

State of Ohio

New Issue Summary

Sale Date: March 3, 2021

Series: \$227.1 million General Obligation Common Schools Bonds, Series 2021A

\$108.1 million General Obligation Common Schools Refunding Bonds, Series 2021B

\$205.6 million General Obligation Higher Education Bonds, Series 2021A

\$25 million General Obligation Higher Education Bonds (taxable), Series 2021B

Purpose: Proceeds from the Common Schools Bonds will fund school capital facilities and refund bonds previously issued for this purpose. Proceeds from the Higher Education Bonds will fund capital facilities for state-supported and state-assisted institutions of higher education.

Security: The bonds are general obligation, full faith and credit obligations of the state of Ohio, excluding lottery proceeds and highway user receipts.

The state's 'AA+' IDR and GO rating are based on its careful financial management, which is reflected in maintenance of fiscal balance, the rebuilding of reserves and low liabilities. Ohio's economy had demonstrated slow but steady growth leading into the pandemic-driven downturn, with performance in recent years more in line with national levels, though still slightly lagging. Ohio's very slowly growing population limits sustained growth.

The 'AA' rating on the bonds backed by Ohio's lease appropriation is one notch below the state's IDR, reflecting the slightly higher degree of optionality associated with payment of appropriation debt. The 'F1+' short-term rating reflects the ample liquidity provided by investments in the state treasurer's liquidity account, the strength of the state's IDR, and the 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, with distinct economic regions centered on several large urban centers. Manufacturing remains a disproportionately large sector with a concentration in more cyclically sensitive durable goods industries. Transportation equipment and related suppliers also have a strong presence.

Mandated shutdowns of nonessential businesses at the start of the pandemic resulted in a sharp decline in economic activity. With a phased reopening starting in May, activity picked up. In reaction to a significant increase in COVID-19 case counts starting in November, the governor reissued the July 2020 state mask order with additional provisions on mask wearing requirements at retail establishments, including compliance inspections and penalties for noncompliance. In addition, a 10:00PM to 5:00AM curfew was instituted, which allowed for essential activities such as work, medical care, groceries, and carry-out food ordering, but limited in-person food and drink service. The curfew was lifted this month in response to improved conditions.

Following significant labor declines, the state's recovery has outpaced the national level. Nonfarm payrolls declined by about 16% at the start of the pandemic (from February to April), as compared to the national decline of about 15%. Since April, Ohio's recovery in jobs (about 60% of jobs regained through December) is ahead of the national recovery (about 56%). State unemployment has decreased and is currently lower than the national rate. Ohio's official monthly unemployment rate was 5.5% in December, as compared to 6.7% for the nation. Ohio's higher 8.0% Fitch-adjusted unemployment rate, which adds back estimated labor force exits indicates the state continues to face labor market challenges. Fitch notes that economic and employment data remains volatile, and state economic performance is likely to be closely tied to public health conditions, which remain difficult to forecast while the pandemic persists.

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

Ratings

Long Term Issuer Default Rating AA+

New Issues

\$227,100,000 General Obligation Common Schools Bonds, Series 2021A	AA+
\$108,100,000 General Obligation Common Schools Refunding Bonds, Series 2021B	AA+
\$205,600,000 General Obligation Higher Education Bonds, Series 2021A	AA+
\$25,000,000 General Obligation Higher Education Bonds (Taxable), Series 2021B	AA+

[Outstanding Debt Details on Page 3](#)

Rating Outlook

Stable

Applicable Criteria

[U.S. Public Finance Tax-Supported Rating Criteria \(March 2020\)](#)

Related Research

[Fitch Affirms Ohio IDR at 'AA+'; Rates \\$566 MM GO Bonds 'AA+'; Outlook Stable \(February 2021\)](#)

[Fitch Ratings Coronavirus Scenarios: Baseline and Downside Cases—Update \(December 2020\)](#)

[Fitch Ratings Updates Coronavirus Scenarios for U.S. State and Local Governments \(December 2020\)](#)

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taxes. Revenue implications of tax cuts implemented over the past several biennia have 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 is typically conservatively managed and debt issuance primarily consists of GO bonds. On a combined basis, outstanding debt and net pension obligations are below the state median.

Operating Performance: 'aaa': The state generally has a careful approach to financial operations and has consistently managed to achieve budgetary balance. In recent years, the state has relied more on budget reductions than revenue enhancements to balance the budget but also used several one-time sources during the Great Recession. The state's budget stabilization fund has been restored after being drawn down during the Great Recession and now totals \$2.7 billion, over 11% of state-source General Revenue Fund (GRF) revenues.

