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CREDIT OPINION
14 April 2022

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# New York (State of)

## Update to credit analysis after upgrade

## Summary

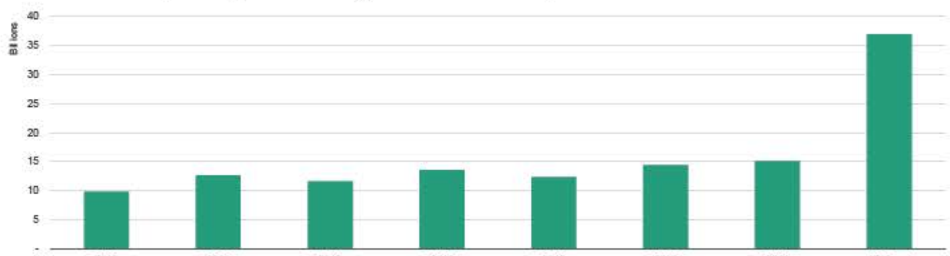
New York's (Aa1 stable) finances have turned around sharply since the initial wave of the coronavirus pandemic battered its economy. The combined impacts of agile financial management, federal stimulus aid and strong tax collections, aided by tax rate increases, have lifted state resources enough to produce current and projected budget surpluses even while building the state's historically low reserves. Current liquidity has more than doubled, and while some of that cash will be spent down as various reserves for upcoming expenses are tapped, the state is projecting a multi-year period of extremely strong cash balances.

Although the pandemic has created significant challenges for the state, its fundamental strengths include a large and diverse economy that generates above-average income and wealth and low adjusted net pension liability burden (ANPL) that helps to mitigate its relatively high debt and pension liabilities. The state has an expensive business environment and reliance on financial activities sector employment and wages.

The state continues to face uncertainties regarding recovery of the office-intensive New York City metropolitan area, the key driver of the state's economy, and related risks associated with the financially-strapped and heavily indebted Metropolitan Transportation Authority (A3 stable), a component unit of the state.

On April 13, Moody's upgraded the state's issuer rating from Aa2 positive to Aa1 stable as a result of positive financial and governance developments.

Exhibit 1
**Year-end state operating fund ending cash balance is expected to have doubled in fiscal 2022**




*Source: Office of the New York State Comptroller; NY Division of the Budget Executive Budget Financial Plan*

## Credit strengths

» Broad-based, mature and wealthy state economy that attracts a highly educated and global workforce

» Established history of closing large projected budget gaps

» Moderate liability burden compared to peers due to conservative pension system management

## Credit challenges

» Disproportionate exposure to economic and behavioral shifts precipitated by coronavirus pandemic, particularly remote work

» Controlling costs in the state's large and expensive Medicaid program

» Revenue volatility stemming from the state's dependence on income taxes and the financial services sector

» Growing susceptibility to climate risks, especially storms and rising sea levels

## Rating outlook

New York's outlook is stable, reflecting its healthy liquidity and growing formal and informal reserves, which will help mitigate risks stemming from slow economic recovery, particularly in the downstate metropolitan area.

## Factors that could lead to an upgrade

» Recovery and expansion of the state's economic and revenue base that outpaces growth in long-term liabilities

» Building and maintaining reserves commensurate with the state's revenue volatility risks

» Maintaining budget balance with a preponderance of recurring actions

## Factors that could lead to a downgrade

» Sustained reliance on non-recurring budget solutions

» Material increase in the state's long-term liability burden

» Sustained weakness in the economic recovery of the New York City metropolitan area that leads to growing structural imbalances, including through extraordinary assistance to the Metropolitan Transportation Authority

## Key indicators

Exhibit 2

| | 2020 | 2021 | State Medians (2020) |
|---|---|---|---|
| **Economy** | | | |
| Nominal GDP ($billions) | 1,724.8 | 1,853.9 | 243.8 |
| Real GDP, annual growth | -5.0% | 5.0% | -3.0% |
| RPP-adjusted per capita income as % of US | 113.5% | | 96.7% |
| Nonfarm employment, annual growth | -10.0% | 2.7% | -5.5% |
| **Financial performance** | | | |
| Available balance as % of own-source revenue | 10.9% | 21.3% | 20.2% |
| Net unrestricted cash as % of own-source revenue | 20.6% | 31.5% | 48.1% |
| **Leverage** | | | |
| Total long-term liabilities as % of own-source revenue | 164.0% | 154.5% | 147.5% |
| Adjusted fixed costs as % of own-source revenue | 7.4% | 7.8% | 6.0% |

*Source: New York financial statements; US Bureau of Economic Analysis; US Bureau of Labor Statistics; Moody's Investors Service*

## Profile

New York State is the 4th largest US state by population. Located in the Northeastern US, New York has a large and diverse economy with high per capita income at 120% of the US average and gross state product of $1.85 trillion.

