FitchRatings

Public Finance
Tax-Supported
U.S.A.

State of Ohio

Ratings

Long Term Issuer Default Rating[a]	AAA

[a]Upgraded from 'AA+' on Sept. 5, 2022.

Outstanding Debt Details on Page 3

Rating Outlook

Stable

Applicable Criteria

U.S. Public Finance Tax-Supported Rating Criteria (May 2021)

Related Research

Fitch Upgrades Ohio's IDR to 'AAA' from 'AA+'; Assigns Stable Outlook (September 2022)

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The upgrade of Ohio's Long-Term IDR and general obligation (GO) bond rating to 'AAA' from 'AA+' reflects material strengthening of the state's financial resilience and budget management, particularly over the past two biennia. Ohio has achieved a sustained trend of balanced finances over the past decade coupled with more recent growth in fiscal reserves and cash balances. These have materially strengthened Ohio's gap-closing capacity. Reserve policy changes that raised the targeted balance of Ohio's rainy-day fund to 8.5% of prior-year general fund revenues from 5% have also helped improve fiscal resilience.

The upgrade also factors in the state's proven ability to absorb the effects of economic cyclicality and tax policy changes. State officials budgeted a 4% tax revenue decline for fiscal 2022 to reflect the latest round of income tax cuts, but Ohio achieved 6.4% yoy growth. In Fitch Ratings' view, these results indicate increased resilience of the state's revenue system.

Ohio's 'AAA' IDR and GO bond rating are supported by a long track record of conservative revenue forecasting and cautious budgetary management, which have supported fiscal balance and gradual expansion of liquidity. The ratings also reflect a low long-term liability burden. The 'AA+' rating on Ohio's annual appropriation bonds is one notch below the state's IDR, reflecting the slightly higher degree of optionality associated with payment of annual appropriation debt.

The 'F1+' short-term rating reflects ample liquidity provided by investments in the state treasurer's liquidity account, the state's 'AAA' IDR, and procedures in place to ensure timely payment of optional tenders of bonds that have not been remarketed.

Economic Resource Base: Ohio's economy is large and diverse and features six distinct economic regions, three of which are grouped around the state's largest urban centers (i.e. Cleveland, Cincinnati, and Columbus). Ohio's economy has continued to become more diversified, with expansion in its finance, health care, insurance and real estate sectors, but the state's manufacturing sector remains large compared to national averages.

Manufacturing is concentrated in the more cyclically sensitive durable goods industries. Transportation equipment and related suppliers also have a strong presence. Fitch expects Ohio's economy to achieve steady growth limited by slow population gains.

Key Rating Drivers

Revenue Framework: 'aa': Like most states, Ohio has an unlimited legal ability to raise operating revenues. Its revenue base is diverse and relies on broad-based income and sales taxes. Revenue growth has historically been slow, with state-source revenues expanding in line with, or slightly above, inflation when factoring in the effect of tax policy changes. Direct revenue effects of the tax cuts that Ohio has implemented over the past several biennia have so far been manageable, aided by favorable economic and fiscal trends.

Expenditure Framework: 'aaa': Ohio retains ample flexibility to cut spending throughout the economic cycle. As in most states, the natural pace of spending growth is likely to be somewhat above revenue growth, requiring ongoing budget management. Carrying costs for debt and retiree benefits are below the median for states.

Long-Term Liability Burden: 'aaa': Debt levels are conservatively managed and debt primarily consists of GO bonds. On a combined basis, outstanding debt and net pension obligations are below the U.S. states' median.

Operating Performance: 'aaa': The state generally has a careful approach to financial operations, consistently achieving budgetary balance and restoring its budget stabilization fund

(BSF) during the last economic expansion. The fund now totals a strong $2.7 billion, equal to about 10% of fiscal 2022 state-source general revenue fund (GRF) revenues.

Rating Sensitivities

Factors that could, individually or collectively, lead to positive rating action/upgrade:

- Not relevant for a 'AAA' rating.

