

RatingsDirect®

Summary:

Metropolitan Washington Airports Authority, District of Columbia; Toll Roads Bridges

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Rating Action

S&P Global Ratings affirmed its long-term ratings of 'A' and 'A-' on the Metropolitan Washington Airports Authority (MWAA), D.C.'s Dulles Toll Road (DTR) bonds totaling approximately \$3.3 billion, based on its "Global Not-For-Profit Transportation Infrastructure Enterprises: Methodologies and Assumptions" (TIE) criteria, dated Nov. 2, 2020. The outlook remains negative.

The negative outlook reflects our view that we could lower the rating within the two-year outlook period if toll revenues remain depressed, requiring additional draws on cash reserves to pay long-term debt service and resulting in elevated debt-to-net revenue levels. Recent trends show a slow recovery in traffic and toll revenue is continuing in 2021 and, while liquidity remains very strong, operational performance on the DTR has yet to stabilize.

The rating affirmations include MWAA's debt as of July 1, 2021:

- First senior-lien bonds of approximately \$163.1 million at 'A';
- Second senior-lien bonds of approximately \$1.764 billion at 'A-'; and
- Subordinate third-lien bonds of approximately \$1.419 billion at 'A-'.

Bonds are secured by net revenues of the DTR, which operates as a separate Dulles Corridor Enterprise apart from the authority's aviation operations (National and Dulles airports), with no cross-support between the two. Along with other local and federal funding sources, the debt issued by the authority and backed by DTR revenues financed construction of the Dulles Corridor Metrorail Project (Silver Line), which is the extension of the Washington Area Metropolitan Transit Authority's (WMATA) rail system to Dulles International Airport and beyond into Loudoun County. After completion and acceptance of the Phase 2 of the Metrorail Project by WMATA, the authority will transfer ownership to WMATA, which will be fully responsible for its operation and maintenance. The Dulles Corridor Metrorail Project

(Silver Line) opened in 2014 with rail service, and the final Phase 2 of the project, extending the Silver Line to and beyond Dulles International Airport, is scheduled to open by early 2022.

Opened in 1984, the DTR is a 13.4-mile tolled mature roadway with four lanes in each direction, running between inside Interstate 495 (I-495, or the Capital Beltway) to State Road 28 with a direct connection to the Dulles Greenway, a privately operated toll road that runs from the DTR to Leesburg, Va. (Toll Road Investors Partnership II [BB/Negative]). The DTR has one mainline toll plaza and 19 ramp toll plazas and is converting to all-electronic toll collection in 2021.

Credit overview

The ratings on the DTR bonds reflect our opinion of the toll road's strong enterprise risk and strong financial risk profiles, both of which were negatively affected by the COVID-19 pandemic, with long-term risks associated with a reliance on toll-rate increases to meet debt service that escalates annually at 2.7%, maturing in 2053.

Specifically, the enterprise risk profile reflects our view of DTR's:

- Extremely strong service area economic fundamentals, attributable to a large and growing population, historically below national-average unemployment levels, and above national-average GDP per capita in the region, which supports the ability to increase future toll rates;
- Strong market position, still recovering from economic and operational effects associated with the COVID-19 pandemic and incorporating our view of the road's more concentrated commuter user base, geographic concentration, and some modest competition from free roads in the region; and
- Very strong oversight and governance, as evidenced by MWAA management's strategic planning and risk management practices, solid record of successful operations and construction program administration, and overall toll road financial results.

The financial risk profile reflects our view of DTR's:

- Historically strong but recently weakened financial performance, as demonstrated by all-in pre-pandemic debt service coverage (DSC) greater than 1.5x but declining to 0.76x in fiscal 2020 (S&P Global Ratings-calculated), with 2021 to also likely require use of cash reserves to meet annual debt service requirements;
- Debt and liabilities capacity that has increased to the 20x-30x range due to depressed annual DTR net revenues and debt accretion with no additional new-money debt planned or required; and
- Very strong liquidity and financial flexibility, based on our expectation that the authority will continue to maintain high cash reserves relative to operating expenses. Unrestricted cash and investments, currently at \$212 million, were \$228 million as fiscal year-end 2020, or more than 2,600 days' cash on hand.

The DTR was well-positioned both operationally and financially entering the pandemic, having recently completed a debt restructuring, including takeout of a federal Transportation Infrastructure Finance and Innovation Act (TIFIA) loan in 2019, along with a pre-planned toll increase that had the effect of reducing longer-term debt and lowering future toll increases. However, like most other toll roads, the DTR saw mobility restrictions and associated health and safety conditions associated with the COVID-19 pandemic adversely affecting traffic and revenue beginning mid-March 2020. Transactions and revenues immediately declined by around 70% by April 2020 when compared to

April 2019 and, as of May 2021, both have recovered to about 30% lower than 2019 levels. This is a weaker recovery than that of other S&P Global Ratings-rated toll systems, with many of those still negatively affected in the 10%-15% range. Encouragingly, DTR has experienced monthly improvement since April 2020, except for the four months between November 2020 and February 2021 during the rise in COVID-19 infections, with May 2021 recording the highest monthly transaction volume (12.1 million) since February 2020.

In reaction to the precipitous decline in revenue, MWAA management prudently took action to mitigate financial impacts by curtailing operations and maintenance (O&M) expenditures in 2020, which declined 27%, also due in part to lower activity levels. For the current fiscal 2021, management is transitioning to cashless toll collections, which is expected to result in \$7 million in labor costs savings, while also holding capital renewal and replacement expenditures flat. Large unrestricted cash balances available to the DTR enterprise (\$212 million as of May 31, 2021) provided the flexibility to apply approximately \$65 million toward paying a portion of total debt service requirements in fiscal 2020 (\$133.5 million net of Build America Bonds subsidies) and O&M (\$31.4 million, excluding depreciation) to cover for the 38% decline in total operating revenues (to \$122 million from \$197.4 million in 2019). This resulted in S&P Global Ratings-calculated DSC from operating revenues of 0.76x. The authority-calculated subordinate lien DSC calculated under the bond covenants for fiscal 2020 was 1.20x. The authority is budgeting for another cash draw in fiscal 2021 of \$45 million to supplement budgeted toll revenues of \$150.2 million, still about 24% lower than 2019 levels. Debt-to-net revenues, which had been expected to decline to levels below 20x as a result of projected toll increases, are now again elevated, at 34.5x in fiscal 2020 with the accretion of DTR's capital appreciation bonds also contributing to the increase.

The use of cash reserves to meet fixed costs is clearly not a sustainable practice, and as traffic levels continue to improve as we expect, the authority is undertaking a study to analyze mobility patterns to inform long-term planning. S&P Global Ratings will continue to monitor traffic and revenue performance in the context of the authority's current capital structure, with escalating annual debt service requirements and debt accretion but with no significant additional debt requirements, as currently envisioned.

Environmental, social, and governance (ESG) factors

We analyzed MWAA's ESG risks associated with the DTR and the authority as a whole relative to its market position, management and governance, and financial performance. Elevated health and safety concerns, which we consider to be a social risk factor, are abating and are currently considered credit neutral in our analysis. All other environmental and governance credit factors are viewed to be in line with our view of the sector. We will continue to evaluate risks and opportunities going forward.

Negative Outlook

Downside scenario

We could lower the rating over the next two years if toll revenues remain depressed, requiring continued draws on cash reserves to pay long-term debt service and resulting in elevated debt-to-net revenue levels to levels we consider vulnerable.

Return to stable scenario

We could revise the outlook to stable if operational and financial performance returns to levels that align with the current rating, with long-term toll revenue demonstrating growth consistent with historical metrics to service long-term debt requirements.

