S&P Global
Ratings

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Summary:

Massachusetts Bay Transportation Authority; Letter Of Credit; Sales Tax

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Credit Profile		
US$413.96 mil subordinated sales tax bonds ser 2020B dtd 06/05/2020 due 07/01/2050		
Long Term Rating	AA/Stable	New

Rating Action

S&P Global Ratings assigned its 'AA' rating to Massachusetts Bay Transportation Authority's (MBTA) approximately $413 million subordinated sales tax bonds, 2020 series B. At the same, S&P Global Ratings affirmed its 'AA' long-term rating on the authority's $141.6 million closed prior-lien debt (of which $129.6 million is variable-rate); its 'AA' rating on $3.6 billion prior-lien senior sales tax debt outstanding; its 'AA' rating on $501.1 million parity subordinated sales tax bonds outstanding, including its 'AA/A-1+' dual rating on the MBTA's variable-rate demand purchase debt; it's 'A-1+' commercial paper (CP) rating; 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.

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 sales tax revenue base amount distributed and guaranteed 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 subordinated 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.

The long-term component of the dual rating on the variable-rate demand bonds reflects MBTA's credit characteristics. The short-term component of the rating reflects our assessment of the standby bond purchase agreements associated with the variable-rate debt.

In addition, the 2017 series B federal TIFIA and RRIF loans are secured by third-lien sales tax revenue after payment of the subordinate 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 will not draw on the TIFIA/RRIF federal loans until associated capital projects have been completed. The MBTA is in conversation with U.S. Department of Transportation to refinance its existing loan and expand it to fund its automatic train control and fiber resiliency projects. The new loan would be issued in three tranches running from December 2020 through July 2024. 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 project completions. In the meantime, the capital projects are being funded by short-term subordinate bond anticipation notes (BANs) and CP, which will be refinanced later into long-term loans or federal loans.

The 2020 series B subordinated bonds are being issued to produce approximately $375 million for new capital projects, and to refund outstanding series 2010A subordinated variable-rate sales tax bonds into a fixed rate and subordinated series 2010B sales tax bonds for debt service savings.

Credit overview

Our MBTA sales tax bond ratings are based on what we perceive to be the stronger pledge of either the state base revenue amount or pledged MBTA sales tax revenue. Currently, we view the pledge of state-guaranteed base revenue as of stronger credit quality because it is larger, at present, than MBTA sales tax revenue, cannot decrease in amount, and is backed by the commonwealth's guarantee of all sales tax Massachusetts collects. 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 base revenue securing the bonds. 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; 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 and the stability of the state guaranteed base revenues. We view the rating as linked to the pledged state revenues, which pay debt service before MBTA operational costs. The rating is not dependent on the operations of MBTA, which have been adversely affected by the coronavirus pandemic.

Although Massachusetts had a large one-month 17% decline in April 2020 sales tax collections compared with the same period in 2019, and the subordinate bonds do not have debt service reserves, debt service should nevertheless be covered by the commonwealth's general obligation (GO) guarantee to pay a base amount of monthly payments, regardless of the 1% state sales tax collections allocated to MBTA and pledged to bondholders. This base amount of state revenue can rise with inflation, but cannot decrease under the state's revenue formula. At the same time, we view the commonwealth as an independent provider of pledged revenues, independent of MBTA, whose operations have been adversely affected by pandemic restrictions. MBTA expects to receive about $857 million in federal Coronavirus Aid Relief and Economic Security (CARES) Act funding as reimbursement for COVID-19-related operating shortfalls through fiscal 2021, or about $67 million a month. MBTA has experienced a 92% reduction in fares as a result of the pandemic, which will contribute to an estimated $217 million decline in in fiscal 2020 fare revenue and investment income.

The 'AA' ratings reflect the strength of Massachusetts (AA/Stable; GO rating) to provide pledged sales tax revenue, in that the state base revenue amount, which is currently higher than the pledged sales tax revenue, is payable from total state sales taxes, and is not subject to state appropriation. The potential dependence on state base revenue, in our view, creates an indirect link to state credit quality. For more information on the commonwealth, please refer to our most recent analysis of Massachusetts published May 13, 2020, on RatingsDirect.

