

**CREDIT OPINION**

17 April 2025



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# Massachusetts (Commonwealth of)

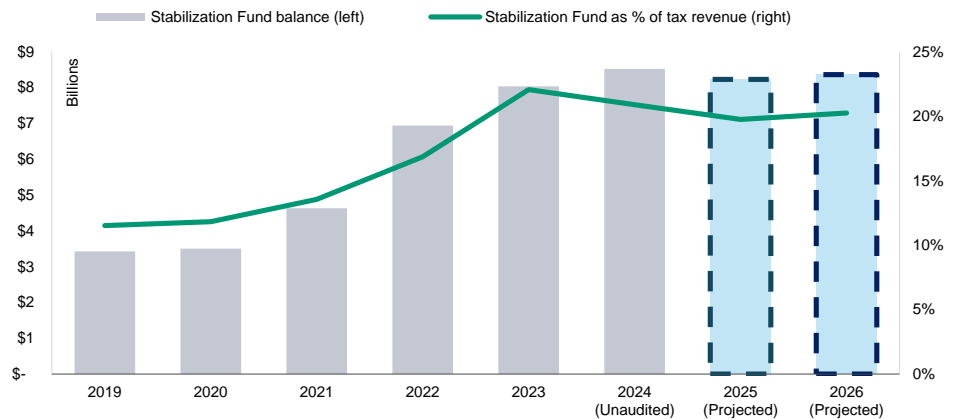
## Update to credit analysis

### Summary

The [Commonwealth of Massachusetts'](#) (Aa1 stable) credit is supported by a robust economic base, with high income and education levels, which helps meet the demands of comparatively heavy long-term liabilities. Pension contribution needs will add to coming years' spending pressure. As in other states, unfolding [federal policy changes](#) may impose economic or fiscal pressure, for example, by reducing federal support for Medicaid, the federal-state cost sharing health insurance plan for low-income and disabled people. The Commonwealth Stabilization Fund balance reached a record \$8.5 billion in fiscal 2024, which should provide a cushion against fluctuations in the state's volatile income tax revenue resulting from economic or financial market downturns. Massachusetts' governance framework is strong, including sound financial and budgetary management practices that serve it well during recessions. The state's GO bonds, supported by a pledge of the state's full faith and credit, are rated at the same level as the issuer rating.

Exhibit 1

### State projects its Stabilization Fund will remain near a record level through the coming fiscal year



Stabilization Fund balance as shown as a share of the year's total tax revenue, before transfers to the Massachusetts Bay Transportation Authority and Massachusetts School Building Authority.

Sources: Commonwealth of Massachusetts information statements, and Fiscal year 2026 Projected Financial Statement.

### Credit strengths

- » Large economy focused on technology, healthcare, education and related sectors that pay above-average wages
- » Reserve fund balance at or near record levels that provides a substantial buffer against economic downturns

- » Strong financial management and a practice of quickly closing budget gaps through spending cuts, revenue increases and use of reserves if necessary

## Credit challenges

- » Combined debt and pension liabilities that are among the highest in the state sector relative to revenue, resulting in elevated fixed costs that limit fiscal flexibility
- » Demographic profile weakened by negative domestic migration and aging population, offset by strong immigration trends
- » Exposure to rising costs for pension funding and government programs such as Medicaid

## Rating outlook

Massachusetts' stable outlook is supported by strong financial management and the state's record reserve levels, which will accommodate moderating revenue growth even if spending pressures intensify and will help fill budget gaps that could emerge in an unexpected economic downturn.

## Factors that could lead to an upgrade

- » Leverage that moderates in relation to the sector median, reducing the gap by approximately one-third
- » Fiscal sustainability measures that signal long-term capacity to maintain a Stabilization Fund balance equal to at least 15% of revenue

## Factors that could lead to a downgrade

- » Protracted structural budget imbalance leading to repeated draws on financial reserves or other nonrecurring measures
- » Leverage that grows to more than 300% of revenue, combined with underperforming revenue and economic growth trends

