

The New York Municipal Borrowers Guide



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This overview provides information about the major municipal borrowers in the State of New York and their bond programs. The borrowers described in this guide include some of the most established and recognized issuers in the municipal market, as well as issuers of bonds under programs that have been established more recently. They reflect the largest and most active issuers in the state, and encompass various types of debt. In many cases, a single borrower may issue debt under multiple programs that are each repaid with a different revenue source; all significant active bond programs are covered for these borrowers. While the use of bond insurance has penetrated most segments of the New York State market, underlying ratings are shown in parentheses, where available. Individual series or maturities within each of the bond programs may be insured.

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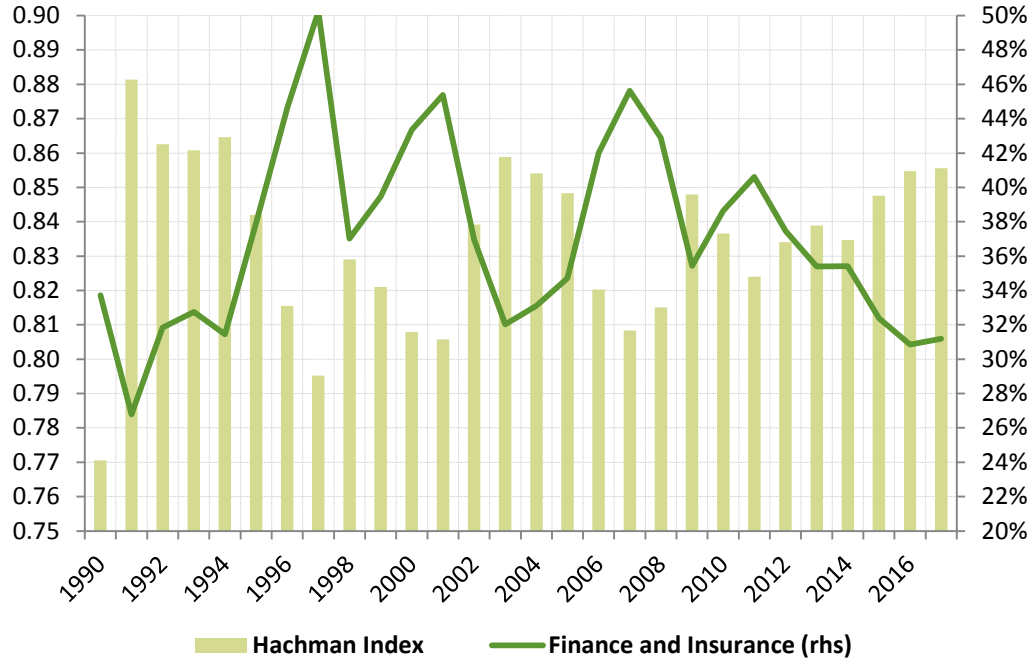
Introduction

This introduction is intended to provide an overview of the long-term economic and fiscal developments taking place in the State of New York. Several factors are weighed and counterbalanced when determining these long-term trends. In terms of the economy, unemployment and industry diversity are considered. Trends in the tax base are examined by looking at per capita income, tax burden, and shifts in adjusted gross income in and out of the state. Finally, trends in the state's fiscal position are presented in terms of liabilities and reserves.

New York has the third largest state economy in the nation as measured by personal income from private earnings, farming and government employment. While the economy is large, earnings have historically exhibited concentration in the finance and insurance industry, although the state has diversified in recent years. In 2017, 31% of New York's personal income came from this historically volatile sector, which compares to 7% nationally. The measure of the state's overall economic diversity may be derived using the Hachman Index. This is an index of similarity that measures how closely industry earnings of the subject region (New York) resembles that of the reference region (United States). The value of the index is between zero and one. As the value of the index approaches one, this means that the subject region's employment distribution among industries is more similar to that of the reference region. If the reference region is the nation, and, given the assumption that the nation's economy is diversified, a larger value of the Hachman Index relative to the nation means that a subject region is more diversified (and therefore less specialized). New York has a Hachman Index score of 0.86, suggesting its economy is less diversified compared to the average state, which is described by a median score of 0.89. However, New York's Hachman Index score has increased in recent years, up from 0.81 in 2007. Exposure to the finance and insurance industry has also had a significant influence on the state's unemployment rate in the past. In recent years the state's unemployment rate has fallen while its exposure to the finance and insurance has declined, a break from the prior trend. The charts on the following page show the trend in state's economic diversity as well as in the unemployment rate.

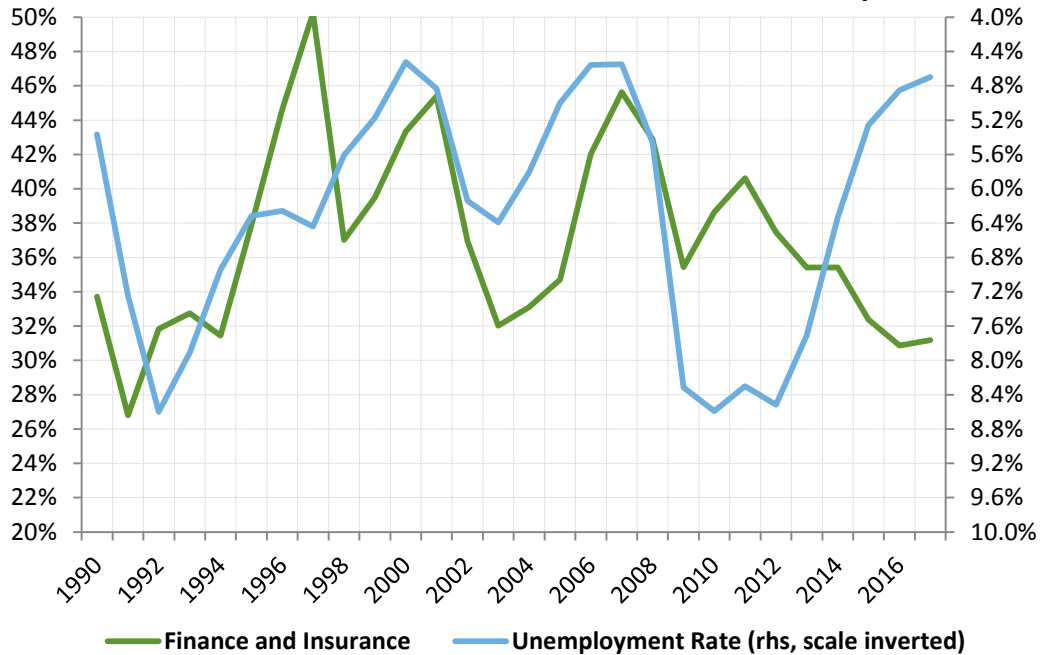
Introduction

State of New York Economic Diversity and Percent of Personal Income Derived from Finance and Insurance Industry



