FitchRatings

Public Finance State General Obligation United States

Ratings

Long-Term IDR	AA+					
Outlooks						
Long-Term IDR	Stable					

New Issues

\$130,000,000 GO Bonds
Consolidated Loan of 2024 Series CAA+\$220,000,000 GO Bonds
Consolidated Loan of 2024 Series DAA+\$400,000,000 GO Bonds
Consolidated Loan of 2024 Series EAA+\$100,000,000 GO Bonds
Consolidated Loan of 2024 Series F
(Federally Taxable)AA+

Sale Date

Sept. 5, 2024, via negotiation

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	

Applicable Criteria

Revenue Bonds

U.S. Public Finance State Governments and Territories Rating Criteria (April 2024)

AA+

Related Research

Fitch Affirms Massachusetts SBA's Senior Bonds at 'AAA' and Sub Bonds at 'AA+'; Outlook Stable (July 2024)

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Commonwealth of Massachusetts

The Commonwealth of Massachusetts' 'AA+' Long-Term Issuer Default Rating (IDR) reflects its considerable economic resources, adroit management of economic and revenue cyclicality, and strong budget controls. The commonwealth carries a long-term liability burden for debt and Fitch-adjusted net pension liabilities that is well above the U.S. state median, albeit a still-moderate burden on resources.

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, that 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 elevated carrying costs given pension demands and capital plans, 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.

Economic Resource Base

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 the commonwealth well positioned for solid future gains. Measured by per-capita personal income, Massachusetts is the second wealthiest state in the nation.

IDR 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 had fully recovered lost employment but recent performance has been relatively weak, dropping to negative 0.2% of pre-pandemic employment, well below the national employment expansion of 4.2%, as of June 2024. This may be indicative of a tight labor market, as the Massachusetts headline unemployment in June was 3.2%, well below the 4.1% U.S. unemployment rate. Similarly, the commonwealth's employment-to-population ratio (EPOP) of 63.6% in June

2024 remains marginally below its pre-pandemic ratio of 64.0%, but compares favorably to the national EPOP of 60.1%.

Massachusetts Budgetary Update

Massachusetts' fiscal 2024 tax revenue forecast was revised downward in January 2024, from the \$40.4 billion assumed when the budget was enacted to \$38.9 billion, excluding surtax revenues from the voter-approved Fair Share income tax levied on income over \$1 million beginning in 2023. Governor Healey announced \$375 million in midyear expenditure reductions and identified \$675 million in additional nontax revenues, including from higher than projected interest collections and other departmental revenues, to address the shortfall. Preliminary revenue collections appear to have exceeded the higher earlier target, at \$40.8 billion, a 12% yoy increase as compared to fiscal 2023.

Massachusetts enacted its fiscal 2025 budget at the end of July, well after the start of the fiscal year, with the legislature and governor agreeing to a one-month interim budget to enable the state to continue operating while the details of the spending plan were finalized. The fiscal 2025 budget is based on a consensus tax revenue estimate of \$40.2 billion that incorporates 3.4% growth in tax revenues relative to the revised fiscal 2024 benchmark of \$38.9 billion, with an additional \$1.3 billion available for distribution to transportation and education initiatives from the 4% Fair Share surtax on personal income over \$1 million. After modest vetoes, the \$57.8 billion fiscal 2025 budget, including spending from federal revenues, increases spending 1.1% and, as in fiscal 2024, dedicates increased spending to education and transportation initiatives.

The budget allocates \$761 million of the Fair Share surtax to education initiatives, of which \$239 million will go to higher education incorporating \$93 million to expand access to free community college to all students. K-12 public education will receive \$244 million, including \$170 million to make the free school lunch program permanent, and \$20 million to expand access to evidence-based reading. The balance of \$539 million will be distributed for various transportation initiatives, including \$250 million to the commonwealth transportation fund to be used to leverage up to \$1 billion in borrowing, \$110 million for regional transit grants, and \$45 million in supplemental funding for municipal roads and bridges.

In addition to increased funding from the income surtax, other notable items include a 4% increase to \$6.86 billion in chapter 70 aid to cities and towns to more fully fund the school funding formula, \$545 million to address housing and homelessness with funds for the emergency assistance family shelter program and low income housing vouchers, \$475M in grants for early education and care providers, a 3% growth in unrestricted general government aid for local governments.

Reserves Remain Well Funded

The balance of the stabilization fund, the commonwealth's budget reserve, was close to \$9 billion at fiscal year-end 2024, roughly equal to 23% of tax revenue and 15% of total budgeted revenues.

The governor has proposed legislation that would allocate a portion of stabilization fund earnings to create a fund supporting capital investments through 2026, including by providing matching funds for federal discretionary grant opportunities. The proposed legislation would limit the transfers to years in which the balance in the fund in the most recently ended fiscal year increased from the prior year and the balance in the fund exceeds 10% of all budgeted revenues for all budgeted funds. Given the stabilization fund's current balance, transferring earnings for two fiscal years would not negatively affect the gap-closing capacity provided by the fund.

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 59% of fiscal 2024 tax revenues from individual income taxes and another 23% 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 the Fair Share surtax, a permanent 4% surtax on personal income over \$1.0 million in November 2022 that became effective in tax year 2023. Preliminary revenue estimates indicate surtax revenue collections were well above the forecast \$1.0 billion, at \$2.2 billion. The surtax is estimated to generate \$1.3 billion in fiscal 2025. The initiative dedicated Fair Share revenues to education and transportation programs.

