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Summary:

Massachusetts Bay Transportation Authority; Sales Tax

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Long Term Rating	AA/Stable	Affirmed
Massachusetts Bay Transp Auth subord sales tax		
Long Term Rating	AA/Stable	Affirmed

Rationale

S&P Global Ratings affirmed its 'AA' long-term rating on the Massachusetts Bay Transportation Authority's (MBTA) $179.5 million closed prior-lien debt (of which $146.6 million is variable rate); its 'AA/A-1+' rating on the authority's $191.2 million series 2018 variable-rate demand obligations and 'AA' rating on the authority's $3.89 billion of additional parity senior sales tax debt outstanding; its 'AA' rating on the MBTA's $230.1 million subordinated sales tax bonds outstanding; and its 'AA' rating on third-lien federal Transportation Infrastructure Finance and Innovation Act/Railroad Rehabilitation & Improvement Financing (TIFIA/RRIF) loans. The outlook on all bonds and loans outstanding is stable.

Pursuant to our criteria, "Issue Credit Ratings Linked To U.S. Public Finance Obligors' Creditworthiness" (published Jan. 22, 2018), we rate these obligations the same as the state's general creditworthiness, as reflected in our 'AA' general obligation (GO) rating on the Commonwealth of Massachusetts, based on a state pledge to provide a guaranteed base amount of revenue to pay debt service from the state's total large collection of sales tax, which represents a substantial portion of commonwealth operating revenues.

We base our MBTA sales tax bond ratings on what we perceive to be the stronger pledge of either a guaranteed state base revenue amount, or the stand-alone credit profile (SACP) of pledged MBTA sales tax revenue, as evaluated under our Priority-Lien Tax Revenue Debt criteria released Oct. 22, 2018.

Currently, we view the pledge of state-guaranteed base revenue as of stronger credit quality because it is backed by the commonwealth's guarantee of all sales tax Massachusetts collects, not just the portion collected for MBTA, while we believe there is the potential for additional bonding that could dilute coverage by MBTA sales tax revenue alone. We do not make a rating distinction among the senior, subordinate, and TIFIA/RRIF liens because we currently view all liens as linked to the credit quality of the commonwealth, which provides MBTA with the state-guaranteed base revenue securing the bonds. This guaranteed base amount does not fluctuate with annual sales tax collections, but can only increase based on an inflation formula.

The senior sales tax 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 guaranteed base revenue amount distributed by the Commonwealth of Massachusetts. The senior sales tax pledge is subordinate to prior closed-lien general transportation bond 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 senior sales tax bonds are surplus assessments on 176 cities and towns, after payment of debt service on separate MBTA assessment bonds that have a first lien on those revenues.

The subordinate sales tax pledge securing the series 2017A subordinate sales tax bonds consists of the same revenue pledged to the senior sales tax bonds, after payment of senior-lien sales tax bond debt service and senior-lien debt service reserve replenishments, if any.

In addition, 2017 series B federal TIFIA and RRIF loans are secured by a third-lien sales tax revenue bond after the subordinate series 2017A sales tax bonds. The TIFIA/RRIF loan agreement also specifies that the loan's junior lien changes to parity with senior-lien bondholders in the event MBTA files for bankruptcy or commences bankruptcy-like actions; however, we believe that as a state agency MBTA is not permitted to file for bankruptcy under the federal bankruptcy code.

The MBTA does not expect to draw on the TIFIA/RRIF federal loans until after the MBTA's positive train control (PTC) capital project has been completed, although the federal TIFIA/RRIF fixed loan rate was set with the signing of the federal loan agreement. Whether MBTA will ultimately draw on future TIFIA or RRIF loans, or instead issue its own bonds secured by either a subordinate or senior sales tax lien, will depend on future market conditions after PTC project completion. MBTA can draw on the federal TIFIA/RRIF loan no later than Dec. 31, 2021. In the meanwhile, the PTC capital project is being funded by short-term subordinate bond anticipation notes (BANs) and commercial paper (CP), which will be refinanced later into long-term loans or federal loans.

Both senior and subordinate sales tax bonds outstanding will continue to have an open lien permitting additional debt issuance using the same additional bonds test (ABT) coverage multiple, while no additional third-lien subordinate sales tax debt on parity with the TIFIA/RRIF loans can be issued beyond the currently authorized amount; as a consequence, we expect debt service coverage based on pledged state revenue to remain high and of similar magnitude in the near term for all liens. We believe the lack of a debt service reserve on the subordinate bonds and the TIFIA/RRIF loans is mitigated by strong debt service coverage levels.