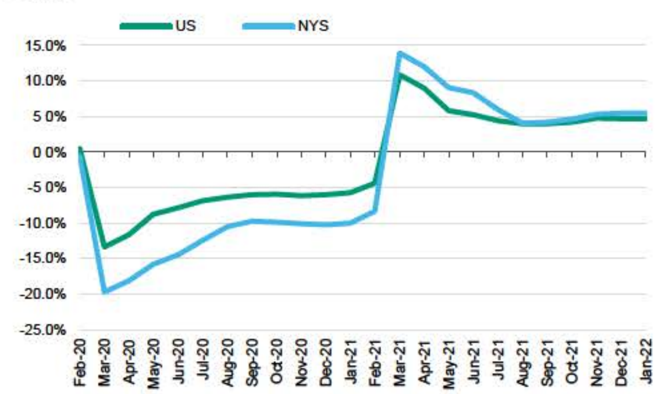
## Detailed credit considerations

### Economy

New York State has been in recovery mode after the initial shock of the coronavirus pandemic sent workers home in the spring of 2020 and shuttered businesses. Because the initial impact on the state's economy was so much greater than on the nation, payroll employment has recovered a smaller share of jobs initially lost despite growing at a more rapid average pace than the nation's since May 2021 (see Exhibits 3 and 4).

Exhibit 3

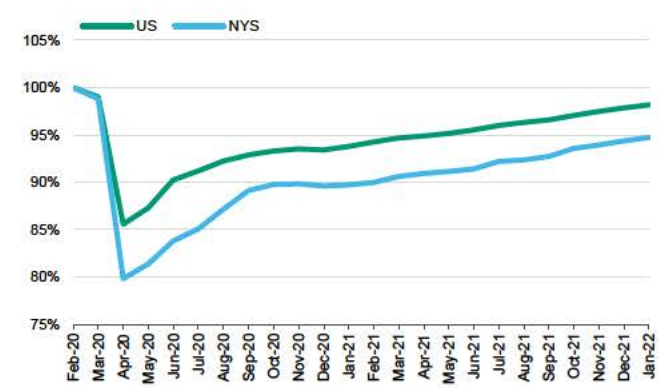
**Year-over-year employment growth has outpaced the US in most months since May 2021 but has failed to overcome impact of initial decline**




*Source: US Bureau of Labor Statistics*

Exhibit 4

**State employment has recovered to only about 95% of pre-pandemic levels**



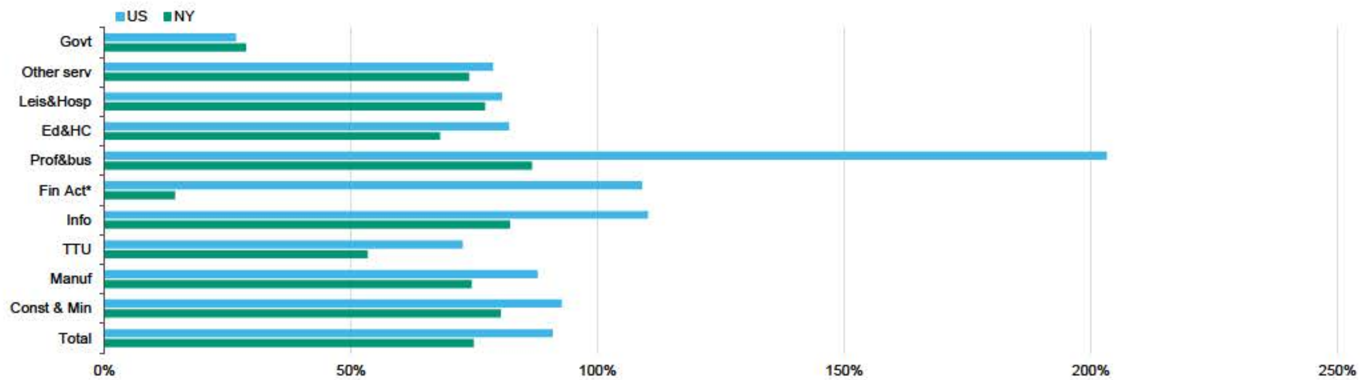

*Source: US Bureau of Labor Statistics*

The pace of state employment growth will fall behind the US, however, as structural obstacles impede a full recovery. New York City's (Aa2 stable) full recovery is hampered by a halting return of the city's tourism and entertainment sectors and a particularly slow recovery in the important financial services industry. Critically, the heavy concentration of the city's employment in office-using businesses makes it particularly vulnerable to the impacts of the shift to a greater share of the workforce working remotely, which affects businesses that support the office ecosystem, such as restaurants and business supply and maintenance concerns. The New York City budget office currently projects that the city will not regain its pre-pandemic employment level until fiscal 2025.