Solid economic fundamentals and a diverse revenue system are the basis for a revenue profile that is likely to approximate national GDP growth over time, although commonwealth revenue growth may be limited by the Chapter

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62F tax revenue growth limit. Chapter 62F caps the amount of revenue the commonwealth may collect in any given fiscal year, relative to the rate of wage and salary growth in the commonwealth. 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 first time since 1987 that the limit has been triggered.

The commonwealth has no significant legal limitations on its ability to raise revenues. The Chapter 62F tax revenue growth limit 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 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.

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.

Massachusetts' carrying costs for long-term liabilities were 7.4% in 2023 versus Fitch's preliminary U.S. states median of 3.7%. 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 (NPLs) 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 NPLs equaled 15.5% of personal income, well above the 4.0% median for U.S. states, as of Fitch's November 2023 report on state liabilities ("2023 State Liability Report (Post-Pandemic Asset Surge Lowers Pension Burdens)," published November 2023), which used 2022 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 Massachusetts Department of Transportation (MassDOT). The comparable state median as of the November 2023 state liabilities report was 2.0%. 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.

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The commonwealth issued special obligation revenue bonds in July 2022 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 its calculations of Massachusetts' long-term liabilities.

Pension liabilities for the commonwealth are also a higher burden than in most other states. In fiscal 2023, the Fitchadjusted net pension liability was 9% versus the 1.7% state median as of the November 2023 state liabilities report. Pension systems covering state employees and teachers (except in the city of Boston) had respective funded ratios of 70.7% and 58.5% as of June 30, 2023, based on 7% discount rates. These are down from 77.5% and 62%, respectively, as of June 30, 2021, when the discount rate was 7.15%.

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

Operating Performance

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 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.

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. The governor used this power to reduce spending \$375 million in fiscal 2024.

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.

Budgetary management during periods of economic recovery consistently supports the rebuilding of financial flexibility. A relatively slow fiscal recovery coming out of the Global Financial Crisis 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.

Additional Security Details

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+'.



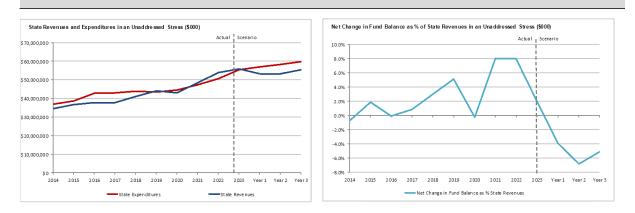
- Commonwealth-guaranteed bonds, issued by the MBTA and the University of Massachusetts Building Authority, at 'AA+'.
- MassDOT metropolitan highway system (MHS) revenue bonds (subordinate), commonwealth contract assistance secured, at 'AA+'.

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.

Massachusetts, Commonwealth of (MA)

Scenario Analysis Ver 44



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)		-	Minim	um Y1 Stress:	-1%		Case Used:	Moderate			(4.3%)	0.2%	4.6%
Revenues, Expenditures, and Net Change in Fund Balance			Actuals							Scenario Output			
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Year 1	Year 2	Year 3
Expenditures													
Total Expenditures	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	83,292,552	85,374,866	87,509,237	89,696,968
% Change in Total Expenditures	5.3%	5.4%	10.2%	0.9%	2.9%	(0.8%)	5.2%	11.7%	10.7%	7.1%	2.5%	2.5%	2.5%
State Expenditures	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	55,499,708	56,887,201	58,309,381	59,767,115
% Change in State Expenditures	6.4%	4.9%	10.9%	0.4%	2.2%	(1.1%)	2.2%	6.5%	6.9%	9.8%	2.5%	2.5%	2.5%
Revenues													
Total Revenues	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	83,577,587	81,897,827	82,697,588	85,880,240
% Change in Total Revenues	4.6%	6.1%	4.7%	0.8%	7.6%	5.0%	2.0%	16.0%	13.7%	2.9%	(2.0%)	1.0%	3.8%
Federal Revenues	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	27,792,844	28,487,665	29,199,857	29,929,853
% Change in Federal Revenues	2.2%	6.8%	8.5%	2.2%	4.9%	(0.0%)	13.2%	24.2%	18.6%	2.1%	2.5%	2.5%	2.5%
State Revenues	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	55,784,743	53,410,162	53,497,731	55,950,386
% Change in State Revenues	5.5%	5.8%	3.3%	0.2%	8.7%	7.0%	(2.1%)	12.4%	11.5%	3.3%	(4.3%)	0.2%	4.6%
Excess of Revenues Over Expenditures	(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	285,035	(3,477,038)	(4,811,649)	(3,816,729)
Total Other Financing Sources	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	800,656	1,490,113	1,441,943	1,484,228
Net Change in Fund Balance	(250,517)	685,785	(31,914)	323,565	1,241,328	2,272,891	(108,371)	3,904,505	4,315,780	1,085,691	(1,986,925)	(3,369,707)	(2,332,501)
% Total Expenditures	(0.5%)	1.3%	(0.1%)	0.6%	2.1%	3.8%	(0.2%)	5.6%	5.5%	1.3%	(2.3%)	(3.9%)	(2.6%)
% State Expenditures	(0.7%)	1.8%	(0.1%)	0.8%	2.8%	5.2%	(0.2%)	8.3%	8.5%	2.0%	(3.5%)	(5.8%)	(3.9%)
% Total Revenues	(0.5%)	1.4%	(0.1%)	0.6%	2.2%	3.8%	(0.2%)	5.5%	5.3%	1.3%	(2.4%)	(4.1%)	(2.7%)
% State Revenues	(0.7%)	1.9%	(0.1%)	0.9%	3.0%	5.2%	(0.3%)	8.1%	8.0%	1.9%	(3.7%)	(6.3%)	(4.2%)

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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