FitchRatings

Commonwealth of Massachusetts

Ratings

Long-Term Issuer Default Rating	AA+

New Issue

$275,000,000 General Obligation Bonds Consolidated Loan of 2023 Series B	AA+
$200,000,000 General Obligation Bonds Consolidated Loan of 2023 Series C	AA+
$550,000,000 General Obligation Bonds Consolidated Loan of 2023 Series D	AA+
$260,000,000 General Obligation Bonds Consolidated Loan of 2023 Series E (Federally Taxable)	AA+
$200,000,000 General Obligation Refunding Bonds 2023 Series C	AA+

Sale Date

Oct. 17, 2023, via competitive bid

Outstanding Debt

Commonwealth of Massachusetts GO Bonds	AA+
Massachusetts Bay Transportation Authority General Transportation System Bonds	AA+
Massachusetts Department of Transportation (Commonwealth Contract Assistance Secured) Metropolitan Highway System Revenue Refunding Bonds (Subordinated)	AA+
Massachusetts Development Finance Agency (Commonwealth Contract Assistance) Special Obligation Bonds	AA+
University of Massachusetts Building Authority (Commonwealth of Massachusetts) Senior Facilities Revenue Bonds	AA+

Rating Outlook

Long-Term Issuer Default Rating	Stable

Applicable Criteria

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

Related Research

Fitch Rates Massachusetts' $1.5 Billion GO Bonds 'AA+'; Outlook Stable (October 2023)

2022 State Liability Update (Personal Income Surge Offsets Liability Increase) (November 2022)

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The Commonwealth of Massachusetts' (the commonwealth) 'AA+' Long-Term Issuer Default Rating (IDR) reflects its considerable economic resources, adroit management of economic and revenue cyclicality and strong budget controls. A strong reserve funding mechanism that shields the general fund from capital gains-related volatility has accelerated the building of Massachusetts' stabilization fund. The commonwealth carries a long-term liability burden for debt and Fitch-adjusted net pension liabilities (NPL) that is well above the U.S. state median but remains a moderate burden on resources.

The commonwealth has a broad and wealthy economy. Education levels are high and, although population growth is below the U.S. average, it is strong for the northeast region. The strength of the healthcare, technology and education sectors has supported GDP growth comparable with the nation's over time and leaves it well-positioned for solid future gains. Measured by per capita personal income, Massachusetts is the second wealthiest state in the nation.

Fitch has affirmed the ratings on the commonwealth's GO and GO-linked bonds as follows:

- GO bonds at 'AA+';
- Massachusetts Development Finance Agency (MDFA) special obligation bonds (commonwealth contract assistance) at 'AA+';
- Commonwealth-guaranteed bonds, issued by the Massachusetts Bay Transportation Authority (MBTA) and the University of Massachusetts Building Authority, at 'AA+'; and
- Massachusetts Department of Transportation (MassDOT) metropolitan highway system (MHS) revenue bonds (subordinate), commonwealth contract assistance secured, at AA+.

For the commonwealth contract assistance bonds issued by the MDFA and commonwealth-guaranteed bonds issued by the MBTA and University of Massachusetts Building Authority, the commonwealth's obligation under the contract to make payments equal to debt service is a GO of the commonwealth, to which its full faith and credit are pledged.

For the MassDOT MHS subordinate revenue bonds, the commonwealth's annual fixed, dedicated payments are a full faith and credit obligation of the commonwealth and are expected to cover all subordinated debt service, linking the rating to the commonwealth's 'AA+' rating, rather than to MHS toll revenues, which are also pledged to the bonds on a subordinated basis. A large share of outstanding debt is variable rate and thus exposed to the risks associated with interest rate volatility, but Fitch expects that MassDOT will work with the commonwealth to ensure annual payments are sufficient to cover debt service if interest rate risks increase.

Key Rating Drivers

Revenue Framework: 'aaa'

Tax revenues are diverse but dominated by individual income taxes, which are sensitive to economic conditions, particularly the components related to capital gains. Baseline growth prospects for tax revenues are strong and expected to match national GDP, driven by the commonwealth's underlying diverse economy that includes a significant knowledge-based industry component.

