

RatingsDirect®

Massachusetts; Appropriations; CP; General Obligation; General Obligation Equivalent Security

Primary Credit Analyst:

David G Hitchcock, New York (1) 212-438-2022; david.hitchcock@spglobal.com

Secondary Contact:

Timothy W Little, New York + 1 (212) 438 7999; timothy.little@spglobal.com

Table Of Contents

Rating Action

Stable Outlook

Credit Opinion

Related Research

Massachusetts; Appropriations; CP; General Obligation; General Obligation Equivalent Security

Credit Profile

US\$500.0 mil GO bnds ser 2020 E due 09/01/2050		
<i>Long Term Rating</i>	AA/Stable	New
US\$444.090 mil GO rfdg bnds ser 2020 E due 09/01/2032		
<i>Long Term Rating</i>	AA/Stable	New
US\$417.655 mil GO rfdg bnds ser 2020 D due 09/01/2040		
<i>Long Term Rating</i>	AA/Stable	New
Massachusetts GO		
<i>Long Term Rating</i>	AA/Stable	Affirmed

Rating Action

S&P Global Ratings assigned its 'AA' long-term rating to the Commonwealth of Massachusetts' \$500 million general obligation (GO) bonds consolidated loan of 2020, series E; \$417.655 million GO refunding bonds, series D; and \$444.090 million GO refunding bonds, 2020 series E (federally taxable).

At the same time, S&P Global Ratings affirmed its 'AA' rating on the commonwealth's outstanding GO debt; and its 'A' long-term rating on the Boston Housing Authority's series 2003 housing project bonds (West Broadway Homes IV project), supported by a commonwealth annually appropriated state-operating subsidy, subject to the terms of a trust agreement. In addition, S&P Global Ratings affirmed its 'A-1+' short-term rating on Massachusetts' GO-secured commercial paper.

The outlook on all long-term ratings is stable.

Massachusetts' full faith and credit are pledged to the GO bonds and commercial paper.

The series 2020E bonds will fund various capital projects as part of the commonwealth's ongoing long-term capital plan, while the refunding series D and E bonds will refund various bond series outstanding.

Credit overview

Massachusetts entered the recent recession with a strong budget stabilization fund (BSF) balance, which should serve to cushion the commonwealth against a newly revised forecast of a 6% drop in tax revenue in fiscal 2021. Recent tax revenues are coming in slightly ahead of last year, which will help the state as it adopts its final fiscal 2021 budget, after a series of short-term interim budgets. The October 2020 monthly revenue report shows October tax collections up 3.1% over the same one-month October period in 2019, and fiscal 2021 year-to-date tax collections are up 1.3%. This is slower revenue growth than the commonwealth experienced in recent years, and could turn negative when the effects of federal stimulus wear off or if a new wave of coronavirus infections occur, but the numbers to date are not as weak as feared earlier in the year.

As a precaution against the extension of its income tax filing deadline into July, Massachusetts drew \$500 million on a \$1.75 billion revolving cash flow credit facility in June. However, the commonwealth still ended June 2020 with a good nonsegregated operating cash balance of \$3.4 billion (which does not include the BSF), and the \$500 million draw has since been repaid. The state even added slightly to its BSF in fiscal 2020 due to earnings on the fund and other small transfers. Fiscal 2020 ended with a BSF of \$3.5 billion, or what we consider a strong 7.3% of expenditures and other uses, almost unchanged from \$3.4 billion and 7.3% at fiscal year-end 2019.

The state issued a new fiscal 2021 revenue forecast in October that was used as the basis of a revised fiscal 2021 budget proposal from the governor. The governor proposes drawing \$1.35 billion from the BSF in fiscal 2021 and using \$422 million of the operating fund's beginning balance, while maintaining essentially level service levels with fiscal 2020. This would lower the BSF to \$2.2 billion, or what we would view as a still-good 4.5% of expenditures and other uses. Budgeted operating tax revenue would fall 6.4% in fiscal 2021, but after increases in federal aid and interfund transfers, the fall in total budgeted operating revenues and other sources would be only 1.0%. The legislature is expected to enact a final fiscal 2021 budget in the next month or two. The state will next make a revenue forecast in December in preparation for the governor's fiscal 2022 budget proposal.