Credit Opinion

S&P Global Ratings expects U.S. economic activity and growth will accelerate in 2021 as public health conditions continue to improve. The steady pace of vaccination in the U.S. has allowed for the easing of capacity restrictions, with many state and local governments fully or partially lifting mask mandates. Vaccination progress is part of our assessment of U.S. economic and credit implications across public finance (see our research here: www.spglobal.com/ratings). As the situation evolves, we will update our assumptions and estimates accordingly. For more information, see "Updated Activity Estimates For U.S. Transportation Infrastructure Show Public Transit And Airport Operators Still Face A Long Recovery," published Jan. 13, 2021, on RatingsDirect.

A better vaccination outlook this summer, a faster reopening schedule, and \$2.8 trillion from two stimulus packages have turbocharged the U.S. economic recovery this year and the next, following the pandemic-induced slump. S&P Global Economics' current forecasts anticipate ending 2021 at a 6.7% real GDP growth rate in 2021 and rebounding to a slower growth phase heading into 2022, with 3.7% estimated for next year. Our risk for recession over the next 12 months is now 10% to 15%, down sharply from the 20% to 25% range in January and around the U.S. economy's long-term unconditional recession risk average of 13%. The U.S. unemployment rate in May fell to 5.8%, and we expect the national unemployment rate will likely reach its pre-pandemic level of under 4% by first-quarter 2023. For more information, see "Economic Outlook U.S. Q3 2021: Sun, Sun, Sun, Here It Comes," published June 24, 2021.

Related Research

- Through The ESG Lens 2.0: A Deeper Dive Into U.S. Public Finance Credit Factors, April 28, 2020

Ratings Detail (As Of July 20, 2021)		
Metropolitan Washington Arpts Auth dulles toll rd subord third lien rev bnds (Current Interest Bonds) ser 2010-C dtd 05/15/2010 due 06/01/2049		
<i>Long Term Rating</i>	NR	
Metropolitan Washington Arpts Auth toll rds br (BAM) (SECMKT)		
<i>Unenhanced Rating</i>	A-(SPUR)/Negative	Affirmed
Metropolitan Washington Arpts Auth toll rds br (BAM) (SECMKT)		
<i>Unenhanced Rating</i>	A-(SPUR)/Negative	Affirmed
Metropolitan Washington Arpts Auth toll rds & brs		
<i>Long Term Rating</i>	NR	
Metropolitan Washington Arpts Auth toll rds & brs		
<i>Unenhanced Rating</i>	A-(SPUR)/Negative	Affirmed

Ratings Detail (As Of July 20, 2021) (cont.)

Metropolitan Washington Arpts Auth toll rds & brs <i>Unenhanced Rating</i>	A-(SPUR)/Negative	Affirmed
Metropolitan Washington Arpts Auth toll rds & brs <i>Unenhanced Rating</i>	A-(SPUR)/Negative	Affirmed
Metropolitan Washington Arpts Auth toll rds & brs <i>Unenhanced Rating</i>	A-(SPUR)/Negative	Affirmed
Metropolitan Washington Arpts Auth toll rds & brs (AGM) <i>Unenhanced Rating</i>	A-(SPUR)/Negative	Affirmed
Metropolitan Washington Arpts Auth toll rds & brs (AGM) <i>Unenhanced Rating</i>	A-(SPUR)/Negative	Affirmed
Metropolitan Washington Arpts Auth toll rds & brs (AGM) (SEC MKT) <i>Unenhanced Rating</i>	A-(SPUR)/Negative	Affirmed
Metropolitan Washington Arpts Auth toll rds & brs (AGM) (SEC MKT) <i>Unenhanced Rating</i>	A-(SPUR)/Negative	Affirmed
Metropolitan Washington Arpts Auth toll rds & brs (AGM) (SEC MKT) <i>Unenhanced Rating</i>	A-(SPUR)/Negative	Affirmed
Metropolitan Washington Arpts Auth toll rds & brs (AGM) (SEC MKT) <i>Unenhanced Rating</i>	A-(SPUR)/Negative	Affirmed
Metropolitan Washington Arpts Auth toll rds & brs (AGM) (SEC MKT) <i>Unenhanced Rating</i>	A-(SPUR)/Negative	Affirmed
Metropolitan Washington Arpts Auth toll rds & brs (ASSURED GTY) <i>Unenhanced Rating</i>	A-(SPUR)/Negative	Affirmed

Many issues are enhanced by bond insurance.

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at www.standardandpoors.com for further information. Complete ratings information is available to subscribers of RatingsDirect at www.capitaliq.com. All ratings affected by this rating action can be found on S&P Global Ratings' public website at www.standardandpoors.com. Use the Ratings search box located in the left column.

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Ratings Outlooks On U.S. Transportation Infrastructure Issuers Revised To Negative Due To COVID-19 Pandemic

March 26, 2020

BOSTON (S&P Global Ratings) March 26, 2020--S&P Global Ratings today revised to negative the outlooks on nearly all long-term debt ratings in the U.S. transportation infrastructure sector due to the severe and ongoing impacts associated with the COVID-19 pandemic. We believe the dramatic contraction of the global and U.S. economies and virtual collapse of travel and mobility across the transportation subsectors is a demand shock without precedent, with no definitive indication at this time regarding its duration and severity as well as the follow-on effects of an economic recession. The outlook revisions to negative of each issuer and issuer credit rating follows on our updated overall view of the sector (see "U.S. Transportation Infrastructure Sector Outlook Update: Now Negative For All Sectors" published March 16, 2020, on RatingsDirect).

We are affirming the ratings and outlooks for transportation infrastructure issuers with existing negative outlooks and not modifying the ratings or outlooks of debt secured by federal transportation grants.

The expected passage into U.S. law of an approximately \$2 trillion federal stimulus package that includes direct financial aid to airport operators (\$10 billion) and transit authorities (\$25 billion) is viewed favorably and will alleviate immediate liquidity pressures, as well as assist with near-term operational funding requirements including debt service. Aid to the airline industry, in the form of loans and loan guarantees, should also support payments from airline tenants to airport operators. However, long-term credit implications across all sectors have yet to unfold, and we expect greater visibility on the broader impacts on issuers' financial and business profiles in the coming months.

This action applies to the ratings of approximately 187 issuers and 252 ratings (see list below) in the following six transportation subsectors: airports, toll roads and bridges, ports, transit systems, parking, and special facilities (e.g. consolidated rental car facilities at airports). Our entire transportation infrastructure portfolio of senior and subordinated credit ratings has a modal rating of 'A' with nearly all subject to volume risk--that is, they are dependent on passengers, riders, cargo, and vehicles to generate operating revenues necessary to meet operating requirements, debt service obligations, and capital needs.

"The revision of credit rating outlooks to negative provides clarity to market participants that issuers face at least a one-in-three likelihood of a negative rating action over the intermediate term for investment-grade credits (generally up to two years) and over the short term for speculative-grade credits (generally up to one year)," said S&P Global Ratings credit analyst Kurt Forsgren. All ratings will be individually reviewed with respect to an issuer's specific exposure to,

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and ability to mitigate against, the financial and operational challenges in the near-to-intermediate term and our views of longer term risks. Negative outlooks on specific ratings may be returned to stable on a case-by-case basis in the near-to-medium term.

It is important to recognize that the transportation infrastructure sectors benefit from--and the current ratings on them reflect--strong fundamental credit features including the often-dominant business positions that both support their ability to collect revenues from users, largely without significant regulatory limitations or approvals, and recover from demand shocks such as COVID-19. Similarly, management teams of the highly rated issuers in our portfolio are experienced, generally conservative in their budgeting and forecasting assumptions, and have historically taken measures that balanced meeting their public missions as well as debt service obligations. We view overall liquidity levels to be favorable with median unrestricted days' cash on hand that has averaged near 600 days for fiscal years 2018 and 2019.

As of this date, credit conditions in the transportation industry continue to erode with plunging passenger and transaction volumes across the board in air travel, transit, toll facilities, and parking, as mobility is severely restricted or prohibited in many locations under stay-in-place orders. Collective efforts by federal, state and local officials to contain the virus outbreak and minimize the public health effects of COVID-19 by "flattening the curve" are both reducing the economic activity that the transportation sectors depend upon and prolonging the period volumes are depressed before recovering. Also, the lingering effects from trade conflicts and tariffs combined with the COVID-19 outbreak in China have dramatically disrupted shipping and maritime trade. (See "U.S. Ports Face Headwinds," published Feb. 19, 2020.)

