CREDIT OPINION
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# Metropolitan Transportation Authority, NY

Update to credit analysis

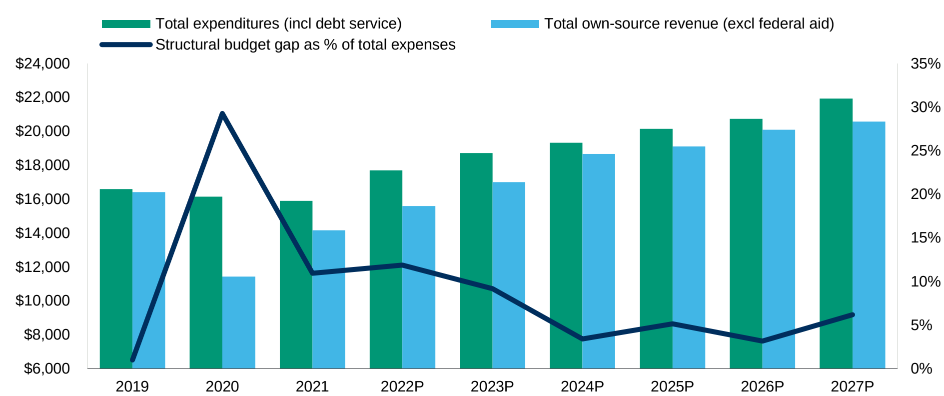
## Summary

The credit profile of Metropolitan Transportation Authority's Transportation Revenue Bonds (TRB, A3 positive) is based on the system's essential service to a vast and economically robust service area and strong political and financial support from New York State (Aa1 stable), New York City (Aa2 stable) and the US Government (Aaa stable), which have been instrumental in supporting the credit through the COVID-19 pandemic and recovery. Despite slow ridership recovery, the MTA has nearly closed its forecasted budget gaps and stabilized its liquidity due to a significant increase in state tax support, a major factor in the outlook revision. Some budget risk remains due to the need for biennial fare increases that yield 4% growth, operating efficiencies that generate savings of 3% of budget, continued economic growth and steady ridership recovery to fully balance the budget. MTA's budget flexibility is constrained by high fixed costs and strong collective bargaining units, but enhanced by sound, proactive budget management and a history of strong support from the state and city.

The A3 rating also incorporates MTA's high leverage position and substantial capital and debt plans, somewhat balanced by dedicated funding for capital projects from city and state sales taxes and impending central business district toll revenue.

On Sept. 19, we revised MTA's outlook to positive from stable based on the significant increase in state tax support that will offset the post-COVID ridership losses and structurally balance projected budget gaps.

Exhibit 1
**State-authorized tax increase closes all but small MTA budget gap**




*Source: MTA July 2023 Financial Plan; Moody's*

## Credit strengths

» Vast transportation system that is highly essential to the largest metro economy in the US, and will be critical to the region's economic recovery and growth

» Strong and predictable support from state, local and federal governments that are highly motivated to sustain MTA's vital transportation service, recently demonstrated by the substantial stimulus aid from the US Government and debt and tax support from the state

» Strong budget management and governance supports resiliency during operating and budgetary challenges

» Diversified revenue stream supported by farebox revenue, dedicated taxes, bridge and tunnel toll revenue, governmental subsidies and soon-to-be launched congestion pricing toll revenue

## Credit challenges

» Shifting commuting patterns have reduced and changed ridership demand for the medium term

» High leverage position and fixed costs, including large pension and OPEB liabilities, will make funding future capital programs challenging and constrain budget flexibility

» Sizable capital program for reinvestment and expansion has been delayed by the protracted approval of congestion pricing plan, which could weaken asset quality and service

» Financial and operational challenges related to strong collective bargaining units, which reduce budget balancing flexibility

» Multilevel government involvement in the MTA's financial and capital planning creates a complex political environment that adds to management challenges

## Rating outlook

The positive outlook reflects the significant improvement in MTA's financial forecast due to the state-authorized increase in dedicated taxes.

## Factors that could lead to an upgrade

» Successful implementation of further budget balancing actions that support maintenance of liquidity

» Continued recovery of ridership and revenue toward projected levels

» Timely implementation of a central business district tolling plan that supports stable leverage metrics

» Reduced labor-related financial and operating constraints and related fixed costs

» Continued progress with capital projects that supports improved asset condition and satisfactory service performance

## Factors that could lead to a downgrade

» Slower than expected ridership recovery that leads to larger revenue losses, budget gaps and liquidity pressure

» Increase in leverage position and associated fixed costs, or increased short-term debt risk

» Declines in service performance or public confidence that reduce public and/or political support for MTA, its subsidies and future fare increases

» Significant capital project delays or cost overruns that increase debt or destabilize public support for the enterprise