We believe that Massachusetts' economy, with a substantial tech sector presence in the Boston area, might be well-positioned to thrive when COVID-19 pandemic restrictions are fully lifted, although capital gains tax could be a weakness in this income tax-dependent state.

While Massachusetts has high income levels and a good rainy-day fund, this is partially offset by high debt and persistent underfunding of its annual actuarial pension contribution. The commonwealth has contributed less than its actuarial annual required contribution (ARC) since 2011 and appears to be falling further behind due to recent retirement fund investment returns below actuarial assumptions, despite steep 9.6% per year scheduled increases in pension contributions in future years.

The stable outlook reflects our view that Massachusetts' strong BSF provides a cushion allowing the state to ride out the current pandemic-related economic slowdown without significant liquidity pressure. This supposes that the commonwealth's economy will rebound after fiscal 2021, and that Massachusetts will rebuild its BSF once the economy is again in an expansionary mode.

Factors supporting the 'AA' GO rating include what we view as Massachusetts':

- Deep and diverse economy, which has outperformed the nation on several economic indicators in recent years;
- High income levels, with per capita income at 132% of the nation in 2019, the second-highest among the states;
- A history of timely monitoring of revenues and expenditures and swift action when needed to make adjustments;
- Strong financial, debt, and budget management policies, including annualized formal debt affordability statements, and multiyear capital investment planning; and
- Good BSF balance, equal to an estimated 7.3% of expenditures and other uses on a preliminary basis at fiscal year-end 2020. The governor's budget proposal for fiscal 2021 would make a moderate \$1.35 billion draw on the BSF, leaving a 4.5% balance.

Offsetting factors include high debt, pension, and other postemployment benefits (OPEB) liabilities.

In particular, the commonwealth has a low 59.3% combined pension funded ratio on a Governmental Accounting Standards Board (GASB) basis and has contributed less to its pension funds than to the ARC in every fiscal year since 2011. However, Massachusetts has put in place a plan to increase annual pension contributions a steep 9.63% per year to fully amortize unfunded pension liabilities by 2036, although with recent stock market declines, achievement of full funding could be pushed back, or the state might need to increase pension contributions even more steeply. However, the \$958 million shortfall against the ARC budgeted in fiscal 2020, which we view as a structural deficit, was only about 2% of estimated fiscal 2020 budgeted operating expenditures. The commonwealth is paying 75% of the ARC in fiscal 2020, the same level as the year before, and we calculate that pension contributions in fiscal 2019 to Massachusetts' employee retirement system were only 86% of static funding requirements, and 83% of static funding for the teachers' pension system. Massachusetts projects state pension contributions will increase by \$2.1 billion above the fiscal 2020 level by 2026, the year when the commonwealth projects annual payments will equal the ARC, assuming it continues to increase payments 9.63% per year and pension returns this year meet existing actuarial assumptions.

Based on the analytic factors we evaluate for states, on a scale of '1.0' (strongest) to '4.0' (weakest), we have assigned a composite score of '1.9' to Massachusetts, which is consistent with a 'AA' indicative rating.

For more information, please refer to our Massachusetts full analysis published Feb. 14, 2020, on RatingsDirect.

Environmental, social, and governance factors

We consider Massachusetts' environmental, social, and governance risks as being generally in line with the state sector, and the commonwealth has historically maintained a stable management and policy framework to respond to developing risks.

Stable Outlook

Downside scenario

We could lower the rating if we believe Massachusetts will fail to make budget adjustments to maintain near-structural balance even after fully drawing down its BSF. Factors that could pressure the rating include a slow rebound in tax revenue next year or overly optimistic revenue projections, significant unexpected growth in Medicaid costs, even with increased federal reimbursement under the Families First Coronavirus Response Act, or significant increases in debt or other fixed costs. In particular, weak liquidity, significant deficit borrowing, or a significant fall in pension funded levels due to the commonwealth falling significantly behind static pension funding contribution levels, could trigger a negative outlook or downgrade.

Upside scenario

We do not foresee a positive outlook in the near term due to the pandemic-related economic slowdown and its impact on state tax revenue. In the longer term, an upgrade would require a rebound in Massachusetts' economy, the commonwealth instituting measures to strengthen its pension funding discipline based on a prudent actuarial footing, and the resumption of a BSF build-up as a matter of budgetary policy.