Rating Sensitivities

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

- Sustained economic growth at a level that improves expectations for revenue growth over time.
- Demonstrated ability to address economic and financial volatility through cycles, including the current pandemic-driven uncertainty, while achieving superior financial flexibility, including maintenance of strong reserve balances.

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

- Failure to implement available policy measures that offset risks associated with a return to economic contraction consistent with Fitch's coronavirus downside scenario, resulting in an erosion of the state's gap-closing capacity.
- More severe economic weakness than envisioned in Fitch's coronavirus downside scenario, without evidence that available measures are adequate to counteract associated budgetary risks.
- State revenue growth that falls below the level of U.S. inflation over an extended period.

Current Developments

Sector-Wide Coronavirus Implications

The outbreak of coronavirus and related government containment measures worldwide have created an uncertain global environment for U.S. state and local governments and related entities. Fitch's ratings are forward-looking in nature, and Fitch will monitor the severity and duration of the budgetary impact on state and local governments and incorporate revised expectations for future performance and assessment of key risks.

While the initial phase of economic recovery has been faster than expected, GDP in the U.S. is projected to remain below its 4Q19 level until at least 3Q21. In its baseline scenario, Fitch anticipates a slower recovery in early 2021 with vaccine rollout to vulnerable, key workers and older individuals in 1H21 but limited for most of the population until late 2021. Additional details, including key assumptions and implications of the baseline scenario and a downside scenario, are described in the report "Fitch Ratings Coronavirus Scenarios: Baseline and Downside Cases - Update," published on Dec. 7, 2020, and "Fitch Ratings Updates Coronavirus

Rating History (IDR)

Rating	Action	Outlook/	
		Watch	Date
AA+	Affirmed	Stable	2/22/21
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

Scenarios for U.S. State and Local Government," published on Dec. 16, 2020 on www.fitchratings.com.

Federal Aid Provides Some Support for State Budgets

Federal aid measures enacted since the pandemic's onset are benefiting state budgets and economies. The Families First Coronavirus Response Act included a 6.2% increase in the Federal Medical Assistance Percentage (FMAP) for Medicaid for every quarter of the national public health emergency. FMAP is the rate at which the federal government reimburses states for Medicaid spending. The state expects to receive approximately \$300 million each quarter and is assuming the enhanced FMAP rate will continue through the end of calendar year 2021. The ultimate value of the FMAP rate increase will depend on states' actual Medicaid spending, among other factors.

Under the Coronavirus Aid, Relief and Economic Security (CARES) Act, the U.S. Treasury department distributed \$150 billion to state and local governments. The statute limited the use of funds to coronavirus expense reimbursement rather than to offset anticipated state tax revenue losses. The U.S. Treasury allocated \$4.5 billion to Ohio, of which about \$3.8 billion was received directly by the state, with the balance allocated to local governments in the state with a population of 500,000 or more. Of the \$3.8 billion received by the state, about \$1.2 billion was shared with local governments. State CARES funds have been used for relief programs for small businesses and communities affected by the pandemic, support of health and long-term care facilities, and personal protective equipment.

Budget Update

Ohio has strong financial resilience that should allow it to absorb the immediate budgetary effects of the economic downturn. Ohio put in place spending controls to address revenue shortfalls, including a hiring freeze, a freeze on pay increases, promotions and new contracts and a request to state agencies to reduce spending up to 20% for the balance of fiscal 2020 and for fiscal 2021, the second year of the biennial budget. The governor subsequently, by executive order, reduced the fiscal 2020 budget by \$775 million, including cuts to education and Medicaid spending. A portion of these carried over to the fiscal 2021 budget. The state did not rely on any use of its rainy day fund balance to address revenue loss in fiscal 2020.

Ohio's revenue collections, particularly for employment-based income and sales tax, experienced weakness through the period of reduced activity brought on by the pandemic, but have since experienced a recovery. Revenue collections through the first part of fiscal 2020 were strong and ahead of forecast, which provided a buffer against the sharp curtailment of tax collections that began in April. This cushion contributed to overall GRF revenues being only 1.6% (\$559 million) below estimate and down approximately 1.0% as compared with fiscal 2019. GRF tax receipts were 4.6% (\$1.1 billion) below the fiscal year estimate, with personal income tax collections 9.7% (\$845 million) below estimate, largely attributed by the state to the deferred tax filing deadline, and non-auto sales tax 3% (\$283 million) below estimate. The underperformance in tax collections was partially offset by an increase in federal receipts.