Factors that could, individually or collectively, lead to negative rating action/downgrade:

- Failure to maintain fiscal balance and robust reserves when addressing future financial challenges, including absorbing the potential effects of major tax policy revisions.
- State revenue growth that falls below Fitch's expectations for the long-term level of U.S. inflation for an extended period.

Current Developments

Ohio Economic Update

The pandemic initially had a sharply negative effect on Ohio's economy. Nonfarm payrolls declined by 16% from February to April 2020 compared to a U.S. median decline of 15%. Ohio's job market has since seen a strong recovery, with 85% of lost jobs regained through July 2022. However, this is well below the national median (100% regained) and U.S. states' median (95% regained). Ohio's slower-than-average labor market recovery is affected by a combination of factors, including early retirements, weaker relative growth in information technology, finance and services jobs in Ohio, and less robust labor recoveries among lower-wage workers.

Fitch also considers the employment to population ratio (EPOP) when evaluating the health of state and local labor markets as EPOP helps gauge what proportion of the labor force is actively employed. Ohio's EPOP indicates a much improved, but not fully recovered, labor market. Ohio's EPOP of 59.6% in July was below the 60.6% states' median and also below Ohio's 60.7% reported EPOP in February 2020, just prior to the pandemic. Ohio's official unemployment rate was 3.9% in July versus the U.S. rate (3.5%).

Fiscal 2022 Concluded with a More Than $2 Billion Operating Surplus

Fiscal 2022 revenue performance finished well above budgeted estimates. Tax revenues exceeded estimates by $2.7 billion, or 10.8%, and were $1.7 billion (6.4%) above prior-year actuals. Fiscal 2022's tax revenue growth was unanticipated, as the state had budgeted for a $1 billion (4%) drop in collections when incorporating the effect of personal income tax (PIT) reductions that took effect on July 1, 2021.

PIT receipts beat forecasts by the broadest margin, coming in $1.9 billion (21%) above budget despite the tax cuts. Ohio revised its biennial budget in 2022, appropriating a portion of the surplus to fund new capital projects and finance infrastructure upgrades related to Intel and other developments.

State policymakers and the Ohio Legislature are focused on directing one-time revenues, including federal funding, toward nonrecurring expenditures. The BSF balance currently totals $2.7 billion, equal to 6.7% of fiscal 2022 GRF revenues and 9.4% of state-source GRF revenues. No draws were made on the BSF in fiscal years 2020 and 2021, and none are expected in the current biennium.

Fiscal 2022-23 Biennial Budget Focuses on Tax Cuts and Education Spending

Ohio's biennial budget for fiscal years 2022-2023 assumes 3% annual tax revenue growth, adjusting for the effect of 2020's delayed income tax payments. Factoring in policy-driven tax reductions, revenues were projected to decline by 4% in fiscal 2022 followed by 3.4% growth in fiscal 2023. As mentioned, the budget included various tax revisions, including PIT rate cuts and bracket changes, that were estimated to reduce revenues by $1.6 billion (3%) for the biennium. However, based on fiscal 2022 unaudited results, state officials now expect fiscal 2022-2023 state source revenues to exceed the prior biennium by approximately $7 billion (14.3%).

Rating History (IDR)

Rating	Action	Outlook/ Watch	Date
AAA	Upgraded	Stable	9/08/22
AA+	Affirmed	Positive	8/05/21
AA+	Revised	Stable	4/05/10
AA	Downgraded	Stable	6/10/09
AA+	Affirmed	Negative	12/15/08
AA+	Affirmed	Stable	4/13/06
AA+	Assigned	—	8/14/96

The biennial budget includes increased spending for K-12 education and a revised funding formula that takes resident income levels into account along with local property values. Along with expanded funding for K-12 education, health and Medicaid, the budget includes a $1 billion "Investing in Ohio Initiative" that provides one-time funding for business sectors and communities negatively affected by the pandemic, largely using a portion of federal funding made available to Ohio through the American Rescue Plan Act (ARPA).