As of February 2022, none of the state's industry sectors stood at the same level or greater than in the winter of 2020 even while several industries nationwide have exceeded that peak. On the other end of the recovery spectrum, government employment lags other sectors nationally, and in New York State recently stood at just 29% of pre-COVID levels.

Exhibit 5

**Financial activities and government especially fall short of winter 2020 levels**
**Seasonally adjusted establishment employment**




*continued losses in financial activities are partially offset by gains in real estate employment
*Source: US Bureau of Labor Statistics*

Decennial Census results place the state 19th lowest, at 4.2%, for population change from 2010 to 2020. This paints a more positive picture of the state's demographic trends than annual estimates, which showed weaker population growth. However, estimates for 2021 show New York with the greatest one-year population decline of the 17 states where population fell from 2020 to 2021.

Federal pandemic aid helped counter the impacts of the health crisis on the state's income metrics. State GDP has grown in every quarter after the second quarter of calendar year 2020 through the end of 2021, helping to support household and business spending.

In the state budget division's amended financial plan released in February, the division projects nonfarm employment to grow 7.2% in fiscal 2022, but to slow to 4.3% in fiscal 2023. The projection shows state payroll employment surpassing its pre-pandemic level in fiscal 2024, well behind the nation's achievement of that benchmark. The division projects state personal income growth of 1.5% in fiscal year 2022 and 1.2% in fiscal 2023.

### Finances and liquidity: Tax revenue swells coffers and eliminates budget gaps

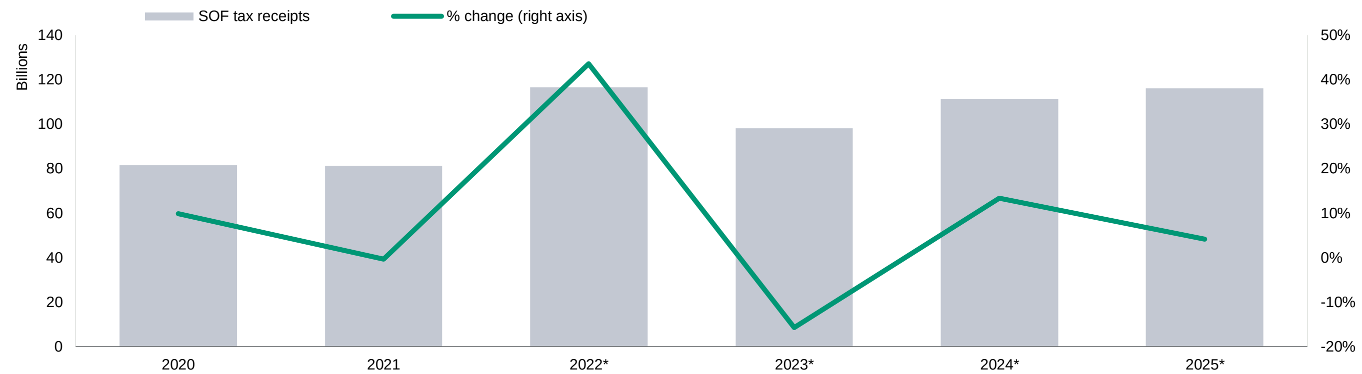
New York's finances have swung sharply in two years from predictions of dire budget gaps to multi-year budget balance, as proposed in Governor Hochul's executive budget. Projected budget gaps in the outyears of multi-year financial plans have been a consistent feature of the state's budgeting documents since the executive branch adopted multi-year planning two decades ago. While the extent to which the enacted fiscal 2023 budget deviates from the governor's proposal is not yet calculated, there was room in the financial plan to accommodate some new spending from legislative initiatives and still build the state's reserves.

Tax revenue accounts for a significant portion of the state's improved fiscal position throughout its financial plan, although the scheduled expiration of a personal income tax surcharge enacted in fiscal 2022 promises to bring future challenges to the state if allowed to expire during fiscal 2028. As of February, the state budget office estimates that Fiscal 2022 taxes will have grown about 43% from fiscal 2021 (see Exhibit). Fundamental performance and tax rate increases last year each contributed to the large increase.

In addition, the state's new pass through entity tax (PTET) results in taxpayer payments through the business tax followed by credits through the personal income tax. Because the state's fiscal year ends March 31, refunds resulting from the credits generally occur in the fiscal year after payments have been made. Tax collections are expected to decline 16% in fiscal 2023, primarily because of the impact of this PTET timing discrepancy on estimated tax payments. Better-than-expected fiscal 2022 year-end results and an additional $1.2 billion in fiscal 2023 tax revenue incorporated in the newly-enacted fiscal 2023 budget will alter these projections somewhat.