Source: Bureau of Economic Analysis, Bureau of Labor Statistics, Fidelity Capital Markets; March 31, 2018

State of New York Unemployment Rate and Percent of Personal Income Derived from Finance and Insurance Industry



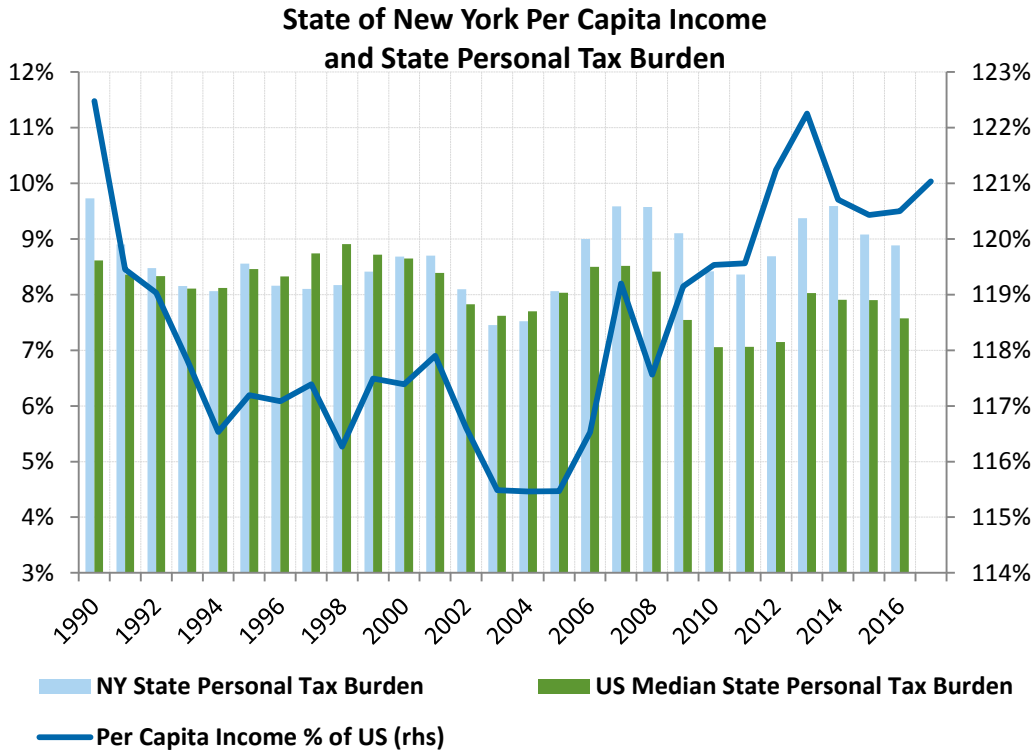
Source: Bureau of Economic Analysis, Bureau of Labor Statistics, Fidelity Capital Markets; March 31, 2018

Introduction

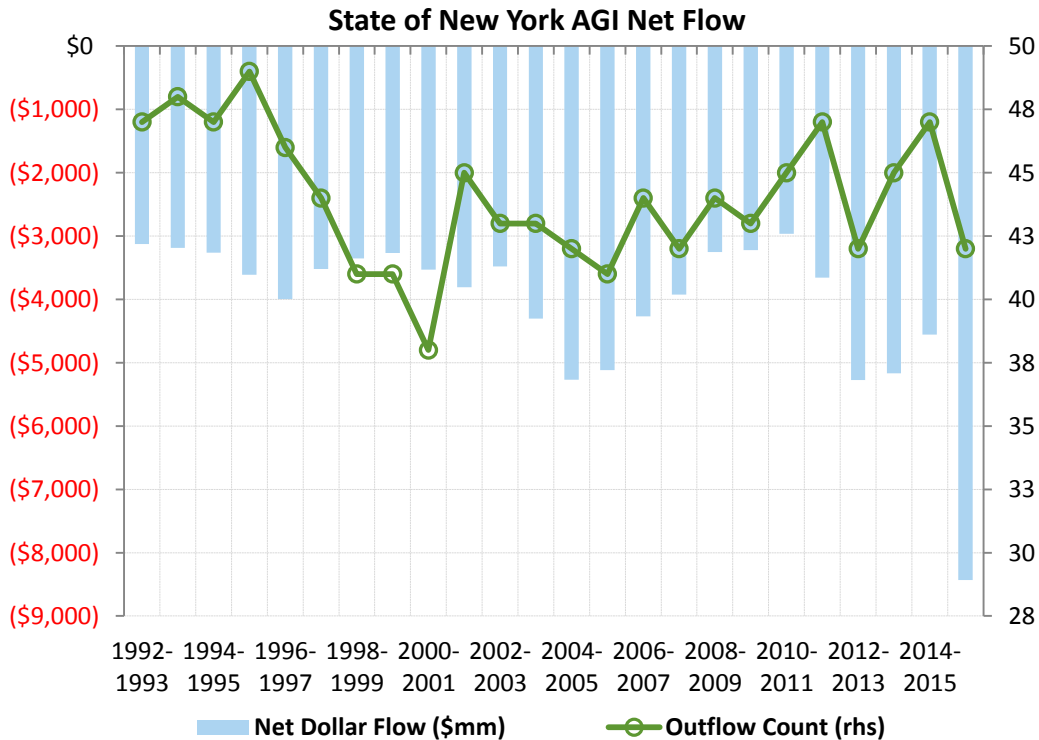
New York has the fourth highest personal income per capita, making it a relatively wealthy state. In 2017, New York's personal income per capita was 121% of the nation's. This may be partly attributed to employee compensation in the state's large finance/insurance and professional services industries. New York also had an above average state personal tax burden at 8.9% in 2016. The median for the states was 7.6%. The state personal tax burden is calculated by taking total state tax revenue excluding corporate income and severance taxes divided by total state personal income excluding federal transfer receipts. New York's progressive income tax structure places a high dependency on upper income residents, making the state's revenues more sensitive to economic cycles. For example, the share of the state's total income tax liability that came from those filers earning at least \$200,000 ranged from 42% to 64% for years 2001-2014. The highest year was 2014.

One of the consequences of New York's higher wealth, higher tax model, is that the state's tax base has exhibited outmigration in terms of shifts in adjusted gross income (AGI). Looking solely at changes in a state's population may provide limited value in this regard because it does not directly measure changes in the tax base. Rather, the migration of AGI between and among the states provides a more accurate measure of the trend in a state's tax base, in our opinion. The Statistics of Income Division of the IRS maintains records of all individual income tax forms filed in each year, including the state of residence of the filers. The data used to produce the migration statistics come from individual income tax returns and represent between 95% and 98% of total annual filings. One gauge of the degree of movement in a state's tax base is the extent to which it is on the sending or receiving end of AGI migration. The net dollar flow of AGI between New York and other states, as well as the number of inflows received from and outflows sent to every other state, provide a good indication of how New York's tax base is changing. Since the 1992-1993 period New York has experienced a net AGI outmigration of \$3.0 billion to \$8.4 billion per year. For the most recent period (2015-2016) the state lost part of its tax base to 42 other states, meaning that it had a net inflow from only 8 states. The long term trend indicates that AGI outmigration may be influenced by demographics and also fluctuates with the economic cycle. The charts on the following page illustrate the trend in the state's per capita personal income, tax burden, and tax base.