Ohio's ARPA Plans Focus on Infrastructure and a Replenished Unemployment Trust Fund

The ARPA allocates $11 billion in federal funding to the state of Ohio and its local governments. Approximately $5.4 billion has been allocated directly to the state, with another $274 million directed to state capital projects. In addition to infrastructure spending and local government recovery programs, the state has appropriated $1.5 billion of ARPA funds to fully repay an equally size federal borrowing that supported Ohio's Unemployment Trust Fund (UTF) in 2020.

Aside from the UTF deposit, Ohio has appropriated $3.4 billion of ARPA moneys in the 2022-2023 biennial budget with the largest allocations targeting water and sewer system upgrades ($696 million), economic improvement projects in Ohio's southeastern Appalachia region ($500 million), public safety and violence prevention ($250 million) and natural resources (mostly water) conservation efforts ($202 million). Another $1.9 billion of ARPA moneys remains to be allocated; these funds will likely be included in Ohio's fiscal 2024-2025 biennial budget. Ohio has not used its ARPA allocation to supplant state revenue or finance recurring expenditures.

Credit Profile

Ohio's economy demonstrated slow but steady growth prior to the pandemic, with performance in recent years slightly lagging national trends. Key employment sectors include transportation, distribution and warehousing of manufactured goods, all of which are facilitated by an extensive system of ports on Lake Erie, barge service on the Ohio River and advanced air-cargo and rail infrastructure. In recent years, Ohio's financial services, health care, higher education, and life sciences sectors have expanded. Ohio's geography features multiple river systems that connect via a network of canals. Lake Erie and smaller lakes provide abundant fresh water sources.

The state experienced a sharp slowdown in economic activity when the pandemic began. As public health restrictions were eased, economic activity swiftly rebounded, aided by federal stimulus measures. Fitch expects Ohio's economy will most likely return to its pre-pandemic growth pattern in the near term. Ohio's gross state product (GSP) growth has trailed the rate of national GDP expansion in recent decades.

In January, Intel Corporation announced that it will invest over $20 billion to build new semiconductor manufacturing facilities in Licking County east of Columbus. Intel's planned facilities are the first of their kind in Ohio, introducing a new, high-tech industry that could potentially support improvement in the state's long-term growth trajectory. Intel expects to begin construction this month with scheduled completion by 2025.

The state estimates the Intel project will result in the creation of some 20,000 new jobs: 7,000 short-term positions during construction, some 3,000 permanent jobs at Intel after project completion, and approximately 10,000 related or support jobs via the creation and/or expansion of supporting businesses in the area.

Revenue Framework

Ohio relies on a diverse set of broad-based taxes to support operations, including PIT and sales and use taxes. These major tax revenues are collected in the GRF with constitutional exceptions for highway-related revenues that are directed to transportation funding, and lottery proceeds that are directed toward funding a portion of public education costs.

Outstanding Debt

School bond prog[b]	AA+
(I 90 Bridge DBF Project) payment obligations[c]	AA–
(Administrative Building Fund Projects) Capital Facilities Lease-Appropriation Bonds[b]	AA+
(Administrative Building Fund Projects) Capital Facilities Lease-Appropriation Bonds (Taxable)[b]	AA+
(Administrative Building Fund Projects) Capital Facilities Lease-Appropriation Refunding Bonds[b]	AA+
(Administrative Building Fund Projects) Capital Facilities Lease-Appropriation Refunding Bonds (Taxable)[b]	AA+
(Adult Correction Building Fund Project) Capital Facilities Lease-Appropriation Refunding Bonds[b]	AA+
(Adult Correctional Building Fund Projects) Capital Facilities Lease-Appropriation Bonds[b]	AA+
(Adult Correctional Building Fund Projects) Capital Facilities Lease-Appropriation Refunding Bonds[b]	AA+
(Adult Correctional Building Fund Projects) Capital Facilities Lease-Appropriation Refunding Bonds (Taxable)[b]	AA+
(Adult Correctional Building Fund Projects) Capital Facilities Lease-Appropriation Variable Rate Bonds[d]	AA+/F1+
(Conservation Projects) General Obligation Bonds[e]	AAA
(Conservation Projects) General Obligation Bonds (Federally Taxable-Build America Bonds)[e]	AAA
(Conservation Projects) General Obligation Refunding Bonds[e]	AAA
(Cultural and Sports Facilities Building Fund Projects) Capital Facilities Lease-Appropriation Bonds[b]	AA+
(Higher Education) General Obligation Refunding Bonds[e]	AAA
(Job Ready Site Development) General Obligation Bonds[e]	AAA
(Juvenile Correctional Building Fund Projects) Capital Facilities Lease-Appropriation Bonds[b]	AA+
(Juvenile Correctional Building Fund Projects) Capital Facilities Lease-Appropriation Refunding Bonds[b]	AA+
(Mental Health Facilities Improvement Fund Projects) Capital Facilities Lease-Appropriation Bonds[b]	AA+
(Mental Health Facilities Improvement Fund Projects) Capital Facilities Lease-Appropriation Refunding Bonds[b]	AA+
(Parks & Recreation Improvement Fund Projects) Capital Facilities Lease-Appropriation Bonds[b]	AA+