Revised June 2020 general revenue fund revenue projections for fiscal 2021 indicated a shortfall versus prior budgeted revenue estimates of about \$2.4 billion. The revenue shortfall estimate did not consider any offsets related to spending, including additional spending adjustments to the fiscal 2021 budget implemented after the revision. The state also realized savings in fiscal 2021 from debt refundings. Based on spending measures taken to date, federal pandemic-related aid, and current revenue performance trends, Ohio currently projects a balanced 2021 budget with no draw upon the rainy day fund. COVID-19 caseloads have been improving after seeing significant increases in recent months. Ongoing developments related to the spread of the virus and the state's containment measures will continue to have an effect on state economic and financial trends.

Fiscal 2021 YTD tax revenue performance continues to be stronger than budget estimates. Collections through January 2021 show tax receipts exceeding original projections by about \$539 million (3.7%). Both personal income tax and sales tax YTD collections are in excess of these estimates (2.5% and 6.0% ahead, respectively). Total YTD revenues are essentially flat versus estimates. This reflects federal revenue performance chiefly related to lower than expected required Medicaid disbursements, which are also resulting in YTD GRF

Outstanding Debt

Ohio Building Authority State Facilities Bonds	AA
Ohio, State of Capital Facilities Lease-Appropriation Bonds	AA
Ohio, State of Capital Facilities Lease-Appropriation Variable Rate Bonds	AA/F1+
Ohio, State of General Obligation Bonds	AA+
Ohio, State of General Obligation Adjustable-Rate Bonds	AA+/F1+

disbursements coming in under budget. The state expects that, through year-end, these collections should exceed estimates, as the recent continuation of enhanced FMAP is not assumed in the estimates. Additional details on the FMAP extension are found in the report "Medicaid Enhanced Funding Extension Benefits State Budgets," published Feb. 1, 2021 on <https://www.fitchratings.com>.

The executive biennial budget proposal for fiscal years 2022 and 2023 was released earlier this month. The proposal features balanced annual budgets, with no use of rainy day fund moneys. General GRF tax revenues are forecast to grow by 2.0% for fiscal 2022 and 3.4% for fiscal 2023. In addition to expanded funding for ongoing education and health needs, 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 from funding made available by federal pandemic-related stimulus moneys. State budget planning has focused on directing one-time revenue sources, including federal funding, towards nonrecurring expenditures.

Credit Profile

Leading into the pandemic, GDP growth and personal income had grown closer to national trends but continued to slightly lag the U.S. The state's key employment sectors include transportation, distribution and warehousing of manufactured goods, which is facilitated by an extensive system of ports on Lake Erie, barge service on the Ohio River and advanced air-cargo and rail infrastructure. Health care and education sectors had been growing, as were back-office, banking, personnel and trade operations attracted by relatively low non-manufacturing wages. Service sector growth, a key source of economic expansion in other states, had been somewhat muted by Ohio's slowly growing population.

The state experienced a sharp drop in economic activity due to the onset of the pandemic and related shutdown measures. As these were eased, and with the benefit of the federal stimulus, activity rebounded. Going forward, economic performance will likely return to pre-pandemic trends of positive growth that trails the nation.

Revenue Framework

Ohio relies on a diverse set of broad-based taxes to support operations, including income and sales and use taxes. These major tax revenues are collected in the GRF with constitutional exceptions for highway-related revenues, which are directed to highway purposes, and lottery proceeds, which are directed to education.

In recent biennia, the state has pursued wide-ranging tax policy changes including revisions that lowered overall receipts relative to baseline. The budget for fiscal 2020-2021 included a 4% reduction in personal income tax rates. To date, these tax policy changes have been manageable, aided by favorable economic and fiscal trends. The proposed 2022-2023 biennial budget does not include any significant tax increases or reductions.

The state's 10-year historical revenue growth through 2018, adjusted for the estimated effect of policy changes, has lagged U.S. GDP growth but has grown slightly above the inflation rate. While most recent revenue performance has been affected by the pandemic, Fitch anticipates the state's revenues will continue to experience some real growth going forward.

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 likely to be in line with or marginally above its somewhat slowly growing revenue stream. Carrying costs for debt and retirement liabilities are below the median for states.