The 'AA' ratings reflect the strength of Massachusetts to provide pledged sales tax revenue, in that the guaranteed base revenue amount is payable from total commonwealth sales taxes, and is not subject to state appropriation. The potential dependence on state base revenue, in our view, creates a link to state credit quality.

Rating factors considered in our evaluation include:

- A large and diverse statewide economy of 6.9 million generating the pledged sales tax;
- Strong 2.35x coverage of maximum annual debt service (MADS) on combined senior, subordinate, and TIFIA/RRIF sales tax liens by fiscal 2019 pledged state base revenue, assuming unhedged variable-rate debt carries a 7% interest rate and BANs outstanding are refunded by proposed future subordinate sales tax bonds. MBTA projects that future annual debt service coverage on combined senior, subordinate, and TIFIA/RRIF sales tax revenue bonds will always remain at least 2.00x or greater, using the fiscal 2019 state base revenue amount, even after anticipated additional debt issuance in 2019 and 2020 and the BANs have been refunded;
- MADS coverage of all three liens is also strong by pledged MBTA sales tax revenue at 2.31x, using the most recent fiscal 2018 pledged sales tax revenue alone;
- Coverage of senior-lien MADS alone is slightly higher at 2.54x by the fiscal 2019 base revenue amount, while second-lien MADS coverage of combined senior-lien and subordinate-lien sales tax debt is 2.38x;
- Nondiversion and nonimpairment covenants that prevent reduction of the pledged sales tax rate or diversion of pledged revenues, while pledged sales tax and state base sales tax revenue is not subject to annual appropriation; and
- 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.

Offsetting factors include a currently modest exposure to unhedged variable-rate debt, which comprises about 10% of MBTA total debt ($528 million), as well as the potential for substantial additional bonding to meet MBTA's large capital needs, which we believe could lower coverage closer to the 1.5x ABT based on sales tax revenues. The current five-year capital improvement plan (CIP) is significantly higher than it was two years ago, and involves more bonding, with about $1.85 billion of additional sales tax bonds projected to be sold over the next five years, although matched with a significant scheduled debt paydown.

MBTA is currently operating under a state oversight board, following various operational issues in the winter of 2015. It estimates a five-year 2019-2023 MBTA CIP of $8.0 billion, up from a five-year CIP estimate last year for 2018-2022 of $7.4 billion, and its five-year CIP from two years ago of $6.8 billion. The 2019-2023 CIP includes a portion of the funding of the authority's $2.6 billion green line rail extension, which will also receive funding from federal and local sources. MBTA expects approximately $1.85 billion of its current five-year CIP will be funded with sales tax revenue bonds, $1.1 billion from state rail enhancement bonds, and $4.0 billion from federal assistance, including federal TIFIA/RRIF loans.

Although current debt service coverage is strong, we believe MBTA sales tax coverage could potentially drift downward again closer to the ABT, as occurred before the 2015 addition of the extra $160 million pledge to the bonds of state sales tax on a gross basis that is used for MBTA operations, in light of the large capital plan, and the potential for cost overruns or expanded borrowing. The $1.85 billion of additional sales tax debt MBTA plans to issue over the next five years is up from $600 million of additional bonds that were expected in MBTA's five-year CIP from two years ago. We believe the potential exists for additional capital needs to bring the system up to a state of good repair and for potential cost escalations on rail line extensions that could raise future bonding needs. Currently, MBTA plans to issue $500 million of additional parity debt in each of fiscal years 2019 and 2021.

Before a commonwealth enabling act in 2000, MBTA issued general revenue bonds backed by the commonwealth, and Massachusetts backfilled MBTA operating deficits after a time lag. Parity 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 guaranteed base amount of pledged sales tax revenue, should pledged sales tax revenue decline, or not increase as fast as inflation. This base amount was raised by an extra $160.0 million in fiscal 2015, and subsequently increases annually by the rate of the Boston CPI up to 3% per year, or lower to the extent that the rate the CPI increases is less than 3% but more than the sales tax rate increase (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 $1.032 billion, due in fiscal 2019, compared with $767 million in 2009. The commonwealth collected nearly the same $1,014 million of pledged MBTA sales tax fiscal in 2018, as the $1,006 million available under the 2018 base amount. 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 to be used to pay debt service.