## Key indicators

Exhibit 2

| Fiscal Year | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| Annual ridership (000) | 2,658,800 | 2,555,420 | 2,562,379 | 959,796 | 1,216,254 | 1,548,718 |
| Annual ridership growth | -2.2% | -3.9% | 0.3% | -62.5% | 26.7% | 27.3% |
| Utilization (trips / population) | 173 | 169 | 170 | 62 | 79 | 102 |
| Farebox recovery ratio | 55% | 54% | 46% | 21% | 23% | 28% |
| 3-yr average fixed costs as a % of operating expenditures | 28% | 28% | 28% | 28% | 28% | 29% |
| Net debt / revenues (excl fed aid) | 2.55 | 2.56 | 2.64 | 4.28 | 3.41 | 3.31 |
| Annual debt service coverage by net revenues (GAAP) (x) | 0.97 | 0.93 | 1.13 | 1.08 | 1.61 | 2.27 |
| 3-yr average annual debt service coverage by net revenues (GAAP) (x) | 1.25 | 1.06 | 1.01 | 1.05 | 1.27 | 1.65 |
| Days cash on hand, incl lines of credit | 126 | 103 | 118 | 180 | 240 | 347 |
| **Additional Measures** | **2017** | **2018** | **2019** | **2020** | **2021** | **2022** |
| Annual debt service coverage by gross revenues (Indenture) (x) | 8.6 | 8.8 | 7.8 | 4.3 | 5.8 | 7.2 |
| Dedicated taxes as a % of operating revenues | 35% | 34% | 35% | 42% | 43% | 44% |
| Dedicated taxes as a % of service area personal income | 0.5% | 0.5% | 0.5% | 0.4% | 0.5% | 0.5% |
| Payments for capital assets / depreciation expense (x) | 2.30 | 2.41 | 2.42 | 1.94 | 1.62 | 1.98 |
| Mean distance between failures - Subway | 121,220 | 121,116 | 127,743 | 146,297 | 150,363 | 139,081 |
| Average fare (fare revenue per ride) ($) | 2.32 | 2.41 | 2.48 | 2.73 | 2.51 | 2.60 |
| Adj. O&M per ride ($) | 4.59 | 5.13 | 5.19 | 12.84 | 10.69 | 8.98 |

Debt service coverage ratios include federal stimulus aid that was used to pay eligible expenses in the current fiscal year as an operating revenue
*Source: MTA Annual Disclosure Statement; MTA Financial Statements; US Bureau of Economic Analysis; Moody's Investors Service*

## Profile

The MTA is a public benefit corporation of New York State, created by the New York State legislature in 1965. The MTA's governing board is appointed by the governor with advice and consent of the state Senate. New York City's mayor recommends four voting board members, and the county executives of Nassau, Suffolk, Westchester, Dutchess, Orange, Rockland, and Putnam counties recommend one each, with the latter four casting one collective vote. The Board also has six non-voting members that represent collective bargaining units, citizens and riders.

The MTA is responsible for developing and implementing a unified mass transportation policy for the Metropolitan Transportation District which includes New York City and the surrounding Duchess, Nassau, Orange, Putnam, Rockland, Suffolk and Westchester counties. In addition to these counties, MTA's service area also includes Fairfield and New Haven counties in CT. MTA operations are performed through nine different agencies, including the Triborough Bridge and Tunnel Authority (Sr lien Aa3 stable). TBTA surplus, after paying its own O&M, required reserve deposits and debt service, are transferred to MTA to subsidize transit, bus and commuter rail operations.

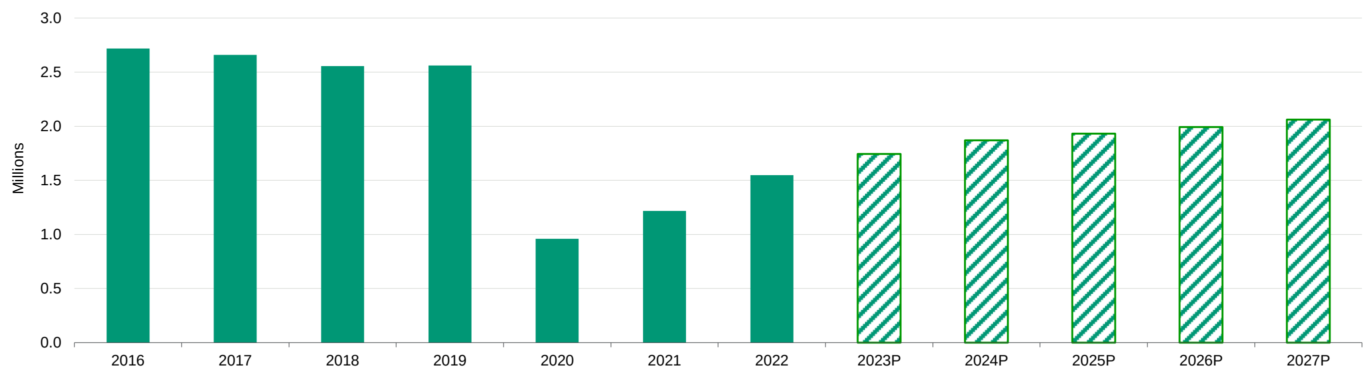
## Detailed credit considerations

### Size and Market Position

MTA will continue to play an important role in the economy of the largest, most dynamic US city despite the significant loss of riders to remote work. MTA is the largest combined transit and commuter network in North America, providing an essential service to 15.1 million people in the New York metropolitan region.