Based on our analysis and preliminary year-over-year data reported by issuers that we rate, volume in the past two weeks from passengers, riders, toll and parking transactions as well as shipping containers are lower compared with the same period in 2019; in a range of 60%-90% on the high end to 20%-40% on the low end depending on the transportation asset. Some tolled facilities and ports appear less affected on a relative basis, but the declines for all transportation infrastructure subsectors are significant and, for many, financially unsustainable at the current depressed levels.

Critical to the near and long-term prospects of the transportation sectors is the economic outlook, which continues to worsen both globally and in the U.S. (See "Global Macroeconomic Update, March 24: A Massive Hit To World Economic Growth," and "Credit FAQ: Assessing The Coronavirus-Related Damage To The Global Economy And Credit Quality" published March 24, 2020.) For the U.S., the year-on-year contraction in second-quarter GDP now looks to be at least double S&P Global Economics' earlier 6% estimate.

Risks remain that U.S. travel restrictions could expand domestically, with continuing or lingering concerns about health and safety magnifying the negative effects across the travel value chain. Even when travel restrictions are lifted we believe there may be an extended period before volume levels return, which pressures near-term credit quality. Also, systemic or permanent changes in consumer and industry behavior, shifts in supply chains, economic softening, and recessionary pressures could affect our view of long-term ratings.

S&P Global Ratings will continue to monitor and evaluate the cascading effects of this fluid and fast-moving situation. Potential negative rating actions could be either broad-based or credit specific. Our approach in conversations with management teams and evaluating available information will be:

- Focusing on near-term (next six months) liquidity or refinancing or remarketing risks faced by issuers, with primary attention on issuers with weaker credit profiles and lower liquidity, with the expectation that the significant declines we've seen will extend into the late summer to

early fall. We expect to analyze issuers' available cash on hand, unrestricted and restricted assets, capital funding requirements and capital deferrals, and receivables, and any currently dedicated resources that may be available to meet near-term obligations, including use of federal stimulus money.

- Analyzing intermediate (six-12 months) funding and budgetary risks by issuers most affected by volume declines and evaluate management's actions to mitigate impacts and their contingency plans. We will monitor adjustments to operations, capital expenditures, financial forecasts, current and projected cash draws and liquidity levels as well as access to external liquidity while making principal and interest deposits.
- Gauging the shape of the economic and operational recovery at the macro level and what it could look like for the specific issuer. We will be reviewing long-term plans, evaluating growth rates and overall trajectory, operational changes, capital plan adjustments, and revised projections in the context of our view of anticipated volume levels.

S&P Global Ratings will continue to monitor activity levels, industry developments, policy actions at the federal, state and local levels, and comment or take credit action as appropriate.

TELECONFERENCE

There will be a teleconference scheduled in the coming days to discuss this action, related industry developments, and to answer your questions.

An Excel workbook listing the affected ratings can be downloaded here:

https://www.standardandpoors.com/pt_LA/web/guest/article/-/view/sourceId/100042776

Table 1

Airport And Passenger Facility Charge

Credit	State	Current rating	Current outlook	Previous outlook
Albany International Airport - 1st Lien	NY	A	Negative	Stable
Albuquerque International Sunport - 1st Lien	NM	A+	Negative	Stable
Augusta Regional Airport - 1st Lien	GA	BBB	Negative	Stable
Austin Bergstrom International Airport - 1st Lien	TX	A	Negative	Positive
Baltimore/Washington International Airport - 1st Lien PFC	MD	A+	Negative	Stable
Bradley International Airport - 1st Lien	CT	A+	Negative	Stable
Burbank-Glendale-Pasadena Airport Authority - 1st Lien	CA	A+	Negative	Stable
Bush Intercontinental Airport and Hobby Airport - 2nd Lien	TX	A+	Negative	Stable
Charleston County Airport - 1st Lien	SC	A+	Negative	Stable
Charlotte/Douglas International Airport - 1st Lien	NC	AA-	Negative	Stable
Chicago Midway International Airport - 1st Lien	IL	A	Negative	Stable
Chicago Midway International Airport - 2nd Lien	IL	A	Negative	Stable
City of Palm Springs - 1st Lien PFC	CA	A	Negative	Stable
Cleveland Hopkins International Airport - 1st Lien	OH	A	Negative	Stable
Dallas-Fort Worth International Airport - 1st Lien	TX	A+	Negative	Stable
Dayton International Airport - 1st Lien	OH	BBB+	Negative	Stable
Denver International Airport - 1st Lien	CO	A+	Negative	Stable

Table 1

Airport And Passenger Facility Charge (cont.)

Credit	State	Current rating	Current outlook	Previous outlook
Denver International Airport - 2nd Lien	CO	A	Negative	Stable
Des Moines International Airport - 1st Lien	IA	A+	Negative	Stable
Detroit Metro Wayne County Airport - 1st Lien	MI	A	Negative	Stable
Detroit Metro Wayne County Airport - 2nd Lien	MI	A-	Negative	Stable
El Paso International Airport - 1st Lien	TX	A+	Negative	Stable
Fort Lauderdale-Hollywood International Airport - 1st Lien	FL	A+	Negative	Stable
Fresno Yosemite International Airport - 1st Lien	CA	A	Negative	Stable
Guam International Airport - 1st Lien	GU	BBB+	Negative	Stable
Hartsfield Jackson Atlanta International Airport - 1st Lien	GA	AA-	Negative	Stable
Hawaii Airport System - 1st Lien	HI	A+	Negative	Stable
Hawaii Airport System - subordinate lien	HI	A+	Negative	Stable
Indianapolis International Airport - 1st Lien	IN	A	Negative	Stable
Jackson County Rogue Valley Intl Medford Airport - 1st Lien	OR	A	Negative	Stable
John Wayne Airport - 1st Lien	CA	AA-	Negative	Stable
Kansas City International Airport - 1st Lien	MO	A	Negative	Stable
Lambert-St. Louis International Airport - 1st Lien	MO	A	Negative	Stable
Las Vegas-McCarran International Airport - 1st Lien	NV	AA-	Negative	Stable
Las Vegas-McCarran International Airport - 2nd Lien	NV	A+	Negative	Stable
Las Vegas-McCarran International Airport - 3rd Lien	NV	A+	Negative	Stable
Los Angeles International Airport - 1st Lien	CA	AA	Negative	Stable
Los Angeles International Airport - 2nd Lien	CA	AA-	Negative	Stable
Louisville International Airport - 1st Lien	KY	A+	Negative	Stable
Love Field Airport Modernization Corporation - 1st Lien	TX	A	Negative	Stable
Manchester Airport - 1st Lien	NH	BBB+	Negative	Stable
Massachusetts Port Authority (Boston Logan International Airport) - 1st Lien	MA	AA	Negative	Stable
Memphis International Airport - 1st Lien	TN	A	Negative	Stable
Miami International Airport - 1st Lien	FL	A	Negative	Stable
Minneapolis-St. Paul International Airport - 1st Lien	MN	AA-	Negative	Stable
Minneapolis-St. Paul International Airport - 2nd Lien	MN	A+	Negative	Stable
Mobile Airport Authority - 1st Lien	AL	BBB+	Negative	Stable
Myrtle Beach International Airport - 1st Lien	SC	A+	Negative	Stable
Nashville International Airport - 1st Lien	TN	A+	Negative	Stable
New Orleans International Airport - 1st Lien	LA	A	Negative	Stable
Norfolk Airport Authority - 1st Lien	VA	A	Negative	Stable
O'Hare International Airport - 1st Lien	IL	A	Negative	Stable

Table 1

Airport And Passenger Facility Charge (cont.)

