

MOODY'S

INVESTORS SERVICE

New Issue: Moody's assigns Aa1 to \$550M of Massachusetts GO bonds; outlook stable

Global Credit Research - 15 Apr 2015

\$19.0 billion of GO debt outstanding

MASSACHUSETTS (COMMONWEALTH OF)
State Governments (including Puerto Rico and US Territories)
MA

Moody's Rating

ISSUE		RATING
General Obligation Bonds Consolidated Loan of 2015 Series A		Aa1
Sale Amount	\$350,000,000	
Expected Sale Date	04/28/15	
Rating Description	General Obligation	
General Obligation Bonds Consolidated Loan of 2015 Series B (Federally Taxable)		Aa1
Sale Amount	\$200,000,000	
Expected Sale Date	04/28/15	
Rating Description	General Obligation	

Moody's Outlook STA

NEW YORK, April 15, 2015 --Moody's Investors Service has assigned a Aa1 rating to up to \$350 million General Obligation Consolidated Bonds Consolidated Loan of 2015 Series A and \$200 million General Obligation Consolidated Bonds Consolidated Loan of 2015 Series B (Federally Taxable) for the Commonwealth of Massachusetts, expected to price on April 28.

SUMMARY RATINGS RATIONALE

Massachusetts' Aa1 general obligation rating reflects its strong financial management practices and its demonstrated willingness to balance its budget when necessary through spending cuts, revenue increases and use of reserves; a large education and health care sector that generates high wages and helps to bolster employment; state debt levels that are among the highest in the nation; and large unfunded pension liabilities. The outlook is stable.

OUTLOOK

The outlook for Massachusetts is stable, reflecting its good reserve levels and efforts to regain structural budget balance. The outlook also reflects our expectation that the commonwealth will continue to take proactive measures to close budget gaps if they emerge and continue its trend of strong financial management. Going forward, reliance on one-time budget solutions, tighter cash margins, unexpectedly severe economic deterioration, or a large increase in tax-supported debt could pressure the rating at its current level.

WHAT COULD MAKE THE RATING GO UP

- Continued rebuilding of reserves and establishment of stronger constraints on their use
- Established trend of structural budget balance
- Reduced debt ratios relative to Moody's 50-state median

WHAT COULD MAKE THE RATING GO DOWN

- Protracted structural budget imbalance driven by deeper and/or prolonged economic downturn
- Depletion of Budget Stabilization Fund to inadequate levels
- Increased leveraging of the commonwealth's resources to pay debt service or further erosion in pension funding ratios
- Narrowed cash flow that strains the commonwealth's liquidity

STRENGTHS

- Strong financial management practices, particularly a willingness to promptly identify and close budget gaps through expenditure reductions, revenue increases and overall prudent use of reserves
- Budget reserves that provide an adequate cushion to another downturn and the commonwealth's commitment to maintain them at healthy levels
- An economic base characterized by high wealth and high levels of educational attainment that has provided a degree of stability to the commonwealth's employment situation

CHALLENGES

- State debt ratios that are among the nation's highest and large unfunded pension liabilities based on Moody's adjusted figures
- Large health care and other social services costs that drive the budget and ongoing spending pressure related to the statewide transportation system
- Managing the burden on the state budget of growing pension contributions as the commonwealth seeks to address its unfunded pension liability

RECENT DEVELOPMENTS

Recent developments at the state are incorporated into the detailed credit discussion below.

DETAILED RATING RATIONALE

ECONOMY: JOB GROWTH SLOWS BUT UNEMPLOYMENT STILL BETTER THAN NATION

Through the downturn, Massachusetts' economy generally performed more strongly than the nation. More recently, employment growth has slowed. Massachusetts year-over-year employment growth was 1.7% in February, less than the US level of 2.3% for the same period. The unemployment rate in the commonwealth, however, declined to 4.9% in February, the lowest it has been since 2008, and less than the US average of 5.5%, also for February.

The commonwealth continues to be aided by its large education and healthcare sectors, which make up more than 20% of employment. The state also has a large financial activities sector, with a significant mutual fund presence. While the important healthcare sector is partly behind Massachusetts's above-average employment and income performance, federal downsizing could impact healthcare as well as government research and have a significant impact in Massachusetts. The state is characterized by high wealth and education levels but with slow population and job growth over the longer run. Per capita personal income as of 2014 Q2 was \$58,598, ranking it second highest among the states.