Through FY2022, MTA's ridership remained 40% below its pre-COVID level at 1.5 billion rides due to increases in remote work, reduced nonwork trips and a preference shift to other modes of transportation. Over the next four years, we expect ridership will recover to approximately 80% of pre-COVID levels. In July 2022, MTA lowered its long-term recovery forecast to a “new normal” ridership of 78% of pre-COVID levels by late FY2026 and remain near 80% for several more years.

Exhibit 3
**MTA's ridership forecast recovers to 78% of pre-COVID levels by fiscal 2027**




*Source: MTA Annual Disclosure Statement; MTA July 2023 Financial Plan*

The fare revenue forecast is slightly stronger as riders shift away from highly-discounted monthly and weekly passes to day-to-day tickets. With fewer discounts and biennial fare increases, the MTA forecasts fare revenue to grow to 87% of pre-COVID levels by FY2027. Year-to-date performance remains positive - fare revenue (a proxy for ridership in this case) through June is 3.2% ($69 million) above forecast.

Albeit slow, MTA's recovery is stronger than other urban transit systems with similar concentration in remote work. MTA's strong recovery during off-peak hours and in neighborhoods outside the central business districts highlights the importance of transit to access schools, non-office jobs, services and recreation. According to census data, approximately 22% of workers in the New York metro area work from home, similar to levels in Chicago and Philadelphia. However, based on ridership data collected by the Federal Transit Administration, MTA's monthly ridership averaged 75% of pre-COVID levels over the past six months compared to 59% for Chicago Transit Authority and Southeastern Pennsylvania Transportation Authority (SEPTA).

MTA's efforts to spur ridership growth will confront multiple social considerations. MTA has implemented reduced fare programs and is revising service routes to address fare affordability and service equity. This will support transit-dependent riders in lower-income neighborhoods and improve access to service. In addition, MTA's efforts to attract riders will be discouraged if negative perceptions about safety and service quality persist. Indeed, customer relations have weakened during the pandemic, as reflected in the rise in fare evasion.

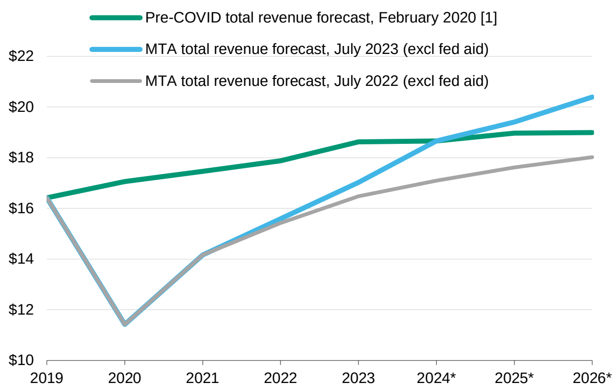
## Financial flexibility and metrics

**Financial position improves with additional dedicated tax support**

MTA's financial forecast has improved significantly with the state-authorized increase in its dedicated Payroll Mobility Tax. The tax increase will add $1.1 billion annually to MTA's operating revenue and substantially close the structural budget gap as remaining federal stimulus aid is spent down. The remaining budget gap is a manageable 4% of budget, averaged over the next four years. Full closure of MTA's forecasted budget gap will depend on savings from operating efficiencies, biannual 4% fare increases, steady economic growth and some further ridership recovery.

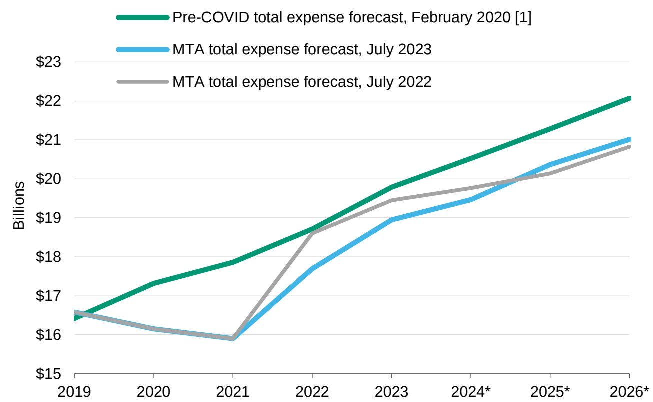
In April 2023, New York State authorized a significant multiyear funding package that will generate more revenue by FY2025 than MTA would have collected in the pre-COVID operating environment. This will stabilize MTA's liquidity and increase flexibility to manage large, growing fixed costs and labor related costs. New funding includes a $300 million one-time state contribution to operations in 2023, a permanent rate increase on Payroll Mobility Taxes collected on New York City employers, increased funding from New York City for paratransit services and a share of revenue collected from newly-authorized casinos starting in 2026. The funding agreement requires MTA to implement approximately $400 million to $500 million of savings annually.