Introduction



Source: Bureau of Economic Analysis, US Census Bureau, Fidelity Capital Markets; March 31, 2018



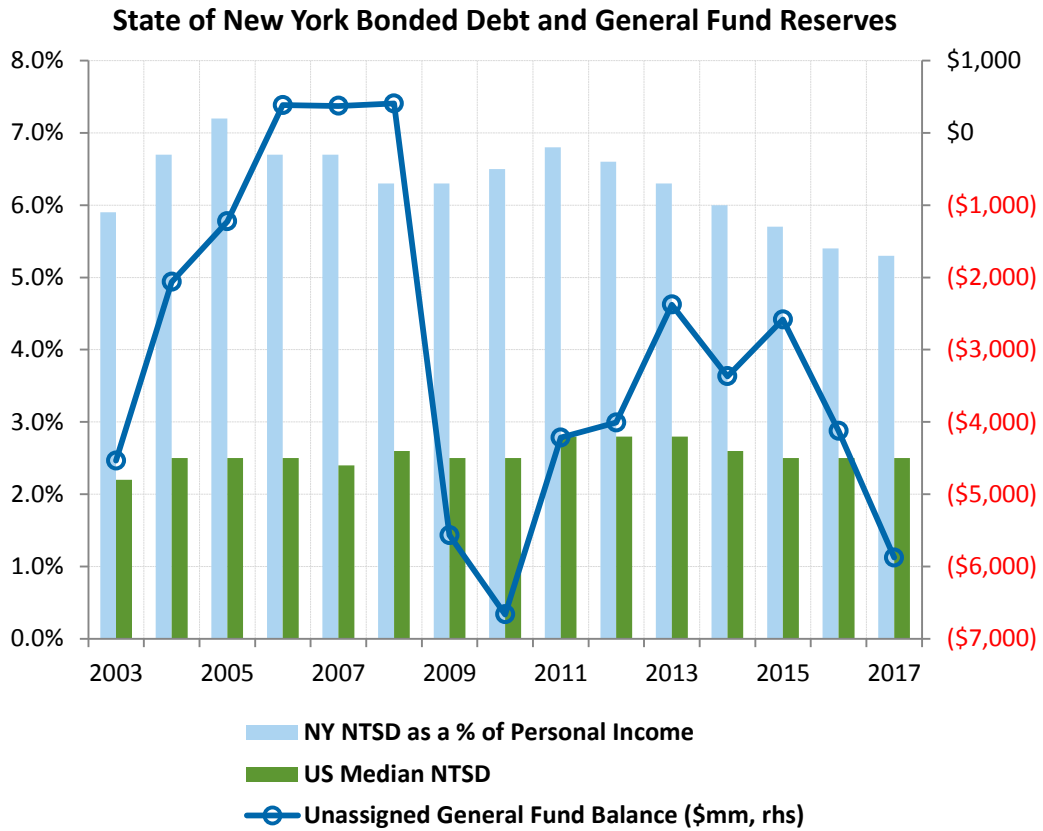
Source: IRS, Fidelity Capital Markets; March 31, 2018

Introduction

New York's wealth and large economy have enabled it to support a large and growing debt burden. Total net tax supported debt (NTSD) of \$61 billion is second highest among states, and represents 5.3% of personal income compared to the median for US states of 2.5%. The state's NTSD is also fifth highest per capita. The New York State pension system has had a history of maintaining strong funding levels. The state's adjusted net pension liability (ANPL) of \$43 billion, as calculated by Moody's, ranks the state 38th as a percentage of personal income and 29th per capita. Most states do not prefund their Other Post-employment Benefit (OPEB) liabilities and New York is no different in this respect. In fiscal year 2017 the state's OPEB payment was \$1.7 billion, but its OPEB annual required contribution was \$4.2 billion. Chronic underfunding has left the state with an unfunded OPEB liability of \$87 billion.

One measure of a state's financial flexibility is its unrestricted reserves, or the unassigned balance in its general fund plus any committed 'rainy day' fund reserves. At fiscal year end 2017, New York had an unassigned general fund balance of negative \$5.9 billion. The state ended the fiscal year with a modest committed rainy day reserve of \$540 million. The state has a policy of maintaining budget stabilization reserves at approximately 2% of revenues. While total reserves are negative, and indicate a lack of flexibility, the majority of the reported negative position is on a fully-accrued GAAP basis and is not in need of immediate remedy. In terms of immediate liquidity, budget stabilization reserves have been a consistent, albeit moderate source of support, having remained stable for more than ten years at approximately \$1 billion. The chart on the following page illustrates the trend in the state's NTSD and unassigned general fund reserve levels.

Introduction



Source: New York 2017 CAFR, Moody's, Fidelity Capital Markets; March 31, 2018

Table of Contents

State of New York:	
General Obligation Bonds.....	11
Dormitory Authority of the State of New York:	
City University System Consolidated Revenue Bonds.....	12
Court Facilities Lease Revenue Bonds (City of New York Issue).....	13
Mental Health Services Facilities Improvement Revenue Bonds.....	14
Flow of Funds.....	16
Secured Hospital Revenue Bonds.....	17
Lease Revenue Bonds (State University Dormitory Facilities Issue).....	18
State University Educational Facilities Revenue Bonds.....	19
Upstate Community College Bonds.....	20
New York Local Government Assistance Corporation (LGAC):	
LGAC Bonds.....	21
Sales Tax Asset Receivable Corporation (STAR):	
STAR Corp. Bonds.....	22
New York State Environmental Facilities Corporation:	
State Clean Water and Drinking Water Revolving Funds Revenue Bonds.....	23
State Water Pollution Control Revolving Fund Revenue Bonds.....	24
Flow of Funds.....	25
New York State Housing Finance Agency:	
Affordable Housing Revenue Bonds.....	26
New York State Thruway Authority:	
General Revenue Bonds.....	27
Highway and Bridge Trust Fund Bonds.....	29
Flow of Funds.....	30
Local Highway and Bridge Service Contract Bonds.....	31
The Port Authority of New York and New Jersey:	
Consolidate Bonds.....	32
New York Power Authority:	
Revenue Bonds.....	34
City of New York:	
General Obligation Bonds.....	35

Table of Contents (cont.)

