S&P Global Ratings

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Massachusetts Bay Transportation Authority; CP; Sales Tax

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Credit Profile		
US$225.0 mil sr sales tax bnds (Capital Appeciation Bnds) ser 2016A due 07/01/2033		
Long Term Rating	AA+/Negative	New
Massachusetts Bay Transp Auth sr sales tax		
Long Term Rating	AA+/Negative	Outlook Revised
Massachusetts Bay Transp Auth sr sales tax (AGM) (MBIA)		
Unenhanced Rating	AA+(SPUR)/Negative	Outlook Revised
Massachusetts Bay Transp Auth SALESTAX		
Long Term Rating	AA+/A-1/Negative	Outlook Revised
Massachusetts Bay Transp Auth SALESTAX		
Long Term Rating	AA+/A-1+/Negative	Outlook Revised
Massachusetts Bay Transp Auth sr sales tax		
Unenhanced Rating	AA+(SPUR)/Negative	Outlook Revised

Rationale

S&P Global Ratings revised its outlook on the Massachusetts Bay Transportation Authority's (MBTA) $4.0 billion sales tax bonds outstanding to negative from stable. At the same time, S&P Global Ratings affirmed its 'AA+' long-term rating on the bonds.

In addition, S&P Global Ratings assigned its rating 'AA+' rating and negative outlook to the MBTA's $225 million senior sales tax bonds, 2016 series A (capital appreciation bonds). Finally, S&P Global Ratings affirmed its 'A-1+' commercial paper (CP) rating on the MBTA.

We base the outlook change on our negative outlook on the Commonwealth of Massachusetts' general obligation (GO) debt (AA+/Negative), as well as a two-part revenue pledge that is based on the higher of either certain state base revenue or pledged MBTA sales tax revenue. Our rating is based on what we now perceive to be the stronger of the two pledges, which is the pledge of state base revenue.

The bonds are secured by a pledge of the greater amount of either a statewide sales tax defined as a 1% statewide sales tax, plus a gross pledge of $160 million of additional state sales tax per year that MBTA receives for operational funding; or an inflation adjusted base revenue amount distributed by the Commonwealth of Massachusetts. The pledge is subordinate to $206.5 million of prior closed-lien obligations outstanding issued before 2000, to the extent that the MBTA does not certify that its general revenues can cover these prior-lien obligations in its annual budget from general revenues. In addition, pledged to the bonds are surplus assessments on 175 cities and towns, after payment of debt service on separate MBTA assessment bonds that have a first lien on those revenues.

The 'AA+' rating reflects what we consider the following credit strengths:

- A large and diverse statewide economy of 6.8 million people generating the pledged sales tax;
- Strong 2.36x coverage of maximum annual debt service (MADS) on combined parity and prior-lien MADS by fiscal 2017 pledged state base revenue, assuming unhedged variable-rate debt is at the maximum permitted interest rate of 12%; and strong 2.20x coverage by the most recent audited fiscal 2015 pledged sales tax revenue;
- Nondiversion and non-impairment covenants that prevent reduction of the pledged sales tax rate or diversion of pledged revenues, while pledged sales tax revenue is not subject to annual appropriation;
- Pledged revenues that pay debt service on a gross basis before payment of MBTA operations, so that collection of pledged revenues is not dependent on the MBTA providing transportation services; and
- A debt service reserve funded at one-half the lesser of sales tax bond MADS, 125% of average annual debt service, or 10% or the original par amount of the bonds.

Offsetting factors include currently modest exposure to unhedged variable-rate debt, which comprises about 6% of MBTA sales tax debt, after termination of five interest rate swap agreements in May; as well as the potential for substantial additional bonding to meet the MBTA's large capital needs, which could lower coverage closer to the 1.5x additional bonds test (ABT) based on state base revenues. The potential dependence on state base revenue, in our view, creates an indirect link to state credit quality.

The MBTA is currently operating under a state oversight board, following various operational issues in the winter of 2015. It estimates a fiscal 2017-2021 capital plan of $6.8 billion, which does not include complete funding of the authority's $2.3 billion green line rail extension, which will also receive funding from federal and local sources. The MBTA expects approximately $1.7 billion of its five-year capital plan will be funded with commonwealth bonds, $150 million from previously issued MBTA bonds, $600 million from additional MBTA bonds, and $3.2 billion from federal assistance. Although current debt service coverage is strong, we believe coverage could potentially drift downward again closer to the ABT, as occurred before the addition last year of the extra pledge to the bonds of $160 million of state sales tax on a gross basis that is used for MBTA operations, in light of the large capital plan, and the potential cost overruns or expanded borrowing.