## Key indicators

Exhibit 2

|  | 2019   | 2020   | 2021   | 2022   | 2023   | State Medians<br>(2023) |
|--|--------|--------|--------|--------|--------|-------------------------|
| <b>Economy</b>   |        |        |        |        |        |                         |
| Nominal GDP (\$billions)                               | 588.1  | 592.7  | 649.5  | 695.6  | 736.3  | 313.0                   |
| Real GDP, annual growth                                | 3.2%   | -1.9%  | 6.4%   | 2.1%   | 1.8%   | 2.2%                    |
| RPP-adjusted per capita income as % of US              | 121.7% | 120.0% | 121.5% | 118.1% | 119.8% | 97.7%                   |
| Nonfarm employment, annual growth                      | 1.5%   | -8.4%  | 3.9%   | 4.0%   | 1.1%   | 2.1%                    |
| <b>Financial performance</b>                           |        |        |        |        |        |                         |
| Available balance as % of own-source revenue           | 17.7%  | 18.0%  | 24.2%  | 30.1%  | 31.4%  | 44.4%                   |
| Net unrestricted cash as % of own-source revenue       | 16.5%  | 14.8%  | 34.7%  | 40.4%  | 34.0%  | 72.4%                   |
| <b>Leverage</b>  |        |        |        |        |        |                         |
| Total long-term liabilities as % of own-source revenue | 111.2% | 356.0% | 377.6% | 303.7% | 247.4% | 99.4%                   |
| Adjusted fixed costs as % of own-source revenue        | 0.0%   | 17.4%  | 16.5%  | 13.1%  | 13.6%  | 5.2%                    |

Source: US Bureau of Economic Analysis, US Bureau of Labor Statistics, audited financial statements, Moody's Ratings adjustments

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## Profile

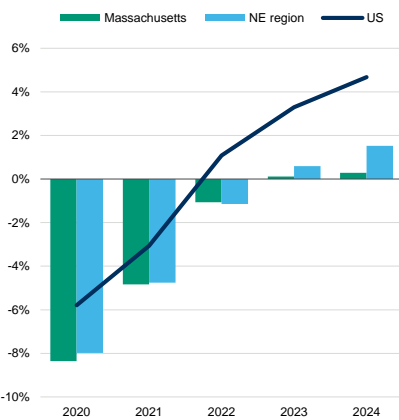
The Commonwealth of Massachusetts is the 16th-largest state by population, with an estimated 7.14 million residents as of 2024, according to the US Census Bureau. Its gross domestic product, at \$780.7 billion in 2024, ranks 12th among the states, according to the US Bureau of Economic Analysis.

## Detailed credit considerations

### Economy

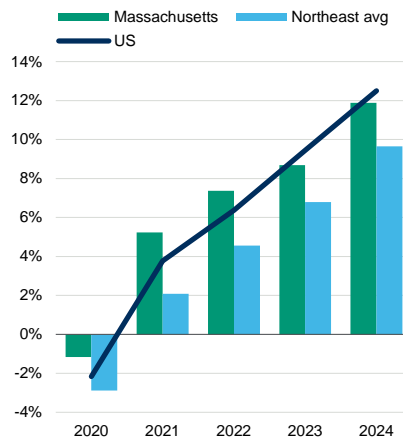
The Massachusetts economy should remain a credit strength, although some federal policy changes now taking shape pose a particular threat to core economic strengths in scientific research and development. Employment growth has been anemic (Exhibit 3), but until 2023, the commonwealth's growth in real GDP outpaced the nation's, and it has also exceeded an average of northeastern states, as shown in Exhibit 4. Above-average labor force participation constitutes a positive social factor, and unemployment in the state has remained low, ranging between 2% and 4% for most of the past three years. High per-capita income is yet another positive economic feature (Exhibit 5).

Exhibit 3  
**Labor market performance has lagged the nation's and regional job growth in recent years**  
 Cumulative change in nonfarm employment since 2019



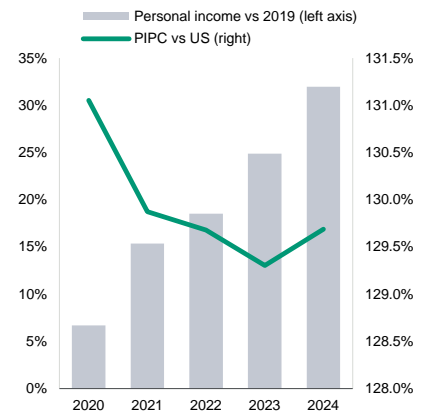
Annual changes based on average of monthly nonfarm employment for each year  
 Source: US Bureau of Labor Statistics

Exhibit 4  
**Real GDP growth outpaced average of Northeast states and at times the US**  
 Gross domestic product compared with 2019



Change in real GDP by calendar year compared since 2019; northeast average excludes Massachusetts and includes other New England states as well as New Jersey, New York and Pennsylvania.  
 Source: US Bureau of Economic Analysis