Metropolitan Transportation Authority (MTA):	
Dedicated Tax Fund Bonds.....	36
Flow of Funds.....	37
Transportation Revenue Bonds.....	38
State Service Contract Bonds.....	40
Triborough Bridge and Tunnel Authority:	
General Purpose Revenue Bonds.....	41
Flow of Funds.....	42
New York City Health and Hospitals Corporation:	
Health System Bonds.....	43
New York City Transitional Finance Authority:	
Future Tax Secured Bonds.....	44
Flow of Funds.....	45
Building Aid Revenue Bonds.....	46
New York City Municipal Water Finance Authority:	
Revenue Bonds.....	47
Flow of Funds.....	48
New York State Personal Income Tax:	
Personal Income Tax Revenue Bonds.....	49
New York State Sales Tax:	
Sales Tax Revenue Bonds.....	51
Hudson Yards Infrastructure Corporation:	
Senior Revenue Bonds.....	53
New York Liberty Development Corporation:	
Revenue Bonds (Goldman Sachs Headquarters Issue).....	54
Long Island Power Authority:	
Electric System General Revenue Bonds.....	55
Utility Debt Securitization Authority:	
Restructuring Bonds.....	56
State of New York Mortgage Agency:	
Homeowner Mortgage Revenue Bonds.....	57
Contact Information.....	58

State of New York

General Obligation Bonds

Moody's Aa1 S&P AA+ Fitch AA+

Purpose

- Bond proceeds are used to finance various infrastructure, environmental, and transportation projects.

Security

- Full faith and credit obligation of the State of New York.

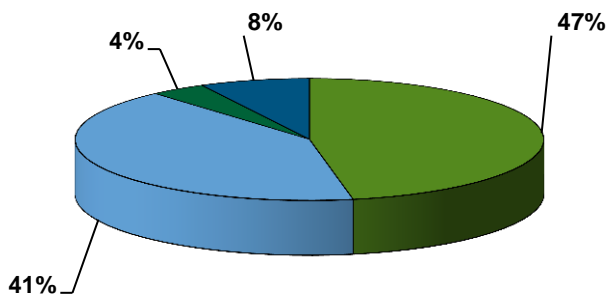
Bonds Outstanding

- \$2.5 billion as of March 31, 2017

Anticipated Borrowings

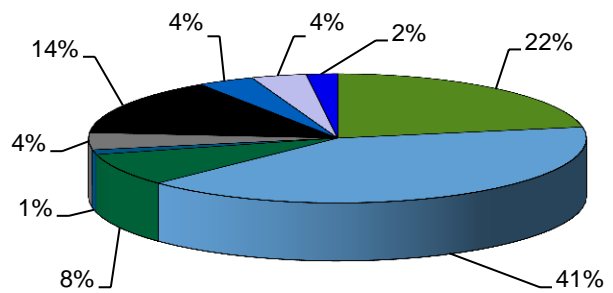
- Estimated 2018-2022 issuance is \$2.7 billion.

All Governmental Funds Revenues for the FY Ending March 31, 2017 (In Millions)
\$151,635



■ Taxes
■ Federal Grants
■ Public Health/Patient Fees
■ Other

All Governmental Funds Expenditures for the FY Ending March 31, 2017 (In Millions)
\$156,152



■ Education
■ Public Health
■ Public Welfare
■ Public Safety
■ Transportation
■ Salaries & Benefits
■ Capital Construction
■ Debt Service
■ Other

Source: State of New York Comprehensive Annual Financial Report
March 31, 2017

Dormitory Authority of the State of New York

City University System Consolidated Revenue Bonds

Moody's NR S&P AA Fitch AA

Purpose

- Bond proceeds are used to finance capital projects of the City University of New York, which includes 13 senior colleges and six community colleges.

Security

- Debt service is payable from annually appropriated rental payments made by the State and the City. The State's share of rental payments is 100% of debt service on senior college bonds and 50% of debt service on community college bonds.
- The State Comptroller must use money that has been appropriated for operating expenses of the senior and community colleges to pay debt service. Failure by the City to appropriate would require that the State Comptroller first use the City's per capita State aid to pay debt service on the bonds up to a limit of \$65 million annually; then the State Comptroller would use money that had been appropriated for operating expenses of the senior and community colleges to pay debt service. Revenues generated by the university system are not pledged as security for the bonds, nor are they used to pay debt service.

Bonds Outstanding

- \$4.4 billion as of March 31, 2018 for senior colleges
- \$561 million as of March 31, 2018 for community college

Debt Service Reserve Fund

- No Debt Service Reserve Fund has been established under the Fifth General Resolution.

Anticipated Borrowings

- None specified.

Dormitory Authority of the State of New York

Court Facilities Lease Revenue Bonds (City of New York Issue)

Moody's Aa2 S&P AA- Fitch AA-

Purpose

- Bond proceeds were used for the purpose of financing the design and construction of various court facilities located in New York City.

Security

- Debt service on the bonds is payable from rental payments made by the City, subject to annual appropriation. In the event the City fails to make the required rental payments, the State Comptroller is directed to make the rental payments from annually appropriated State assistance provided to the City.

Bonds Outstanding

- \$461 million as of March 31, 2018

Anticipated Borrowings

- None specified.

Debt Service Reserve Fund

- The Debt Service Reserve Fund must be fully funded in an amount equal to MADS.



Dormitory Authority of the State of New York

Mental Health Services Facilities Improvement Revenue Bonds

Moody's NR S&P AA Fitch AA

Purpose

- Bond proceeds are used to finance capital needs at numerous mental health facilities throughout the State. Currently, the State operates over 50 mental health centers that treat psychiatric patients ranging from intellectual disability to alcohol abuse.

Debt Service Reserve Fund

- No Debt Service Reserve Fund for Series 2007 A - D Bonds.

Outstanding Debt

- \$3.5 billion as of March 31, 2018

Anticipated Borrowings

- None specified.

Dormitory Authority of the State of New York

Mental Health Services Facilities Improvement Revenue Bonds (cont.)