Credit Opinion

Massachusetts economy

Massachusetts' economy was strong going into the current recession, with a low 2.9% average unemployment rate in 2019, compared with 3.7% for the nation. Nevertheless, the commonwealth's economy has been affected by pandemic restrictions, and had the nation's highest monthly unemployment rate in June of 17.7%. According to the Bureau of Labor Statistics, preliminary state unemployment in September was 9.6%, compared with 7.9% nationally.

IHS Markit forecasts a 3.9% drop in real gross state product (GSP) in calendar 2020, compared with a 3.5% drop for the U.S., followed by 3.6% growth in 2021, slightly below the 3.7% growth IHS Markit forecasts for the nation. Much of the commonwealth's recent growth has been in the professional, scientific, and technical services sector, which consists of higher-paying jobs, and Massachusetts has an above-average high-technology employment sector, which IHS Markit estimated pre-pandemic at about 10% of state employment, compared with 6.5% for the U.S. as a whole. The GSP rose a strong 2.5% in 2019 according to the federal Bureau of Economic Analysis, compared with 2.3% for the U.S., and state per capita income was 132% (second only to Connecticut). In our view, Massachusetts' economic fundamentals and key anchors, which center on higher education, technology, finance, and health care, should position the commonwealth for an economic rebound once pandemic restrictions are lifted.

Generally accepted accounting principles (audit results)

On a generally accepted accounting principles (GAAP) basis, Massachusetts ended fiscal 2019 (the most recent audited year) with an available assigned and unassigned general fund balance of \$2.44 billion, plus a BSF balance of \$3.42 billion. This led to a combined available balance plus BSF of \$5.87 billion, which we view as strong at 14.1% of general fund expenditures and transfers out, up from 8.7% at fiscal year-end 2018.

Liabilities

By most measures, we believe Massachusetts' debt burden remains high compared with that of other states, in part due to the commonwealth's support for local infrastructure. At audited fiscal year-end 2019, we calculate GO debt of \$23.7 billion and total tax-supported debt of \$39.0 billion, producing total tax-backed debt per capita of \$5,652, and 7.5% of personal income. Tax-backed debt includes GO debt, and sales and gas tax-supported debt, including Massachusetts Bay Transportation Authority and Massachusetts School Building Authority debt supported from state resources, capital leases, and general fund contract assistance-supported debt that supports Massachusetts Department of Transportation. We calculate fiscal 2019 total tax-backed debt service at 6.9% of general governmental spending on a GAAP audited basis, a level we view as moderately high. As of March 31, 2020, the commonwealth had \$24.1 billion of GO debt outstanding.

Other long-term liabilities are also large, in our opinion. We believe Massachusetts' share of the net pension liability for combined state pensions systems is high at \$37.7 billion as of the Jan. 1, 2019, valuation date on a GASB Statement nos. 67 and 68 basis, or \$6,037 per capita, and 8.1% of personal income. The aggregate funded ratio fell slightly to 59.3% in 2019 from 60.7% in 2018, with a 60% three-year average. Some of the reason net pension liabilities have not shown much improvement is that Massachusetts decided to lower its assumed actuarial return to a less aggressive 7.25% as of Jan. 1, 2019, from 7.35% in 2018, 7.50% in 2016, and 7.75% in 2015, which increased the actuarial

liabilities. The state reports a preliminary retirement fund investment return of 2.4% in fiscal 2020, following a 6.1% return in 2019.

Due to the pandemic, the state has announced it will not conduct an actuarial pension valuation for fiscal 2020. In normal years, Massachusetts resets its fixed multiyear pension contribution schedule only once every three years. The commonwealth sets its annual pension contribution based on its own methodology under state statute; it has not fully funded its ARC since fiscal 2011, but expects to reach full ARC funding by 2026 under its plan to increase annual pension contributions 9.63% per year to fully amortize the unfunded liability by 2036. We believe that state revenue is not likely to grow at 9.63% per year, and that rising pension contributions, even if the state hits or exceeds its actuarial assumptions, will likely pressure the operating budget.