Exhibit 5  
**High per-capita personal income remains a strength**



Personal income per capita, unadjusted, by calendar year  
 Source: US Bureau of Economic Analysis

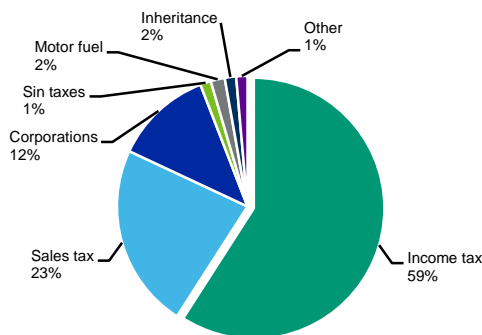
Supporting the state's income and wealth are high-paying economic sectors – including scientific research and development and computer systems design – that benefit from evolving technologies developed in connection with [Harvard University](#) (Aaa stable) and the [Massachusetts Institute of Technology](#) (Aaa stable) and other public and private institutions. The prominence of computer technology, biotechnology, robotics and other research and development oriented fields attracts a highly educated workforce. As of 2022, the share of residents 25 and over with a bachelor's degree was 47%, higher than any other state. Evolving federal policies including research funding reductions and possible expansion of university endowment taxes [poses a risk](#) to this important sector of the state's economy.

### Financial performance

The state forecast indicates revenue growth of 2.25% in fiscal 2026, which starts July 1. The projected \$41.2 billion of tax revenue<sup>1</sup> compares with estimated fiscal 2025 revenue of \$40.307 billion. These figures in both cases exclude the Fair Share Amendment revenue, which is projected at \$1.3 billion in fiscal 2025 and \$2.4 billion in fiscal 2026.<sup>2</sup> The state also expects to maintain a very strong rainy day fund balance, as shown in Exhibit 1.

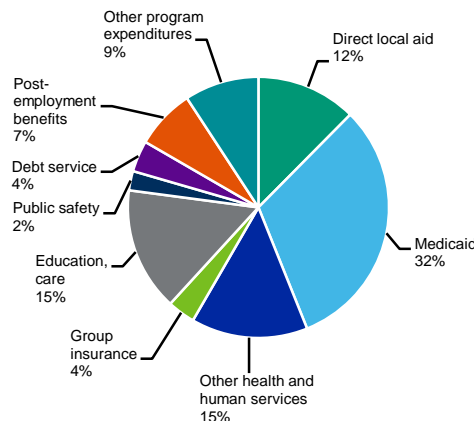
Stock market downturns or other conditions weighing on investment income and capital gains will pose a bigger threat to states, like Massachusetts, that have above-average reliance on taxes paid by high-income residents. Volatility in the financial markets has risen and equity market indexes have dropped substantially in the last two months. Continued losses may undermine state income tax revenue, including from the Fair Share measure, which imposed a 4% surtax on individual income exceeding \$1 million.

Exhibit 6  
**Income and sales tax account for more than four-fifths of tax revenue**



Budgeted operating funds, statutory basis  
 Source: Commonwealth of Massachusetts Information Statement

Exhibit 7  
**Expenditures of budgeted operating funds Fiscal 2024 (preliminary)**



Source: Commonwealth of Massachusetts Information Statement

**Liquidity**

As in other states, strengthening liquidity in recent years resulted from better-than-expected tax revenue after the pandemic-driven downturn. The state built up its Stabilization Fund (or rainy day fund), as shown in Exhibit 1. At the end of fiscal 2024, the fund's balance was \$8.5 billion – 4.5 times the average balance from 2011 through 2020 and the highest year-end balance on record.

In fiscal 2024, Massachusetts increased the fund's fiscal year-end allowable balance to 25.5% from 15% of total budgeted revenue for the year, with extra amounts, if any, allocated to a tax reduction fund. The fund receives 90% of state capital gains tax revenue above a certain level (\$1 billion, subject to annual inflation adjustment).

