

RatingsDirect®

Massachusetts; Gas Tax

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US\$325.965 mil Commonwealth Transp Fd rev bnds (Rail Enhancement & Accelerated Bridge Progs) ser 2016A due 06/01/2046		
<i>Long Term Rating</i>	AAA/Stable	New
US\$104.31 mil Commonwealth Transp Fd rev rfdg bnds ser 2016A due 06/01/2029		
<i>Long Term Rating</i>	AAA/Stable	New
Massachusetts gas tax (FGIC)		
<i>Unenhanced Rating</i>	AAA(SPUR)/Stable	Affirmed
Massachusetts sr lien gas tax		
<i>Unenhanced Rating</i>	AAA(SPUR)/Stable	Affirmed

Many issues are enhanced by bond insurance.

Rationale

S&P Global Ratings has assigned its 'AAA' long-term rating, and stable outlook, to the Commonwealth of Massachusetts' \$325.965 million commonwealth transportation fund (CTF) revenue bonds (rail enhancement and accelerated bridge program), series 2016A and \$104.31 revenue refunding bonds, series 2016A.

At the same time, S&P Global Ratings has affirmed its 'AAA' rating, with a stable outlook, on its CTF parity revenue bonds outstanding, and its closed prior-lien special obligation gas tax bonds.

The CTF bonds are secured by pledged revenues that include motor fuel/gasoline taxes and motor vehicle registration fees levied statewide. The special obligation gas tax bonds are secured by a first lien on 6.86 cents of the state-levied gas tax.

We base the ratings on what we view as the following credit strengths:

- A strong and diversified revenue mix that is collected statewide (population of 6.8 million) and has been relatively stable through economic cycles;
- The commonwealth's strong economic fundamentals, with a diverse economy and high income levels;
- Very strong 7.4x coverage of future maximum annual debt service (MADS), including combined debt service from prior-lien bonds, after this sale by fiscal 2016 pledged revenue, with state projections that annual debt service coverage will remain at approximately 5.5x even after substantial anticipated additional bonding; and
- Very strong bond covenants, including a very strong CTF additional bonds test (ABT) requiring 4.0x coverage of MADS by historical pledged revenues, a closed lien on prior-lien bonds, and a covenant not to allow changes in the rate of motor fuels tax or registry fees unless pledged revenues equal at least 4x MADS.

In our view, the lack of a debt service reserve is offset largely the high coverage of debt service.

We understand that series 2016A revenue bond proceeds will be used to fund portions of seven major accelerated bridge program projects.

Bond proceeds will also be used to fund the commonwealth's rail enhancement program, outside the Massachusetts

Bay Transportation Authority's (MBTA) regular capital program. In our view, the new rail program represents a significant expansion of CTF bonding plans, although this is mitigated by expected continued high debt service coverage.

Bond proceeds from the 2016A revenue refunding bonds will be used to advance-refund parity debt for net present value savings. There are savings throughout the remaining life of the bonds and there is no extension of maturities.

The fuel tax and registration fees pledged to the bonds are deposited in a revenue account of the CTF, where it is subject to annual appropriation by the state before transfer to the bond debt service account. We believe appropriation risk is mitigated by trust agreement covenants that prevent the large amount of surplus pledged revenue available (estimated at \$1.2 billion in fiscal 2016) from being used for other purposes until debt service is paid first. Since the first issuance of special obligation bonds in 1992, the legislature has never failed to make the required appropriations.

The major revenues supporting the bonds include a portion of motor fuels tax revenue, which accounted for 56.4% of total pledged funds (chapter 64A, chapter 64E, and chapter 64F receipts) in fiscal 2016. The fuel tax rate was increased to 24 cents from 21 cents in 2013, with 6.86 cents of that amount pledged to the special obligation gas tax bonds on a first-lien basis. Excess revenues not needed to cover debt service on the closed first-lien special obligation bonds, flow to the CTF revenue bonds. Before 2013, the gas tax rate had not been increased since 2000, and still remains below the average gas tax rates charged in the Northeast region. Gas taxes are collected monthly by the state from gasoline distributors.

The other key revenue supporting the program is motor vehicle registry fees (43.6% of total revenues in fiscal 2016), which are collected daily by the Registry of Motor Vehicles and swept daily by the state treasury and credited to various fee accounts. Passenger vehicle registration fees rose to \$60 from \$50 in fiscal 2015. Registry fees were also adjusted in fiscal 2009, which offset flat-to-declining revenue performance in previous years. We believe the state has a history of increasing both pledged gas tax and registration fees when necessary to meet Massachusetts' transportation capital program.