Expenditure Framework: 'aaa'

Consistent with most states, the natural pace of spending growth is likely to marginally exceed expected revenue growth over time, requiring ongoing cost control. The commonwealth has ample ability to reduce spending through the economic cycle.

Long-Term Liability Burden: 'aa'

Long-term liability levels in Massachusetts, while comparatively high for a U.S. state, are a moderate burden on resources. The commonwealth's above average liability position is partly the result of state funding of both capital needs and pensions that are more commonly funded at the local level, primarily for K–12 education.

Operating Performance: 'aaa'

The commonwealth has superior gap-closing capacity supported by conservative budgeting, ongoing fiscal monitoring and a requirement to cut spending in response to revenue gaps. Gap-closing capacity is also supported by a funding mechanism that redirects a portion of economically sensitive capital gains tax receipts into the stabilization fund, which functions as the commonwealth's rainy day fund.

Rating Sensitivities

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

- A slowing of economic growth that signals the commonwealth's revenue growth prospects will trail national economic growth.
- Rapid growth in spending demands, particularly for fixed costs such as pension liabilities, which weakens Massachusetts' expenditure flexibility and historically strong operating performance.
- An increase in long-term liabilities that results in a liability burden consistently exceeding 20% of personal income.

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

- Continued efforts to maintain structural balance during periods of economic growth, particularly in light of increasing carrying costs, and/or preservation of reserves at or near current levels could lead to an improvement in Fitch's assessment of budget management.
- A sustained reduction in the long-term liability burden closer to, or below, 10% of personal income, accompanied by a reduction in carrying costs.

Current Developments

Massachusetts Economic Update

Massachusetts suffered a more severe job market shock than the nation as a whole early in the pandemic, with nonfarm payrolls falling 18% from February to April 2020, steeper than the national decline (15%). Massachusetts has fully recovered lost employment but its rate of recovery has lagged that of the U.S., with Massachusetts employment 1.2% higher than pre-pandemic, well below the national employment expansion of 2.9% as of August 2023. Massachusetts headline unemployment in August of 2.6% was below the 3.8% U.S. unemployment rate. The commonwealth's employment-to-population ratio (EPOP) in August 2023 of 62.8% remains below its pre-pandemic ratio of 64.0% but compares favorably to the national EPOP of 60.4%.

Massachusetts Budgetary Update

After robust revenue expansion emerging from the pandemic, revenue growth slowed in fiscal 2023, with taxes estimated to be 4.7% below the prior year's and marginally lower than budgeted at $39.2 billion. The fiscal 2024 budget is based on a consensus estimate of $41.4 billion, which assumes 5.7% growth in tax revenues relative to fiscal 2023 revenues, including an estimated $1.0 billion available for distribution to transportation and education initiatives from a 4% surtax on personal income over $1.0 million, approved by voters in November 2022.

Massachusetts enacted its budget in mid-August, after the start of the fiscal year, with the Massachusetts Legislature and governor agreeing to a one-month interim budget followed by a short extension to enable the commonwealth to continue operating while the details of the spending plan were finalized. After modest vetoes and various supplemental appropriations, the fiscal 2024 budget provides for a total of $56 billion in appropriated spending, including projected transfers to the Medical Assistance Trust Fund. This represents an increase of 5.1% above the fiscal 2023 budget, inclusive of new investments supported by surtax revenues.

Notable spending priorities include a $594 million (9.9%) increase in chapter 70 aid to cities and towns to more fully fund the school funding formula, $558 million in total for environmental programs, $475 million to continue a pandemic-era program for early education providers and a sizeable increase in funding for an emergency assistance family shelter program, among other state priorities.

The commonwealth will also increase spending on education and transportation using the $1.0 billion estimated from the surtax on higher incomes. Of the total, $523 million will be applied to education initiatives, including for school facilities, energy infrastructure, early education and a portion of permanent implementation of free school meals. Another $477 million will be distributed for various transportation initiatives, including half to the MBTA for station repairs, bridge maintenance and safety and workforce needs. The balance will fund local and highway road and bridge improvements and regional transportation authorities.