Exhibit 4
**PMT increase will increase revenue above pre-COVID levels**




[1] Includes planned 4% farebox increases in 2023 and 2025
*MTA's February 2020 forecast ended with FY2023. This chart uses the FY2023 growth forecast to project FY2024 through FY2026 to improve comparability with the current forecast.
*Source: MTA July 2022 and July 2023 Financial Plans; Moody's*

Exhibit 5
**Expense forecast remains below the pre-COVID trajectory**




[1] Incl total debt service
*MTA's February 2020 forecast ended with FY2023. To improve comparability with the current forecast, this chart uses the 5-year CAGR ending in FY2019 to project FY2024 through FY2026.
*Source: MTA July 2022 and July 2023 Financial Plans; Moody's*

Through June, MTA's fiscal 2023 financial performance was positive relative to its revised forecast. To date, total revenue are 3.6% above the revised forecast, because of favorable fares (3.2% above forecast) and tolls (6% up) balanced by weaker dedicated tax collections (down 2.9%). MTA's total expenses are 4% under budget and operating margin is approximately 6.5% better than forecast. Overtime continues to be a source of budget pressure, running 26% ($115 million) over budget through June, but is balanced by below budget head count and payroll ($130 million below).

Although MTA's dedicated taxes have been strong in recent years, they are traditionally more volatile than fare revenue (in the pre-COVID environment), which will be a rising risk as reliance on taxes grows. In addition, MTA does not have rate-setting authority over taxes, limiting its independent budget flexibility. Still, PMTs have grown on average 4% annually since 2017. [1]

In addition to the slower-than-expected ridership recovery, fare revenue have been negatively affected by increased fare evasion. A May 2023 task force report estimated that fare evasion reduced revenue by $700 million in fiscal 2022, not including the cost of additional policing and enforcement. This diminished fare compliance illustrates MTA's sensitivity to public approval and dependence on policing provided by New York City to fully capture its revenue base. MTA has incorporated fare evasion in its financial plan and is reviewing the panel's recommendations to reduce revenue losses, which will temporarily increase costs once implemented.

An inability to improve fare capture would be a financial and governance weakness, particularly now when the flexibility to offset losses with fare increases is very low. Social and political support for fare increases is particularly low in the post-pandemic environment and risk remains that future fare increases will be delayed or canceled if ridership recovery is weak. MTA's Financial Plan through FY2027 assumes a combined $1.15 billion in additional fare and toll revenue from planned 2025 and 2027 fare and toll increases.

In terms of bondholder security, the gross revenue pledge bolsters TRB debt service repayment, even as coverage has declined significantly during the pandemic. Gross coverage dropped to a low of 4.3x in FY2020 from 7.8x the prior year, but increased to 7.2x in FY2022 because of strong dedicated tax collections and toll revenue surpluses. Debt service payments are set aside monthly before operating expenditures and revenue shortfalls for operations is balanced with reserves or other actions. MTA's budgetary flexibility will continue to be enhanced by sophisticated operating and capital planning, multiyear forecasting, a statutory requirement to maintain a balanced budget, inclusion in the budget of 1% for contingency spending (the General Reserve), conservative debt service assumptions and planned annual pay-go that could be shifted to debt.

**Budget Flexibility Constrained by High Labor-Related Costs**

MTA budget flexibility is constrained by high fixed costs for debt service, labor and retirement benefits, strong collective bargaining units and public pressure to improve service and limit fare increases.

MTA's strong collective bargaining units routinely introduce financial and operating risks at the end of multiyear contract periods. Labor-related expenses are more difficult to contain or cut without impacting service and, like most transit operators, comprise 60% of the MTA's fiscal 2023 budget. MTA recently settled a new labor agreement with its largest union, the Transport Workers Union - TWU Local 100, which increases budget certainty. Assuming other unions follow the same pattern, the agreements will result in $1.15 billion of costs above the original budget over the next five years.

LIQUIDITY

MTA's satisfactory liquidity will remain stable because of new revenue inflow and balanced operations over the next one to two years. MTA's overall liquidity improved during the pandemic because of federal aid, unspent deficit financing proceeds and available lines of credit. As of July 26, 2023 and on a budgetary basis, MTA had $6.8 billion of available internal liquidity, as well as $1.2 billion of undrawn lines of credit. MTA has drawn down all of its remaining federal stimulus aid, which it plans to use for operations through fiscal 2024 (as of July 2023 financial plan).

On a GAAP basis, MTA's fiscal 2022 unrestricted cash and investments increased to $12.5 billion excluding available lines of credit, which provided 316 days cash on hand (up from 207 days the prior year). Liquidity increased when MTA recorded $6.9 billion of ARPA stimulus aid to reimburse itself for eligible expenses in FY2022 and prior years. Liquidity will decline after $2.9 billion of deficit financing notes are repaid in December 2023. However while there is no formal Board policy, MTA's management notes the importance of maintaining a satisfactory 90 days cash on hand, including available lines of credit.