FINANCIAL OPERATIONS

The \$36.5 billion adopted fiscal 2015 budget increased spending by 5.9% compared to fiscal 2014. The budget includes \$313 million of one-time resources (0.9% of the total budget), less than the prior year and the largest component of which is the rainy day fund draw. Through February of fiscal 2015, revenues were up 4.4% over the same period in fiscal 2014, and 3.0% above the estimate, mainly due to higher than expected personal income taxes. The commonwealth still faced a mid-year budget gap of approximately \$768 million due to higher than expected expenses primarily from Medicaid, employee health insurance and snow removal. The commonwealth

was able to close the gap through spending cuts in February.

The fiscal 2016 proposed budget is based on a consensus revenue forecast of \$25.5 billion, representing 4.8% growth of fiscal 2015. The proposed budget increases spending by 3% over fiscal 2015 and includes one-time resources of approximately \$600 million, or 1.7% of proposed spending of \$38.1 billion. Spending increases are mainly attributed to Medicaid, school districts, local aid and transportation.

Massachusetts ended fiscal 2014 \$169 million, or 0.7%, over the official estimate and 5.6% greater than fiscal 2013 revenues. The larger than expected acceleration of investment activity in fiscal 2013 led to slightly below forecast income tax payments in fiscal 2014, but this was somewhat offset by a sharp increase in tax settlements and bonus payments. Taxes on capital gains greater than \$1 billion in fiscal years 2011, 2012 and 2013, and greater than \$1.023 billion in fiscal 2014 were deposited into the Stabilization Fund as required by statute.

LIQUIDITY

The commonwealth had a healthy Stabilization Fund balance of \$2.1 billion prior to 2009 that it was able to rely on during the fiscal downturn. The commonwealth was able to partially rebuild the Stabilization Fund in 2011 and 2012 to \$1.65 billion, but made several withdrawals in the fiscal years since then. The ending fiscal 2014 balance was \$1.25 billion, or 5.3% of tax revenues, reflecting a \$350 million draw on the fund. The legislature also voted to keep statutory excess capital gains totaling \$331 million in the general fund in fiscal 2015 rather than depositing them into the Stabilization Fund. The fiscal 2015 ending balance is expected to be \$1.13 billion. That amount is still adequate to deal with unforeseen circumstances, but the continued budgeted Stabilization Fund draws also reflect the commonwealth's challenges in getting to structural balance and eliminating the use of one-time resources in the budget.

DEBT AND PENSIONS

Debt Structure

The commonwealth has a high but well-managed debt burden, with \$19.0 billion in outstanding general obligation bonds and \$33.5 billion in total net tax-supported debt. Debt levels have been driven upwards in part by the commonwealth's issuance of bonds to finance projects that in other states would be paid for at the local level as Massachusetts does not issue debt at the county level. Based on Moody's 2014 state debt medians report, the state's debt levels ranked second-highest among the 50 states on a per-capita basis, but dropped to third-highest as a percentage of personal income and as a percentage of state gross domestic product after Hawaii and Connecticut. The commonwealth's debt per capita was \$4,999, 9.0% of its personal income, and 8.3% of its gross domestic product.

Massachusetts has a total of \$3.7 billion of floating rate debt outstanding, or 11% of its Moody's-calculated net tax supported debt. This includes: \$703 million of variable rate demand bonds with unremarketed tenders supported by bank liquidity facilities; \$1.2 billion of SIFMA index bonds (\$284 million of which mature within the next year and require take out or refinancing); \$441 million of floating rate direct loans; \$402 million of auction rate bonds; \$100 million of CPI index bonds; and \$846 million of LIBOR index bonds. Not included is \$289 million of variable rate bonds issued by the University of Massachusetts Building Authority and the Massachusetts Bay Transportation Authority that the commonwealth pledges its full faith and credit to pay if necessary.