Exhibit 6

**Large boost in 2022 tax receipts reflect fundamental factors combined with tax policy changes**




* NYS Division of Budget projections
*Source: NYS Division of the Budget*

Tax collections also reflect a temporary business tax increase that is slated to expire during fiscal 2024. The state has a record of maintaining "temporary" income tax increases for longer than initial legislation indicates.

The state estimates it has more than $8 billion in combined resources (budgeted outside of state operating funds) for fiscal years 2023 through 2025 from the federal American Rescue Plan (ARP) and FEMA reimbursements for pandemic-related outlays. In addition to this direct aid, the ARP has also provided more than $6 billion direct assistance to the Metropolitan Transportation Authority, relieving the state of some immediate pressure to find additional ways to assist the troubled transit agency (see discussion below in the debt section of this report).

**School aid and Medicaid continue to drive spending growth**

School aid and Medicaid spending are the major drivers of state spending growth. With the enactment of the temporary income tax surcharge last year, the state increased its school foundation aid markedly to phase in over three years full compliance with a lingering school funding lawsuit. This policy drives a $7.6 billion, or 29%, increase in school aid from school years 2021 to 2024 after which the adjustment will be considered fully phased in.

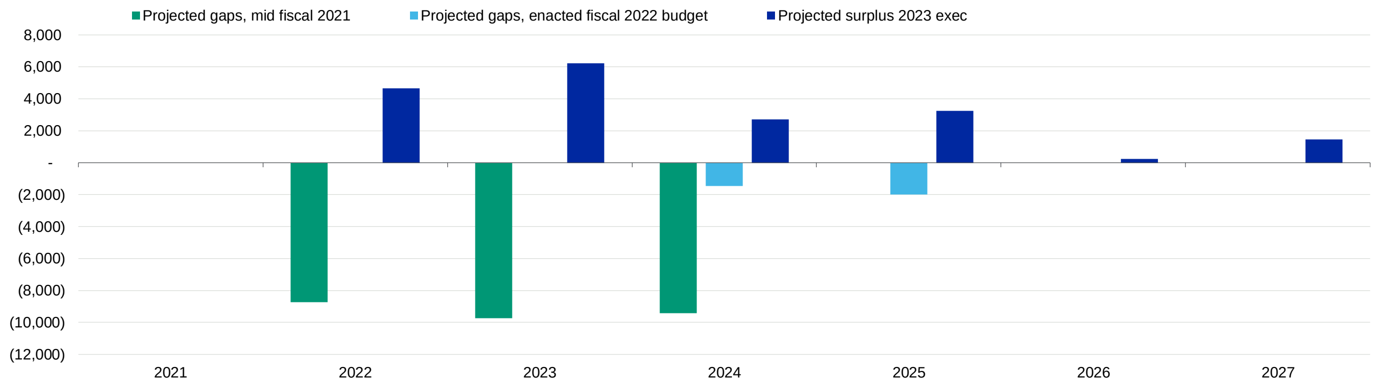
Because of growth in caseload during the pandemic and the pending expiration of pandemic-related emergency federal matching assistance (eFMAP), which reduced the state's share of Medicaid costs, the primary component of state Medicaid spending is slated to grow more than 16% in fiscal 2023. The state anticipates that reforms resulting in reduced caseloads and other costs, which were postponed to comply with federal eFMAP requirements, will help to contain costs in subsequent years.

**Use of surplus at issue in fiscal 2023 budget enactment**

The fiscal 2023 amended executive budget and financial plan proposed a mix of new recurring and nonrecurring uses of its resources. On net the proposals would exhaust the starting surplus of $6.5 billion, but a significant portion of those funds would be devoted to adding to reserves and channeling funds to pay-go capital spending, helping to contain the costs of the capital plan. On the receipts side, Governor Hochul proposed to accelerate a scheduled reduction in "middle class" income taxes and to provide a one-time rebate to homeowners, along with some other smaller items. More consequential were proposed spending actions. These include funding a one-time bonus to health care workers and recurring funding additions across a range of state agencies, but also a multi-year transfer of $6.6 billion to cash fund capital projects.