Before a commonwealth enabling act in 2000, the MBTA issued general revenue bonds backed by the commonwealth, and Massachusetts backfilled MBTA operating deficits after a time lag. Sales tax bonds issued since July 1, 2000, have been backed by a lien on the 1% statewide sales tax (which excludes sales tax on meals) plus the recent addition of $160 million per year of state sales tax, subordinate to the prior-lien bonds issued before 2000, with excess sales tax revenues funding subordinate debt service and MBTA general operations.

In addition, the commonwealth created a formula for a base amount of pledged revenue, should pledged sales tax revenue decline, or not increase as fast as inflation. This base amount was increased in fiscal 2015 by an extra $160 million to $970.6 million and subsequently increases annually by the rate of the Boston CPI up to 3% per year, or lower to the extent that the rate of increase of the CPI is less than 3% but more than the rate of increase in sales tax, in which case the base amount increase is the rate of increase in sales tax. If neither the CPI nor the sales tax increase in a given year, the base amount is held flat for that year. The base amount has increased to $992 million to be due in fiscal 2017, compared with $645 million in 2001. The commonwealth collected pledged sales tax of $916 million in fiscal 2015, the last audited year, compared with $971 million under the 2015 base amount. The MBTA also receives other commonwealth money and federal revenues that are not pledged to the sales tax bonds. We understand that both the pledged dedicated sales tax amount and the base amount do not need a legislative appropriation.

We understand that the series 2016A bond proceeds will be issued to refund certain bond issues outstanding.

The 1% plus $160 million per year pledged sales tax is part of the commonwealth's overall 6.25% sales tax rate. State sales tax revenue declined in the last recession, with a cumulative decline of 7.9% in fiscal years 2008-2010. However, as Massachusetts' economy recovered, sales tax has since risen, increasing 5.0% in fiscal 2015. Nevertheless, over the long term sales tax has not increased as fast as Massachusetts' base revenue amount, including the commonwealth's addition of the extra $160 million per year of sales tax to both pledged sales tax and base revenue amount in fiscal 2015.

Combined prior bond and parity sales tax bond MADS coverage is strong, in our opinion, at what we calculate as 2.20x by historical fiscal 2015 pledged actual sales tax revenues, and 2.36x by the 2017 certified base revenue amount. This calculation of MADS assumes the maximum 12% interest rate on unhedged variable-rate debt. The MBTA budgets to pay unhedged variable-rate debt at a 5% interest rate, although actual current variable rates have been closer to 1%. Combined prior and parity MADS after this sale will be $421 million in fiscal 2019, assuming no additional bonds are sold, assuming the maximum 12% interest rate on unhedged variable-rate debt and a synthetic swap interest rate for debt hedged with interest rate swap agreements, and also using a pro forma take-out schedule for the $67 million of CP outstanding. It does not include federal interest subsidies on Build America bonds or debt service reserve interest earnings.

After this refunding, the MBTA is expected to have three remaining interest rate swap agreements associated with $166.4 million of variable-rate sales tax-secured bonds and two series of sales tax-secured CP. The authority is not currently posting collateral under any of its swap agreements, and will not be required to begin posting for any of its swap agreements in the event of negative swap valuations until the sales tax rating on the MBTA falls below 'A'. Immediate swap termination events with notice do not go into effect unless the rating on the MBTA or Massachusetts falls below 'BBB-', although certain swap termination events with notice can occur if the sales tax rating falls below 'A-'. Any swap termination payments would be subordinate to payment of sales tax bond debt service. We believe that termination events are unlikely at current rating levels.

The ABT requires either 1.0x coverage of combined prior and parity MADS by the base revenue amount, or 2.0x coverage by historical sales tax revenues, net of prior bond debt service; and 1.5x coverage of sales tax revenue bond debt service and all prior debt obligations on a combined basis by historical sales tax revenue.

The MBTA expects to issue about $600 million of additional sales tax debt over the next five years, and is issuing separately secured assessment refunding debt at the same time as this sale, which has a junior lien on sales tax revenues. The authority's most recent 2017-2021 five-year capital plan totals $6.8 billion in capital improvement, with $1.9 billion in fiscal 2017. However, the state has formed a five-member control board to make operational and fiscal improvements, at least through 2018, in the wake of MBTA operational issues during winter snowstorms in 2015. We believe potential exists for additional capital needs to bring the system to a state of good repair and for potential cost escalations on rail line extensions that could raise future bonding needs.

(For more information on Massachusetts and its economy, please refer to the most recent state GO analysis published June 24, 2016, on RatingsDirect.)