Debt-Related Derivatives

The commonwealth's variable rate and derivatives portfolio is closely managed, and its liquidity facilities and swap agreements contain provisions favorable to the commonwealth and offset its relatively low available cash balances. Liquidity facilities contain a mix of three- and five-year term-out provisions that, considering the strength of Massachusetts' market access, should provide ample time to refinance if necessary. Swap counterparties are well-diversified and do not reflect collateral posting requirements on the part of the commonwealth, although the mark-to-market value was a sizeable -\$368.2 million as of February 28, 2015, which limits the commonwealth's ability to refinance the transactions those swaps are associated with. In our analysis, the commonwealth's liquidity (reflecting current cash as well as amounts in the stabilization fund) is sufficient to handle unforeseen circumstances related to its variable rate debt and swaps.

The commonwealth plans to increase the amount of its unhedged floating rate debt portfolio over the next several years in an effort to better align asset and liability interest rate risks. The commonwealth also plans to implement additional risk management controls and oversight to manage the program as it ramps up.

Pensions and OPEB

Based on the commonwealth's fiscal 2013 pension data, we have calculated that its adjusted net pension liability (ANPL) was \$70.9 billion, or 155.5% of revenues. The 50-state median ANPL to revenues is 60.3%, and Massachusetts ranks sixth highest in this ratio. Our adjustments to reported state pension data include the common 20-year amortization period, as well as an assumed 13-year duration of plan liabilities and a market-based discount rate to value the liabilities, rather than the long-term investment return used in reported figures.

Based on the most current actuarial valuation, Massachusetts' unfunded pension liability increased slightly to \$29 billion, though the pension funded ratio also increased to 61.2% as of January 1, 2014. The funded ratio was up slightly from 60.6% in 2013, but down from 65.1% as of January 1, 2012. Massachusetts law requires that the schedule of pension contributions be updated every three years. Just before the fiscal 2015 executive budget was proposed, the governor and legislature agreed to shorten the state's pension amortization schedule and increase its pension contributions by 10% annually through fiscal 2017 and by 7% thereafter until the final amortization payment in fiscal 2036. While pension contributions will rise to 4.7% of the state's budget in fiscal 2015, the agreement means that by fiscal 2018 Massachusetts will make its full actuarial required pension contribution and will reduce its ANPL. The new plan reverses a negative aspect of a pension reform enacted in 2012 that pushed the pension funding horizon to 2040. That reform also increased the retirement age for most state employees; eliminated early retirement subsidies; increased the period for calculating retirement from an average of three years to five years; and eliminated double-dipping. It also prohibits the commonwealth from making less than the annual payment required by the new schedule if investment returns exceed expectations.

The commonwealth's other post-employment benefits (OPEB) accrued liability assuming no pre-funding and a discount rate of 4.5% was approximately \$15.7 billion and \$9.5 billion assuming pre-funding and a discount rate of 8%. Massachusetts dedicates future tobacco settlement monies to its OPEB trust fund, phased-in starting in fiscal 2013. The combined ratio of Massachusetts' pension and OPEB actuarially required contributions to revenue is 16%, slightly higher than average for states. Those costs, combined with the state's high bonded debt costs, could limit the commonwealth's fiscal flexibility going forward. The prior pension reform and the increased contributions recently agreed to still result in high fixed costs but will help to reduce Massachusetts' long-term liabilities in the long run.

GOVERNANCE

The commonwealth's financial best practices are generally very strong. Per statute, the Secretary of Administration and Finance is required to develop a consensus tax revenue forecast for the ensuing fiscal year with the house and senate committees of ways and means by January 15 of each year, before budget recommendations are developed. Subsequently, the secretary certifies the accuracy of the consensus revenue forecast two times per year and prepares new estimates if the estimate starts to diverge materially from actual collections.

The state conducts multi-year financial planning and publishes a five year forecast in the Long-Term Fiscal Policy Framework. The governor has executive authority to cut expenses without legislative approval resulting from a revenue shortfall. The commonwealth also conducts a debt affordability analysis and reports its audited financial results on a timely basis. Budgets have also been timely. The commonwealth's financial flexibility is also strong. There are no constitutional caps on revenue raising or spending increases. The commonwealth is subject to ballot initiatives, though per the state constitution, initiative petitions are subject to repeal or amendment by the legislature and initiative petitions that become statute can be amended like any other state law.