Exhibit 7

**Projected general fund results moved from large deficits to surpluses in successive financial plans**




Surpluses are net annual balances before planned uses and reservations, outside of reserves timed to accommodate the pass-through entity tax. Most recent projections do not incorporate impacts of the enacted fiscal 2023 budget
*Source: NYS Division of the Budget*

Preliminary analysis of the enacted budget, which is subject to change, indicates that it will add spending in addition to the governor's proposals but will also hew generally to the executive's proposed framework, which boosts reserves while devoting funds to the long-term benefit of the state's financial profile. Early estimates by the state Division of Budget suggest that more than two-thirds of fiscal 2023 spending additions will be non-recurring, for such items as emergency rental assistance, a six-month fuel tax holiday and initiatives to help the pandemic-afflicted child care industry recover. A preliminary estimate puts fiscal 2023 state operating fund growth at roughly 5% in fiscal 2022 following 12.7% growth in fiscal 2022, and at approximately 4% annually through fiscal 2027. For comparison, the executive budget proposed a spending increase of 3.7% in fiscal 2023.

The state will likely face fiscal challenges down the road that may necessitate extending the temporary tax increases if economic growth does not meet expectations or continued additions of recurring budgetary obligations lead to depleted reserves. The state will remain vulnerable to revenue volatility because of its reliance on revenue from high-income taxpayers, which it has increased with the recent personal income tax hike. These risks are mitigated by the state's very strong current fiscal position, the lack of budget gaps in future years of the plan, and the state budget division's practice of conservative estimation of receipts and disbursements that creates cushion beyond reserves identified in the financial plan.

**Liquidity**

The state's liquidity has been ample despite the dire impacts of the pandemic. Over the last two fiscal years, cash management actions, deposits to reserve accounts, copious federal pandemic assistance that helped offset state-funded spending and strong tax receipts have led to a projected doubling of the state's accumulated state operating basis cash balance (see Exhibit 1).

The executive budget included a plan to expand reserves to 15% of state operating funds by fiscal 2025, which would be a noteworthy development in a state with a history of carrying a low cash cushion against adverse developments. The state's budgetary reserves are divided between statutory reserves, comprising a tax stabilization reserve fund and a rainy day reserve, and informal reserves that are set aside in an unrestricted fashion for contingencies. The state has ramped up its deposits to its reserves in recent years and deposited an additional $843 million to the statutory rainy day reserves at the end of fiscal 2022, the maximum level allowed in statute.

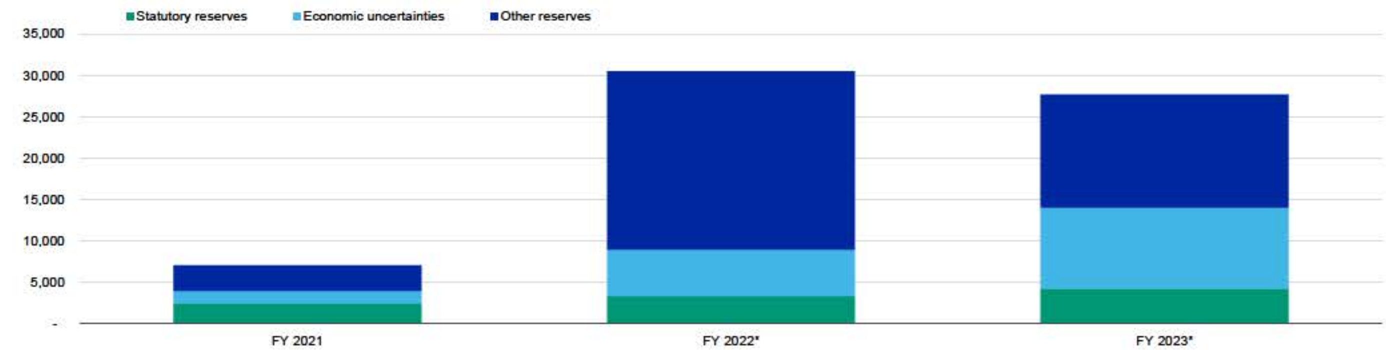
Although this statutory reserve balance of about $3.3 billion in fiscal 2022 is by itself small relative to the state's budget, resources designated as economic uncertainty reserves outside of the formal rainy day fund total about $5.6 billion at fiscal 2022 year end after a $4 billion addition to the reserve. Together, these reserves total nearly $9 billion, or nearly 8% of state operating funds disbursements (see Exhibit). Reserves can fluctuate when the state uses cash reserves to pre-pay future year expenses, particularly debt service. While considered in isolation, these pre-payments devote non-recurring revenue to recurring expenses; however, they are an important tool for the state to smooth out the volatility of its revenue collections.

Other significant reserves include unspent monetary settlement funds currently totaling about $2 billion, similarly-sized reserves for future labor settlements held to help fund future union contracts that will all be expired by fiscal 2024, and $2 billion held as a reserve for pandemic assistance. The state also is holding significant reserves to accommodate the timing of payments and credits (which occur in different years) related to the PTET.

Positively, the state legislature approved the governor's proposal to increase allowable deposits into the statutory reserves to 15% of general fund spending and allow deposits into the fund up to 3% of spending.