Moody's NR S&P AA Fitch AA

Security

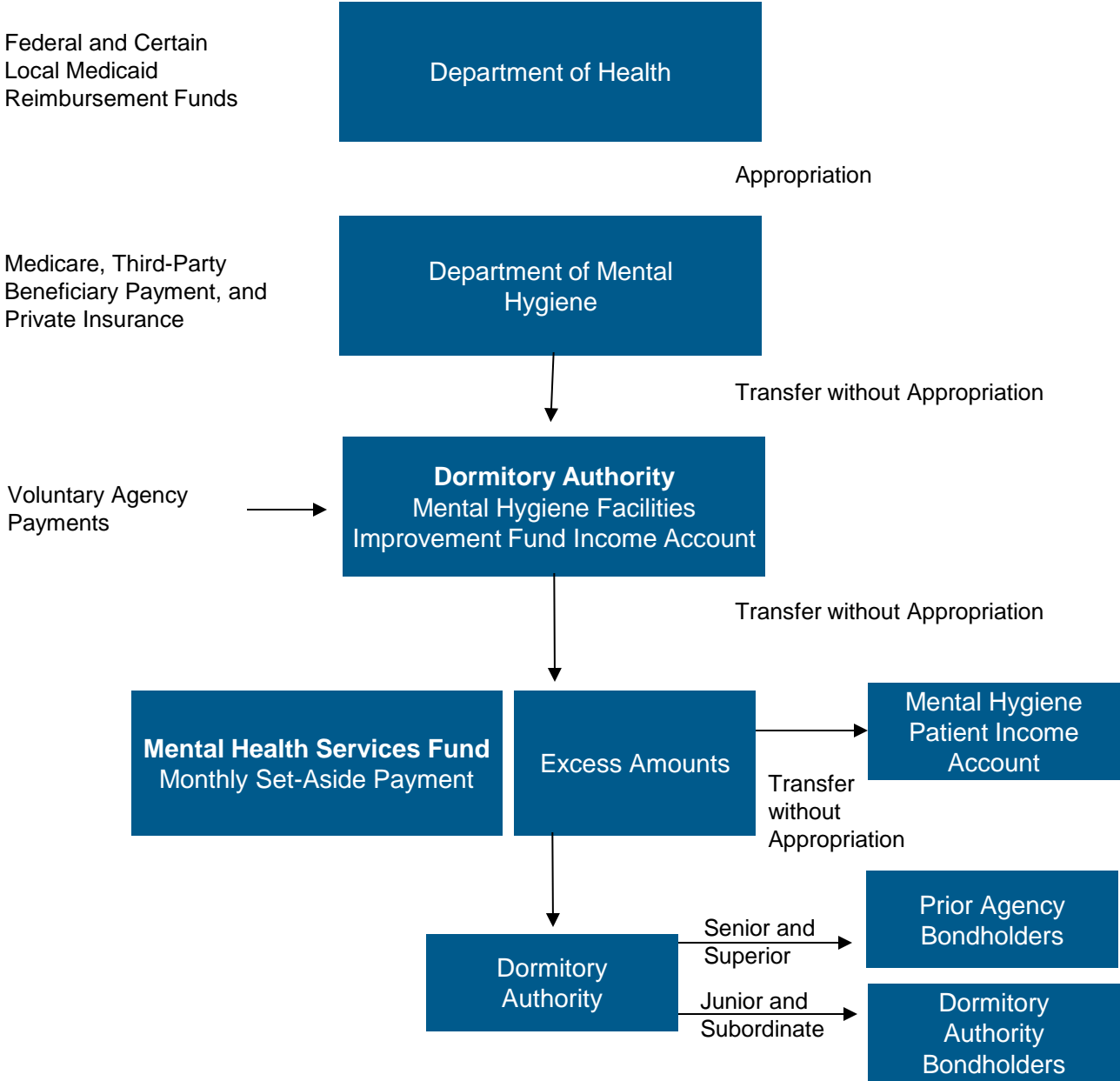
- The Authority and the Department have entered into the Financing Agreement to provide funding of the Voluntary Agency Facilities for the payment of annual payments. The annual payments are subject to annual appropriations by the State. Annual payments are expected to be derived from mental hygiene patient care income and other sources.

Security (cont.)

- Debt service on the bonds is payable from certain gross revenues generated through patient care and is subordinate to debt service paid on New York State Medical Care Facilities Finance Agency prior bonds issued under the same program. All Medicare, commercial, and private insurance revenues are held at the Department of Mental Hygiene ("DMH"). Federal Medicaid revenues are transferred to the DMH. The DMH automatically transfers such reimbursement amounts to the Authority. Each month, the Comptroller sets aside 20% of the amounts due on the next debt service date to the Mental Health Service Fund. In effect, the full amount due on the next debt service date is escrowed for payment. Any monthly excesses are then transferred to the Mental Health Agency to fund operations.

Dormitory Authority of the State of New York

Flow of Funds Mental Health Services Facilities Improvement Revenue Bonds (cont.)



Source: Official Statement
Chart for illustrative purposes only

Dormitory Authority of the State of New York

Secured Hospital Revenue Bonds

Moody's Aa2 S&P AA Fitch AA

Purpose

- Bond proceeds are used to finance facility rebuilding and modernization projects for not-for-profit hospitals determined by the State Commissioner of Health to be in financial distress.

Security

- The bonds are secured by the gross receipts of each hospital, including a first mortgage lien on its property. Pursuant to a service contract, the bonds are further secured by the State's pledge to pay debt service on the bonds should revenues be inadequate. The State's pledged payments are subject to annual appropriation.

Bonds Outstanding

- \$193 million as of March 31, 2018

Anticipated Borrowings

- None specified.

Debt Service Reserve Fund

- The Capital Reserve Fund must be equal to MADS and the Special Debt Service Reserve Fund (SDSRF) must be equal to one-half MADS. The State is not required to maintain the SDSRF at its required amount.

Dormitory Authority of the State of New York

Lease Revenue Bonds (State University Dormitory Facilities)

Senior: Moody's Aa2 S&P AA- Fitch AA-
Subordinate: Moody's Aa3 S&P A+ Fitch A+

Purpose

- Bond proceeds are used to finance the construction, maintenance, and repair of various university buildings.

Bonds Outstanding

- Senior: \$682 million as of March 31, 2017
- Subordinate: \$1.0 billion as of March 31, 2017

Rate Covenant

- The University is required to maintain Dormitory Facilities Revenue at 1.0X annual debt service on the subordinate bonds. The senior bonds do not have a rate covenant.

Additional Bonds Test

- Dormitory Facilities Revenues in each of the prior two fiscal years are required to cover MADS on the outstanding subordinate Bonds and the proposed Bonds by 1.2X.

Debt Service Reserve Fund

- None.

Security

- The obligation to pay the senior Bonds is a general obligation of the University, payable from all legally available funds. The University will deposit Dormitory Facilities Revenue into the Taxation and Finance Fund (T&F Fund). Dormitory Facilities Revenue consist of all rents, fees, and charges received by the University from students and other persons for the use and occupancy of the Dormitory Facilities.
- The subordinate Bonds are payable solely from the Dormitory Facilities Revenues, subject only to the pledge of the senior Bonds, and without the benefit of the University's general obligation pledge.
- The subordinate Bonds are issued under a separate resolution; the senior resolution is closed.

Anticipated Borrowings

- None specified.

Dormitory Authority of the State of New York

State University Educational Facilities Revenue Bonds

Moody's Aa2 S&P AA Fitch AA

Purpose

- Bond proceeds are used to finance capital projects of the State University of New York ("SUNY").

Security

- Debt service is payable from annual appropriations made by the State equal to debt service on the bonds. If no appropriation is made, the State Comptroller is directed to use monies that have been appropriated for SUNY operating expenses to pay debt service.
- Payments for certain obligations are not available for obligations issued under other resolutions.