Combined total pledged revenues in fiscal 2016 were \$1.346 billion, not including federal Build America bond (BAB) interest subsidies. This represented a 0.75% increase from the year before, following a 5.7 % increase in 2015, when registration fees were increased and a 7.8% increase in 2014 following the gas tax rate increase. Before fiscal 2014, revenue performance was relatively flat in our view, with small increases in most years and a decline of 1.1% in fiscal 2009 due to the recession, and an earlier 4.7% decline in 2006.

Fiscal 2016 pledged revenue covers combined future MADS on prior lien, parity debt outstanding, and estimated debt service after the sale of this new issue, by what we consider a very strong 7.4x. Coverage on only the prior-lien MADS, by just the 6.86-cent portion of the fuel tax pledged to those bonds on a first-lien basis, was also strong at 3.72x.

Currently, the commonwealth anticipates issuing \$1.72 billion of additional parity CTF debt over the next five years (2017-2021) for both the rail and accelerated bridge program. Also anticipated over the next four years is issuance of \$298 million of federal grant anticipation notes that have a junior lien on CTF revenues, including the 2016A series that will be sold concurrently with these bonds. After issuance of the series 2016A bonds, Massachusetts expects to issue an additional \$312.7 million in 2017, \$374 million each in 2018 and 2019, \$373 million in 2020, and \$282 million in

2021. Series 2016A CTF bonds are being used to fund MBTA capital improvements, including the MBTA's Green, Orange, and Red mass transit lines, as well as commuter rail and various other transportation projects. A recent report estimated \$700 million-\$1 billion in higher MBTA Green line capital improvement costs than originally estimated. As a result, the MBTA has revised the project scope to reduce those overruns to approximately \$300 million and has secured additional revenues for all but about \$90 million. We believe it is possible there could be additional bonding related to either bridge repair or mass transit, beyond the \$1.72 billion described above, but that the very strong 4.0x ABT and the need to use surplus CTF funds for transportation operations provide significant protection against debt service coverage dilution from future debt issuance. The commonwealth projects debt service coverage, including BAB subsidies, will remain at least 5.5x through 2049 based on its anticipated future debt issuance and assuming no future revenue growth.

Massachusetts' CTF bonds are eligible to be rated above the sovereign because we believe the commonwealth can maintain better credit characteristics than the U.S. in a stress scenario. Under our criteria "Ratings Above The Sovereign: Corporate And Government Ratings—Methodology And Assumptions" (published Nov. 19, 2013, on RatingsDirect), U.S. states are considered to have moderate sensitivity to country risk. State-derived revenues are the sole source of security on the bonds, the institutional framework in the U.S. is predictable with significant state autonomy, and flexibility is demonstrated by high debt service coverage and serial bond amortization as well as independent treasury management.

(For more information on Massachusetts' economy, please see the most recent full GO analysis published Aug., 23, 2016, on RatingsDirect.)

Outlook

The stable outlook reflects what we view as the strong credit structure supporting the bonds, which insulates bondholders from future volatility or deterioration of pledged revenues. One long-term risk is that the rail enhancement program could require substantial new capital funding beyond current authorizations. However, we feel that the currently very strong debt service coverage and very strong ABT should provide strong protection against future debt dilution. Over our two-year outlook time horizon, we do not see the potential for lowering the rating as we expect coverage levels to remain very strong, despite planned additional debt issuance. Furthermore, we believe that Massachusetts' substantial and diverse economy will continue to support stability in pledged revenues over time.

Rail Enhancement Program

The series 2016A CTF bond issuance represents the second use of CTF bonds for the rail enhancement program. The commonwealth authorized funding in 2014 for this program using either CTF bonds, as an expansion of the use of CTF bonds, or with state general obligation bonds. The series 2016A bond proceeds will help fund MBTA Green line extension capital costs for a new rail extension and associated stations. The Massachusetts Department of Transportation (MassDOT) and the MBTA recently completed a comprehensive review of the project following a report that costs could be \$700 million-\$1 billion higher than originally projected for this line extension. Following this

review, the project scope was revised to \$2.3 billion, up from its original estimate of \$1.992 billion and additional contributions of \$227 million from corridor municipalities and the metropolitan planning organization have been pledged to the project. Series 2016A bond proceeds will also be used for equipment and infrastructure improvements on the MBTA Orange, Red, and Fairmont lines, rail improvements in the "knowledge corridor," and improvements to Boston's south station.

Accelerated Bridge Program

Massachusetts expects to use \$150 million of its 2016A CTF bond proceeds for its ongoing accelerated bridge program. The program was authorized by a unanimous vote of the Massachusetts legislature in 2008. It is designed to improve structurally deficient bridges at a cost of nearly \$3 billion through an accelerated construction schedule, with a multipronged goal of cost savings, economic development, and public safety. The 2008 legislation authorized both CTF bonds and federal highway grant anticipation notes to fund the projects. The commonwealth estimates that there are now 432 structurally deficient bridges, down from 543 in 2008.

