

RatingsDirect®

Summary:

**Massachusetts; Appropriations; CP;
General Obligation; General
Obligation Equivalent Security; Joint
Criteria; Sales Tax**

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Summary:

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Credit Profile

US\$400.0 mil go bnds cons loan of 2018 ser B due 01/01/2048		
<i>Long Term Rating</i>	AA/Stable	New
US\$200.0 mil go bnds cons loan of 2018 ser A due 01/01/2048		
<i>Long Term Rating</i>	AA/Stable	New
Massachusetts GO		
<i>Long Term Rating</i>	AA/Stable	Affirmed

Rationale

S&P Global Ratings has assigned its 'AA' rating to the Commonwealth of Massachusetts' \$200 million general obligation (GO) bonds, consolidated loan of 2018, series A, and \$400 million GO bonds, consolidated loan of 2018, series B.

In addition, S&P Global Ratings has affirmed its 'AA' rating on approximately \$23 billion of parity GO bonds outstanding, and its 'A' rating on Boston Housing Authority housing project bonds, West Broadway Homes IV project, series 2003, supported by the commonwealth. The outlook on all ratings is stable. We have also affirmed our 'A-1+' short-term rating on the state's GO-secured commercial paper.

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

- Deep and diverse economy, which continues to outperform the nation on several economic indicators;
- High income levels, with per capita income at 130% of the nation in 2016;
- 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
- Modest budget stabilization fund (BSF) balance, equal to 3.1% of expenditures at fiscal year-end 2017.

Offsetting factors include high debt, pension, and other postemployment benefit (OPEB) liabilities. In particular, the commonwealth has a low 57% pension-funded ratio and has contributed less to its pension funds in recent years than the actuarial annual required contribution (ARC) using the state's actuarial methodology; however, Massachusetts has put in place a plan to increase annual pension contributions 8.9% per year in order to fully amortize unfunded pension liabilities by 2036. The state has budgeted to pay 73% of the ARC in fiscal 2018.

We understand consolidated loan 2018 series A and B bond proceeds will be used to fund various capital projects included in the commonwealth's five-year capital improvement plan.

Massachusetts' economy has recovered steadily, outpacing national and regional trends by most measures. Real state GDP rose 2.02% in 2016, compared with 1.54% for the nation. The commonwealth's average annual unemployment rate in 2016 was 3.7% compared with 4.9% for the nation. The state unemployment rate inched up slightly to 4.3% as of July 2017, before falling back to a preliminary rate of 3.7% in October, reflecting a slight decline in the labor force. Following the financial crisis, employment growth was strong relative to that of other states and the commonwealth regained its pre-recession employment peak in 2013, according to the Bureau of Labor Statistics. However, IHS Markit forecasts slightly lower state employment growth in 2018, 2019, and 2020 at 1.2%, 1.0%, and 0.5% respectively, in those years, compared with its forecast of 1.5%, 1.3%, and 0.7% for the U.S. in those years, respectively. In our view, Massachusetts' economic fundamentals and key anchors, which center on higher education, technology, and health care, should contribute to continued expansion. Income growth has also been strong relative to that of other states, with 2016 per capita personal income ranked second behind that of Connecticut, at 130% of the U.S. average.

Despite a prolonged period of economic expansion and generally positive revenue trends, Massachusetts continues to operate with thin operating margins and has needed to make midyear budget adjustments over each of the past three years to address a combination of revenue shortfalls and spending pressures. In fiscal 2017, the state made several rounds of midyear spending adjustments to close identified revenue shortfalls; actual tax revenues in fiscal 2017 came in at 95.5% of budgeted revenues. The commonwealth ended fiscal 2017 with a BSF balance of \$1.3 billion, or an adequate 3.1% of operating expenditures and other uses, almost unchanged from the year before.