The senior-lien bonds will have 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, while the subordinate bonds and the TIFIA/RRIF loans will not have a debt service reserve. In view of prospects that coverage will remain high for both liens, we do not believe lack of a debt service reserve is a significant credit differentiator between the senior and subordinate bonds. MBTA is in process of gathering bondholder consent to convert the senior bond debt service requirement into an aggregate amount, instead of a per series requirement, by voting new bond issues in favor of the amendment.

The 1% pledged sales tax, plus $160 million per year, are 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 3.8% most recently in fiscal 2018. In the long term, however, pledged MBTA sales tax has increased at about the same pace as Massachusetts' base revenue amount.

Combined MADS coverage from all liens on general transportation revenue bonds, senior and subordinate sales tax bonds, and TIFIA/RRIF loan debt service is strong, in our opinion, at what we calculate as 2.31x by historical fiscal 2018 pledged actual MBTA sales tax revenues, and 2.35x by the 2019 certified state-guaranteed base revenue amount, assuming an interest rate of 7% on unhedged variable-rate debt. Coverage on senior sales tax revenue bond MADS alone of $406 million in 2022 will be 2.54x by 2019 base revenues. Combined prior general transportation revenue, senior, and subordinate sales tax bond and third-lien loan MADS after issuance of the federal loans is projected to be $438 million in fiscal 2024, assuming no other additional bonds are sold and assuming a 7% interest rate on unhedged variable-rate debt and a synthetic swap interest rate for debt hedged with interest rate swap agreements, and also assuming BANs are refunded with future long-term debt. It does not include federal interest subsidies on Build

America bonds or debt service reserve interest earnings. Assuming future bond sales in 2019 and 2020, MBTA projects combined MADS would rise to $489 million in 2024, which would still be covered 2.1x by the 2019 state-guaranteed base revenue amount.

The authority has $528 million of unhedged sales tax VRDOs and $105 million of unhedged BANs all secured by sales tax revenue, which will comprise about 10% of total sales tax-secured debt.

MBTA has three interest rate swap agreements associated with $150.5 million of variable-rate sales tax-secured bonds and sales tax-secured CP. The authority is not required to begin posting collateral 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 is the same for both senior sales tax bonds and subordinate sales tax bonds, the only difference being that the definition of debt service for the subordinate sales tax bond ABT includes combined annual debt service of both senior and subordinated debt. This, in essence, requires all bonds to meet the subordinate ABT. The ABT requires either 1.0x coverage of combined prior general transportation bonds and combined senior and subordinate sales tax bond MADS by the base revenue amount, or 2.0x coverage by historical sales tax revenues, net of prior general transportation bond debt service; and 1.5x coverage of sales tax revenue bond debt service and all prior general transportation debt obligations on a combined basis by historical sales tax revenue. The third-lien TIFIA/RRIF lien is closed to new debt after the current authorization of federal loan amounts have been fully drawn on.

(For more information on Massachusetts and its economy, please refer to the most recent state GO analysis published Aug. 9, 2018, on RatingsDirect.)

Outlook

The stable outlook reflects our stable outlook on the Massachusetts GO rating, and our view of MBTA's ability to issue future additional parity bonds under its senior- and subordinate-lien ABTs based on the size of guaranteed state base revenue, which is larger than directly pledged sales taxes. Should we lower our GO rating or revise our outlook on the commonwealth, we could potentially lower our ratings on the MBTA sales tax bonds and the TIFIA/RRIF loans. However, should we revise our outlook on Massachusetts to positive, or if we believe the creditworthiness of MBTA's SACP strengthens enough so that it is higher than the pledge of the state base amount, which we do not expect over our two-year outlook horizon, we could potentially revise our outlook on the senior and subordinate sales tax bonds to positive. Although future refundings on senior sales tax bonds into subordinate-lien debt could raise the debt service coverage differential between senior and subordinate debt, we would be unlikely to raise the senior-lien bond rating or revise the outlook alone because the senior bonds will have the same ABT as the subordinate-lien bonds and the credit quality of the pledged base revenue amount is linked to the state GO rating.

Our outlook also assumes adequate debt service coverage by the guaranteed base amount. A debt structure that included a significant amount of variable-rate or short-term debt in a rising interest rate environment that could put 1x debt service coverage by the guaranteed base amount at risk, or posed other contingent risks, could also result in our lowering the rating or revising the outlook to negative.

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