Bonds Outstanding

- \$8.1 billion as of June 30, 2017

Debt Service Reserve Fund

- The Debt Service Reserve Fund must be maintained at one-half MADS.
- None for Series 2002 A-B Bonds.

Dormitory Authority of the State of New York

Upstate Community College Bonds

Moody's NR S&P AA Fitch AA

Purpose

- Bond proceeds are used to finance capital projects of the 30 upstate community colleges within the State and refund bonds.

Security

- Debt service is payable solely from annual appropriations made by the State. The State Education Law now authorizes the Authority to enter into a single agreement with the State University of New York for the purpose of receiving amounts appropriated by the State for the Pledge Fund. The University is obligated to pay the annual payments solely from monies appropriated and is not required to make payments from any other funds, even if the amount appropriated by the State is not sufficient.
- The bonds and bonds issued pursuant to the Prior Resolutions are not on parity with respect to each other. The annual payments made pursuant to the Community College Agreements have a priority over payments required pursuant to the Financing Agreement. Therefore, in the event the State only appropriates sufficient monies for the Prior Resolution Bonds, there would be insufficient funds for the Resolution bonds.

Bonds Outstanding

- \$850 million as of March 31, 2018

Debt Service Reserve Fund

- The Debt Service Reserve Fund must be maintained at one-half MADS for Prior Resolution Bonds. None for Resolution Bonds.

Anticipated Borrowings

- None specified.

New York Local Government Assistance Corporation (LGAC)

LGAC Bonds

Moody's Aa1 S&P AAA Fitch AA+

Purpose

- Proceeds from the LGAC bonds were used to accelerate local assistance payments. LGAC was authorized to issue \$4.7 billion in long-term bonds, the amount of the State's accumulated deficit related to local aid, plus issuance and related costs.

Bonds Outstanding

- \$1.8 billion as of March 31, 2017

Debt Service Reserve Fund

- Senior – MADS of Senior Bonds.
- Subordinate – ½ MADS of Subordinate Bonds.

Anticipated Borrowings

- None specified.

Security

- The senior lien bonds are secured by 1% of the State's 4% sales tax. All revenues derived from the 1% sales tax are required to be deposited in the Local Government Assistance Tax Fund (LGATF). LGAC bond debt service is paid from the LGTAF, subject to annual appropriation by the State. If an appropriation has been made and all payments are current, then the Comptroller is required to distribute excess monies to the General Fund of the State. In addition, the Capital Reserve Fund for the Senior Bonds can be used only for the Senior Bonds.
- The 1% of the State's 4% statewide sales tax that is dedicated to LGAC and STAR Corp. is segregated from a separate 1% dedicated to the Sales Tax Revenue Bond Tax Fund (STRBTF), which secures the State's Sales Tax Revenue Bonds, issued by various State authorities. The LGATF is a separate and distinct fund and the STRBTF has no prior claim on the receipts deposited into the LGATF.

Sales Tax Asset Receivable Corporation (STAR)

STAR Corporation Bonds

Moody's Aa1 S&P AAA Fitch AA+

Purpose

- The bonds were originally issued to refund outstanding debt of the Municipal Assistance Corporation. The STAR Corp. is a private not-for-profit corporation set up by the City of New York under the Not-For Profit Corporation Law of the State of New York.

Bonds Outstanding

- \$1.9 billion as of June 30, 2017

Debt Service Reserve Fund

- None

Security

- The STAR security structure is governed by the Local Government Assistance Corp. structure. The Local Government Assistance Tax Fund (LGATF) receives 1% of the State's 4% statewide sales tax. STAR Corp. bond debt service is paid from the LGTAF, subject to annual appropriation by the State. STAR Corp. bond debt service is subordinate to LGAC debt service.
- The 1% of the State's 4% statewide sales tax that is dedicated to LGAC and STAR Corp. is segregated from a separate 1% dedicated to the Sales Tax Revenue Bond Tax Fund (STRBTF), which secures the State's Sales Tax Revenue Bonds, issued by various State authorities. The LGATF is a separate and distinct fund and the STRBTF has no prior claim on the receipts deposited into the LGATF.

Anticipated Borrowings

- None specified.

New York State Environmental Facilities Corporation

State Clean Water and Drinking Water Revolving Funds Revenue Bonds (Pooled Financing Program)

Moody's Aaa S&P AAA Fitch AAA

Purpose

- The State Revolving Fund programs were created in New York State to accept federal grants and State matching funds, which are used to reduce financing costs for recipients in financing those water pollution control projects and community water systems, by providing interest subsidies and reserves.

Bonds Outstanding

- \$1.3 billion as of September 30, 2017

Anticipated Borrowings

- None specified.

Security

- The borrowers are obligated to make debt service payments on the bonds, which are general obligation debt of the borrowers. The State has also established an intercept program, under which the State Comptroller may withhold State aid of the deficient borrower in order to make payments on the bonds. Additional security is provided through reserves made up of a portion of federal grants and state matching funds at least equal to 33 1/3% to 50% of the outstanding principal amount of the loans. Monies released from individual debt reserve accounts are to be deposited into the General Reserve Fund. This General Reserve Fund must be maintained at a level equal to the aggregate of all deficiencies in the individual Debt Service Reserve Funds (if any) and is available to secure all bonds issued under the MFI.

New York State Environmental Facilities Corporation

State Clean Water and Drinking Water Revolving Funds Revenue Bonds (NYCMWFA Projects)

Moody's Aaa S&P AAA Fitch AAA

Purpose

- To provide financial assistance to the New York City Municipal Water Finance Authority (NYCMWFA) for water pollution control and drinking water projects.

Security

- The bonds are special obligations of the borrower, in this case NYCMWFA, and are secured by a net revenue pledge of the Authority. This pledge is subordinate to NYCMWFA's Water and Sewer Revenue Bonds. The bonds are further secured by a secondary lien on General Reserve Fund monies derived from excess funds, which consist of a portion of federal grants and state matching funds equal to 33 1/3% to 50% of the outstanding principal amount of the loans. In general, the subordinate bonds are not secured by a reserve allocation.