Credit	State	Current rating	Current outlook	Previous outlook
O'Hare International Airport - 1st Lien PFC	IL	A	Negative	Stable
Okaloosa County - 1st Lien	FL	A-	Negative	Positive
Omaha Eppley Airfield - 1st Lien	NE	AA-	Negative	Stable
Ontario International Airport - 1st Lien	CA	A-	Negative	Positive
Orlando International Airport - 1st Lien	FL	AA-	Negative	Stable
Orlando International Airport - 2nd Lien	FL	A+	Negative	Stable
Palm Beach International Airport - 1st Lien	FL	A+	Negative	Stable
Philadelphia International Airport - 1st Lien	PA	A	Negative	Stable
Pittsburgh International Airport - 1st Lien	PA	A-	Negative	Stable
Port of Seattle (Seattle-Tacoma International Airport) - 1st Lien	WA	AA-	Negative	Stable
Port of Seattle (Seattle-Tacoma International Airport) - 1st Lien PFC	WA	A+	Negative	Stable
Port of Seattle (Seattle-Tacoma International Airport) - 2nd Lien	WA	A+	Negative	Stable
Port of Seattle (Seattle-Tacoma International Airport) - 3rd Lien	WA	A+	Negative	Stable
Portland International Airport - 1st Lien	OR	AA-	Negative	Stable
Portland International Airport - 1st Lien PFC	OR	A+	Negative	Stable
Portland International Airport - CFCs - 1st Lien	OR	A-	Negative	Stable
Portland International Jetport - 1st Lien	ME	A-	Negative	Stable
Sacramento International Airport - 1st Lien	CA	A+	Negative	Stable
Sacramento International Airport - 2nd Lien	CA	A	Negative	Stable
Salt Lake City International Airport - 1st Lien	UT	A+	Negative	Stable
San Antonio International Airport - 1st Lien	TX	A	Negative	Stable
San Diego County Regional Airport Authority - 1st Lien	CA	A+	Negative	Stable
San Diego County Regional Airport Authority - 2nd Lien	CA	A	Negative	Stable
San Francisco International Airport - 1st Lien	CA	A+	Negative	Stable
San Jose International Airport - 1st Lien	CA	A	Negative	Stable
Sky Harbor International Airport - 1st Lien	AZ	AA-	Negative	Stable
Sky Harbor International Airport - 2nd Lien	AZ	A+	Negative	Stable
Southwest Florida International Airport - 1st Lien	FL	A	Negative	Stable
T. F. Green International Airport - 1st Lien	RI	A	Negative	Stable
Tampa International Airport - 1st Lien	FL	AA-	Negative	Stable
Tampa International Airport - 2nd Lien	FL	A+	Negative	Stable
Tri-Cities Airport - 1st Lien	WA	A-	Negative	Stable
Tulsa International Airport - 1st Lien	OK	A	Negative	Stable

Table 1

Airport And Passenger Facility Charge (cont.)

Credit	State	Current rating	Current outlook	Previous outlook
Washington Dulles International Airport and Reagan National Airport - 1st Lien	DC	AA-	Negative	Stable
Will Rogers World Airport - 2nd Lien	OK	A+	Negative	Stable

Table 2

Special Facilities

Credit	State	Current rating	Current outlook	Previous outlook
Austin-Bergstrom International Airport Rental Car Special Facility - 1st Lien	TX	A	Negative	Stable
Bradley International Airport Rental Car Facility - 1st Lien	CT	A-	Negative	Stable
Bush Intercontinental Airport Rental Car Facility - 1st Lien	TX	A	Negative	Stable
Charlotte/Douglas International Airport Rental Car Facility - 1st Lien	NC	A	Negative	Stable
Chicago O'Hare International Airport Rental Car Facility - 1st Lien	IL	BBB	Negative	Positive
Hartsfield Jackson Atlanta International Airport Rental Car Facility Project- 1st Lien	GA	A	Negative	Stable
Hawaii Airport System - 1st Lien	HI	A+	Negative	Stable
LAXFUEL Corporation - 1st Lien	CA	A	Negative	Stable
Massachusetts Port Authority Rental Car Facility - 1st Lien	MA	A	Negative	Stable
Nashville International Airport Rental Car Facility - 1st Lien	TN	A	Negative	Stable
New Orleans Aviation Board Rental Car Facility - 1st Lien	LA	A	Negative	Stable
Phoenix Sky Harbor International Airport Rental Car Facility - 1st Lien	AZ	A	Negative	Stable
Rhode Island Economic Development Corporation Rental Car Special Facility - 1st Lien	RI	A	Negative	Stable
San Antonio International Airport - 1st Lien	TX	A	Negative	Stable
San Diego Cnty Regl Arpt Auth Rental Car Facility - 1st Lien	CA	A	Negative	Stable
SEATAC Fuel Facilities, LLC - 1st Lien	WA	A	Negative	Stable
SFO Fuel Co LLC - 1st Lien	CA	A	Negative	Stable
Tampa International Airport CONRAC - 1st Lien	FL	A	Negative	Stable

Table 3

Toll Roads

Credit	State	Current rating	Current outlook	Previous outlook
Alligator Alley - 1st Lien	FL	AA-	Negative	Stable
Bay Area Toll Authority - 1st Lien	CA	AA	Negative	Stable

Ratings Outlooks On U.S. Transportation Infrastructure Issuers Revised To Negative Due To COVID-19 Pandemic

Table 3

Toll Roads (cont.)

Credit	State	Current rating	Current outlook	Previous outlook
Bay Area Toll Authority - 2nd Lien	CA	AA-	Negative	Stable
Buffalo & Fort Erie Public Bridge Authority - 1st Lien	NY	A+	Negative	Stable
Central Florida Expressway Authority - 1st Lien	FL	A+	Negative	Stable
Central Texas Regional Mobility Authority - 1st Lien	TX	A-	Negative	Stable
Central Texas Regional Mobility Authority - 3rd Lien	TX	BBB+	Negative	Stable
Central Texas Turnpike System - 1st Lien	TX	A	Negative	Stable
Central Texas Turnpike System - 2nd Lien	TX	A-	Negative	Stable
Chesapeake Bay Bridge and Tunnel District - 1st Lien	VA	BBB	Negative	Stable
Chesapeake Transportation System - 1st Lien	VA	BBB+	Negative	Stable
Delaware River & Bay Authority - 1st Lien	DE	A	Negative	Stable
Delaware River Joint Toll Bridge Commission - 1st Lien	PA	A	Negative	Positive
Delaware River Port Authority - 1st Lien	PA	A+	Negative	Stable
Delaware River Port Authority - 2nd Lien	PA	A	Negative	Stable
E-470 Public Highway Authority - 2nd Lien	CO	A	Negative	Positive
Florida Turnpike Enterprise - 1st Lien	FL	AA	Negative	Stable
Foothill/Eastern Transportation Corridor Agency - 2nd Lien	CA	A-	Negative	Positive
Foothill/Eastern Transportation Corridor Agency - 3rd Lien	CA	BBB+	Negative	Positive
Georgia State Road and Tollway Auth (Northwest Corridor Project) - 2nd Lien	GA	BBB	Negative	Stable
Golden Gate Bridge Highway and Transportation District - 1st Lien	CA	AA-	Negative	Stable
Grand Parkway Transportation Corporation - 1st Lien	TX	BBB	Negative	Positive
Grand Parkway Transportation Corporation - 2nd Lien	TX	BBB	Negative	Positive
Greater New Orleans Expressway Commission - 1st Lien	LA	A	Negative	Stable
Harris County Toll Road Authority - 1st Lien	TX	AA-	Negative	Stable
Illinois State Toll Highway Authority - 1st Lien	IL	AA-	Negative	Stable
Kansas Turnpike Authority - 1st Lien	KS	AA-	Negative	Stable
Laredo - 1st Lien	TX	A+	Negative	Stable
Laredo - 2nd Lien	TX	A	Negative	Stable
Lee County - 1st Lien	FL	A+	Negative	Stable
Maine Turnpike Authority - 1st Lien	ME	AA-	Negative	Stable
Maine Turnpike Authority - 8th Lien	ME	A+	Negative	Stable
Maryland Transportation Authority - 1st Lien	MD	AA-	Negative	Stable
McAllen International Toll Bridge - 1st Lien	TX	A	Negative	Stable
Metropolitan Highway System - 1st Lien	MA	A+	Negative	Stable
Metropolitan Washington Airport Authority - 1st Lien	DC	A	Negative	Stable
Metropolitan Washington Airport Authority - 2nd Lien	DC	A-	Negative	Stable

Ratings Outlooks On U.S. Transportation Infrastructure Issuers Revised To Negative Due To COVID-19 Pandemic

Table 3

Toll Roads (cont.)