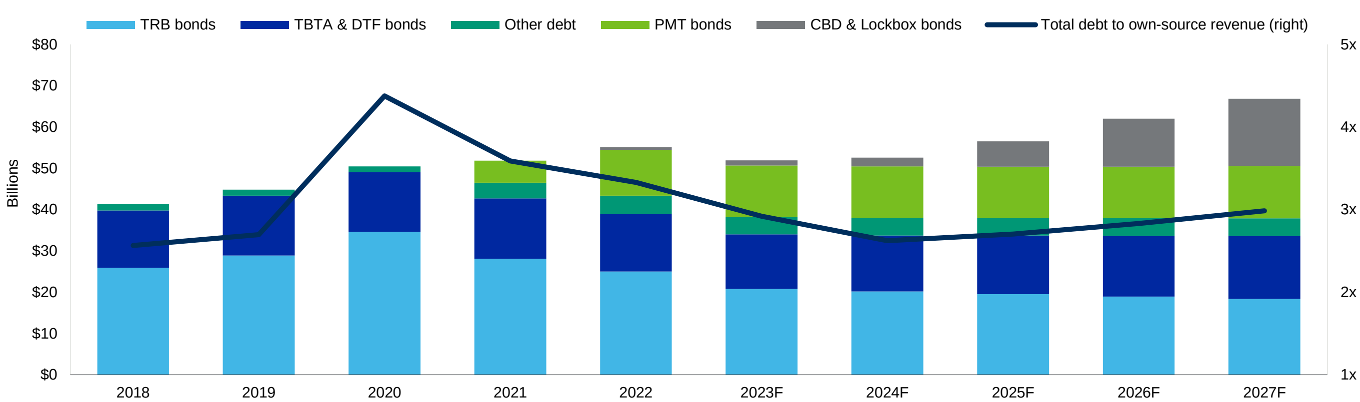
## Debt and Legal Covenants

MTA's leverage will remain elevated over the next several years as borrowing ramps up to complete the 2020-2024 capital program. However, most planned borrowing will be repaid with revenue that is statutorily restricted to capital purposes, which will limit pressure on MTA's operating budget. In addition, while MTA leverage will remain high, it is consistent with our pre-COVID forecast. MTA's FY2022 long-term liabilities include $54.8 billion of net bonded debt (330% of nonfederal operating revenue), $20.3 billion of adjusted net pension liability (136% of revenue) and $22.2 billion of adjusted net OPEB liability (134% of revenue).

Over the next four years, MTA plans to issue approximately $2.6 billion of new money bonds for TBTA capital projects and $15.6 billion of bonds to be repaid by the city sales tax and central business district toll revenue (the capital lockbox revenue) for the 2020-2024 capital program. There are currently no plans for additional TRB borrowing, and MTA's PMT bond issuances will primarily redeem bond anticipation notes.

Exhibit 6

**New capital lockbox revenue balance future borrowing plans**




*Source: MTA July 2023 Financial Plan; Moody's*

Debt service payments on the relatively new PMT bonds reduces the amount of PMT that was previously available to pay TRB debt service. However, the issuance of PMT reduces the amount of TRB needed to be issued and ultimately reduces total debt service paid with pledged revenue. The PMT bonds are secured by a lien on PMT revenue and Aid Trust Account (ATA) revenue that flow to PMT debt service before TRB debt service and MTA operations. As of the July 2023 financial plan, $550 million to $659 million of PMT revenue will be diverted annually from the TRB to pay PMT debt service over the next four years. By replacing TRB borrowing with PMT borrowing, TRB debt service will be $1.3 billion less than previously projected by FY2026.

The revised capital program has grown 1.2% to $55.4 billion and benefits from $1.7 billion of additional federal grant funding that will lower MTA's borrowing needs. MTA borrowing will fund 44% of the capital program, including $25 billion of financing from Central Business District Tolling bonds and Sales tax backed bonds (together part of the capital lockbox), $8 billion of other MTA debt (primarily PMT) and $3.3 billion of Triborough Bridge and Tunnel Authority (TBTA, Aa3 stable) borrowing. City and state grants will fund $6 billion (11%) of the capital program. As of Dec. 31, 2022, 33% of the 2020-2024 capital projects have been committed and 2% completed.

MTA's Central Business District Tolling project reached a major milestone with Federal approval of its environment impact assessment in June 2023. Construction and installation of the tolling infrastructure has begun however the toll rate structure, and potential exemptions, have not been determined. MTA currently expects the project will be complete in mid 2024. The State of New Jersey has filed a lawsuit with the Federal Highway Administration over the depth of the environmental study, somewhat increasing the risk of project delays, however the range of potential outcomes is unclear at this time.