In recent biennia, the state has pursued wide-ranging tax policy changes that have included tax rate reductions. These actions have lowered collections relative to baseline growth patterns. The fiscal 2022-2023 biennial budget included new tax cuts totaling about $2.0 billion for the biennium, equal to about 3.9% of tax revenues. The most significant revisions relate to PIT rate reductions and tax bracket changes that established a new 3.99% maximum rate bracket. The fiscal effects of these policy changes have been manageable, aided by conservative revenue forecasting and favorable economic trends.

The state's 10-year historical average revenue growth rate in recent years, adjusted for the estimated effect of policy changes, has lagged U.S. GDP growth but been above the inflation rate. Fitch anticipates Ohio's revenues will demonstrate steady growth in line with our expectations for long-term U.S. inflation, with some upside potential for faster growth above the rate of inflation if the state can meaningfully and sustainably improve the pace of economic growth.

Ohio has no legal limitations on its ability to raise revenues through base broadening, rate increases or the assessment of new taxes or fees.

Expenditure Framework

Ohio has ample flexibility within its expenditure framework. The natural pace of spending growth is expected to be marginally above its somewhat slowly growing revenue stream. The state's carrying costs for debt and retirement liabilities are low.

Ohio's primary cost drivers include Medicaid and education spending. The fiscal challenge of Medicaid is common to all U.S. states and the nature of the program as well as federal government rules limit the states' options in managing the pace of spending growth. Federal action to revise Medicaid's fundamental programmatic and financial structure does not appear to be a near-term priority of the current federal administration or Congressional leadership. As with all federal programs, Medicaid remains subject to regulatory changes that could affect various aspects of the program.

Ohio's Medicaid caseloads have increased as a result of the pandemic and federal provisions mandating continued eligibility in exchange for enhanced Federal Medical Assistance Percentage (FMAP) funding (a 6.2 percentage point increase in the federal Medicaid reimbursement rate). The state currently anticipates the enhanced FMAP will remain in place through the end of calendar year (CY) 2022 with the additional federal transfers equal to $350 million per quarter. FMAP enhancement is tied to the federal secretary of health and human services' (HHS) continuing renewal of the public health emergency due to Covid-19.

ARPA provided additional enhancement for home and community-based services through March 21, 2022. In addition, the fiscal 2022-2023 biennial budget set aside extra HHS fund reserves of about $1.2 billion to cushion the anticipated ending of enhanced FMAP. Ohio set aside an additional $1.4 billion of Medicaid-linked reserves in four other funds to further cushion the enhanced FMAP phase-out's effects on hospitals and prescription drug plans. The state expects Medicaid enrollment to decline once enhanced FMAP expires, since recent growth was driven by coverage provisions, rather than economic eligibility.

The state has ample expenditure flexibility, with a tendency to rely on budget-cutting actions rather than revenue increases to maintain structural balance. During past recessions, Ohio has reduced distributions and phased out certain tax reimbursements to local governments and school districts. The state has also cut education funding and reduced headcount in the past to preserve fiscal flexibility.