Credit	State	Current rating	Current outlook	Previous outlook
Metropolitan Washington Airport Authority - 3rd Lien	DC	A-	Negative	Stable
Metropolitan Washington Airport Authority - 4th Lien	DC	A	Negative	Stable
Miami Dade Cnty (Rickenbacker Causeway) - 1st Lien	FL	A-	Negative	Stable
Miami-Dade Expressway Authority & MDX - 1st Lien	FL	A	Negative	Negative
Mid-Bay Bridge Authority - 1st Lien	FL	BBB+	Negative	Stable
Mid-Bay Bridge Authority - 2nd Lien	FL	BBB	Negative	Stable
Montgomery County Toll Road Authority - 1st Lien	TX	BBB-	Negative	Stable
New Hampshire Turnpike System - 1st Lien	NH	AA-	Negative	Stable
New Jersey Turnpike Authority - 1st Lien	NJ	A+	Negative	Stable
New Jersey Turnpike Authority Garden State Parkway - 1st Lien	NJ	A+	Negative	Stable
New York State Bridge Authority - 1st Lien	NY	A+	Negative	Stable
New York State Thruway Authority - 1st Lien	NY	A	Negative	Positive
New York State Thruway Authority - 2nd Lien	NY	A-	Negative	Positive
Niagara Falls Bridge Commission - 1st Lien	NY	A+	Negative	Stable
North Carolina Turnpike Authority Monroe Expressway - 1st Lien	NC	BBB	Negative	Stable
North Carolina Turnpike Authority Triangle Expressway - 1st Lien	NC	BBB	Negative	Stable
North Carolina Turnpike Authority Triangle Expressway - 2nd Lien	NC	BBB	Negative	Stable
North East Texas Regional Mobility Authority - 1st Lien	TX	BBB	Negative	Stable
North East Texas Regional Mobility Authority - 2nd Lien	TX	BBB-	Negative	Stable
North Texas Tollway Authority - 1st Lien	TX	A+	Negative	Stable
North Texas Tollway Authority - 2nd Lien	TX	A	Negative	Stable
Ohio Turnpike Commission - 1st Lien	OH	AA-	Negative	Stable
Ohio Turnpike Commission - 2nd Lien	OH	A+	Negative	Stable
Oklahoma Turnpike Authority - 1st Lien	OK	AA-	Negative	Stable
Orange County Transportation Authority - 1st Lien	CA	AA-	Negative	Stable
Osceola County Parkway - 1st Lien	FL	BBB+	Negative	Stable
Pennsylvania Turnpike Commission - 1st Lien	PA	A+	Negative	Stable
Pennsylvania Turnpike Commission - 2nd Lien	PA	A	Negative	Stable
Rhode Island Turnpike & Bridge Authority - 1st Lien	RI	A-	Negative	Stable
Richmond Metropolitan Authority - 1st Lien	VA	A+	Negative	Stable
Riverside Cnty Transp Comm - 1st Lien	CA	A	Negative	Stable
San Diego Association of Governments: South Bay Expressway - 1st Lien	CA	A	Negative	Stable
San Joaquin Hills Transportation Corridor Agency - 1st Lien	CA	A-	Negative	Stable

Table 3

Toll Roads (cont.)

Credit	State	Current rating	Current outlook	Previous outlook
San Joaquin Hills Transportation Corridor Agency - 2nd Lien	CA	A-	Negative	Stable
San Joaquin Hills Transportation Corridor Agency - 3rd Lien	CA	BBB+	Negative	Stable
South Jersey Transportation Authority - 1st Lien	NJ	BBB+	Negative	Stable
South Jersey Transportation Authority - 2nd Lien	NJ	BBB	Negative	Stable
Sunshine Skyway Bridge - 1st Lien	FL	A	Negative	Stable
Tampa-Hillsborough County Expressway Authority - 1st Lien	FL	A+	Negative	Stable
Triborough Bridge & Tunnel Authority - 1st Lien	NY	AA-	Negative	Stable
Triborough Bridge & Tunnel Authority - 2nd Lien	NY	A+	Negative	Stable
West Virginia Parkways Authority - 1st Lien	WV	AA-	Negative	Stable

Table 4

Parking

Credit	State	Current rating	Current outlook	Previous outlook
Albany Parking Authority - 2nd Lien	NY	A-	Negative	Stable
Baltimore Mayor & City Council - 1st Lien	MD	AA-	Negative	Stable
Baltimore/Washington International Airport - 1st Lien	MD	A	Negative	Stable
Berkeley Parking System - 1st Lien	CA	A	Negative	Stable
Bradley International Airport Parking - 1st Lien	CT	BBB	Negative	Stable
Columbia - 2nd Lien	SC	A-	Negative	Stable
Community Dev Props Scranton Inc - 1st Lien	PA	BB-	Negative	Negative
Little Rock - 1st Lien	AR	A-	Negative	Stable
Maryland Economic Development Corporation - 1st Lien	MD	BBB	Negative	Stable
Maryland Economic Development Corporation - 2nd Lien	MD	BBB-	Negative	Stable
Massachusetts Bay Transportation Authority - 1st Lien	MA	A+	Negative	Stable
Miami Beach - 1st Lien	FL	A+	Negative	Stable
Missoula Parking Commission - 1st Lien	MT	A-	Negative	Stable
New Orleans Aviation Board Parking Facilities Corporation - 1st Lien	LA	BBB+	Negative	Stable
Pennsylvania Econ Dev Fing Auth - 1st Lien	PA	BB+	Negative	Stable
Philadelphia Pkg Auth - 1st Lien	PA	A	Negative	Stable
Pike Place Mkt Preservation & Dev Auth - 1st Lien	WA	A-	Negative	Stable
Pittsburgh & Allegheny Cnty Sports & Exhib Auth - 1st Lien	PA	A	Negative	Stable
Pittsburgh Pub Pkg Auth - 1st Lien	PA	A+	Negative	Stable
Revenue Authority of Prince George's County - 1st Lien	MD	A	Negative	Stable
San Diego Redev Agy - 1st Lien	CA	A	Negative	Stable
St Louis City Pkg Comm - 1st Lien	MO	A	Negative	Stable

Table 4

Parking (cont.)