Pledged Funds: Stable And Diversified Fuel Tax

The funds pledged to this bond program are levied statewide and have a long and stable collection history. The commonwealth has levied a fuel tax since 1928. There are a range of fuel taxes pledged to the CTF: The excise tax imposed by state statute (Chapter 64A) is the primary source of fuel tax revenue. The current gas tax rate is 24 cents per gallon following legislative changes in 2013, with 23.964 cents of the gas tax pledged to the CTF bonds. Massachusetts has indicated that its gas tax rate is below the national average, and below other New England states and New York except for New Hampshire, which charges 23.8 cents per gallon in overall taxes and fees compared to Massachusetts at 26.5 cents per gallon overall. The 24-cent per gallon Massachusetts pledged fuel tax for the CTF bonds generated \$765.1 million in fiscal 2016 on an unaudited basis; within that, 6.86 cents is pledged to the senior-lien gas tax bonds, or \$190.8 million in fiscal 2016 revenues. The taxes are paid monthly by distributors who collect from gasoline purchasers and the flow of receipts on a monthly basis is relatively even. The largest payers are concentrated, with the top 10 paying 59.1% of total annual gas tax collections in fiscal 2016, but we view monthly collections in the past two years as being relatively stable. The special fuels tax (Chapter 64E) is levied on special fuels sold or used in Massachusetts and is levied at a rate of 24 cents, all of which is pledged to the CTF bonds. The motor carrier tax is levied on each gallon of gasoline and special fuels acquired outside and used within the commonwealth, and is levied at a rate of 24 cents. The rate for liquefied gas is 19.1% of the average price per gallon. All of these collections are also pledged to the CTF.

Motor vehicle registry fees

Registry and motor vehicle (RMV) fees are collected by the Registrar of Motor Vehicles or authorized agents and include three broad categories: license, registration, and registry information. Fees are set by statute or code. License fees include those for drivers' licenses, identification cards, professional driving schools, and reinstatement. Registration fees include motor vehicle registration according to types of license plates. Registry information includes fees relating to motor vehicle title, inspection, court records, and to citations. The RMV fees were adjusted in fiscal

2009 and again in fiscal 2015, when passenger vehicle registration fees increased to \$60 from \$50 generating an estimated additional \$25 million per year.

Current rates are as follows:

- Passenger vehicle registration renewal fees: \$60;
- Commercial vehicle registration renewals: \$20;
- New certificate of title fees: \$75;
- Class D license renewals: \$50;
- New passenger vehicle registrations: \$60; and
- New commercial vehicle registrations: \$20 per 1,000 pounds of gross vehicle weight for a one-year registration.

The RMV funds are collected daily at RMV locations, AAA service centers, via call center, or online. Fees are paid by cash, check, electronic check, money order, credit card, and debit card. The funds are swept daily by the state treasury and credited to accounts, and recorded by the state comptroller's office into the state accounting system. The fee collection process is subject to MassDOT security measures and subject to internal audit.

Bond Provisions

Payment from the CTF requires legislative appropriation annually. This is also the case for gas tax bonds outstanding that had been payable from the highway fund. Bond provisions provide that, in the event of non-appropriation or delayed appropriation, all CTF revenues accumulate in the revenue account and are not available for any other purpose until debt service funds are fully funded. Since the first issuance of special obligation bonds in 1992, Massachusetts has never failed to make a required appropriation. Debt service is payable in December and June, five months into the fiscal year, and in most cases, insulating bondholders from potential delays in the adoption of the state budget. Even in years when state budgets are late, the legislature has adopted 1/12th budgets monthly, including payment of debt service. After satisfying debt service requirements, surplus revenues can only be expended for transportation projects. Revenues are deposited monthly in an amount equal to one-fifth of the interest and 1/10th of the principal coming due. Massachusetts may amend statutes that govern pledged revenues, including changing rates, but under the terms of the trust agreement the state treasurer must deliver a certificate to the trustee demonstrating that the revenues received in 12 consecutive months out of the past 18 months are sufficient to cover MADS by 4.0x.

The ABT also provides significant bondholder security in our view. Pledged funds for any 12 consecutive months out of the past 18 cover MADS on bonds outstanding and proposed bonds by 4x. The trust indenture allows for variable-rate bonds but the current financing plan for the program is expected to include only fixed-rate debt issuance. There is no parity or prior-lien direct placement debt outstanding. Excess CTF revenues are available for any lawful use after payment of debt service for special obligation prior-lien bonds, CTF bonds, and, if necessary, subordinate lien payment on grant anticipation notes.

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