In our opinion, Massachusetts' unfunded OPEB is also moderately high, although it has decreased significantly following recent deposits into an OPEB trust fund. The commonwealth's net OPEB liability on a GASB No. 74 basis has decreased to \$12.2 billion as of a June 30, 2019, valuation date, or \$1,774 per capita, from \$17.5 billion as recently as fiscal 2017, as offsetting OPEB trust fund assets rose to \$1.4 billion. In 2018 and 2019, Massachusetts originally budgeted to transfer 10% of tobacco settlement revenue into its OPEB trust fund, but subsequent legislation after the close of each fiscal year increased this to 30%. In fiscal 2019, \$42.4 million of excess capital gains tax was also transferred into the OPEB trust fund. As of fiscal 2019, the OPEB trust fund was 10.1% funded on a GASB basis, with assets of \$1.4 billion.

Commonwealth of Massachusetts--Financial Summary

(\$ millions)

	Executive budget		Preliminary			
	2021	2020	2019	2018	2017	2016
Budgetary basis operating funds--June 30 fiscal years						
Total budgeted revenues and other sources	47,508	48,006	48,376	45,036	41,785	40,838
Total expenditures and other uses	49,439	47,711	46,803	44,097	41,819	40,927
Net operating surplus/shortfall	(1,931)	295	1,573	939	(34)	(89)
As % of expenditures and other uses	-3.9%	0.6%	3.4%	2.1%	-0.1%	-0.2%
Rainy-day fund	2,207	3,501	3,424	2,001	1,301	1,292
As % of expenditures and other uses	4.5%	7.3%	7.3%	4.5%	3.1%	3.2%
Total operating funds balances	2,322	4,254	3,959	2,387	1,448	1,482
As % of expenditures	4.7%	8.9%	8.5%	5.4%	3.5%	3.6%
Audited GAAP basis--general fund			2019	2018	2017	2016
Revenues	N/A	N/A	42,844	40,469	37,396	36,690
Expenditures	N/A	N/A	38,853	37,798	36,507	35,531
Net other financing sources and uses	N/A	N/A	(1,647)	(1,493)	(1,125)	(1,329)
Net result	N/A	N/A	2,354	1,178	(236)	(169)
Total ending GF balance	N/A	N/A	5,870	3,516	2,338	2,574
As % of expenditures and transfers out	N/A	N/A	14.1%	8.7%	6.0%	6.7%
Available GF balance (assigned + unassigned balances)	N/A	N/A	2,446	1,514	1,037	1,283
Budget stabilization fund balance	N/A	N/A	3,424	2,001	1,301	1,292
Combined available GF and BSF balance as % of expenditures and transfers out	N/A	N/A	14.1%	8.7%	6.0%	6.7%

Related Research

- Through The ESG Lens 2.0: A Deeper Dive Into U.S. Public Finance Credit Factors, April 28, 2020

Ratings Detail (As Of November 10, 2020)

Massachusetts go bnds cons loan ser 2019F due 05/01/2029

<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts CP		
<i>Short Term Rating</i>	A-1+	Affirmed
Massachusetts CP A		
<i>Short Term Rating</i>	A-1+	Affirmed
Massachusetts CP B		
<i>Short Term Rating</i>	A-1+	Affirmed
Massachusetts GO		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts GO		
<i>Long Term Rating</i>	AA/Stable	Affirmed

Ratings Detail (As Of November 10, 2020) (cont.)		
Massachusetts GO		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts GO		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts GO bnds, consolidated loan of 2019 (Federally Taxable) ser 2019H due 09/01/2049		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts GO cons loan of 2020 ser D due 03/01/2050		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts GO rfdg bnds ser 2019 C due 05/01/2031		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts GO rfdg bnds ser 2020A due 03/01/2042		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts GO VRDB		
<i>Long Term Rating</i>	AA/A-1/Stable	Affirmed
Massachusetts GO VRDB		
<i>Long Term Rating</i>	AA/A-1+/Stable	Affirmed
Massachusetts GO (wrap of insured) (FGIC & BHAC) (SEC MKT)		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Affirmed
Massachusetts GO (AGM)		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Affirmed
Massachusetts GO (AGM) (SEC MKT)		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Affirmed
Massachusetts GO (AMBAC)		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Affirmed
Massachusetts GO (BAM) (SECMKT)		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Affirmed
Massachusetts GO (BAM) (SECMKT)		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Affirmed
Massachusetts GO (BAM) (SECMKT)		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Affirmed
Massachusetts GO (BAM) (SECMKT)		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Affirmed
Massachusetts GO (BAM) (SEC MKT)		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Affirmed
Massachusetts GO (CIFG)		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Affirmed
Massachusetts GO (FGIC)		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Affirmed
Massachusetts GO (FGIC) (National)		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Affirmed

Ratings Detail (As Of November 10, 2020) (cont.)