Credit	State	Current rating	Current outlook	Previous outlook
St Louis City Pkg Comm - 2nd Lien	MO	A-	Negative	Stable
St. Paul Housing & Redev Authority - 1st Lien	MN	A+	Negative	Stable
Stockton Parking Authority - 1st Lien	CA	BBB+	Negative	Stable
Tacoma - 1st Lien	WA	A+	Negative	Stable
Texas Medical Center - 1st Lien	TX	AA-	Negative	Stable

Table 5

Ports

Credit	State	Current rating	Current outlook	Previous outlook
Alabama State Port Authority - 1st Lien	AL	A-	Negative	Stable
Alameda Corridor Transp Auth - 1st Lien	CA	A-	Negative	Stable
Alameda Corridor Transp Auth - 2nd Lien	CA	BBB+	Negative	Stable
Brownsville Navigation District - 1st Lien	TX	A+	Negative	Stable
Galveston Wharves - 1st Lien	TX	A-	Negative	Stable
Guam Port Auth - 1st Lien	GU	A	Negative	Stable
Hawaii Harbor Division - 1st Lien	HI	AA-	Negative	Stable
Lake Charles Harbor & Term Dist - 1st Lien	LA	A+	Negative	Stable
Long Beach Harbor Department - 1st Lien	CA	AA	Negative	Stable
Los Angeles Harbor Department - 1st Lien	CA	AA	Negative	Stable
Oxnard Harbor District - 1st Lien	CA	A	Negative	Stable
Port Authority of New York and New Jersey - 1st Lien	NY	AA-	Negative	Stable
Port Everglades - 1st Lien	FL	A	Negative	Stable
Port Freeport - 1st Lien	TX	A	Negative	Stable
Port of Alaska - 1st Lien	AK	A	Negative	Stable
Port of Corpus Christi Authority - 1st Lien	TX	A+	Negative	Negative
Port of New Orleans Board of Commissioners - 1st Lien	LA	A	Negative	Stable
Port of Oakland - 1st Lien	CA	A+	Negative	Stable
Port of Oakland - 3rd Lien	CA	A	Negative	Stable
Port of Redwood City - 1st Lien	CA	A-	Negative	Stable
Port of San Francisco - 1st Lien	CA	A	Negative	Stable
Port Of Tacoma - 1st Lien	WA	AA-	Negative	Stable
Port Of Tacoma - 2nd Lien	WA	A+	Negative	Stable
Port of Vancouver - 1st Lien	WA	A	Negative	Stable
San Diego Unified Port District - 1st Lien	CA	A+	Negative	Stable
South Carolina State Ports Authority - 1st Lien	SC	A+	Negative	Stable
Virginia Port Authority - ICR	VA	A	Negative	Stable

Table 5

Ports (cont.)

Credit	State	Current rating	Current outlook	Previous outlook
Virginia Port Authority - 3rd Lien	VA	A-	Negative	Stable

Table 6

Transit

Credit	State	Current rating	Current outlook	Previous outlook
Alameda Contra Costa Transit District - 1st Lien	CA	A+	Negative	Stable
Capital Metro Transportation Authority - 1st Lien	TX	AA-	Negative	Stable
Chicago Transit Authority - 1st Lien	IL	A+	Negative	Stable
Corpus Christi Regional Transportation Authority - 1st Lien	TX	A+	Negative	Stable
Denver Regional Transportation District - 1st Lien	CO	AA-	Negative	Stable
Napa Valley Transportation Auth - 1st Lien	CA	A-	Negative	Stable
New York Metropolitan Transportation Authority - 1st Lien	NY	A-	Negative	Negative
Peninsula Corridor Jt Pwrs Brd - 1st Lien	CA	A+	Negative	Stable
Sacramento Regional Transit District - 1st Lien	CA	A-	Negative	Stable
Sacramento Regional Transit District - 1st Lien	CA	A-	Negative	Stable
Saint Cloud Metropolitan Transit Commission - 1st Lien	MN	AA-	Negative	Stable
San Francisco Mun Trans Agency - 1st Lien	CA	AA	Negative	Stable
VIA Metro Transit Auth - 1st Lien	TX	A+	Negative	Stable
Washington Metropolitan Area Transit Authority - 1st Lien	DC	AA-	Negative	Stable

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Metropolitan Washington Airports Authority, DC Dulles Toll Road Bond Ratings Raised One Notch On Toll Revenue Growth

November 25, 2019

BOSTON (S&P Global Ratings) Nov. 25, 2019--S&P Global Ratings raised the long-term and underlying ratings (SPURs) by one notch on various bonds issued by Metropolitan Washington Airports Authority (MWAA), D.C. totaling approximately \$3.2 billion issued for the Dulles Toll Road (DTR). At the same time, S&P Global Ratings assigned its A-' long-term rating to the MWAA's DTR subordinate-lien \$1.3 billion series 2019B revenue and refunding bonds, using its "U.S. And Canadian Not-For-Profit Transportation Infrastructure Enterprises" (TIE) criteria. The outlook is stable.

The rating actions are:

- Long-term rating to 'A' from 'A-' on MWAA's first senior-lien bonds of approximately \$163 million;
- Long-term rating to 'A' from 'A-' on Transportation Infrastructure Finance and Innovation Act (TIFIA) DTR junior-lien revenue bonds of approximately \$1.196 billion; these bonds are expected to be refunded and defeased in their entirety with the proceeds of the 2019B bonds;
- Long-term rating and SPUR to 'A-' from 'BBB+' on the authority's DTR second senior-lien bonds of approximately \$1.731 billion; and
- Long-term rating and SPUR to 'A-' from 'BBB+' on MWAA's DTR subordinate third-lien bonds of approximately \$150 million.

Proceeds of the series 2019 bonds will be applied to repay the authority's TIFIA loan securing the bonds, repay outstanding commercial paper, pay a portion of the costs of the Dulles Metro Rail project, and fund a debt service reserve requirement.

"The ratings on the DTR bonds reflect our opinion of the toll road's strong enterprise risk and financial risk profiles, and long-term risks associated with a reliance on toll rate increases to meet debt service escalating at a lower average rate," said S&P Global Ratings credit analyst Kurt Forsgren. Specifically, under the restructuring, total combined debt service escalates annually at 2.7% to an estimated maximum of \$284.2 million in 2045 maturing in 2053. This compares with a 4.0% annual rate and a maximum of \$336.7 million and final maturity of 2053 under the current structure. The rating action is also based on the January 2019 toll increase and resultant growth in revenue along with our expectation, confirmed by MWAA management, that the Metro Rail project will be completed in 2020 requiring no additional debt supported from DTR revenues.

The stable outlook reflects our expectation that the DTR has no significant additional debt

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requirements and will adjust toll rates to meet the projected debt service coverage (DSC; S&P Global Ratings-calculated) as forecast.

We do not anticipate raising the ratings over the next two years.

We could lower the ratings if traffic or toll revenues are lower than forecast, weakening DTR's DSC (S&P Global Ratings-calculated) or debt capacity.

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at www.standardandpoors.com for further information. Complete ratings information is available to subscribers of RatingsDirect at www.capitaliq.com. All ratings affected by this rating action can be found on S&P Global Ratings' public website at www.standardandpoors.com. Use the Ratings search box located in the left column.

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Rationale

Outlook

Enterprise Risk

Financial Risk

Metropolitan Washington Airports Authority, District of Columbia; Toll Roads Bridges

Credit Profile

US\$1300.00 mil dulles toll rd subord lien rev and rfdg bnds ser 2019B due 10/01/2053

Long Term Rating A-/Stable New

Metropolitan Washington Arpts Auth TOLLFAC

Long Term Rating A/Stable Upgraded

Metropolitan Washington Arpts Auth (AGM)

Unenhanced Rating A-(SPUR)/Stable Upgraded

Rationale

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- Long-term rating to 'A' from 'A-' on MWAA's first senior-lien bonds of approximately \$163 million;
- Long-term rating to 'A' from 'A-' on Transportation Infrastructure Finance and Innovation Act (TIFIA) DTR junior-lien revenue bonds of approximately \$1.196 billion; these bonds are expected to be refunded and defeased in their entirety with the proceeds of the 2019B bonds;
- Long-term rating and SPUR to 'A-' from 'BBB+' on the authority's DTR second senior-lien bonds of approximately \$1.731 billion; and
- Long-term rating and SPUR to 'A-' from 'BBB+' on MWAA's DTR subordinate third-lien bonds of approximately \$150 million.