Other rating factors include:

- A large and diverse statewide economy of 6.9 million generating the pledged sales tax;
- Strong 2.34x coverage of maximum annual debt service (MADS) on combined senior, subordinate, and TIFIA/RRIF sales tax liens by fiscal 2020 pledged state base revenue, assuming unhedged variable-rate debt carries a 2.75% 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 1.9x or greater, using the fiscal 2021 state base revenue amount, even after anticipated five-year capital improvement plan (CIP) future new money debt issuance and the BANs have been refunded;
- MADS coverage of all three liens is also strong by pledged MBTA sales tax revenue at 2.27x, using the most recent fiscal 2019 pledged sales tax revenue alone;
- Coverage of senior-lien MADS alone is higher at 2.85x by the fiscal 2021 base revenue amount, while second-lien MADS coverage of combined senior-lien and subordinate-lien sales tax debt is 2.34x;
- 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:

- Significant capital needs expected to require about $2.7 billion of new money bonding per year over the next five years (averaging about $540 million per year), plus a potential short-term $50 million direct placement parity subordinate sales tax loan to cover temporary operational liquidity needs until receipt of federal CARES Act reimbursement for pandemic-related operating costs. The five-year CIP in recent years has grown significantly, and involves more bonding. We believe there is the potential for substantial expansion of MBTA's large capital needs, which could eventually lower coverage closer to the 1.5x ABT based on sales tax revenues; and
- A currently modest exposure to unhedged variable-rate debt after this issuance, which will comprise about 10% of MBTA total debt ($221.4 million unhedged variable-rate, plus $250 million of CP authorization--although not all CP capacity is currently being used).

We have evaluated MBTA's recent direct placement loan agreement with UBS Group AG for potential liquidity needs while the authority waits for federal CARES Act reimbursement money, and do not believe it to have terms that pose an inordinate risk to the sales tax ratings. MBTA does not believe it will ultimately draw on this credit line, secured on a parity basis by subordinate sales tax revenue, and does not believe it will need to bond long term for increased operational costs caused by the pandemic.

Environmental, social, and governance factors

We view MBTA's environmental risks as in line with our view of the standard for mass transit. However, the MBTA is exposed to social risks because of COVID-19-related social distancing requirements to promote health and safety that are already causing significant operating and financial pressures, and in view of past operational issues that have led to a state control board, to potential governance risks. Our environmental, social, and governance (ESG) evaluation of our sales tax bonds rating on MBTA mirrors that of the commonwealth, which supplies the pledged guaranteed based revenue, and whose ESG factors we view generally in line with that of other states.

Stable Outlook

The stable outlook reflects that of our outlook on the commonwealth, which guarantees pledged monthly state base revenue as a guarantee of Massachusetts. The outlook also reflects our view of MBTA's ability to issue future additional parity bonds under the authority's senior- and subordinate-lien ABTs based on the size of 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 direct sales tax pledge strengthens enough so that it is higher than the pledge of the state base amount, we could potentially revise our outlook to positive on the senior and subordinate sales tax bonds. 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 consistently strong debt service coverage over our two-year outlook horizon, despite capital pressures. Significant additional debt leverage that lowered debt service coverage below what could be covered under the base revenue amount under the 1.5x sales tax coverage test portion of the ABT, or a debt structure that included a significant amount of variable-rate or short-term debt in a rising interest rate environment, could also result in our lowering the rating or revising the outlook to negative.

Credit Opinion

Capital program

MBTA is currently operating under a state oversight board, following various operational issues in the winter of 2015. It currently has a five-year 2020-2024 MBTA CIP of $8.2 billion, up from a 2019-2023 CIP of $8.0 billion, and a 2018-2022 CIP of $7.4 billion. The 2020-2024 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. The draft 2021-2025 five-year CIP contemplates that about 30% of the CIP will be bond funded, consisting of $2.7 billion total in bonding, or $540 million on average per year, with issuance escalating over the five-year period.

Debt service coverage

Although current debt service coverage is strong by either the guaranteed base amount or sales tax pledge, we believe debt service coverage could potentially drift downward again closer to the ABT limit, 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 additional sales tax debt MBTA plans to issue over the next five years is up significantly from before operational issues became evident in 2015. We believe the potential exists for additional capital needs to bring the system up to a state of good repair and for cost escalations on rail line extensions that could raise future bonding needs.

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 $977 million of pledged sales tax fiscal 2017, compared with $992 million under the 2017 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 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 do not have debt service reserves. In view of prospects that coverage by state-guaranteed revenues 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 the 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 1.00% 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 previous recession, with a cumulative decline of 7.9% in fiscal years 2008-2010. Sales tax revenues have generally shown good growth in recent years, until a 17.7% decline in one-month April 2020 sales tax compared with the same April period the year before. Although we believe sales tax will recover as pandemic restrictions are lifted, it is unclear exactly how fast retail sales will come back. We believe that for the near term, at least, the state-guaranteed base amount ($1.083 billion currently based on the fiscal 2021 guaranteed amount) is likely to be higher than the pledged sales tax amount ($1.05 billion currently based on most recent fiscal 2019 historical tax collections).