Ohio responded to the initial revenue effect of the pandemic by enacting spending reductions, including cuts to education and Medicaid spending. Carrying costs for debt and retiree obligations are expected to remain low (i.e. close to 3%) as a percentage of budget given Ohio's well-established track record of providing full actuarial funding for its public pension plans annually, as well as its adherence to conservative debt management policies.

Long-Term Liability Burden

On a combined basis, debt and net pension liabilities attributable to the state as of Fitch's 2021 state liability report were about 4.1% of personal income, falling below the 4.7% median for U.S.

Outstanding Debt

(Parks & Recreation Improvement Fund Projects) Capital Facilities Lease-Appropriation Refunding Bonds[b]	AA+
(Parks & Recreation Improvement Fund Projects) Capital Facilities Lease-Appropriation Variable Rate Bonds[d]	AA+/F1+
(Transportation Building Fund Projects) Capital Facilities Lease-Appropriation Bonds[b]	AA+
(full faith and credit/highway User receipts) General Obligation Highway Capital Improvement Bonds[e]	AAA
(full faith and credit/highway User receipts) General Obligation Highway Capital Improvement Bonds (Federally Taxable-Build America Bonds-Direct Payment)[e]	AAA
(full faith and credit/highway User receipts) General Obligation Highway Capital Improvement Refunding Bonds[e]	AAA
General Obligation Conservation Projects Bonds[e]	AAA
General Obligation Conservation Projects Bonds (Taxable)[e]	AAA
General Obligation Natural Resources Bonds[e]	AAA
General Obligation Natural Resources Refunding Bonds[e]	AAA
General Obligation Third Frontier Research & Development General Obligation Bonds[e]	AAA
General Obligation Third Frontier Research & Development General Obligation Bonds (Taxable)[e]	AAA
General Obligation coal Development Bonds[e]	AAA
General Obligation common schools Adjustable-Rate Bonds[f]	AAA/F1+
General Obligation common schools Bonds[e]	AAA
General Obligation common schools Refunding Bonds[e]	AAA
General Obligation common schools Refunding Bonds (Taxable)[e]	AAA
General Obligation higher Educational Bonds[e]	AAA
General Obligation higher Educational Bonds (Taxable)[e]	AAA
General Obligation higher Educational Refunding Bonds[e]	AAA
General Obligation higher Educational Refunding Bonds (Taxable)[e]	AAA
General Obligation infrastructure Improvement Adjustable-Rate Refunding Bonds[f]	AAA/F1+
General Obligation infrastructure Improvement Bonds[e]	AAA
General Obligation infrastructure Improvement Bonds (Federally Taxable - Build America Bonds - Direct Payment)[e]	AAA

states. Reflecting more recent debt and personal income data as of 2Q 2022, Fitch estimates Ohio's combined burden of long-term debt and net pension liabilities at about 3.7% of 2021 personal income. Ohio retains ample cash resources to fund pay-go capital projects, which will help maintain the debt burden near current levels for the foreseeable future.

Fitch has historically considered Ohio's actuarial funding of its defined benefit retirement systems, which provide for both pensions and health care, to be a credit strength. Ohio has a history of making contributions sufficient to support full actuarial pension prefunding and partial retiree health benefit funding. Most of the state's pension and OPEB liabilities are with the Ohio Public Employees Retirement System (OPERS), with additional liabilities in other plans covering teachers and highway patrol.

As of the state's fiscal 2021 financial statement, combined pension system assets covered about 86% of liabilities. Using Fitch's more conservative 6% discount rate lowers the assets-to-liabilities ratio to 75%. The state and the pension plans' managers have implemented changes over time to support sound funding; these include, at OPERS, shifting contributions toward pensions to support funding progress and modifying OPEB provisions to lower the liability.

Operating Performance

Ohio's superior ability to respond to downturns reflects its ample budget flexibility and availability of reserves. During the Great Recession, revenues suffered significant declines, exacerbated by ongoing tax reductions. Resulting budget gaps were addressed with both ongoing and one-time measures. These included use of the BSF, refunding debt for current year savings, unpaid employee leave, and accelerating the phase-out of tax reimbursements for schools and local governments.