Proceeds of the series 2019 bonds will be applied to repay the authority's TIFIA loan securing the bonds, repay outstanding commercial paper (CP), pay a portion of the costs of the Dulles Metrorail project, and fund a debt service reserve requirement. Specifically, under the restructuring, total combined debt service escalates annually at 2.7% to an estimated maximum of \$284.2 million in 2045 maturing in 2053. This compares with a 4.0% annual rate and a maximum of \$336.7 million and final maturity of 2053 under the existing debt structure including the TIFIA loan. In addition, MWAA's January 2019 toll increase and resultant growth in revenue has demonstrated the road's strong market position and, with the anticipated completion of the Metrorail project in 2020, MWAA management has confirmed no additional debt will be required. Debt service levels off at approximately \$254 million beginning in 2033 and, by eliminating the accelerated amortization of the TIFIA loan, future toll increases on the DTR are projected to be lower than they would have been otherwise under current traffic forecasts.

Net revenues of the DTR, which operates as a separate Dulles Corridor Enterprise apart from the authority's aviation operations (National and Dulles airports) with no cross-support between the two, secure the debt. Along with other local and federal funding sources, the debt associated with DTR financed the Dulles Corridor Metrorail Project (Silver Line) which is the extension of the Washington Area Metropolitan Transit Authority's (WMATA) rail system to Dulles International Airport and beyond into Loudoun County.

The enterprise risk profile consists of our view of the road's favorable service area economy, DTR's market position providing an important link in a congested corridor and region, and the very strong management and governance of the toll road enterprise. The financial risk profile reflects DTR's strong, but declining debt service coverage (DSC) of all liens; a high overall debt level; and increasing annual debt service, which ample liquidity bolsters. Our financial profile risk assessment considers pro forma and historical data, and also considers the MWAA's financial policies for the toll enterprise, which we view as credit neutral.

Specifically, the enterprise risk profile reflects our view of the toll road's:

- Extremely strong service area economic fundamentals, attributable to a large and growing population, below-national-average unemployment, and above-national-average GDP per capita, which supports increasing toll rates;
- Strong market position due to the pricing power and strong demand characteristics of the well-integrated, 13.4-mile toll road, somewhat offset by modest competition and our view of the road's limited scope and geographic concentration;
- Low industry risk relative to that of other industries and sectors; and
- Very strong management and governance, as evidenced by MWAA DTR management's strategic planning and risk management practices, solid record of successful operations and construction program oversight, and overall financial results.

The financial risk profile reflects our view of the toll road's:

- Strong financial performance, demonstrated by DSC (S&P Global Ratings-calculated) at historically strong levels, but declining based on management projections of approximately 1.25x-1.30x combined coverage. Forecasts assume toll revenue growth from the toll increase in January 2019 to meet an escalating debt service requirement schedule through 2053;
- Adequate debt and liabilities capacity in the 20x range due to a high debt funding level for the Dulles Corridor Metrorail Silver Line extension project relative to annual DTR net revenues; and
- Very strong liquidity and financial flexibility, based on our expectation that the authority will continue to maintain high cash reserves relative to operating expenses. Unrestricted cash at \$266.5million as of September 30, 2019 is favorable, in our view, offering more than 2,000 days' cash on hand.

We view the overall DTR bond structure as good and governed by a master indenture with appropriate reserve- and rate-stabilization funds. Bond proceeds will refund the DTR series 2014 TIFIA junior-lien revenue bonds, repay commercial paper, and pay costs associated with issuance.

Opened in 1984, the DTR is a 13.4-mile tolled mature roadway with four lanes in each direction, connecting Interstate

495 (I-495) and State Road 28. Tolls can be collected by cash or by transponders. The road has one mainline toll plaza and 19 ramp toll plazas. The Dulles Corridor Metrorail Project (Silver Line) opened in 2014. Phase 2 of the project, which will extend the Silver Line to and beyond Dulles International Airport, is scheduled to open in 2020.

Outlook

The stable outlook reflects our expectation that the DTR has no significant additional debt requirements and will adjust toll rates to meet the projected DSC range (S&P Global Ratings-calculated) as forecast to meet escalating debt service requirements.

Upside scenario

We do not anticipate raising the ratings over the next two years, as we expect DSC to remain near 1.25x as debt service escalates.

Downside scenario

We could lower the ratings if traffic or if toll revenues are lower than forecast, weakening DTR's DSC (S&P Global Ratings-calculated) or debt capacity.

Enterprise Risk

Our assessment of the authority's enterprise risk profile considers the DTR's service area economic fundamentals, market position, and management and governance. We consider the industry risk associated with the sector low.

Economic fundamentals

The service area's economic fundamentals reflects a large population, below-national-average unemployment, and above-national-average GDP per capita. With a population of almost 5.5 million, the eight-county region DTR serves in Virginia, Maryland, and the District of Columbia has grown an average of 1.3% annually since 1970. Like most urban areas, growth has been highest in the suburbs. The counties nearest the DTR, including Loudoun, Fairfax, Prince William (Va.), and Montgomery (Md.), have collectively experienced the highest population increases from 2000-2017, at 818,000, compared with 352,000 for the rest of the region. Unemployment trends in the region have been similar to those in the U.S., although combined, the region tends to outperform (be lower than) the U.S. in some economic cycles.

The metropolitan statistical area's (MSA) unemployment rebounded earlier than the national rate post-Great Recession, and since early 2010, MSA unemployment has continued a steady decline and is 3.9% compared with 4.9% for the U.S. As of Sept. 30, 2019, the preliminary not-seasonally adjusted unemployment rate for the United States was 3.3% and the District of Columbia, Virginia, Maryland, and Washington MSA was 2.9%. Most of the six jurisdictions were below the national and MSA rates, closer to 2.0%. However, Washington, D.C. itself was an exception, with a higher rate, currently at 5.3%. We also view the GDP per capita at \$84,336 as high and supportive of toll road demand, with additional data on regional median household income for the served counties (ranging from \$90,000 to more than \$130,000) also suggesting a user base with disposable income willing to pay for mobility and convenience. The authority's socioeconomic projections indicate these trends will continue.

Market position

We consider DTR's overall market position as strong reflecting demand for the system and its flexible pricing power, somewhat offset by the toll road being a geographically concentrated asset and having modest competition. We view DTR as providing key links in the heavily congested regional roadway network, despite some modest traffic competition from free alternative roads. The DTR was built by the Virginia Department of Transportation (VDOT) and opened in 1984, providing access to growing employment and residential areas in Northern Virginia, including Tysons Corner, the Reston-Herndon area, Dulles International Airport (IAD), and eastern Loudoun County. The road connects directly to the Dulles Greenway, a privately operated toll road that runs from the DTR to Leesburg, Va.

The toll road has one mainline and 19 ramp toll plazas at various interchanges. High traffic levels led VDOT to widen the DTR to six lanes in 1992, then eight in 1998. For much of its length, the road runs parallel to the IAD Access Highway, a 16-mile, four-lane (two in each direction) highway that connects Interstate 66 and the Dulles International Airport. Major improvements were made to the I-495 connections in 2005 and again more recently to allow for access to the I-495 Express Lanes project (dynamically priced high occupancy toll lanes) , which opened in November 2012. Studies suggest there will be little diversion from highway to rail when the Silver Line Phase 2 extension is completed.

Through September 2019, vehicle transaction trends are demonstrating the declines typically observed following a toll increase in January 2019 (to \$3.25 from \$2.50 for a two-axle vehicle at the mainline, plus an increase to \$1.50 from \$1.00 in ramp tolls): Transactions are down 5.2% from 2018's levels; however, revenues are up by 30.4%. This is a continuation of transaction declines following several years of predictable and steady toll increases (six in total) from 2005-2014. Transactions in 2018 were 96.3 million, and gross toll revenues were \$151.4 million; for 2019, 91.1 million transactions and \$197.2 million in total revenues are forecast. Forecast transactions are not expected to return to 2018 levels until about 2031 as additional toll increases in the out years (e.g. 2023, 2028) are modeled to have the same effect (reducing volume and increasing revenues). The November 2019 traffic and revenue update letter also cited weather events, the longest partial federal government shutdown in history, and lane closures associated with the Dulles Corridor Metrorail and DTR toll collection system installations as reasons for the decline in transactions.