Subsequent to budget enactment, the commonwealth enacted a tax reduction package that is expected to reduce revenues by $577 million in fiscal 2024 on a gross basis and $519 million on a net basis accounting for capital gains, eventually annualizing to a little over $1.0 billion by fiscal 2028. The enacted budget reserved $580 million to address the anticipated impact of tax reductions.

The stabilization fund, the commonwealth's budget reserve, increased to $8 billion, roughly equal to 20% of tax revenue, at fiscal YE23, benefiting from the required transfer of capital gains revenue above the statutory threshold, although the transfer was lower than anticipated earlier in the year. The enacted budget assumes a further increase in the stabilization fund to $8.7 billion, equal to 21.3% of forecast revenues.

Credit Profile

Revenue Framework

General fund resources derive primarily from individual income, sales and corporate income taxes. The first two are particularly important, with approximately 56% of fiscal 2023 tax revenues from individual income taxes and another 24% from sales taxes. The individual income tax is levied at flat rates based on type of income. A 5% rate has been applicable to most income categories since Jan. 1, 2020, under a statute that had gradually reduced the rate from 5.3% beginning Jan. 1, 2012. The statute also reinstated the state charitable deduction as of Jan. 1, 2023, after delays in the fiscal 2021 and fiscal 2022 budgets. As noted above, voters approved a 4% surtax on personal income over $1.0 million in November 2022 that became effective in tax year 2023, which is expected to generate $1.0 billion in fiscal 2024.

Solid economic fundamentals and a diverse revenue system are the basis for a revenue profile that is likely to approximate national economic growth over time, although commonwealth revenue growth may be limited by Chapter 62F. Once the limit is exceeded, the commonwealth must refund any excess revenues via income tax credits, as was the case in fiscal 2023 when the commonwealth refunded $2.9 billion of fiscal 2022 excess tax revenues.

The commonwealth has no significant legal limitations on its ability to raise revenues. The statutory tax revenue growth limit based on average wage and salary growth has not hindered the commonwealth's ability to manage its revenue resources. The initiative environment has also periodically been active, and certain revenues have been affected by past initiative petitions, notably property taxes. Importantly, the legislature retains the ability to make changes to statutes passed by successful initiative petitions.

Expenditure Framework

Massachusetts' expenditure profile is very broad, driven by an expansive scope of services. Medicaid and other social services are the largest single spending commitment at just over half of general fund spending. Education is also a significant commitment, with extensive commonwealth funding of local schools and a broad higher education network. Funding formula changes for local schools under 2019's Student Opportunity Act (SOA) are intended to address needs in districts with higher concentrations of poverty.

The SOA was expected to result in a seven-year, $1.5 billion ramp-up of formula funding beginning in fiscal 2021, although the pandemic delayed initial increases. The commonwealth's education commitment extends to covering local teacher pension liabilities, although not the liability associated with their other post-employment benefits (OPEB). Consistent with practices in many smaller states, the commonwealth is responsible for delivering or funding a variety of services routinely funded at local levels elsewhere.

As with most states, current services spending is expected to be in line with to marginally above expected revenue growth, primarily driven by social services, particularly Medicaid. 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 initiatives, Medicaid remains subject to regulatory changes that could affect various aspects of the program. Massachusetts, as with all other states, began the complicated administrative task of resuming Medicaid redeterminations and disenrollment in April 2023.

The commonwealth retains ample ability to cut spending; statute allows for swift response in the event of forecast revenue underperformance, including the governor's statutory powers to unilaterally cut allotments under Section 9C of commonwealth General Law, Chapter 29.

Carrying costs for long-term liabilities, including debt service, actuarially determined pension contributions and OPEB pay-as-you-go appropriations, are elevated relative to most states, at 10.3% of governmental expenditures in fiscal 2022. Under state finance law, revenues available for budgeting are net of statutory pension contributions and transfers for the MBTA and the Massachusetts School Building Authority (MSBA).

Pension changes were undertaken in 2011, and the commonwealth maintains a relatively conservative statutorily closed amortization target for achieving full funding in 2040. Pension contributions have risen in part due to experience updates and shifts to more cautious actuarial assumptions. Based on a funding schedule that it updates every three years, most recently in January 2023, the commonwealth forecasts contributions rising about 9.6% per year until fiscal 2028, after which the increase rate will drop to 4% through the projected date of full prefunding, in fiscal 2036, four years ahead of the target date. Fitch views this trajectory of contributions as manageable within the commonwealth's fiscal framework.