Outlook

The negative outlook reflects our view of the ability of the MBTA to issue future additional parity bonds under its ABT based on the size of state base revenue, which are larger than directly pledged sales taxes, and the credit quality of the state base revenue as reflected in the Massachusetts GO rating. Should we lower our GO rating on the commonwealth, we could potentially lower our rating on the MBTA sales tax bonds. However, should we return our outlook on Massachusetts to stable, or if we believe the creditworthiness of MBTA's direct sales tax pledge strengthens enough so that it is higher than the pledge of the state base amount, we could potentially return our outlook on the MBTA bonds to stable.

Our outlook also assumes consistently strong debt service coverage over our two-year outlook horizon, despite capital pressures. Significant additional debt leverage or a large downturn in revenue that materially lowers debt service coverage could pressure the rating.

Bond Structure And Bond Provisions

Under the enabling legislation, the 1% statewide sales tax has been segregated and is pledged first to bonds and then used for MBTA operations. Beginning in fiscal 2015, Massachusetts added $160 million per year of sales tax to the sales tax pledge, which represented the former level of operating aid the commonwealth formerly supplied from the state general fund. The act provides that the 1% dedicated sales tax pledge must be equal to the greater of the amount raised by a 1% statewide sales tax plus $160 million per year, or a floor (base revenue amount), which was initially established at $645 million in July 2001, and is subject to upward adjustment under certain circumstances set forth in the enabling act. This "floor" provides a safeguard against the potential of declining sales tax revenues in a slowing economy. The enabling act provides that, under no circumstance, will the base revenue amount be reduced as long as these revenues are pledged to bonds, providing a safety net if sales tax revenues decline. Under the formula, the MBTA's dedicated 1% sales tax receipts will increase with the commonwealth's own sales taxes.

The separate assessments on cities pledged on a basis subordinate to assessment bonds outstanding will be adjusted annually for inflation (but not by more than 2.5% annually).

Under both sales tax bond and assessment bond trust agreements, surplus revenues released from either the assessment bond or sales tax bond flow of funds are available to fund shortfalls in either trust agreement before remittance to the MBTA. The ABT requires 1.5x coverage of sales tax revenue bond debt service and all prior debt obligations secured by the state base revenue floor amount, or actual sales tax revenues covering outstanding and proposed sales tax revenue bonds by 2x.

Contingent Risks

After termination of five swaps in May 2016, and anticipated terminations after this refunding, the MBTA is expected to have two interest rate swap agreements outstanding for bond issues outstanding, and one interest rate swap for two series of subordinate CP, which are expected to be refunded later into parity debt. The MBTA has also terminated its previous interest rate swap agreements associated with separately secured MBTA assessment bonds.

The current notional amount of the prior and parity sales tax swaps by counterparty is $25.0 million with Morgan Stanley Capital Services Inc. associated with series 2003C sales tax bonds; $79.6 million with JPMorgan Chase & Co. associated with series 2010A sales tax bonds; and $61.8 million with JPMorgan Chase & Co. associated with series A and series B sales tax-secured CP.

The MBTA has reported that it is not posting collateral under existing swap agreements and that if any swaps were terminated, swap termination payments would be subordinate to repayment of sales tax bonds. Only some swaps have collateral posting requirements, which would begin only if the sales tax secured rating on the MBTA fell to 'A' or below and there were negative termination values. The various swaps have different termination events, including immediate termination for one swap if the rating on Massachusetts falls below 'BBB-', while other swap termination events with notice include a sales tax bond downgrade below 'A-', and a provision for immediate termination if the sales tax bond rating falls below 'BBB-'. Based on the current sales tax bond rating and our GO rating on the commonwealth, we do not believe that termination events based on MBTA credit events are likely.

Operations

The MBTA runs the oldest and fifth-largest transit system in the country, operating subway, bus, and commuter rail service throughout eastern Massachusetts. The authority is responsible for an estimated 1.3 million passenger trips every business day and operates more than 38 miles of rapid transit rail routes, and 26 miles of additional light rail. It owns more than 1,000 buses, which cover 763 miles of routes. The authority's commuter rail service operates more than 421 units of passenger rail equipment, providing service between Boston and 134 outlying rail stations. In addition, the MBTA provides a broad range of other passenger services including commuter boats. Its territorial area has increased to 175 cities primarily in the greater Boston area, extending north to the New Hampshire border, west to the city of Worcester, and south into Providence, R.I., with a total service area population of about 4.8 million. The MBTA estimates about 55% of all trips to Boston are provided by public transportation.