Like other toll facilities, DTR has been transitioning its cash payment lanes to E-ZPass (90% of all revenues collected via electronic toll collection), which has resulted in an increase in violations. MWAA is reporting a 57.9% increase in toll violations over 2018. Since the opening of Phase 1 of the Silver Line and rerouting of bus services in the Dulles Corridor, combined violations and nonrevenue transactions decreased to 3.1% of total revenue in 2018 from 3.6% in 2016, which we believe is still manageable.

Implementation of an enhanced collection system was included in the 2019-2023 capital budget, which totals \$89.6 million and is funded from excess cash flow. The MWAA is not considering dynamic pricing on the DTR but may study moving to all-electronic tolling. At the western end of the DTR, the privately operated Dulles Greenway has a mainline toll plaza that collects a toll in each direction of either \$5.65 (base toll) or \$6.65 (congestion management toll during rush hours) for a two-axle vehicle coming from or going to the DTR. Travelers can exit the DTR at I-495 and access the tolled Express Lanes where the average weekday toll was \$5.43 in December 2017. Virginia, Maryland, and regional authorities plan to extend tolling throughout the regional roadway network.

The MWAA's traffic and revenue forecasts assume toll increases every five years, including fiscal 2023 (mainline tolls

to \$4.00 from \$3.25 for a full-length trip), to meet \$244 million in estimated toll revenues. Under the November 2019 restructuring, total combined debt service escalates annually at 2.7% to an estimated maximum of \$284.2 million in 2045 maturing in 2053. The result is toll rates are not required to increase as rapidly as previously forecast with the primary toll rate reductions (compared to previous forecasts) occurring after 2038. At the end of the forecast in 2054, total annual revenues are projected to be \$558 million including violations, fees, and fines, requiring a growth rate of 3.2% annually from today's revenue base. Our ratings incorporate the MWAA's adoption of the rate increase as planned and the resulting revenues demonstrating its commitment to meet the rising debt service requirements.

The traffic and revenue consultant has calculated DTR's historical toll elasticity (percent change in transactions divided by the percent change in price) and has cited a range of negative 0.1-negative 0.2, suggesting demand is relatively inelastic to price changes. The majority of similar U.S. toll roads range from negative 0.10-negative 0.35. The consultant's sensitivity analyses show the assumed toll rates are well below the estimated theoretical toll revenue-maximization point, suggesting flexibility to increase revenues if needed (for instance, revenue maximizing mainline tolls were estimated to be in the \$6.00-\$7.00 range in 2017, more than the current \$3.25 mainline toll).

Overall, we view the near-term projections to be reasonable while noting the challenges of calculating long-term projections against a backdrop of increased regional tolling, changing mobility patterns, and evolving technology. For example, the forecast assumes growing value of time for cars and trucks as well as increasing vehicle-operating costs while the advent of electric and autonomous vehicles could alter these key assumptions over the forecast period through 2053.

Management and governance

The MWAA's managerial oversight and governance of the DTR reflects the authority's strategic positioning, risk and financial management, and organizational effectiveness related to the toll road. The organization assumed responsibility for the DTR in 2008 and has since modernized its operations, established a five-year renewal and replacement program, and increased toll rates to support debt associated with Silver Line, which has so far been on time and within budget. The MWAA's board has standing committees for finance, strategic development, and risk management, with an Office of Audit to oversee auditing of internal controls. According to management, improving the toll collection rate for violations is a priority and will become more important as toll rates rise. Overall, we consider the toll road's organizational effectiveness very strong, reflecting a management team that has solid experience operating the facility and very strong capital program oversight.

Financial Risk

Our assessment of DTR's overall financial risk profile includes our view of financial performance, tempered by a high debt burden with ample liquidity and financial flexibility. Our assessment considers pro forma data assuming no additional debt needs, toll increases every five years, and the resulting increases in toll revenues. Our financial profile assessment also evaluated the authority's financial policies (transparency and disclosure, investments, debt profile, contingent liabilities, and legal structure), which we consider credit neutral.

Financial performance

The strong financial performance assessment reflects DSC that historically has been very high, but will decline as total debt service increases. We use pro forma data for the financial performance assessment to reflect the anticipated increase in annual debt service and revenues in 2019, which will result in a coverage level closer to what we expect of the DTR's forward performance. Debt service of senior, second senior, and subordinate obligations in 2020 will step up to \$129.3 million and to \$159.5 million in 2023, with (S&P Global Ratings-calculated) DSC levels falling to the 1.30x range in 2020 and remaining there through 2027. As per the indenture, DSC as calculated by the authority in 2019 is estimated to be 17.6x on first senior bonds, 2.1x on second senior, 1.9x on the subordinate, and 1.4x on the junior lien.

Debt and liabilities

We assess the MWAA's debt and liabilities capacity as adequate, reflecting our expectation that the authority will continue to have a large debt burden. Our debt and liabilities assessment measures the extent to which liabilities might affect DTR's debt servicing capability by examining the ratio of debt-to-net revenues (EBIDA). This approximates how long DTR would need to repay its debt: \$3.2 billion in existing debt including revenue bonds, a TIFIA loan, and CP. Revenue bonds include \$2.1 billion in series 2009A-D and 2010A, B, and D bonds; and the 2014A obligations. Existing CP is \$37 million, although the authority can draw an additional \$263 million. The MWAA has drawn \$1.13 billion of its \$1.28 billion U.S. Department of Transportation TIFIA loan. We calculate DTR's debt to net revenues on a pro forma basis, including capital appreciation bonds accretion, the full draw-down on the TIFIA loan and increased revenues from the 2019 toll increase to be below 20x.

Previously issued bond proceeds, the TIFIA loan, and other sources of funds are dedicated to the construction of a 23.1-mile WMATA Silver Line, connecting Dulles and Loudoun County, Va., which is an extension to the broader 106-mile WMATA rail system. After completion, the MWAA will transfer ownership to WMATA, which will be fully responsible for its operation and maintenance.

The total project budget of \$5.76 billion consists of two phases. Phase 1, the initial 11.7-mile extension, with five new stations, entered revenue service July 26, 2014, at an estimated cost of \$2.98 billion (exclusive of \$362 million in financing costs). Phase 2 extends the project another 11.4 miles, with an additional six stations with a budget of \$2.78 billion. Approximately 89% of the Phase 2 funds have been expended, with substantial completion currently estimated for the second quarter of 2020, and a revenue service date targeted by December 31, 2020. The project is 17 months behind the original base-case project revenue service date of January 2019 and, while project completion is unrelated to the pledged revenue stream from DTR, we are assuming the project opens in 2020 and will require no additional debt supported with DTR revenues.

Liquidity and financial flexibility

We assess the MWAA's liquidity and financial flexibility reflects our expectation that the authority will continue to maintain high cash reserves relative to its operating expenses. We view unrestricted cash at \$266.5 million as of September 30, 2019 favorably, offering more than 2,000 days' cash on hand or approximately 7.3% of debt outstanding.

Ratings Detail (As Of November 25, 2019)

Metropolitan Washington Arpts Auth (AGM) (SEC MKT)

Unenhanced Rating

A-(SPUR)/Stable

Upgraded

Ratings Detail (As Of November 25, 2019) (cont.)

Metropolitan Washington Arpts Auth (Dulles Toll Road)

Long Term Rating A-/Stable Upgraded

Metropolitan Washington Arpts Auth 2nd sr lien (AGM) (SEC MKT)

Unenhanced Rating A-(SPUR)/Stable Upgraded

Metropolitan Washington Arpts Auth 2nd sr lien (AGM) (SEC MKT)

Unenhanced Rating A-(SPUR)/Stable Upgraded

Metropolitan Washington Arpt Auth toll rd

Unenhanced Rating A(SPUR)/Stable Upgraded

Long Term Rating A/Stable Upgraded

Many issues are enhanced by bond insurance.

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