Bonds Outstanding

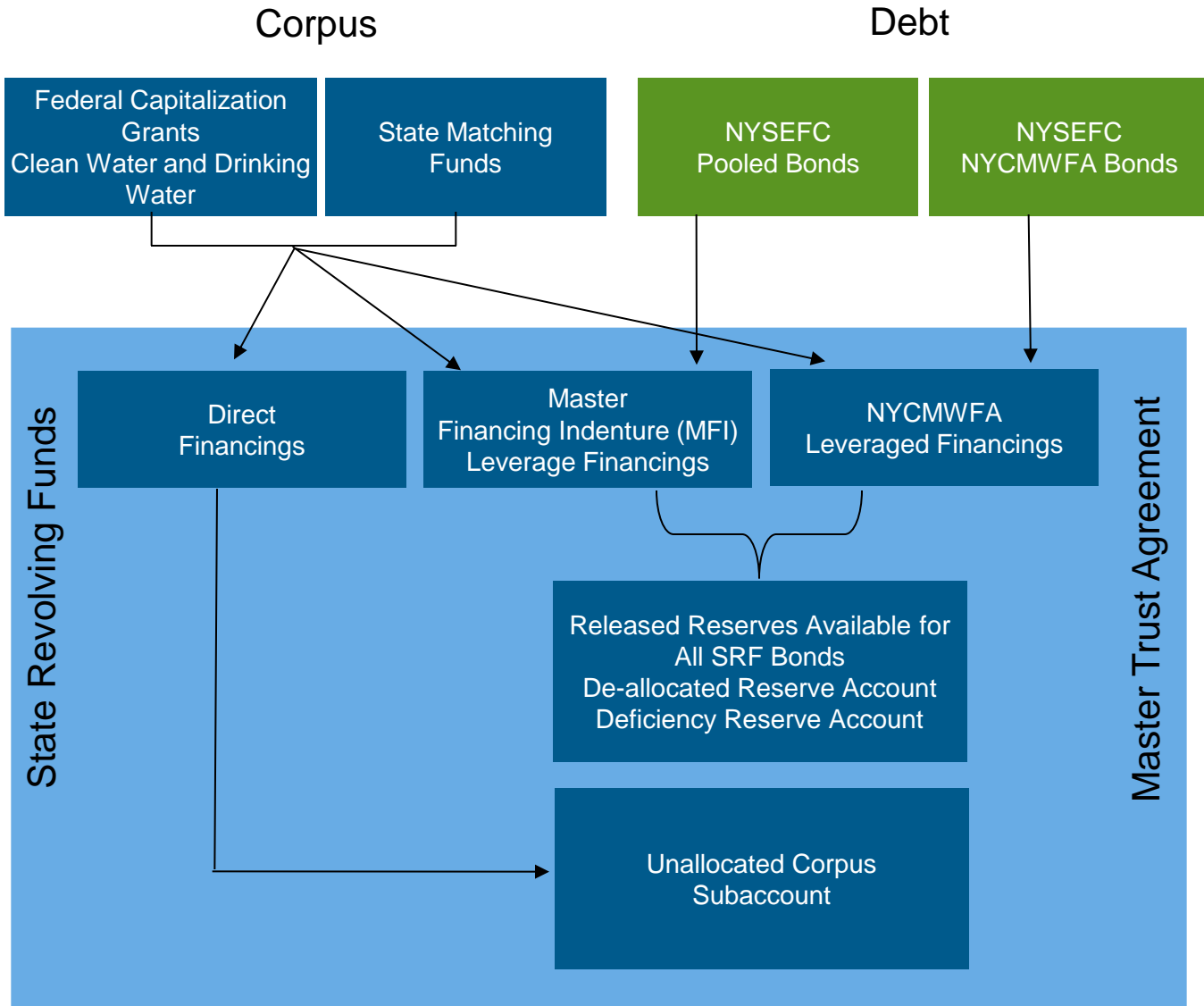
- \$4.3 billion as of September 30, 2017

Anticipated Borrowings

- None specified.

New York State Environmental Facilities Corporation

SRF Program Overview*



*Simplified for illustrative purposes.

Source: Official Statement

Affordable Housing Revenue Bonds

Moody's Aa2 S&P NR Fitch NR

Purpose

- The Bonds are issued to provide safe and sanitary housing accommodations, at rentals which families and persons of low income can afford, and which the ordinary operations of private enterprise cannot provide.

Security

- The Bonds secured by the Revenues, the Funds and Accounts under the General Resolution and the Program Assets. Program Assets include Mortgage Loans financed with proceeds of Bonds and Revenues include payments under the Mortgage Loans.

Bonds Outstanding

- \$2.8 billion as of January 31, 2018

Debt Service Reserve Fund

- Varies by Bond issue

Additional Bonds Test

- None

Anticipated Borrowings

- None specified.

Redemption Provisions

- The Bonds may be redeemed at the option of the Agency from Recovery Payments, Mortgage Advance Amortization Payments and Voluntary Sale Proceeds.

New York State Thruway Authority

General Revenue Bonds

Senior: Moody's A2 S&P A Fitch NR
Junior: Moody's A3 S&P A- Fitch NR

Purpose

- Bond proceeds are used for the construction and maintenance of the New York Thruway, a 64-mile toll road that runs from New York City to Buffalo and includes various bridges and barriers. Since 1992, the Authority has also owned and operated the New York State Canal System, which includes 524 miles of canals, and six transportation-related projects along the Thruway (known as "Other Authority Projects").

Security

- The bonds are a direct and general obligation of the Authority, secured by net revenues generated from the operation of the New York Thruway. However, revenues generated from canal operations are not pledged as security for the bonds. Excess revenues are retained by the Authority and not transferred to the State.

Bonds Outstanding

- Senior: \$3.2 billion as of December 31, 2017
- Junior: \$2.4 billion as of December 31, 2017

Anticipated Borrowings

- Estimated 2018-2022 issuance is \$897 million.

General Revenue Bonds (cont.)

Senior: Moody's A2 S&P A Fitch NR
Junior: Moody's A3 S&P A- Fitch NR

Rate Covenant

- Under its bond Resolution, the Authority must maintain tolls, fees, and other charges so that net revenues equal the greater of: (a) aggregate debt service, necessary deposits to the Senior Debt Service Reserve Fund, annual reserve maintenance payments, and deposit in the Junior Indebtedness Fund; or (b) 1.20X aggregate debt service. As a matter of policy, the Authority requires net revenues to provide at least 1.50X debt service coverage. State approval is not required to increase tolls.

Senior Debt Service Reserve Fund

- Required to be maintained at MADS. Requirement may be met with a reserve credit facility/surety bond.

Additional Bonds Test

- The Authority may issue additional parity General Revenue Bonds payable from the Senior Debt Service Fund. It may also issue Junior Bonds for facilities or other Authority projects payable from the Junior Indebtedness Fund and subordinated bonds. Bonds may be issued in several categories, each of which has a separate net revenue requirement. Additional bonds for facilities can be issued in the event net revenues for any period of 12 consecutive months out of the last 18 months preceding the issuance of the bonds provides the greater of 1) aggregate debt service, deposits to the Senior Debt Service Reserve Fund, reserve maintenance payments and deposits in the Junior Indebtedness Fund and 2) 1.2x the sum of the Aggregate Debt Service.

Highway and Bridge Trust Fund Bonds

Moody's NR S&P AA Fitch AA+

Purpose

- Bond proceeds are used to reimburse the State for expenditures made by the Department of Transportation to construct, repair, and rehabilitate the State's highways, parkways, and bridges.