The authority employs approximately 5,200 full-time and 600 part-time employees, most of which are represented by 29 labor unions, and is currently operating under a labor contract expiring June 30, 2018. The MBTA expects its operating expenses, excluding debt service of $458 million, to be $1.6 billion in fiscal 2017 on a budgetary basis. Its unrestricted cash and temporary cash investment position was $307.2 million at fiscal year-end June 30, 2015. As for most transit systems, the MBTA relies heavily on intergovernmental operating subsidies to pay for operations. Its 2017 operating budget is balanced, but relies on a $187 million payment to the Commonwealth Transportation Fund that is earmarked for the MBTA.

The MBTA was created in 1964. In 2015, following operational difficulties during the winter, the state formed a five-member financial control board to exercise most MBTA powers through at least 2018. The control board is mandated to make operational and fiscal improvement and is temporarily exempt from anti-privatization laws. The control board includes three members of the Massachusetts Department of Transportation (MassDOT), and had obligations relative to the MBTA that are vested in the MassDOT board.

Apart from powers exercised by the control board, the MBTA has an 11-member governing board (recently expanded from seven), appointed by the governor, which is the same board as for the MassDOT, although the MBTA exists as a separate legal entity within the department. Members serve four-year terms. The enabling act does not provide for the MBTA to be a debtor under the federal bankruptcy code.

Massachusetts Bay Transportation Authority (MBTA) Pledged Revenues

Fiscal year	Total statewide sales tax receipts ($000s)*	MBTA carve-out of total sales tax receipts ($000s)§	% increase (decrease)§	Base revenue amount (BRA) (floor) ($000s)§	Difference in BRA versus dedicated 1%
1996	2,252,083	450,417	5.4	N/A	N/A
1997	2,494,702	498,940	10.8	N/A	N/A
1998	2,572,560	514,512	3.1	N/A	N/A
1999	2,833,644	566,603	10.1	N/A	N/A
2000	3,108,430	621,433	9.7	N/A	N/A
2001	3,273,817	654,591	5.3	645,000	9,591
2002	3,193,947	638,789	(2.4)	664,350	(25,561)
2003	3,196,009	639,202	0.1	684,281	(45,079)
2004	3,211,141	642,228	0.5	684,281	(42,053)
2005	3,330,838	666,167	3.7	704,809	(38,642)
2006	3,420,209	684,042	2.7	712,586	(28,544)
2007	3,458,885	691,777	1.1	733,963	(42,186)
2008	3,453,776	690,755	(0.1)	755,982	(65,227)
2009	3,239,083	647,817	(6.2)	767,057	(119,240)
2010	3,852,057	637,084	(1.7)	767,057	(129,973)
2011	4,091,485	654,643	2.8	767,057	(112,414)
2012	4,190,558	670,494	2.4	779,092	(108,598)
2013	4,262,750	682,046	1.7	786,867	(104,821)
2014	4,546,992	727,519	6.7	799,295	(71,776)
2015	4,775,082	924,103§	27.0§	970,637§	(46,534)
2016	N/A	N/A	N/A	986,274	N/A
2017	N/A	N/A	N/A	992,192	N/A

*Total state sales tax rate was 5.00% until 2009, when it increased to 6.25%. §Pledged sales tax was equal to a 1% rate until 2015, when it was increased to 1% plus $160 million per year; 2015 increase without extra $160 million would have been 5.0%. The BRA floor amount is established by the state comptroller each year using a formula including CPI. By law, the BRA formula cannot increase more than 3% annually, except it was also increased $160 million in 2015. N/A--Not applicable. Source: Massachusetts Department of Revenue.

Related Criteria And Research

Related Criteria

- USPF Criteria: State Ratings Methodology, Jan. 3, 2011
- USPF Criteria: Financial Management Assessment, June 27, 2006
- USPF Criteria: Debt Statement Analysis, Aug. 22, 2006
- USPF Criteria: Commercial Paper, VRDO, And Self-Liquidity, July 3, 2007
- USPF Criteria: Bank Liquidity Facilities, June 22, 2007
- USPF Criteria: Standby Bond Purchase Agreement Automatic Termination Events, April 11, 2008
- Criteria: Use of CreditWatch And Outlooks, Sept. 14, 2009
- USPF Criteria: Methodology: Rating Approach To Obligations With Multiple Revenue Streams, Nov. 29, 2011

Ratings Detail (As Of July 11, 2016)		
Massachusetts Bay Transp Auth CP		
Short Term Rating	A-1+	Affirmed
Massachusetts Bay Transp Auth CP		
Short Term Rating	A-1+	Affirmed
Massachusetts Bay Transp Auth CP		
Short Term Rating	A-1+	Affirmed

Many issues are enhanced by bond insurance.