Exhibit 8

**The state supplements statutory reserves with additional set-asides**




*projected

*Source: NYS Division of the Budget Fiscal 2023 Executive Budget (amended)*

## Debt and pensions

New York's leverage is moderate, as relatively high levels of outstanding debt are mitigated by a well-funded pension system. The state's liabilities for retiree health insurance are also well above the state median but may allow for greater flexibility than pension liabilities, which are constitutionally protected. The state's combined debt, pension and OPEB liabilities are slightly above the median.

### NY MTA presents key risk to New York State's liability profile

The state's support for the hard-hit Metropolitan Transportation Authority will result in an increase in leverage as it issues bonds on the MTA's behalf. This support reflects the interdependence of the fiscal condition of the state and its economic heart in the metro New York City region and highlights a key direct risk to the state's liability profile in coming years.

Assistance to the MTA is an important driver of the state's borrowing plan. The state committed $9.1 billion to the MTA's 2015-2019 capital plan, and another $3 billion to its 2020-2024 capital plan, most of which will be provided via state debt issuance. Of the total amount, about $7.3 billion has yet to be issued.

While we expect the state's commitments to the MTA will stay within the parameters set out in the most recent capital plan, we also note the risk posed in the longer run if the MTA is unable to recover sufficiently with additional significant infusions of state support. The likelihood of an extreme scenario where the state would be compelled to take on the MTA's outstanding debt is very low. However, if that were to happen, the impact on the state's credit profile would be negative but not dramatic. MTA's Transportation Revenue Bonds, if added to the state's liabilities (including pension and OPEB), would increase those liabilities by about 25% and add somewhat to the state's fixed costs.

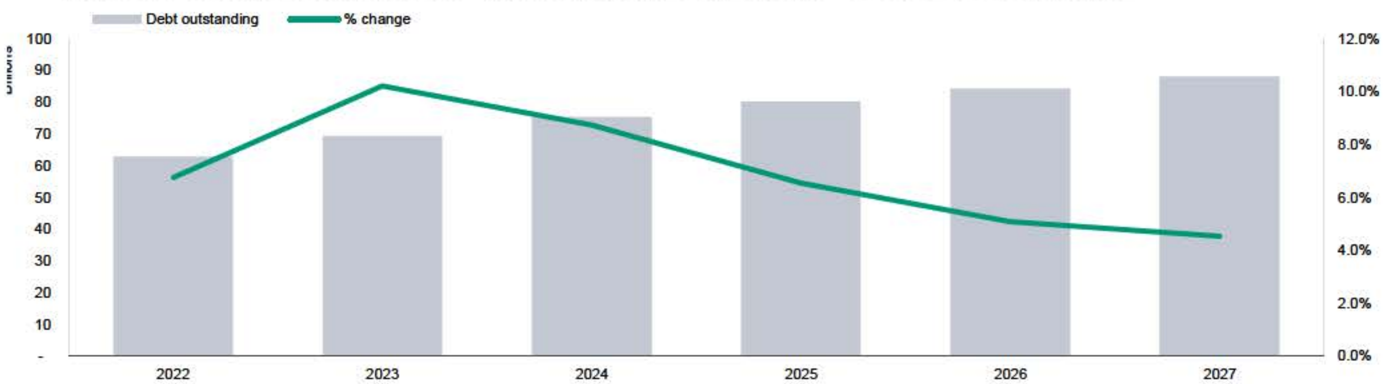
### Debt structure

New York's Moody's-defined net state tax-supported debt outstanding was about $77 billion, including premium, at the end of fiscal 2021. Compared to the 50-state median, the state's debt is high relative to its economy: New York's debt-to-GDP ratio was 4.1% compared to the median of 2% in our 2021 debt medians report, or the tenth highest.

Our measure of the state's debt includes about $8.15 billion in certain securities issued through the New York City Transitional Finance Authority (Aaa stable) but backed by state building aid revenue. This amount is not counted in the state audited financial statements or by the state budget office in its computation of state debt outstanding.

The state's debt will increase as it implements its capital plan. For fiscal years 2022 through 2024, state debt outstanding (not including TFA-related debt) is projected in the executive budget to grow at 8.7% annually, with growth rates tapering off in the later years of the multi-year plan (see Exhibit). The executive budget proposes adding nearly $9 billion annually in new debt through fiscal 2026 and to fund some additional capital spending with $6 billion in new pay-go funding, enabled by the state's currently comfortable financial condition.

Exhibit 9
**Debt outstanding growth is projected to taper in later years of capital plan**




*Source: NYS Division of the Budget*

About 3% of net debt is considered general obligations of the state. The state constitution requires voter approval of general obligation debt. Alternative borrowing vehicles in the form of the personal income tax revenue bonds and similarly structured bonds backed by sales taxes account for about 79% of state-supported outstanding debt. Virtually all of the state's debt is fixed rate.