Long-Term Liability Burden

Debt and Fitch-adjusted net pension liabilities are comparatively high for a state but represent a moderate burden on resources. On a combined basis, the commonwealth's burden of direct debt and adjusted net pension liabilities equaled 18.1% of personal income, well above the 4.6% median for U.S. states, as of Fitch's November 2022 report on state liabilities ("Personal Income Surge Offsets Liability Increase," published Nov. 15, 2022), which used 2021 state financial statements data.

As of June 30, 2023, Fitch estimates the commonwealth's direct debt at a comparatively high 7.6% of personal income, including sales tax-backed obligations of the MBTA and MSBA and annual contractual assistance commitments that support the MassDOT. The comparable state median as of the November 2022 state liabilities report was 4.5%. The commonwealth's above average role in funding local government capital needs, relative to most other states, partially drives its higher debt burden.

Fitch expects Massachusetts' direct debt to remain comparatively high for a U.S. state. In 2021, the prior governor signed a $16 billion transportation bond authorization to be directed to highways, transit, bridges and other commonwealth and local transportation needs.

Separately, the commonwealth issued special obligation revenue bonds in July to pay off federal unemployment insurance trust fund loans. The special obligation bonds are repaid by assessments on employers, with no nexus to the commonwealth's fiscal operations. Fitch does not incorporate them into our calculations of Massachusetts' long-term liabilities.

As of June 30, 2021, pension systems covering state employees and teachers (except in the City of Boston) held fiduciary assets covering 77.5% and 62.0% of their total pension liabilities, respectively, based on 7.15% discount rates implemented as of their 2020 accounting valuations; the rates have been lowered three times from the 7.5% used for the 2017 valuation. Using Fitch's standard 6% return assumption would lower the 2021 ratios to 69.3% and 55.5%, respectively.

The commonwealth carries a net OPEB liability for state employees, but not local teachers, measuring $22.9 billion, based on a 3.6% discount rate and net of prefunding built in recent years from tobacco settlement monies, excess capital gains collections and other sources. The net OPEB liability measures 4.0% of personal income.

Operating Performance

Fitch believes the commonwealth retains superior capacity to address cyclical downturns and has repeatedly demonstrated its commitment to maintaining a solid financial position. Mechanisms for maintaining balance include the governor's requirement to reduce allotments or identify alternative balancing measures in the event of a midyear forecast deficiency, under Section 9C of commonwealth General Law, Chapter 29, noted above.

Additionally, since 2011 the commonwealth has operated under a mechanism to reduce the effect of volatile capital gains-related tax revenues on its budget. Capital gains-related receipts that can be included in the budget are capped annually at a level that rises by U.S. GDP growth, with excesses dedicated to the stabilization fund (90%) and retiree benefit obligations (10%). For fiscal 2023, this mechanism triggered a $750 million transfer to the stabilization fund. A similar mechanism covers one-time judgments and settlement payments.

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 it 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. Despite its comparatively higher exposure to revenue declines shown by FAST, Massachusetts has superior financial resilience that would enable it to manage through fiscal stress.

The commonwealth has established mechanisms to cap the impact on the general fund of volatile capital gains-related individual income tax and judgment and settlement receipts, with excesses devoted to the stabilization fund or to retirement liabilities. Since fiscal 2011, capital gains have been budgeted in the general fund at $1.0 billion maximum, rising annually based on U.S. GDP growth. Judgments and settlements are capped based on a similar five-year rolling benchmark.

Budgetary management during periods of economic recovery consistently supports the rebuilding of financial flexibility. A relatively slow fiscal recovery coming out of the Great Recession limited the commonwealth's ability to quickly rebuild its fiscal resilience. The commonwealth faced budgetary challenges at several points in the economic expansion that ended with the pandemic, including from the effect of shifting federal tax law and from unexpected demands for Medicaid.