The commonwealth is currently budgeting for a fiscal year-end 2018 BSF balance of \$1.4 billion, or 3.2% of expenditures and other uses, should capital gains tax meet budgeted levels. Massachusetts reports that for the five months through November 2017, preliminary fiscal 2018 tax revenues were approximately \$204 million above its benchmark revenue estimate, which includes a change in budgetary accounting to accrue an extra 13th month of sales tax (\$125 million) within fiscal 2018 that normally would have accrued to fiscal 2019. The extra \$204 million received in the first five months of fiscal 2018 is slightly more than the small \$150 million negative undesignated operating fund balance originally projected by the state following budget adoption and legislative overrides of the governor's line item vetoes. Total fiscal 2018 operating funds balances including the BSF, the undesignated balance, and reserved or designated balances, are projected currently at \$1.3 billion, or 2.9% of expenditures and other uses, before giving effect to tax revenues that may potentially exceed budget, compared to actual ending total operating funds balances of \$1.4 billion and 3.5% at fiscal year-end 2017. The enacted fiscal 2018 budget, exclusive of vetoes, projects 3.7% growth in operating fund tax revenue, and 3.3% total operating revenue growth. We view the 2018 budget as generally structurally balanced, except for the \$898 million actuarial shortfall in funding the 2018 annual pension contribution, amounting to about 2% of expenditures and other uses.

In previous years, enacted budgets have overridden statutory procedure for transferring certain excess capital gains tax into the BSF in order to use it for operating spending. Massachusetts is projecting capital gains taxes at about its threshold for determining excess capital gains in fiscal 2018, and it is unclear this early in the year the extent to which excess capital gains tax may be available to distributed to the BSF per formula.

Other budgetary pressures for fiscal 2018 and beyond include MassHealth expenses that are budgeted to rise at a faster rate than revenues and that have been one of main sources of previous midyear budget adjustments. Additional

long-term pressures include a state pension payment schedule that increases annual pension contributions by 8.9% annually, a pace we believe is likely to exceed revenue growth. Although we recognize that Massachusetts has made budgeting its fixed costs a priority, we also view the growth in these areas as placing increased pressure on the commonwealth's ability to maintain structural balance. We calculate that combined operating funds debt service, pension, and OPEB costs (not including a \$25 million advance contribution to an OPEB trust fund) budgeted in fiscal 2018 total \$5.2 billion, or 12.1% of budgeted expenditures and other uses.

A citizen's initiative has qualified for the November 2018 ballot for a 4% income tax surcharge on individuals making more than \$1 million per year, but the proceeds would be targeted for specific purposes. This initiative is currently undergoing a court challenge. Four other initiatives are also circulating that would reduce the state sales tax rate, with potential effect on future years' budgets, although none has qualified for the ballot. We believe recent federal tax reform that reduces federal income tax deductibility for state property and income tax could also have an unknown future negative economic effect on high tax states, such as Massachusetts (see "U.S. Tax Reform: Legislation Lays Groundwork For Reshaping the Federal-State Fiscal Relationship," published Dec. 4, 2017, on RatingsDirect).

On a generally accepted accounting principles basis, Massachusetts ended fiscal 2016 (the most recent audited year) with an available assigned and unassigned general fund balance of \$1.28 billion, plus a BSF balance of \$1.29 billion. This led to a combined balance that we view as still strong at 6.6% of general fund expenditures and transfers out, but down from 7.5% in fiscal 2015.

By most measures, we believe Massachusetts' debt burden remains high compared with that of other states. At fiscal year-end 2016, we calculate GO debt of \$21.7 billion and total tax-supported debt of \$35.4 billion, producing total tax-backed debt per capita of \$5,199, and 8.1% of personal income. As of Nov. 30, 2017, the commonwealth had \$22.6 billion of GO debt outstanding. Planned debt issuance remains within the parameters of Massachusetts' debt affordability policy and bond cap. A capital and debt affordability committee includes seven voting and eight nonvoting members from the legislature and is charged with formally reviewing the CIP and providing an estimate of debt authorization for each year to stay within certain debt parameters. Massachusetts' currently anticipates selling about \$2.1 billion of new capital debt in fiscal 2018, similar to issuance levels in each of the past two years. We calculate fiscal 2016 total tax-backed debt service at 7.3% of general governmental spending, a level we view as moderately high.