Massachusetts GO (MBIA) (National)		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Affirmed
Massachusetts GO (SYNCORA GTY)		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Affirmed
Massachusetts GO		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts GO		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts GO		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts GO		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts GO		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts GO		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts GO		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Boston Hsg Auth, Massachusetts		
Massachusetts		
Boston Hsg Auth (Massachusetts) APPROP		
<i>Long Term Rating</i>	A/Stable	Affirmed
Massachusetts Bay Transp Auth, Massachusetts		
Massachusetts		
Massachusetts Bay Transp Auth (Massachusetts) GOEQUIV (MBIA) (National)		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Affirmed
Massachusetts Bay Transp Auth (Massachusetts) GOEQUIV		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts Bay Transp Auth (Massachusetts) GOEQUIV RMKTD		
<i>Long Term Rating</i>	AA/A-1/Stable	Affirmed
Massachusetts Bay Transp Auth (Massachusetts) GOEQUIV (FGIC) (National)		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Affirmed
Massachusetts Development Finance Agency, Massachusetts		
Massachusetts		
Massachusetts Dev Fin Agy (Massachusetts) GO		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Univ of Massachusetts Bldg Auth, Massachusetts		
Massachusetts		
University of Massachusetts Bldg Auth (Massachusetts) GOEQUIV		
<i>Long Term Rating</i>	AA/A-1/Stable	Affirmed
Univ of Massachusetts Bldg Auth (Massachusetts) GOEQUIV		

Ratings Detail (As Of November 10, 2020) (cont.)

<i>Long Term Rating</i>	AA/A-1+/Stable	Affirmed
Many issues are enhanced by bond insurance.		

Copyright © 2020 by Standard & Poor's Financial Services LLC. All rights reserved.

No content (including ratings, credit-related analyses and data, valuations, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of Standard & Poor's Financial Services LLC or its affiliates (collectively, S&P). The Content shall not be used for any unlawful or unauthorized purposes. S&P and any third-party providers, as well as their directors, officers, shareholders, employees or agents (collectively S&P Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Parties are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, for the results obtained from the use of the Content, or for the security or maintenance of any data input by the user. The Content is provided on an "as is" basis. S&P PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs or losses caused by negligence) in connection with any use of the Content even if advised of the possibility of such damages.

Credit-related and other analyses, including ratings, and statements in the Content are statements of opinion as of the date they are expressed and not statements of fact. S&P's opinions, analyses and rating acknowledgment decisions (described below) are not recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security. S&P assumes no obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P does not act as a fiduciary or an investment advisor except where registered as such. While S&P has obtained information from sources it believes to be reliable, S&P does not perform an audit and undertakes no duty of due diligence or independent verification of any information it receives. Rating-related publications may be published for a variety of reasons that are not necessarily dependent on action by rating committees, including, but not limited to, the publication of a periodic update on a credit rating and related analyses.

To the extent that regulatory authorities allow a rating agency to acknowledge in one jurisdiction a rating issued in another jurisdiction for certain regulatory purposes, S&P reserves the right to assign, withdraw or suspend such acknowledgment at any time and in its sole discretion. S&P Parties disclaim any duty whatsoever arising out of the assignment, withdrawal or suspension of an acknowledgment as well as any liability for any damage alleged to have been suffered on account thereof.

S&P keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units of S&P may have information that is not available to other S&P business units. S&P has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.

S&P may receive compensation for its ratings and certain analyses, normally from issuers or underwriters of securities or from obligors. S&P reserves the right to disseminate its opinions and analyses. S&P's public ratings and analyses are made available on its Web sites, www.standardandpoors.com (free of charge), and www.ratingsdirect.com (subscription), and may be distributed through other means, including via S&P publications and third-party redistributors. Additional information about our ratings fees is available at www.standardandpoors.com/usratingsfees.

STANDARD & POOR'S, S&P and RATINGSDIRECT are registered trademarks of Standard & Poor's Financial Services LLC.