In response to the initial pandemic-related stress on its finances, the state acted to reduce spending, relying also on increased federal aid but not on draws from the BSF. Fitch expects that Ohio would continue to rely primarily on expense reductions to address a future downturn but could again draw on the BSF.

FAST Analysis

The Fitch Analytical Stress Test (FAST) model relates historical tax revenue volatility to GDP to support the assessment of operating performance under Fitch's criteria. FAST is not a forecast, but represents Fitch's estimate of possible revenue behavior in a downturn based on historical revenue performance. Actual revenue declines will vary from FAST results, which provide a relative sense of the risk exposure of a particular state compared to other states.

FAST indicates that Ohio's revenues would experience a smaller (2%) decline in the first year of a standard downturn scenario (U.S. GDP decline of 1%), compared to the U.S. state median first-year decline (3%). This suggests that Ohio's revenues are somewhat less volatile than those of other states. Ohio's history of actions to contain spending and access to a $2.7 billion BSF balance provide the state with sufficient flexibility to address the magnitude of revenue loss associated with Fitch's scenario.

Ohio has rebuilt its financial flexibility during economic recoveries, restoring its BSF and eliminating reliance on one-time budget items. A statutory increase in the BSF maximum funding requirement to 8.5% of prior-year GRF revenues from 5.0% in 2015 has provided the state added capacity to address future downturns and is emblematic of Ohio's approach to bolstering its finances during the ten-year expansion that followed the Great Recession.

The BSF balance totals $2.7 billion, equaling 6.7% of FY2022 GRF revenues and 9.4% of state-source GRF revenues. Ohio also maintains a permanent contingency fund balance equal to 0.5% of prior-year GRF revenues. Together, the two funds equaled 10.1% of fiscal 2022 state-source revenues at June 30, 2022. The Ohio Legislature must act affirmatively to transfer reserves to the BSF; however, a statutory provision allowing the BSF to retain interest earnings that took effect in 2021 will naturally boost future growth in the BSF.

Ample Liquidity

The state's Liquidity Fund has ample liquidity to meet tenders on variable-rate bonds that have not been remarketed. The fund is conservatively invested in U.S. Treasury and agency securities, domestic commercial paper, and money market funds. The liquidity portfolio has

Outstanding Debt

General Obligation infrastructure Improvement Refunding Bonds[e]	AAA
General Obligation infrastructure Improvement Refunding Bonds (Taxable)[e]	AAA
Natural Resources General Obligation Refunding Bonds[e]	AAA
Third Frontier Research & Development General Obligation Refunding Bonds[e]	AAA
Common Schools General Obligation Refunding Bonds[e]	AAA
Higher Educational General Obligation Bonds[e]	AAA
Higher Educational General Obligation Bonds (Federally Taxable - Build America Bonds - Direct Payment)[e]	AAA
Higher Educational General Obligation Refunding Bonds[e]	AAA
Infrastructure Improvement General Obligation Bonds[e]	AAA
Infrastructure Improvement General Obligation Refunding Bonds[e]	AAA

[b]Upgraded from 'AA' on Sept. 8, 2022.
[c]Upgraded from 'A+' on Sept. 8, 2022.
[d] Upgraded from 'AA' on Sept. 8, 2022.
[e]Upgraded from 'AA+' on Sept. 8, 2022.
[f] Upgraded from 'AA+' on Sept. 8, 2022.

consistently provided strong variable-rate debt coverage. The fund also provides liquidity support to bond anticipation notes issued by local governments (the Ohio Market Access Program, or OMAP) and to select variable-rate issues by Ohio municipalities including hospitals. Of the latter, $75 million in bonds outstanding is supported by a state-issued standby bond purchase agreement (SBPA).

The month-end balance of the Liquidity Fund as of July 29, 2022, as discounted by Fitch to reflect the immediate availability of funds, equals $2.2 billion. The balance provided over 3 times coverage of debt supported by Ohio's internal liquidity resources.