Exhibit 10
**New York relies primarily on personal income tax and sales tax-backed bonds for its financing needs**

| | 2021 |
|---|---|
| General Obligation Bonds | 2,274,000 |
| Lease Rental Bonds/Appropriation Debt | 16,276,000 |
| Special Tax Bonds (PIT and Sales-backed) | 49,795,000 |
| NYC TFA BARBS | 8,402,955 |
| Misc | 28,000 |
| Total | 76,775,955 |

Totals include premium
*Source: New York State, TFA, LGAC and STARC financial statements; Moody's Investors Service*

The enacted fiscal 2021 budget suspended the state's debt limitation, an action that was continued for fiscal 2022. This action accommodated the state's shift to bonded debt to contribute to the MTA's capital plans from its previous intention to reimburse the Authority for debt service. Prior to the pandemic, the debt limit margin had been slowly narrowing. By statute, state-supported debt issued after April 1, 2000 was limited to 4% of state personal income and debt service was limited to 5% of all funds receipts. The debt limitation will resume in fiscal 2023 with carve-outs for debt issued in fiscal year 2021 and 2022.

### Debt-related derivatives

During fiscal 2022, the state terminated its $814 million of outstanding swaps and currently has no interest rate exchange agreements outstanding.

### Pensions and OPEB

New York's conservative pension funding approach will support a continued well below-average leverage position with respect to its pension liabilities, a credit strength that helps offset the state's high bonded debt position and above-average retiree health benefit liabilities.

In fiscal 2020, the state's adjusted net pension liability was about $32 billion representing 1.9% of state GDP, compared to a median ratio of 5.1%. The liabilities reflect the state's participation in the NYS Employees Retirement System and the Police and Fire Retirement System. Our adjustments to reported state pension data include a market-based discount rate to value the liabilities rather than the long-term investment return used in reported figures, and are designed to improve comparability among state pension metrics. Due largely to a decrease in the interest rate we use to discount liabilities, the state's ANPL rose to $53 billion in fiscal 2021.

In August of 2021, the New York State Comptroller lowered the investment rate of return for the ERS and PFRS to 5.9% from 6.8% which will result in higher liabilities and greater required contributions by the state to the pension plans in future years. In order to blunt the immediate impact of the change on required contributions in the fiscal 2023 budget, the Comptroller also accelerated the recognition of investment gains that would otherwise be phased into asset valuations over a multi-year period, resulting in a 5.4% decrease in projected contributions for fiscal 2023. However, contributions will rise again to more than $3 billion annually starting in 2025. Although the lower investment rate of return results in higher required contributions, we consider the move to be positive as a more conservative asset mix will reduce volatility of asset returns and therefore result in greater budgetary predictability.

In other actions that strengthened the pension system and erased a debt that state had created by amortizing a portion of its pension contributions over a several-year period, outstanding amortized contributions were repaid at the end of fiscal 2021. State statute allows the state and local governments to defer payment on a portion of annual pension contributions based on a formula that compares actuarial funding rates (as a percent of payroll) with an alternative schedule. Under certain circumstances, governments may defer payment of a portion of the actuarial rate and repay (or amortize) the borrowed portion over a 10-year period at interest rates determined by the state comptroller.

The state's conservative approach to funding its pensions had resulted in contributions (adjusted for amortization) that exceeded our “tread water” benchmark in most years although lower discount rates contributed to a tread water shortfall in fiscal 2021. However, this gap represented a very small percent of total state revenue. The benchmark identifies the contribution amount that would just cover interest on the beginning of year net pension liability and accrued benefits during the year (“service cost”). This amount would result in an unchanged unfunded actuarial accrued liability if all other actuarial assumptions, such as investment returns, are met.

New York faces below-average risks from pension asset volatility. Volatility in pension asset balances poses risks to states with defined benefit pension plans because actuarial investment return shortfalls must be made up with greater contributions in the future. Our estimates show that in fiscal 2021 the state's assumed investment rate of return (6.8%) and its ratio of pension assets to own-source revenue (57%) resulted in a 0% probability that a market downturn would have resulted in asset losses equal to or greater than 25% of the state's revenue. This places the state low among the states in this measure of risk.