Other long-term liabilities are also large, in our opinion. We believe Massachusetts' share of the combined net pension liability for state employees' and teachers' retirement systems is high at \$37.7 billion as of the Jan. 1, 2016, valuation date on a Governmental Accounting Standards Board (GASB) 67/68 basis, or \$5,534 per capita, and 8.6% of personal income. The aggregate funded ratio dropped to 57.3% from 60.7% in fiscal 2016 on a GASB basis and the three-year average declined to 62% from 63% in fiscal 2016. The decline in the commonwealth's actuarial pension funded ratio as of the Jan. 1, 2016, actuarial valuation date was primarily due to the state's decision to lower assumed actuarial returns to a less aggressive 7.50% in 2016 from 7.75%, after previously lowering it to 7.75% from 8.00% in 2015. Massachusetts' actuarial report as of Jan. 1, 2017, using the state's actuarial methodology, shows an essentially unchanged combined funded ratio of 56.7% on an actuarial basis and 55.8% on a market value basis. Massachusetts sets its annual pension contribution based on its own methodology under state statute; it has not fully funded its ARC

since fiscal 2011, but currently plans to increase pension contributions 8.9% per year to fully amortize the unfunded liability by 2036.

In our opinion, Massachusetts' unfunded OPEB is also moderately high, at \$19.4 billion as of Jan. 1, 2017, net of \$817.4 million of actuarial assets in an OPEB trust fund, or \$2,855 per capita. Massachusetts has in recent years made payments to an OPEB trust fund, with the increase in unfunded OPEB from \$16.3 billion the year before primarily attributable to use of a more conservative 3.6% actuarial discount rate. In 2018, the state has appropriated 10% of tobacco settlement revenue, equal to about \$25 million into its OPEB trust fund.

(For more information on the State of Massachusetts, please see our most recent GO full analysis published Oct. 12, 2017.)

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.

Outlook

The stable outlook reflects our view that Massachusetts' strong economic growth and proactive management will allow the commonwealth to continue to manage its budgetary pressures, even amid midyear budget shortfalls, albeit with some continued use of one-time measures to balance the budget. At the current rating level, we expect the commonwealth to maintain relatively stable, although somewhat limited, reserves. We further expect it to take measures to manage the potential state financial impact of federal tax reform, or potential future federal entitlement reforms, should such federal legislation negatively affect revenues.

Upside scenario

Should the commonwealth demonstrate a renewed commitment to building its reserves during periods of economic growth, absent rising long-term liability funding pressures, we could raise the rating.

Downside scenario

The rating could see further downward pressure if the commonwealth fails to maintain near-structural balance during periods of economic expansion. Among the factors that could further pressure the rating are increased Medicaid costs, reduced revenues due to income tax cyclicalities or the economic impact of federal tax reform on high tax states, and growing state fixed costs in excess of revenue growth that might lead to significant structural imbalance and greatly diminished reserves. Structural balance could also be pressured to the extent that Massachusetts fails to adhere to its current plan to increase annual pension contributions by 8.9% per year in order to amortize unfunded pension liabilities.

Ratings Detail (As Of December 21, 2017)		
Massachusetts Bay Transp Auth sr sales tax		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts Bay Transp Auth sr sales tax (AGM) (MBIA)		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Affirmed

Ratings Detail (As Of December 21, 2017) (cont.)		
Massachusetts Bay Transp Auth subord Sales Tax		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts Bay Transp Auth subord Sales Tax		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts Bay Transp Auth subord Sales Tax BANs		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts Bay Transp Auth CP		
<i>Short Term Rating</i>	A-1+	Affirmed
Massachusetts Bay Transp Auth CP		
<i>Short Term Rating</i>	A-1+	Affirmed
Massachusetts Bay Transp Auth CP		
<i>Short Term Rating</i>	A-1+	Affirmed
Massachusetts Bay Transp Auth Subordinated sales tax bnds (PTC Project RRIF Loan) sub-ser 2017B-2 due 07/01/2039		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts Bay Transp Auth Subordinated sales tax bnds (PTC Project TIFIA Loan) sub-ser 2017B-1 due 07/01/2039		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts Bay Transp Auth SALESTAX		
<i>Long Term Rating</i>	AA/A-1+/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 bnds consolidated loan ser 2016I due 12/01/2035		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts GO bnds consolidated loan ser 2016J due 12/01/2046		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts GO VRDBs - C		
<i>Long Term Rating</i>	AA/A-1/Stable	Affirmed
Massachusetts GO VRDBs 2000A		
<i>Long Term Rating</i>	AA/A-1/Stable	Affirmed
Massachusetts GO VRDBs 2000B		
<i>Long Term Rating</i>	AA/A-1/Stable	Affirmed
Massachusetts GO (wrap of insured) (ASSURED GTY & AMBAC) (SEC MKT)		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Affirmed
Massachusetts GO (wrap of insured) (FGIC & BHAC) (SEC MKT)		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Affirmed