Related Rating Upgrades:

In conjunction with the upgrade of the state's IDR, Fitch has upgraded the ratings as noted below on various credits linked to the IDR.

Ohio School District Credit Enhancement Program Rating

Fitch has upgraded the rating of Ohio's School District Credit Enhancement Program to 'AA+' from 'AA'. The program's 'AA+' rating reflects the state's overall credit quality as well as strong program features supporting sufficient coverage of school district debt service payments, if needed. These include a timely state aid intercept mechanism and stringent participation requirements that support adequacy of intercepted revenues.

PPP Grantor Counterparty Rating

Fitch has upgraded the PPP Grantor Counterparty Rating assigned to the Ohio Department of Transportation's (ODOT) Portsmouth Bypass project payment obligations to 'AA-' from 'A+', as Fitch places this rating three notches below Ohio's IDR (now upgraded to 'AAA') to reflect Fitch's midrange assessments of the financial and legal attributes of the state's commitment for its counterparty obligations. ODOT receives statutorily determined allocations of motor fuel tax revenues. Its capacity to make payments for this financing from its annual resources is solid.

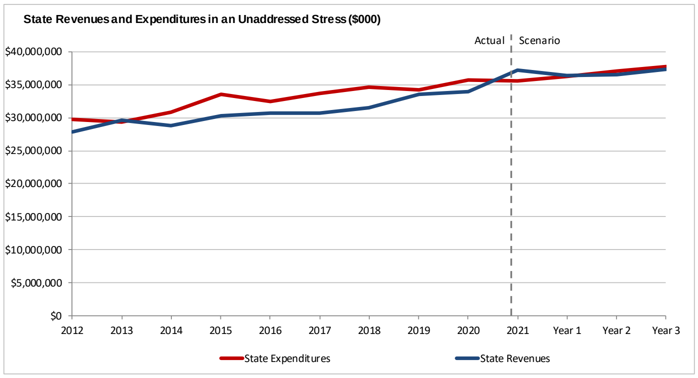
ESG Considerations

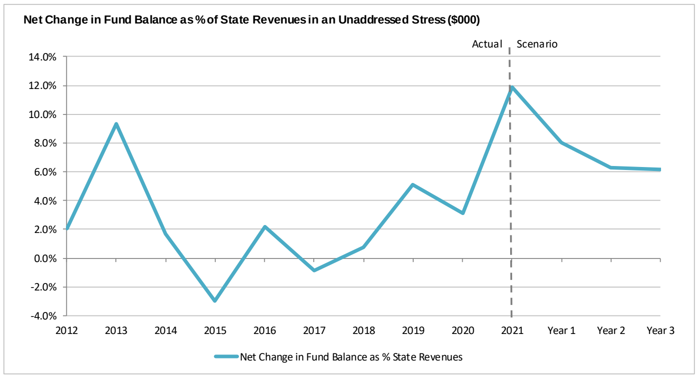
Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of '3'. This means ESG issues are credit-neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity. For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg.

Ohio, State of (OH)

Scenario Analysis

Ver 36





Analyst Interpretation of Scenario Results

Ohio's superior ability to respond to downturns reflects its ample budget flexibility and availability of reserves. During the Great Recession, revenues suffered significant declines, exacerbated by ongoing tax reductions. Resulting budget gaps were addressed with both ongoing and one-time measures. These included use of the BSF, refunding debt for current year savings, unpaid employee leave, and accelerating the phase-out of tax reimbursements for schools and local governments. In response to the current pandemic-related stress on its finances, the state acted to reduce spending, relying also on increased federal aid, but not on draws from the BSF. It is Fitch's expectation that Ohio would continue to rely primarily on expense reductions to address a future downturn, but could again draw upon its now restored BSF.