The commonwealth is required to deposit the entire year-end surplus and any tax revenue from capital gains that exceeds \$1.048 billion in fiscal year 2015 into the Stabilization Fund, with 5% of the amount deposited then transferred to the State Retiree Benefits Trust Fund and 5% transferred to the Commonwealth's Pension Liability Fund. The commonwealth is also required to deposit certain one-time settlements and judgments into the Stabilization Fund.

KEY STATISTICS

Per capita income relative to U.S. average: 127.8%

Industrial diversity (1=most diverse): 0.76

Employment volatility (U.S.=100): 78

Available balances as % of operating revenue (5-yr. avg.): 9.3%

NTSD/total governmental revenue: 73.3%

3-year avg. adjusted net pension liability/total governmental revenue: 130.2%

OBLIGOR PROFILE

The Commonwealth of Massachusetts has a population of 6.7 million people and a gross state product of approximately of over \$420 billion. The state is economically well diversified and has very high wealth levels.

LEGAL SECURITY

The bonds will be secured by the full faith and credit of the Commonwealth of Massachusetts.

USE OF PROCEEDS

Bond proceeds will be used for various capital purposes.

RATING METHODOLOGY

The principal methodology used in this rating was US States Rating Methodology published in April 2013. Please see the Credit Policy page on www.moodys.com for a copy of this methodology.

REGULATORY DISCLOSURES

For ratings issued on a program, series or category/class of debt, this announcement provides certain regulatory disclosures in relation to each rating of a subsequently issued bond or note of the same series or category/class of debt or pursuant to a program for which the ratings are derived exclusively from existing ratings in accordance with Moody's rating practices. For ratings issued on a support provider, this announcement provides certain regulatory disclosures in relation to the rating action on the support provider and in relation to each particular rating action for securities that derive their credit ratings from the support provider's credit rating. For provisional ratings, this announcement provides certain regulatory disclosures in relation to the provisional rating assigned, and in relation to a definitive rating that may be assigned subsequent to the final issuance of the debt, in each case where the transaction structure and terms have not changed prior to the assignment of the definitive rating in a manner that would have affected the rating. For further information please see the ratings tab on the issuer/entity page for the respective issuer on www.moodys.com.

Regulatory disclosures contained in this press release apply to the credit rating and, if applicable, the related rating outlook or rating review.

Please see www.moodys.com for any updates on changes to the lead rating analyst and to the Moody's legal entity that has issued the rating.

Please see the ratings tab on the issuer/entity page on www.moodys.com for additional regulatory disclosures for each credit rating.

Analysts

Lisa Heller
Lead Analyst
Public Finance Group
Moody's Investors Service

Emily Raimes
Additional Contact
Public Finance Group
Moody's Investors Service

Contacts

Journalists: (212) 553-0376
Research Clients: (212) 553-1653

Moody's Investors Service, Inc.

250 Greenwich Street
New York, NY 10007
USA



© 2015 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S INVESTORS SERVICE, INC. AND ITS RATINGS AFFILIATES ("MIS") ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND CREDIT RATINGS AND RESEARCH PUBLICATIONS PUBLISHED BY MOODY'S ("MOODY'S PUBLICATIONS") MAY INCLUDE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL, FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS AND MOODY'S OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. CREDIT RATINGS AND MOODY'S PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS NOR MOODY'S PUBLICATIONS COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS AND PUBLISHES MOODY'S PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS FOR RETAIL INVESTORS TO CONSIDER MOODY'S CREDIT RATINGS OR MOODY'S PUBLICATIONS IN MAKING ANY INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER.

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the rating process or in preparing the Moody's Publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY SUCH RATING OR OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any rating, agreed to pay to Moody's Investors Service, Inc. for appraisal and rating services rendered by it fees ranging from \$1,500 to approximately \$2,500,000. MCO and MIS also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moody.com under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

For Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail clients. It would be dangerous for "retail clients" to make any investment decision based on MOODY'S credit rating. If in doubt you should contact your financial or other professional adviser.

For Japan only: MOODY'S Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of MOODY'S Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any rating, agreed to pay to MJKK or MSFJ (as applicable) for appraisal and rating services rendered by it fees ranging from JPY200,000 to approximately JPY350,000,000. MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.