Exhibit 7
**Summary Debt Statement**
**($ millions)**

| NY MTA Debt Statement | | Dec 2022 | July 2023 |
|---|---|---|---|
| Transportation Revenue Bonds (TRB) | A3 sta | 21,283 | 20,750 |
| TRB BANSs | MIG 2 | 3,707 | - |
| MTA Payroll Mobility Tax (PMT) Notes - deficit financing | NR | 2,907 | 2,907 |
| Triborough Bridge and Tunnel Authority (TBTA) PMT Bonds - capital projects | NR | 8,159 | 7,775 |
| TBTA PMT BANs - capital projects | NR | - | 1,718 |
| TBTA General Revenue Sr, Sub & 2nd Sub Bonds/BANs | Aa3 / A1 sta | 9,232 | 8,938 |
| City Sales Tax Revenue Bonds (Capital lockbox) | NR | 700 | 1,954 |
| Dedicated Tax Fund Bonds (DTF) | Aa2 sta | 4,788 | 4,292 |
| Hudson Yards Trust Obligations | A3 sta | 887 | 804 |
| Capital Leases * | | 446 | 446 |
| Other Debt and Net Unamortized Premium* | | 2,617 | 2,617 |
| **Net Debt** | | **54,777** | **52,252** |
| MTA contingent obligations: | | | |
| Moynihan Station TIFIA Loan [1] | Baa2 sta | 633 | 606 |

*Most recent available, from Fiscal 2022 Annual Comprehensive Financial Report
[1] MTA has a contingent liability to replenish a debt service reserve fund; replenishment has never been called upon.
*Source: Metropolitan Transportation Authority; Moody's Investors Service*

**DEBT STRUCTURE**

MTA's short-term debt exposure will decline significantly after it repays $2.9 billion of deficit financing notes (due Dec. 15, 2023). MTA's total debt with market access risk, rollover risk, interest rate risk or demand risk has already declined from a peak of $13.8 billion (21% of total debt) in FY2020 to $9.1 billion (17% of total debt) as of September 2023, reducing its market access and liquidity risk.[2] The largest change has come through redeeming TRB bond anticipation notes; $9.5 billion of TRB BANs have been redeemed, primarily with PMT long-term bonds, since FY2020.

Due to the pandemic, New York State has significantly increased its borrowing plans to support MTA capital projects, an example of MTA's credit positive relationships with its parent governments. To date, the state has issued $5.5 billion of debt to partially fund its $14.3 billion commitment to MTA's 2015-2019 capital program, alleviating MTA's refinancing risk, reducing future leverage and allowing capital projects to continue. However, we expect direct contributions from NYS to MTA will be limited to the specific 2015-2019 capital program commitment.

MTA has a contingent liability to replenish a debt service reserve fund for the $606 million Moynihan Station Project TIFIA loan (Baa2 stable). MTA's obligation to make DSRF Advances will cover regularly scheduled loan payments until at least 2033, which includes the construction phase and initial operating phase of the project. The DSRF Advance obligation is subordinate to MTA's own debt, on parity with its general operating expenses and has never been called upon.

**DEBT-RELATED DERIVATIVES**

The swap portfolio on all securities had a negative market valuation of $140 million as of March 31, 2023. The MTA pays a fixed rate and receives floating rates, based on Libor. Counterparties cannot optionally terminate swaps, but the MTA can. The MTA's swaps are subject to involuntary termination in the event of a downgrade below investment grade of the counterparty or the MTA security associated with the swap.

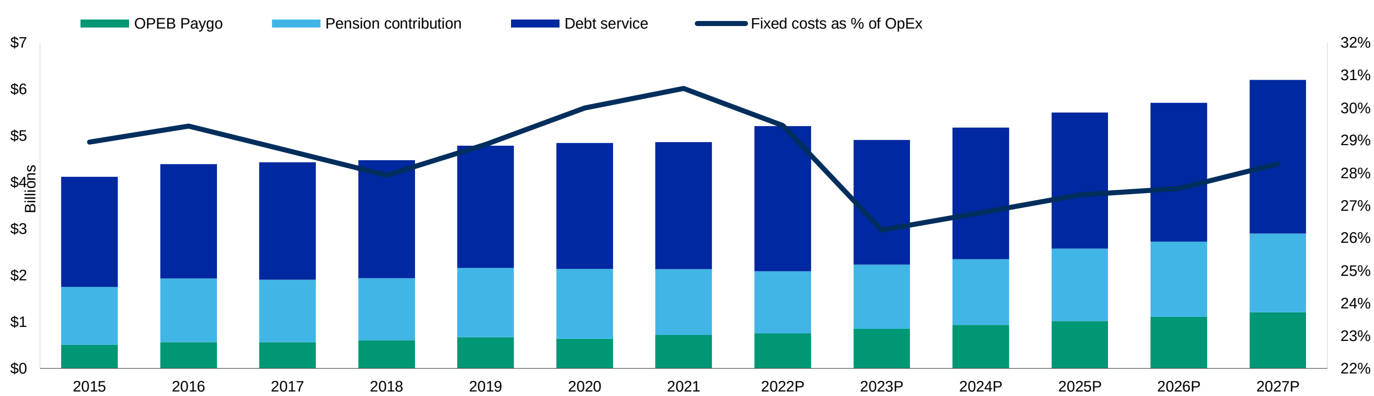
**PENSIONS AND OPEB**

Because of the labor-intensive nature of its enterprise, MTA has substantial pension and OPEB obligations that contribute to high, growing fixed costs. Employees are represented by over 60 unions and are participants in six single-employer and multi-employer pension plans. MTA's 2022 adjusted net pension liability (ANPL), our measure of pension burden, was $20.3 billion of adjusted net pension liability (136% of revenue, excluding federal stimulus aid). Moody's ANPL reflects certain adjustments made to improve comparability of reported pension liabilities. As of Dec. 31, 2022, MTA's adjusted net OPEB liability was $22.2 billion (134% of revenue).