Ohio's primary cost drivers include Medicaid and education spending. With only modest population growth, education spending pressures should be manageable. 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 is seeing an increase in Medicaid caseloads due to the impact of the pandemic and federal relief funding provisions mandating continued eligibility. The state will continue to benefit from enhanced FMAP funding at least through the end of the calendar year, but the proposed 2022-2023 budget proposal also sets aside reserves (about \$1.2 billion) to be used over the biennium as enhanced federal aid is expected to end. In addition, the budget proposal includes a nursing home reform initiative expected to result in Medicaid savings over time.

The state has ample expenditure flexibility, with a tendency to rely on budget-cutting rather than revenue increases when necessary to maintain budgetary balance. During the Great Recession, Ohio reduced distributions and phased out certain tax reimbursements to both local governments and school districts. The state responded to current pandemic-related revenue weakening with spending reductions, including cuts to education and Medicaid spending. The state's carrying costs for debt and retiree obligations are below the state median and are expected to remain low given the state's well-funded pensions and conservative debt management.

Long-Term Liability Burden

On a combined basis, debt and net pension liabilities attributable to the state as of Fitch's 2020 state liability report are about 4.7% of personal income, falling below the 5.0% median for U.S. states. Reflecting more recent debt data as of January 2021, Fitch estimates the combined burden of long-term debt and net pension obligations remains low at about 4.4% of 2019 personal income.

Funding of defined benefit retirement systems, which provide both for pensions and health care, has historically been considered a credit strength, with a history of annual contributions sufficient to support full actuarial prefunding of pensions and provide some support for retiree health care. Plans are largely cost-sharing, multiemployer with limited liabilities attributed to the state. As of its 2020 financial statements, system assets covered about 81% of liabilities. Using Fitch's more conservative 6% discount rate would lower the ratio of assets to liabilities to about 71%.

Operating Performance

Ohio's very strong 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 rainy day fund, 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 rainy day fund. It is Fitch's expectation that Ohio would continue to rely primarily on expense reductions to address a future downturn and could again draw upon its now restored rainy day fund.

Updated FAST Analysis

The Fitch Analytical Stress Test (FAST) scenario analysis tool 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.

The current coronavirus baseline scenario results in a first-year decline in Ohio state revenues of about 10%, followed by a 6% increase and cumulative result over the three-year scenario of a 1% increase. This compares with the state median decline of about 12% in the first year and 2% increase over the three-year scenario. In the downside scenario, Ohio's first-year decline would be about 10%, followed by another decline of 4% in the second year. The cumulative three-year decline of about 10% under Fitch's downside scenario is below the median 11% decline for all states.

The state's actions to contain expenditures and its access to the \$2.7 billion rainy day fund provide the state with sufficient flexibility to address the magnitude of revenue loss associated with Fitch's base case and downside scenarios.

Ohio has rebuilt its financial flexibility during times of economic recovery, including restoring its rainy day fund and reducing the use of one-time budget items. A statutory increase in the rainy day maximum funding requirement to 8.5% of GRF revenues from 5.0% of prior year revenue provided additional capacity to address future downturns and is indicative of the state's approach to bolstering its financial position during the period of economic expansion that followed the Great Recession. The current balance totals about \$2.7 billion, representing about 8% of GRF revenues and over 11% of state-source GRF revenues. Based on the current budget proposal for fiscal years 2022-2023, no draws on the fund are planned, and the balance is expected to remain at close to the current level, though percentages drop modestly as revenue growth is projected.

Ample Liquidity

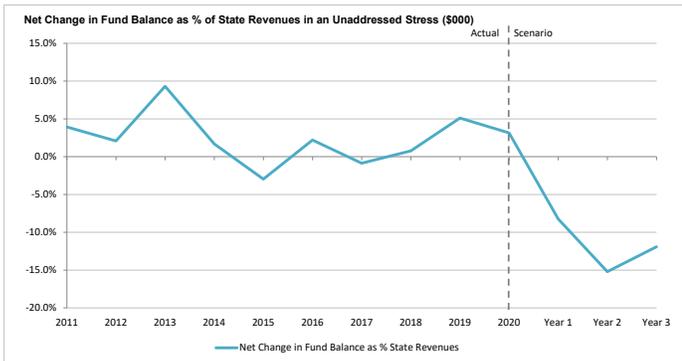
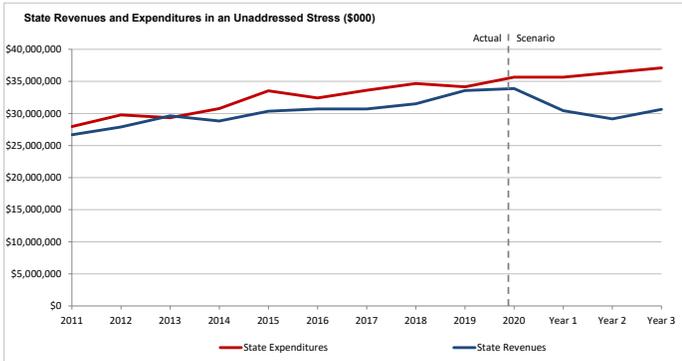
The state's Liquidity Fund has ample liquidity to meet tenders on variable rate debt that has not been remarketed. The fund is conservatively invested in U.S. Treasury and agency securities, domestic commercial paper, and money market funds. The liquidity portfolio has consistently provided strong variable rate debt coverage. The month-end balance of as of Jan. 29, 2021, discounted to reflect the immediate availability of funds, provided more than eight times coverage of outstanding variable rate debt backed by the state's internal liquidity.