Scenario Parameters:					Year 1	Year 2	Year 3
GDP Assumption (% Change)					(1.0%)	0.5%	2.0%
Expenditure Assumption (% Change)					2.0%	2.0%	2.0%
Revenue Output (% Change)	*Minimum Y1 Stress:*	-1%	*Case Used:*	**Moderate**	(2.1%)	0.2%	2.4%

Revenues, Expenditures, and Net Change in Fund Balance	Actuals										Scenario Output		
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Year 1	Year 2	Year 3
Expenditures													
Total Expenditures	51,177,175	50,876,071	53,690,264	58,064,992	58,708,554	59,869,809	60,956,137	60,966,546	64,994,756	73,734,021	75,208,701	76,712,875	78,247,133
% Change in Total Expenditures	(0.2%)	(0.6%)	5.5%	8.1%	1.1%	2.0%	1.8%	0.0%	6.6%	13.4%	2.0%	2.0%	2.0%
State Expenditures	29,781,323	29,338,970	30,769,509	33,531,021	32,426,854	33,611,309	34,661,565	34,152,614	35,659,646	35,585,225	36,296,930	37,022,868	37,763,325
% Change in State Expenditures	6.5%	(1.5%)	4.9%	9.0%	(3.3%)	3.7%	3.1%	(1.5%)	4.4%	(0.2%)	2.0%	2.0%	2.0%
Revenues													
Total Revenues	49,297,817	51,164,075	51,738,478	54,880,042	56,989,243	56,959,027	57,815,314	60,384,156	63,218,285	75,347,089	75,338,983	76,176,229	77,844,561
% Change in Total Revenues	(1.4%)	3.8%	1.1%	6.1%	3.8%	(0.1%)	1.5%	4.4%	4.7%	19.2%	(0.0%)	1.1%	2.2%
Federal Revenues	21,395,852	21,537,101	22,920,755	24,533,971	26,281,700	26,258,500	26,294,572	26,813,932	29,335,110	38,148,796	38,911,772	39,690,007	40,483,808
% Change in Federal Revenues	(8.2%)	0.7%	6.4%	7.0%	7.1%	(0.1%)	0.1%	2.0%	9.4%	30.0%	2.0%	2.0%	2.0%
State Revenues	27,901,965	29,626,974	28,817,723	30,346,071	30,707,543	30,700,527	31,520,742	33,570,224	33,883,175	37,198,293	36,427,211	36,486,221	37,360,753
% Change in State Revenues	4.6%	6.2%	(2.7%)	5.3%	1.2%	(0.0%)	2.7%	6.5%	0.9%	9.8%	(2.1%)	0.2%	2.4%
Excess of Revenues Over Expenditures	(1,879,358)	288,004	(1,951,786)	(3,184,950)	(1,719,311)	(2,910,782)	(3,140,823)	(582,390)	(1,776,471)	1,613,068	130,282	(536,647)	(402,572)
Total Other Financing Sources	2,457,660	1,010,348	2,440,585	2,284,308	2,393,066	2,643,785	3,383,641	2,299,661	2,842,139	2,810,396	2,795,924	2,826,352	2,714,895
Net Change in Fund Balance	578,302	2,761,858	488,799	(900,642)	673,755	(266,997)	242,818	1,717,271	1,065,668	4,423,464	2,926,206	2,289,706	2,312,322
% Total Expenditures	1.1%	5.4%	0.9%	(1.6%)	1.1%	(0.4%)	0.4%	2.8%	1.6%	6.0%	3.9%	3.0%	3.0%
% State Expenditures	1.9%	9.4%	1.6%	(2.7%)	2.1%	(0.8%)	0.7%	5.0%	3.0%	12.4%	8.1%	6.2%	6.1%
% Total Revenues	1.2%	5.4%	0.9%	(1.6%)	1.2%	(0.5%)	0.4%	2.8%	1.7%	5.9%	3.9%	3.0%	3.0%
% State Revenues	2.1%	9.3%	1.7%	(3.0%)	2.2%	(0.9%)	0.8%	5.1%	3.1%	11.9%	8.0%	6.3%	6.2%

Notes: Scenario analysis represents an unaddressed stress on issuer finances. Fitch's scenario analysis assumes the GDP and expenditure growth sequence shown in the 'Scenario Parameters' section. For further details, please see Fitch's US Tax-Supported Rating Criteria.

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