MTA's budget flexibility is constrained by high fixed costs (debt service, pension tread water and OPEB) which will accelerate because of capital borrowing, the large labor force, strong collective bargaining units and rapidly rising medical costs. Fixed costs will remain high, above 28% through the forecast period. MTA pays 100% of the actuarial determined contribution (ADC) every year, which has averaged 130% of Moody's Tread Water estimate over the past three years. Like most employers, MTA pays its OPEB on a pay-as-you-go basis.

Exhibit 8

**High fixed costs will remain a key budget pressure**




Debt service includes all MTA liens and TBTA bonds

*Source: MTA Financial Plans; Moody's Investors Service*

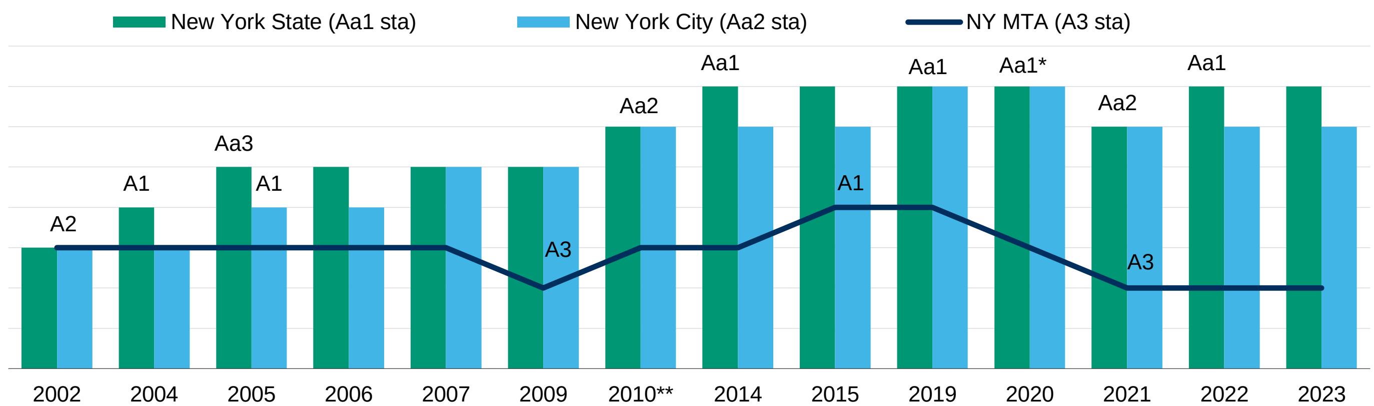
## Operating Environment and Governance

MTA's credit quality is bolstered by a very supportive but complex operating environment. Continued support from state, local or federal governments is highly likely given MTA's essentiality to the regional and national economy. New York State's 2023 funding package for MTA is the most recent example of the highly supportive operating environment, shoring up projected budget gaps and resolving long-term funding concerns around COVID-related ridership losses. However, social concerns regarding fare equity and public safety have heightened public scrutiny that, if combined with any service erosion, capital cost escalation or project delays, could erode political support for additional funding and/or fare increases.

During the pandemic, the state and city demonstrated their continued support for MTA by authorizing significant new revenue streams and committing to additional capital funding. In addition, the state has demonstrated continued support for MTA during the COVID-19 by authorizing increased revenue and borrowing flexibility and taking on direct debt to support the 2015-2019 capital program.

However, NYS also temporarily withheld 20% of all local aid distributions in fiscal 2021, including MTA's, to help balance its own budget and liquidity challenges, which compromised MTA's liquidity. Full state funding was restored before the end of the fiscal year. More recently, New York State has committed to use general fund revenue to make MTA whole of any lost revenue during the state's gas tax holiday.

Exhibit 9
**Credit quality and financial strength of MTA's supporting governments remain strong**




*NYS and NYC outlooks were revised to negative in March 2020
**Recalibration to Global Scale Ratings
Note: Chart skips years where there was no rating change
*Source: Moody's Investors Service*

The state-related improvements to MTA's operating environment are somewhat offset by post-COVID political and social opposition to fare increases. The MTA Board canceled its planned 2021 fare increase because of affordability and social equity concerns, however the financial impact has been negated by the state's budgeted increase in dedicated taxes. The MTA has unilateral authority to set fares and tolls, and does not require state or city approval, however there is significant political pressure to keep fares low. Pre-COVID fare increases kept pace with inflation, the most recent of which was implemented on April 21, 2019. While we expect MTA to resume regular rate increases as needed post-pandemic, fare increases will continue to be politically challenging given high income inequality in New York City (see Social Considerations below).