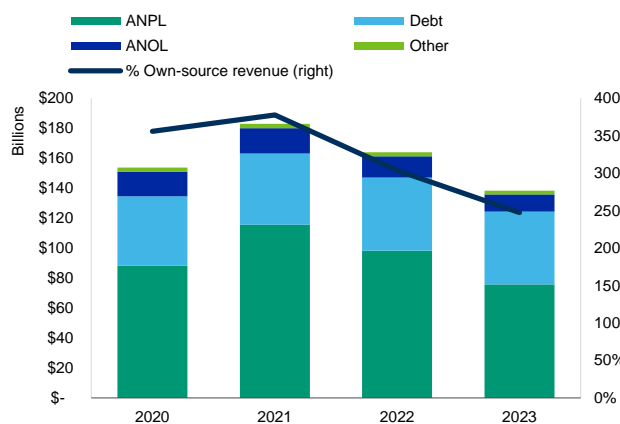
Massachusetts' available fund balance relative to revenue in fiscal 2023 fell just short of the median for all Aa1-rated states, at 31.4% compared to 35.3%. Notably, current reserve levels are far larger than the state historically has maintained and are sufficient to absorb a substantial economic downturn or revenue loss caused by federal policy changes. Strong cash balances have precluded the need external cash-flow borrowing since fiscal 2021. Additional liquidity sources include a \$500 million line of credit, which has no outstanding balance and expires in March 2026.

**Leverage**

Massachusetts' leverage incorporates unfunded retirement benefits and bonded debt that both are high as a share of revenue compared with other states. Elevated leverage is consistent with a practice of borrowing on behalf of several governmental entities, including transit and education and fully covering teacher pension liabilities. In this year's ranking, the state's leverage ratio (long-term liabilities including debt, ANPLs, OPEB and other liabilities divided by own-source revenue) was 247%, the sixth highest among states and more than double the sector median (101%).<sup>3</sup>

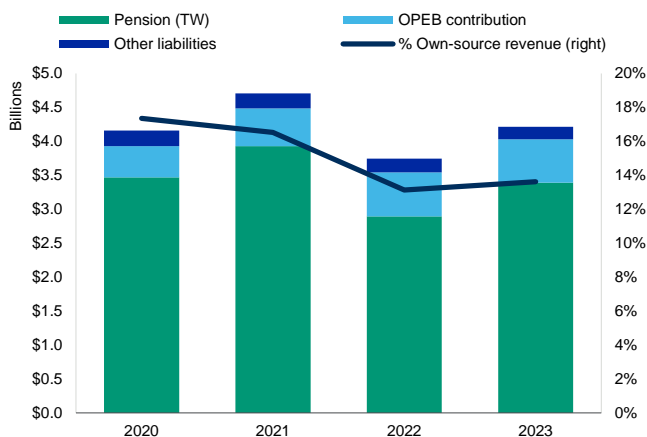
While the total liability burden remains elevated, the state has taken steps to moderate the leverage ratio by boosting annual pension contributions. Increased contributions, along with strong investment performance and market conditions driving up pension discount rates, led to a 23% decline during the fiscal 2023 reporting cycle. Still, the state's adjusted net pension liability (ANPL) accounted for 55% of total leverage. Across all states, ANPLs have similarly declined because of general market conditions, leading to stronger investment returns and higher discount rates used in determining present value of plan liabilities.

Exhibit 8  
Despite recent declines, leverage remains high in relation to revenue



Source: Audited financial report data with Moody's Ratings adjustments

Exhibit 9  
Fixed costs including pension tread water payments are elevated



Source: Audited financial report data with Moody's Ratings adjustments

**Legal security**

General obligation bonds carry the full faith and credit support of the Commonwealth of Massachusetts. However, state law limits annual tax revenue growth and does not exempt debt service payments from this limitation. Massachusetts also has several special tax bond programs that are limited obligations secured by specific revenue streams (Exhibit 10).

**Debt structure**

The state's net tax-supported debt is likely to remain elevated, as the commonwealth keeps pace with planned capital investments. General obligation bonds account for about two-thirds of outstanding debt. The remainder includes revenue bonds issued for transportation and convention centers and sales tax debt for other entities.

Exhibit 10  
Net tax-supported debt as of fiscal 2023

| Security                                       | Fiscal 2023 outstanding (000s) | Pledge   | Rating  |
|--|--------------------------------|--|---------|
| <b>GO and GO related</b>                       |                                |  |         |
| GO   | \$28,144,509                   | Commonwealth full faith and credit   | Aa1/STA |
| Contract Assistance                            | \$3,230,422                    | Commonwealth full faith and credit   | Aa1/STA |
| MBTA Prior Obligations                         | \$99,470                       | Commonwealth full faith and credit   | Aa1/STA |
| Capital Leases                                 | \$871,539                      |  | N/A     |
| <b>Revenue</b>                                 |                                |  |         |
| MSBA sales tax (senior and subordinate)        | \$5,915,372                    | Dedicated statewide sales tax  | Aa1/Aa2 |
| Commonwealth Transportation Fund               | \$3,917,772                    | Gas taxes and registry fees  | Aa1/STA |
| GANs   | \$499,170                      | Federal highway funds and sub- lien on gas taxes and registry fees             | Aa2/STA |
| Convention Center                              | \$426,235                      | Hotel occupancy tax; rental car surcharge; sales tax and sightseeing surcharge | Aa3     |
| MBTA sales tax and assessment (senior and sub) | \$5,415,370                    | Dedicated statewide sales tax and/or dedicated statewide assessments           | Aa2/Aa3 |
| <b>Total net tax-supported debt</b>            | <b>\$48,519,859</b>            |  |         |