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



Analyst Interpretation of Scenario Results:
Ohio's very strong 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 rainy day fund, 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 took action to reduce spending, relying also on increased federal aid, but not on draws from the rainy day fund. It is Fitch's expectation that Ohio would continue to rely primarily on expense reductions to address a future downturn and could again draw upon its now restored rainy day fund.

Scenario Parameters:	Year 1	Year 2	Year 3
GDP Assumption (% Change)	(3.9%)	(1.6%)	3.8%
Expenditure Assumption (% Change)	0.0%	2.0%	2.0%
Revenue Output (% Change)	(10.2%)	(4.2%)	5.1%

Minimum Y1 Stress: -5% Case Used: **Downside**

Revenues, Expenditures, and Net Change in Fund Balance	Actuals										Scenario Output		
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Year 1	Year 2	Year 3
Expenditures													
Total Expenditures	51,255,563	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	64,994,756	66,294,651	67,620,544
% Change in Total Expenditures	3.6%	(0.2%)	(0.6%)	5.5%	8.1%	1.1%	2.0%	1.8%	0.0%	6.6%	0.0%	2.0%	2.0%
State Expenditures	27,954,118	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	35,659,646	36,372,839	37,100,296
% Change in State Expenditures	1.6%	6.5%	(1.5%)	4.9%	9.0%	(3.3%)	3.7%	3.1%	(1.5%)	4.4%	0.0%	2.0%	2.0%
Revenues													
Total Revenues	49,977,434	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	59,777,110	59,084,639	61,165,422
% Change in Total Revenues	5.7%	(1.4%)	3.8%	1.1%	6.1%	3.8%	(0.1%)	1.5%	4.4%	4.7%	(5.4%)	(1.2%)	3.5%
Federal Revenues	23,301,445	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	29,335,110	29,921,812	30,520,248
% Change in Federal Revenues	6.1%	(8.2%)	0.7%	6.4%	7.0%	7.1%	(0.1%)	0.1%	2.0%	9.4%	0.0%	2.0%	2.0%
State Revenues	26,675,989	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	30,442,000	29,162,827	30,645,173
% Change in State Revenues	5.3%	4.6%	6.2%	(2.7%)	5.3%	1.2%	(0.0%)	2.7%	6.5%	0.9%	(10.2%)	(4.2%)	5.1%
Excess of Revenues Over Expenditures	(1,278,129)	(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)	(5,217,646)	(7,210,012)	(6,455,122)
Total Other Financing Sources	2,326,274	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	2,712,458	2,776,337	2,802,847
Net Change in Fund Balance	1,048,145	578,302	2,761,858	488,799	(900,642)	673,755	(266,997)	242,818	1,717,271	1,065,668	(2,505,188)	(4,433,675)	(3,652,275)
% Total Expenditures	2.0%	1.1%	5.4%	0.9%	(1.6%)	1.1%	(0.4%)	0.4%	2.8%	1.6%	(3.9%)	(6.7%)	(5.4%)
% State Expenditures	3.7%	1.9%	9.4%	1.6%	(2.7%)	2.1%	(0.8%)	0.7%	5.0%	3.0%	(7.0%)	(12.2%)	(9.8%)
% Total Revenues	2.1%	1.2%	5.4%	0.9%	(1.6%)	1.2%	(0.5%)	0.4%	2.8%	1.7%	(4.2%)	(7.5%)	(6.0%)
% State Revenues	3.9%	2.1%	9.3%	1.7%	(3.0%)	2.2%	(0.9%)	0.8%	5.1%	3.1%	(8.2%)	(15.2%)	(11.9%)

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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