Ratings Detail (As Of December 21, 2017) (cont.)		
Massachusetts GO (AGM) (SEC MKT)		
<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 (FGIC)		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Affirmed
Massachusetts GO (MBIA) (Assured 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 Bay Transp Auth sr sales tax		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Affirmed
Massachusetts GO		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Affirmed
The Commonwealth Of Massachusetts General Obligation Bonds Consolidated Loan of 2006 Series A		
<i>Long Term Rating</i>	AA/A-1/Stable	Affirmed
Boston Hsg Auth, Massachusetts		
Massachusetts		
Boston Hsg Auth (Massachusetts) APPROP		
<i>Long Term Rating</i>	A/Stable	Affirmed

Ratings Detail (As Of December 21, 2017) (cont.)

Massachusetts Bay Transp Auth, Massachusetts

Massachusetts

Massachusetts Bay Transp Auth (Massachusetts) GOEQUIV

Long Term Rating AA/Stable Affirmed

Massachusetts Bay Transp Auth (Massachusetts) GOEQUIV

Long Term Rating AA/A-1/Stable Affirmed

Massachusetts Bay Transp Auth (Massachusetts) GOEQUIV (AGM)

Unenhanced Rating AA(SPUR)/Stable Affirmed

Massachusetts Bay Transp Auth (Massachusetts) VRDB 2000A-1 & A-2 RMKTD

Long Term Rating AA/A-1/Stable Affirmed

Massachusetts Bay Transp Auth transp sys bnds (Massachusetts)

Unenhanced Rating AA(SPUR)/Stable Affirmed

Massachusetts Bay Transp Auth (Massachusetts)

Unenhanced Rating AA(SPUR)/Stable Affirmed

Massachusetts Dept of Transp, Massachusetts

Massachusetts

Massachusetts Dept of Transp (Massachusetts) GO

Long Term Rating AA/A-1/Stable Affirmed

Unenhanced Rating NR(SPUR)

Massachusetts Dept of Transp (Massachusetts) GO

Long Term Rating AA/Stable Affirmed

Massachusetts Dept of Transp (Massachusetts) GO

Long Term Rating AA/Stable Affirmed

Massachusetts Dept of Transp (Massachusetts) GO VRDO 2010A-1

Long Term Rating AA/A-1+/Stable Affirmed

Massachusetts Dept of Transp (Massachusetts) GO VRDO 2010A-2 A-7

Long Term Rating AA+/A-1 Affirmed

Unenhanced Rating AA(SPUR)/Stable Affirmed

Massachusetts Dept of Transp (Massachusetts) GO VRDO 2010B

Long Term Rating AA/Stable Affirmed

Massachusetts Dept of Transp (Massachusetts) JOINTCRIT

Long Term Rating AA+/A-1 Affirmed

Unenhanced Rating AA(SPUR)/Stable Affirmed

Massachusetts Dept of Transp (Massachusetts) VRDBs 2010A-7

Long Term Rating AA/A-1+/Stable Affirmed

Massachusetts Development Finance Agency, Massachusetts

Massachusetts

Massachusetts Dev Fin Agy (Massachusetts) GO

Long Term Rating AA/Stable Affirmed

Univ of Massachusetts Bldg Auth, Massachusetts

Massachusetts

University of Massachusetts Bldg Auth (Massachusetts) GOEQUIV

Ratings Detail (As Of December 21, 2017) (cont.)		
Long Term Rating	AA/A-1/Stable	Affirmed
Univ of Massachusetts Bldg Auth (Massachusetts) GOEQUIV		
Long Term Rating	AA/A-1+/Stable	Affirmed
Many issues are enhanced by bond insurance.		

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