As of April 2025, the MBTA's obligations backed by the commonwealth's full faith and credit had been economically defeased.  
Source: Massachusetts ACFR, MSBA and MBTA ACFRs, Moody's Ratings.

**Debt-related derivatives**

The Massachusetts Department of Transportation, a component unit of the commonwealth, is engaged in several interest rate swaps. Under these agreements, the DOT pays a fixed rate and receives a variable rate. As of June 30, 2024, the agreements had an aggregate fair value of \$2.25 million.

**Pensions and OPEB**

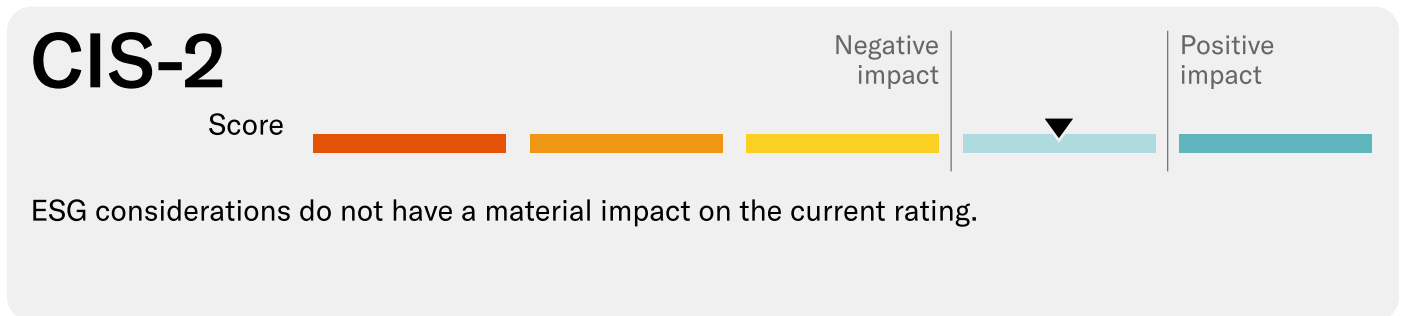
Massachusetts is responsible for K-12 teacher pensions in addition to state employees. If a similar practice of shouldering teacher plan contribution burdens is assumed for all states, then the Massachusetts ANPL-to-revenue statistic moves somewhat closer to the sector median, although it is still elevated.

The state's pension contributions in fiscal 2022 and 2023 exceeded the "tread water" amounts,<sup>4</sup> ending a period in which pension contributions fell below the tread water amounts. In 2022, the contribution exceeded the tread water level because of a \$250 million supplemental deposit from general revenue and \$126 million from capital gains taxes as required by statute

**ESG considerations**

**Massachusetts (Commonwealth of)'s ESG credit impact score is CIS-2**

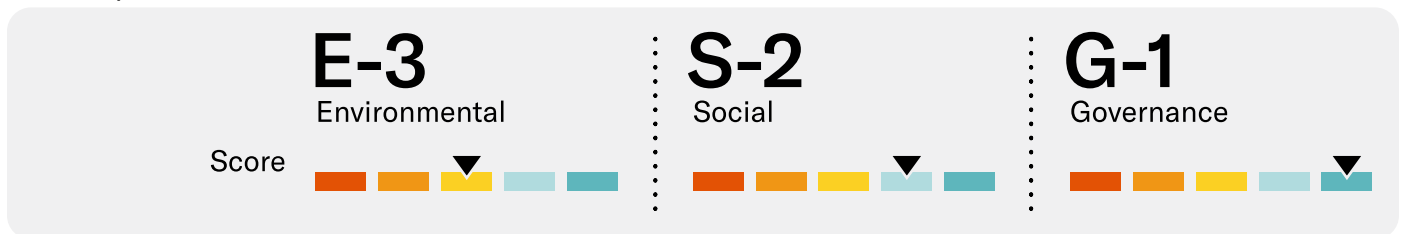
Exhibit 11  
ESG credit impact score



Source: Moody's Ratings

Massachusetts' ESG Credit Impact Score (**CIS-2**) reflects moderately negative exposure to climate risks, neutral-to-low exposure to social risks and a positive governance profile.