Despite these initial post-recession drags on fiscal progress, conservative revenue assumptions and the reserve funding mechanisms noted above enabled the commonwealth to rebuild a sizable stabilization fund balance. The commonwealth has limited its use of nonrecurring resources. Budgetary mechanisms to shift cyclical windfalls to the stabilization fund raised its balance considerably in the period immediately prior to the pandemic, a trend that has accelerated during the current expansion.

Peer Analysis

Massachusetts's peer group includes Washington (AA+), Virginia (AAA), Michigan (AA+) and Colorado (not rated), the third decile according to state GDP. Massachusetts has benefited from strong long-term economic growth that supports the expectation for revenue growth but higher long-term liabilities than its peers. As with other highly rated states, Massachusetts's operating performance is very strong, with the commonwealth's mechanisms for maintaining budgetary balance supporting its ability to manage through the economic cycle.

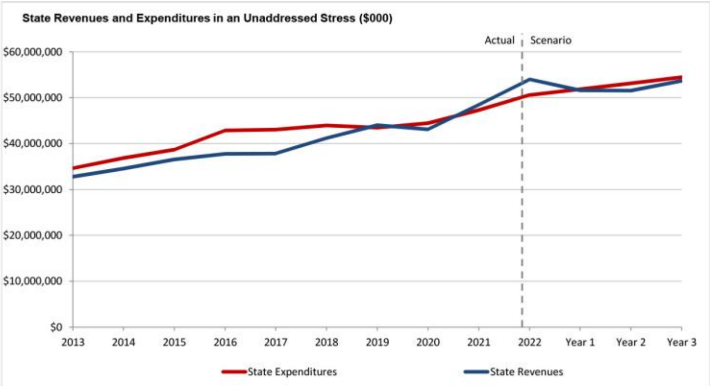
ESG Considerations

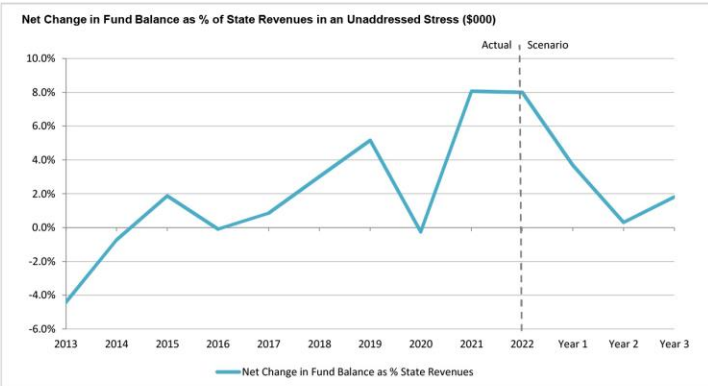
The highest level of ESG credit relevance is a score of '3', unless otherwise disclosed in this section. A score of '3' means ESG issues are credit-neutral or have only a minimal credit impact on the entity, due to either their nature or the way in which they are being managed by the entity. Fitch's ESG Relevance Scores are not inputs in the rating process; they are an observation on the relevance and materiality of ESG factors in the rating decision. For more information on Fitch's ESG Relevance Scores, visit https://www.fitchratings.com/topics/esg/products#esg-relevance-scores.

Massachusetts, Commonwealth of (MA)

Scenario Analysis

Ver 42





Analyst Interpretation of Scenario Results

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. Despite its comparatively higher exposure to revenue declines shown by FAST, Massachusetts has superior financial resilience that would enable it to manage through fiscal stress.

The commonwealth has established mechanisms to cap the impact on the general fund of volatile capital gains related individual income tax and judgment and settlement receipts, with excesses devoted to the stabilization fund (the commonwealth's rainy day fund) or to retirement liabilities. Since fiscal 2011, capital gains have been budgeted in the general fund at $1 billion maximum, rising annually based on U.S. GDP growth; for fiscal year 2022 `the figure is $1.352 billion. Judgments and settlements are capped based on a similar five-year rolling benchmark.