## ESG considerations

### Metropolitan Transportation Authority, NY's ESG Credit Impact Score is CIS-1

Exhibit 10
**ESG Credit Impact Score**

CIS-1
**Positive**


For an issuer scored CIS-1 (Positive), its ESG attributes are overall considered as having a positive impact on the rating. The overall positive influence from its ESG attributes on the rating is material.

*Source: Moody's Investors Service*

The MTA's ESG Credit Impact score is **CIS-1** reflecting strong governance and moderately negative exposure to environmental risks, and moderately negative social risks.

Exhibit 11
**ESG Issuer Profile Scores**

| ENVIRONMENTAL | SOCIAL | GOVERNANCE |
|---|---|---|
| E-3 | S-3 | G-1 |
| Moderately Negative | Moderately Negative | Positive |

*Source: Moody's Investors Service*

## Environmental

The US mass transit sector overall has neutral to low carbon transition risk because the increased capital spending to reduce emissions will be partially balanced by increased ridership as governmental policies and public preference shift from carbon inefficient travel to this energy-efficient mode of transportation. However, MTA has exposure to climate risks, reflected in its **E-3** issuer profile score. A high percentage of MTA's service area itself is scored **E-3** because it is predominantly in coastal areas, with above-average exposure to rising sea levels, storm surge and extreme rainfall related to climate change, as measured by Moody's ESG Solutions. While both New York City and MTA are making large investments to try to mitigate these risks, the exposures remain significant.

The MTA service area is comprised of 14 coastal counties located along tidal rivers, Long Island Sound and the Atlantic Ocean and thus has above-average flood risk. Risk of flooding during periods of extreme precipitation, wind or storm surge is high, as experienced during Superstorm Sandy in 2012 and is likely to increase over the long term. However, after Sandy flooded large sections of the transit system, MTA established a Climate Adaptation Task Force and implemented significant climate resiliency projects and infrastructure hardening to mitigate its climate risks. MTA is undertaking $4.75 billion of projects to repair assets damaged during the storm, and $3 billion of projects to increase resiliency against future storms. Like most US transit systems, MTA's environmental risk is partially moderated by the availability of private insurance and federal disaster recovery assistance. Insurance proceeds and federal grants are funding 85% of MTA's post-Sandy recovery and resiliency projects.

## Social

MTA's **S-3** issuer profile score incorporates the demographic and societal trends of its service area, which has above average income inequality and shifting commutation patterns related to the COVID pandemic. The shift toward hybrid work arrangements will have more significant and lasting impact on MTA's finances than on other issuers in the service area. In addition, heightened social and political resistance to fare increases will make it more difficult to offset low ridership levels. This is somewhat balanced by the region's steady urbanization trends and growing wealth that will make tax subsidies more affordable. MTA is moderately exposed to human capital and health and safety risks because of its large workforce that is represented by strong collective bargaining units.

The US mass transit sector is moderately exposed to social risk given its labor intensive and customer-oriented operations. The transit sector serves a wide range of customers with diverse service needs, and relies on customer satisfaction to maintain ridership levels (i.e. utilization) and support fare increases. Changes in customer satisfaction can be monitored through on-time performance metrics, and is susceptible to public perception regarding the effectiveness and adequacy of operating performance. Deterioration in public opinion can lead directly to operating revenue declines that increase the need for politically sensitive fare increases. In addition, transit systems that directly employ large labor forces that are represented by strong collective bargaining units, have less flexibility to control cost growth. Systems that contract out most of their operating services have low human capital risk. The transit sector will benefit from social opportunities as a responsible producer of energy-efficient services and low-cost transportation, however this does not offset the potential risks mentioned above.

## Governance

The transit sector benefits from governance opportunities through supportive organizational structures that promote strong operating environments and generous funding for operations and capital projects. Boards, like MTA's, that have diversified membership, are separately elected or with members whose appointments do not directly correspond with the terms of elected officials exhibit low board structure risk. On the contrary, transits overseen by a government municipality face some risk associated with board structure.

This results from the concentrated control of a city or county government and the risk of political opposition to required fare increases or capital investment.

In addition, MTA's **G-1** issuer profile score reflects its strong organization structure and supportive relationship with New York State (Aa1 stable), that also benefits from a **G-1** issuer profile score. The MTA is a public benefit corporation of New York State, created by the New York State legislature in 1965. The MTA's governing board is appointed by the governor with advice and consent of the state Senate. Board members include one chair, plus 16 voting members, two nonvoting members and four alternate nonvoting members. The four voting residents of Duchess, Orange, Putnam and Rockland Counties share one collective vote. The MTA Board has autonomous authority to raise fares and tolls. State statute governs various financial and operating requirements for the system, including a requirement to maintain a balanced budget and a prohibition against filing for bankruptcy.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click here to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

## Endnotes

1 Approximately 42% of dedicated taxes are vulnerable to state budget cuts or delays. Another 37% of MTA's dedicated taxes are subject to economic volatility in the transportation district. Certain taxes are also very volatile outside of recessions. In 2023, MTA's real estate related Urban Tax and Mortgage Recording Tax are forecast to decline 47% ($628 million).

2 Includes variable rate debt (both FRNs and VRDBs), short-term debt (BANs) and put bonds.

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