Exhibit 12  
ESG issuer profile scores



Source: Moody's Ratings

**Environmental**

Massachusetts' environmental issuer profile score (**E-3**) factors in exposure to physical climate risks, particularly hurricanes and resulting flooding. Other environmental risks have a neutral to low impact on Massachusetts' credit profile. The commonwealth is far along in transitioning its energy generation to renewable sources, and its economy relies largely on industries that are neither carbon-intensive nor dependent on the commonwealth's natural capital. Hurricane risk affects 95% of state GDP, and about half of state GDP is vulnerable to flooding. The vast majority of the commonwealth's economic activity is concentrated along its coastline, particularly in the city of Boston (Aaa stable), which drives up vulnerability to physical climate risks.

### Social

Massachusetts' issuer profile score (**S-2**) incorporates a highly educated workforce, high income levels, and labor force participation significantly higher than the nation, offset by weak demographic metrics that include lagging population growth. The state's population is somewhat older (median age is 40.3 years, compared with the US median of 39.2 years). The state's prime working-age population, defined as people 25 to 54 years old, peaked in 2001, although the percentage of residents in this age range is slightly better than the nation's (39% compared with 38%).

### Governance

Massachusetts' governance practices are generally very strong, reflected in a **G-1** issuer profile score. These practices include consensus revenue estimating and publishing multiyear debt affordability plans. Delayed budget adoption is common in Massachusetts. Budget delays typically result from a multilayered approval process that requires three separate budgets to be combined into one final document. Interim budgets are put in place to ensure continuing operations and payment of debt service.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moody's.com. In order to view the latest scores, please click [here](#) to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

## Rating methodology and scorecard factors

The US States and Territories methodology includes a scorecard, which summarizes the rating factors generally most important to state and territory credit profiles. Because the scorecard is a summary and may not include every consideration in the credit analysis for a specific issuer, a scorecard-indicated outcome may or may not map closely to the actual rating assigned. The Aa1 rating assigned differs from the Aaa scorecard-indicated rating because of long-term retirement liabilities that will remain comparatively large, despite beneficial factors in the last few years (primarily higher interest rates) that likely will prove temporary.

Exhibit 13

### US States and Territories scorecard Commonwealth of Massachusetts

|   | Measure | Weight | Score |
|---|---------|--------|-------|
| <b>Economy</b>  |         |        |       |
| Resident Income (PCI Adjusted for RPP / US PCI)                                   | 118.1%  | 15%    | Aaa   |
| Economic Growth (5-year CAGR real GDP - 5-year CAGR US real GDP)                  | 0.2%    | 15%    | Aaa   |
| <b>Financial performance</b>  |         |        |       |
| Financial performance   | Aaa     | 20%    | Aaa   |
| <b>Governance/Institutional Framework</b>   |         |        |       |
| Governance/Institutional Framework  | Aaa     | 20%    | Aaa   |
| <b>Leverage</b>   |         |        |       |
| Long-term liabilities ratio (adjusted long-term liabilities / own-source revenue) | 247.4%  | 20%    | A     |
| Fixed-costs ratio (adjusted fixed costs / own-source revenue)                     | 13.6%   | 10%    | Aa    |
| <b>Notching factors</b>   |         |        |       |
| Very limited and concentrated economy   | N/A     |        |       |
| Scorecard-Indicated Outcome   |         |        | Aaa   |
| <b>Assigned rating</b>  |         |        | Aa1   |

Source: Massachusetts ACFR, MSBA and MBTA ACFRs, Moody's Ratings

## Endnotes

- Executive Office for Administration and Finance, revenue projection as of January 22, 2025; estimate is subject to change.
- Starting in January 2023, the state levied a 4% surtax on net income exceeding \$1 million, after voters approved the tax in a ballot measure. The \$1 million threshold is annually adjusted for inflation. For tax year 2025, the threshold is \$1.083 million.
- "[Revenue growth and lower ANPLs boost capacity to manage long-term debt](#)"; 7 October 2024.
- The tread water indicator is the cost for a government to prevent its reported unfunded liabilities from growing, under its actuarial assumptions.



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