Combined MADS coverage from all liens on general transportation revenue bonds, senior and subordinate sales tax bonds, a parking bond expected to be refunded into subordinate sales tax debt, and TIFIA/RRIF loan debt service is strong, in our opinion, at what we calculate as 2.27x by historical fiscal 2019 pledged actual sales tax revenues, and 2.34x by the 2021 certified state-guaranteed base revenue amount, assuming an interest rate of 2.75% on unhedged variable-rate debt, a synthetic swap interest rate for debt hedged with interest rate swap agreements, and also assuming BANs are refunded with future long-term debt. Coverage on net senior sales tax revenue bond MADS alone of $366 million in 2022 will be 2.96x by the 2021 guaranteed base amount. Assuming anticipated future bond sales through fiscal 2025, MBTA projects combined annual coverage by the 2021 state-guaranteed base amount would remain above at least 1.9x in all future years.

Variable-rate debt and swaps

The authority will have $224.1 million of unhedged variable-rate debt and authorization for up to $250 million of CP 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 $133.6 million notional amount of variable-rate sales tax-secured bonds. 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.

Operations

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 each 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 1,127 miles of routes. The authority's commuter rail service operates more than 512 units of passenger rail equipment, providing service between Boston and 134 outlying rail stations. In addition, MBTA provides a broad range of other passenger services including commuter boats. Its territorial area has increased to 176 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. MBTA has estimated about 55% of all trips to Boston are provided by public transportation.

The authority employs approximately 5,856 full-time and 527 part-time employees, most of which are represented by

29 labor unions, and is currently operating under a labor contract expiring June 30, 2021. In fiscal 2019, the last audited year, MBTA operating expenses less depreciation were $1.9 billion; this does not include debt service, which is deducted from sales tax before being credited to operating funds. Its unrestricted cash and temporary cash investment position was $296.9 million at fiscal year-end June 30, 2019. As for most transit systems, MBTA relies heavily on intergovernmental operating subsidies to pay for operations. In 2019, it received $1.4 billion from state sales taxes, state contract assistance, and local assessments.

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 June 30, 2020, at which time control would be returned to the board of directors of the Massachusetts Department of Transportation (MassDOT). 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 MassDOT, and had obligations relative to the MBTA that are vested in the MassDOT board.

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

The governor has included a proposal in his fiscal 2021 executive budget proposal to reconstitute a separate independent MBTA board, separate from the MassDOT board, consisting of six members appointed by the governor and one member appointed by the MBTA advisory board.

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)

Massachusetts Bay Transportation Authority (MBTA) -- Pledged Revenues (cont.)

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%
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	4,775,641	924,103	27.0§	970,637§	(54,942)
2016	4,990,760	958,522	3.7	986,274	(27,752)
2017	5,104,756	976,761	1.9	992,192	(15,431)
2018	5,299,437	1,007,910	3.2	1,006,807	(1,103)
2019	5,582,310	1,053,170	4.5	1,032,068	(21,102)
2020	N/A	N/A	N/A	1,063,030	N/A
2021	N/A	N/A	N/A	1,083,333	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.

Ratings Detail (As Of May 14, 2020)

Massachusetts Bay Transp Auth sr sales tax		
Long Term Rating	AA/Stable	Affirmed
Massachusetts Bay Transp Auth sr sales tax		
Long Term Rating	AA/A-1+/Stable	Affirmed
Massachusetts Bay Transp Auth sr sales tax		
Long Term Rating	AA/A-1+/Stable	Affirmed
Massachusetts Bay Transp Auth sr sales tax		
Long Term Rating	AA/A-1+/Stable	Affirmed
Massachusetts Bay Transp Auth sr sales tax (AGM) (MBIA)		
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
Massachusetts Bay Transp Auth sr sales tax (MBIA) (National)		
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
Massachusetts Bay Transp Auth subord sales tax		
Long Term Rating	AA/Stable	Affirmed
Massachusetts Bay Transp Auth subord sales tax		
Long Term Rating	AA/Stable	Affirmed
Massachusetts Bay Transp Auth subord sales tax		
Long Term Rating	AA/Stable	Affirmed
Massachusetts Bay Transp Auth subord sales tax		
Long Term Rating	AA/Stable	Affirmed
Massachusetts Bay Transp Auth subord sales tax		
Long Term Rating	AA/Stable	Affirmed
Massachusetts Bay Transp Auth CP sales tax BANs ser A-TE&TX		
Short Term Rating	A-1+	Affirmed

Many issues are enhanced by bond insurance.