In contrast to its pension liability, New York's liability for retiree health benefits is high. In fiscal 2020, the state's adjusted net OPEB liability (ANOL) was $50.7 billion, or about 3% of state GDP. The 50-state median was 1% of GDP. The state also reported SUNY-related liability of $12.8 billion as of June 30, 2019. The state funds its OPEB liabilities primarily on a pay-as-you-go basis, contributing about $2 billion in fiscal year 2020, including SUNY. The executive budget reflected a planned deposit of $320 million into that state's Retiree Health Insurance Trust Fund in fiscal 2022 and projected similarly-sized deposits in fiscal 2023 and subsequent years. The state has not previously made such deposits. In a positive development, the state legislature approved an increase in allowable annual deposits to the OPEB trust to 1.5% of the actuarial accrued liability from 0.5%.

New York's combined net tax supported debt, adjusted net pension liability and adjusted net OPEB liability reached 9% of state GDP in fiscal 2020, slightly higher than the 50-state median of 8.7%. Like other metrics that are compared to the state's economic base, this ratio will likely rise relative to other states reflecting the greater impact of the pandemic on the state's economy.

The state's fixed costs, consisting of pension (at the tread water level) and OPEB contributions and debt service, totaled about 7.5% of the state's own-source governmental revenue in fiscal 2020, slightly less than the 50-state median of 6.4%. As fixed costs rise, budgetary flexibility narrows.

## ESG considerations

### NEW YORK (STATE OF)'s ESG Credit Impact Score is Neutral-to-Low CIS-2

Exhibit 11
**ESG Credit Impact Score**

**CIS-2**
**Neutral-to-Low**


For an issuer scored CIS-2 (Neutral-to-Low), its ESG attributes are overall considered as having a neutral-to-low impact on the current rating; i.e., the overall influence of these attributes on the rating is non-material.

*Source: Moody's Investors Service*

New York's ESG Credit Impact Score is neutral-to-low (**CIS-2**), reflecting its above-average exposures to environmental and social risks and good governance.

Exhibit 12
**ESG Issuer Profile Scores**

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

*Source: Moody's Investors Service*

### Environmental
New York's E issuer profile score is moderately negative (**E-3**). The state has elevated exposure to climate risks primarily because of its location along the Atlantic coast and the concentration of economic activity there. According to the NOAA, New York State has more than 2,600 miles of coastline, placing it 13th among the states. The coast is home to heavily populated Long Island and New York City, which are exposed to rising sea levels and coastal storms. According to Moody's ESG Solutions, about 94% of the state's GDP and a commensurate proportion of its population are exposed to a high and growing risk of hurricanes, while about 42% of GDP is exposed to growing sea level rise risk. However, with the nation's third highest GDP, New York has immense economic capacity to withstand the effects of environmental event risk and to generate resources to invest in additional mitigation strategies.

### Social
Social issues are a challenge for New York, resulting in an S issuer profile score of moderately negative (**S-3**). The state's population is well educated, with 37.2% of its population age 25 and older having earned a bachelor's degree, compared to the national figure of 32.6%. However, migration trends are negative, in part reflecting the high cost of living but also a long-standing US trend of population movement to the South and West. Population movements precipitated by the coronavirus pandemic and the shift to remote work also create a continuing risk to New York, with its concentration of office employment in the New York City metropolitan area. Employment growth and labor force participation are slow and income inequality is the highest of any state, driving spending on a wide range of social services.

### Governance

New York's G issuer profile score is positive (**G-1**). New York follows a number of strong management practices, including multiyear financial planning and consensus revenue forecasting, although the consensus forecast is not binding. Strong gubernatorial powers in the annual budget proposal and adoption process help to mitigate some limitations on executive authority to make unilateral budget adjustments midyear. The state is making strong moves to expand its historically small formal reserves and build significant informal reserves into the annual budget, correcting a weakness in its financial management practices.

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.

## Rating methodology and scorecard factors

Exhibit 13

**US states and territories rating methodology scorecard**

State of New York

| | Measure | Weight | Score |
|---|---|---|---|
| **Economy** | | | |
| Resident Income (PCI Adjusted for RPP / US PCI) | 113.5% | 15% | Aaa |
| Economic Growth (5-year CAGR real GDP - 5-year CAGR US real GDP) | -0.7% | 15% | Aa |
| **Financial performance** | | | |
| Financial performance | Aaa | 20% | Aaa |
| **Governance/Institutional Framework** | | | |
| Governance/Institutional Framework | Aa | 20% | Aa |
| **Leverage** | | | |
| Long-term liabilities ratio (adjusted long-term liabilities / own-source revenue) | 154.0% | 20% | Aa |
| Fixed-costs ratio (adjusted fixed costs / own-source revenue) | 7.9% | 10% | Aaa |
| **Notching factors** | | | |
| Very limited and concentrated economy | | | |
| Scorecard-Indicated Outcome | | | Aa1 |
| **Assigned rating** | | | Aa1 |

*Sources: US Bureau of Economic Analysis, State CAFRs, Moody's Investors Service*

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