ohio Dept of Admin Svc (State of Ohio) (Voting Sys Acquisition) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio Pub Facs Comm, Ohio		
State of Ohio, Ohio		
Ohio Pub Facs Comm (Ohio)		
Long Term Rating	AA+/Stable	Affirmed
Ohio Pub Facs Comm (Ohio)		
Long Term Rating	AA+/Stable	Affirmed
Ohio Pub Facs Comm (Ohio)		
Long Term Rating	AA+/Stable	Affirmed
Ohio Pub Facs Comm (Ohio) GO		
Long Term Rating	AA+/Stable	Affirmed
Ohio Pub Facs Comm (Ohio) GO		
Long Term Rating	AA+/Stable	Affirmed
Ohio Pub Facs Comm (Ohio) GO		
Long Term Rating	AA+/Stable	Affirmed
Ohio Pub Facs Comm (Ohio) GO		
Long Term Rating	AA+/Stable	Affirmed
Ohio Pub Facs Comm (Ohio) GO		
Long Term Rating	AA+/Stable	Affirmed
Ohio Pub Facs Comm (Ohio) GO		
Long Term Rating	AA+/Stable	Affirmed
Ohio Pub Facs Comm (Ohio) GO		
Long Term Rating	AA+/Stable	Affirmed
Ohio Pub Facs Comm (Ohio) GO		
Long Term Rating	AA+/Stable	Affirmed
Ohio Pub Facs Comm (Ohio) GO VRDBs		
Long Term Rating	AA+/A-1+/Stable	Affirmed
Ohio Pub Facs Comm (Ohio) GO		
Long Term Rating	AA+/Stable	Affirmed
Ohio State Treasurer, Ohio		
State of Ohio, Ohio		

Ratings Detail (As Of February 23, 2021) (cont.)		
Ohio State Treasurer (State of Ohio) cap facs lse-approp bnds (tax-exempt) (Parks & Recreation Improvement Fund Projs) ser 2020A due 12/01/2032		
Long Term Rating	AA/Stable	Affirmed
Ohio State Treasurer (State of Ohio) cap facs lse-approp rfdg bnds (federally taxable) (Administrative Bldg Fd Projs) ser 2020D due 10/01/2036		
Long Term Rating	AA/Stable	Affirmed
Ohio State Treasurer (State of Ohio) cap facs lse-approp variable rate bnds (Parks & Recreation Improvement Fund Projs) ser 2020B due 12/01/2040		
Long Term Rating	AA/A-1+/Stable	Affirmed
Ohio St Treasurer (Ohio) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio St Treasurer (Ohio) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio St Treasurer (Ohio) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio St Treasurer (Ohio) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio St Treasurer (Ohio) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio St Treasurer (Ohio) APPROP		
Long Term Rating	AA/A-1+/Stable	Affirmed
Ohio St Treasurer (Ohio) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio St Treasurer (Ohio) (Admin Bldg Fd Proj) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio St Treasurer (Ohio) (Admin Bldg Fd Proj) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio St Treasurer (Ohio) (Adult Correctional Bldg Fd Projs) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio St Treasurer (Ohio) (Adult Correctional Bldg Fd Proj) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio St Treasurer (Ohio) (Adult Correctional Bldg Fd Proj) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio St Treasurer (Ohio) (Cultural & Sports Facs Bldg Fd Projs)		
Long Term Rating	AA/Stable	Affirmed
Ohio St Treasurer (Ohio) (Juvenile Correctional Bldg Fd Projs) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio St Treasurer (Ohio) (Juvenile Correctional Bldg Fd Projs) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio St Treasurer (Ohio) (Mental Hlth Facs Imp Fd Proj) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio St Treasurer (Ohio) (Mental Hlth Facs Imp Proj) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio St Treasurer (Ohio) (Mental Hlth Fac Imp Fd Proj) APPROP		
Long Term Rating	AA/Stable	Affirmed

Ratings Detail (As Of February 23, 2021) (cont.)		
Ohio St Treasurer (Ohio) (Pks & Rec Imp Fd Projs) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio St Treasurer (Ohio) (Pks & Rec Imp Fd Proj) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio St Treasurer (Ohio) (Transp Bldg Fnd Projs) APPROP		
Long Term Rating	AA/Stable	Affirmed
Ohio St Treasurer (Ohio) (Treasury Mgmt Sys Proj) APPROP		
Long Term Rating	AA/Stable	Affirmed

Many issues are enhanced by bond insurance.