Scenario Parameters:					Year 1	Year 2	Year 3
GDP Assumption (% Change)					(1.0%)	0.5%	2.0%
Expenditure Assumption (% Change)					2.5%	2.5%	2.5%
Revenue Output (% Change)	*Minimum Y1 Stress:*	-1%	*Case Used:*	**Moderate**	(4.4%)	(0.1%)	4.2%

Revenues, Expenditures, and Net Change in Fund Balance	Actuals										Scenario Output		
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Year 1	Year 2	Year 3
Expenditures													
Total Expenditures	47,490,768	49,991,552	52,682,343	58,074,116	58,593,231	60,282,684	59,793,532	62,894,582	70,260,439	77,782,083	79,726,635	81,719,801	83,762,796
% Change in Total Expenditures	3.8%	5.3%	5.4%	10.2%	0.9%	2.9%	(0.8%)	5.2%	11.7%	10.7%	2.5%	2.5%	2.5%
State Expenditures	34,623,778	36,844,857	38,637,313	42,841,471	43,026,144	43,951,926	43,465,609	44,419,215	47,307,218	50,568,343	51,832,552	53,128,365	54,456,574
% Change in State Expenditures	5.7%	6.4%	4.9%	10.9%	0.4%	2.2%	(1.1%)	2.2%	6.5%	6.9%	2.5%	2.5%	2.5%
Revenues													
Total Revenues	45,630,955	47,709,563	50,609,586	52,992,247	53,391,286	57,453,971	60,335,457	61,555,694	71,381,169	81,193,210	79,489,192	80,118,088	82,972,160
% Change in Total Revenues	1.9%	4.6%	6.1%	4.7%	0.8%	7.6%	5.0%	2.0%	16.0%	13.7%	(2.1%)	0.8%	3.6%
Federal Revenues	12,866,990	13,146,695	14,045,030	15,232,645	15,567,087	16,330,758	16,327,923	18,475,367	22,953,221	27,213,740	27,894,084	28,591,436	29,306,221
% Change in Federal Revenues	(0.9%)	2.2%	6.8%	8.5%	2.2%	4.9%	(0.0%)	13.2%	24.2%	18.6%	2.5%	2.5%	2.5%
State Revenues	32,763,965	34,562,868	36,564,556	37,759,602	37,824,199	41,123,213	44,007,534	43,080,327	48,427,948	53,979,470	51,595,108	51,526,652	53,665,939
% Change in State Revenues	3.0%	5.5%	5.8%	3.3%	0.2%	8.7%	7.0%	(2.1%)	12.4%	11.5%	(4.4%)	(0.1%)	4.2%
Excess of Revenues Over Expenditures	(1,859,813)	(2,281,989)	(2,072,757)	(5,081,869)	(5,201,945)	(2,828,713)	541,925	(1,338,888)	1,120,730	3,411,127	(237,443)	(1,601,713)	(790,636)
Total Other Financing Sources	410,806	2,031,472	2,758,542	5,049,955	5,525,510	4,070,041	1,730,966	1,230,517	2,783,775	904,653	2,143,990	1,758,780	1,764,343
Net Change in Fund Balance	(1,449,007)	(250,517)	685,785	(31,914)	323,565	1,241,328	2,272,891	(108,371)	3,904,505	4,315,780	1,906,547	157,067	973,707
% Total Expenditures	(3.1%)	(0.5%)	1.3%	(0.1%)	0.6%	2.1%	3.8%	(0.2%)	5.6%	5.5%	2.4%	0.2%	1.2%
% State Expenditures	(4.2%)	(0.7%)	1.8%	(0.1%)	0.8%	2.8%	5.2%	(0.2%)	8.3%	8.5%	3.7%	0.3%	1.8%
% Total Revenues	(3.2%)	(0.5%)	1.4%	(0.1%)	0.6%	2.2%	3.8%	(0.2%)	5.5%	5.3%	2.4%	0.2%	1.2%
% State Revenues	(4.4%)	(0.7%)	1.9%	(0.1%)	0.9%	3.0%	5.2%	(0.3%)	8.1%	8.0%	3.7%	0.3%	1.8%

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.

SOLICITATION & PARTICIPATION STATUS

For information on the solicitation status of the ratings included within this report, please refer to the solicitation status shown in the relevant entity's summary page of the Fitch Ratings website.

For information on the participation status in the rating process of an issuer listed in this report, please refer to the most recent rating action commentary for the relevant issuer, available on the Fitch Ratings website.

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