Bonds Outstanding

- \$1.6 billion as of December 31, 2017

Debt Service Reserve Fund

- Required to be funded at one-half MADS.

Anticipated Borrowings

- None specified.

Security

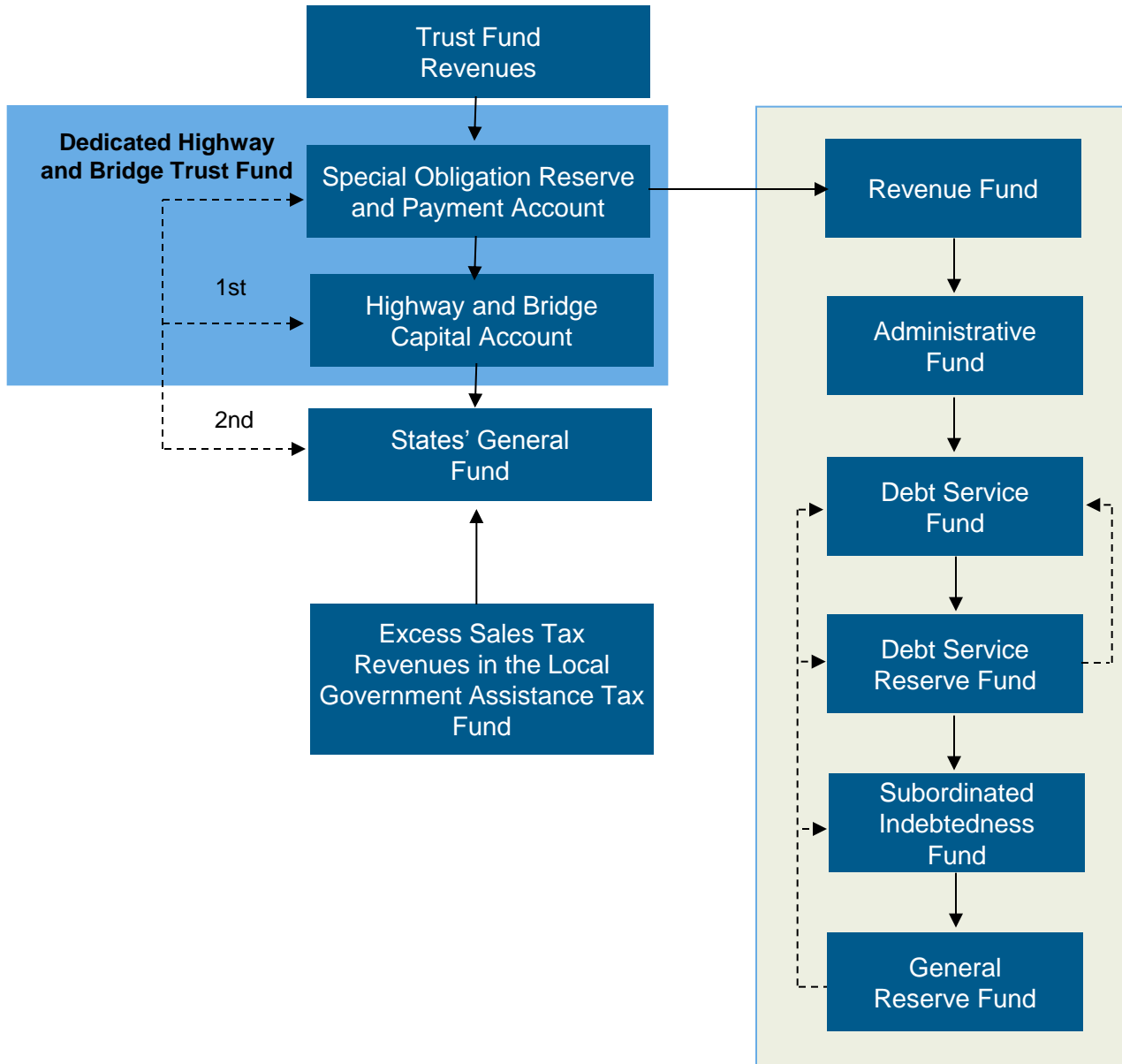
- The bonds are secured by a pledge of Cooperative Agreement Payments made by the State to the Authority from funds in the Dedicated Highway and Bridge Trust Fund. The payments are a statutory allocation of taxes and fees imposed on petroleum businesses, motor fuel, highway use, motor vehicles, and auto rentals. The payments are subject to annual appropriation by the State Legislature.

Security (cont.)

- The Trust Fund consists of two accounts, the Special Obligation Reserve and Payment Account (SORPA) and the Highway and Bridge Capital Account (HBCA). The revenues are deposited first in the SORPA and shall be used by the Comptroller to make payments. The amounts certified are required to be sufficient to cover debt service and Authority expenses. After making the payment, excess funds can be transferred to the HBCA.
- In the event the payments are not appropriated, all revenues must remain in the SORPA and not be transferred to the HBCA. In addition, the Comptroller would be prohibited from paying over or distributing any excess revenues in the Local Government Assistance Tax Fund to the State's General Fund.

New York State Thruway Authority

Flow of Funds Highway and Bridge Trust Fund Bonds (cont.)



Source: Official Statement
Chart for illustrative purposes only

Local Highway and Bridge Service Contract Bonds

Moody's NR S&P AA Fitch AA

Purpose

- Under this program, the Authority issues bonds to fund four distinct local transportation aid programs to reimburse municipalities throughout New York State for qualifying capital expenditures. These aid programs are: Consolidated Local Street and Highway Improvement Program ("CHIPS"); Suburban Highway Improvement Program ("SHIPS"); the Marchiselli Program (formerly called the Municipal Streets and Highway Program); and the Multi-Modal Program. Use of the Authority as the vehicle for financing local transportation aid allows the State to issue tax-backed debt that is not subject to voter approval.

Bonds Outstanding

- \$219 million as of December 31, 2017

Debt Service Reserve Fund

- None.

Security

- The Service Contract obligates the State, subject to annual appropriation by the State Legislature, to make payments to the Authority for debt service on all bonds.

Anticipated Borrowings

- None specified.

The Port Authority of New York and New Jersey

Consolidated Bonds

Moody's Aa3 S&P AA- Fitch AA-

Purpose

- Bond proceeds are generally issued to construct, reconstruct, or improve existing and proposed Authority facilities. The Port Authority serves a district comprising an area of about 1,500 square miles located in New Jersey and New York State, centering around New York Harbor. The Port Authority operates two tunnels, four bridges, four airports, bus programs, a bus terminal, a heliport, six marine terminals, as well as several other facilities.

Security

- The bonds are secured by a pledge of the Authority's net revenues, which are derived from the operation of all the Authority's facilities. Neither the State of New York or New Jersey have granted any form of guarantee to the Authority's bonds.

Bonds Outstanding

- \$20.4 billion as of March 1, 2017

Tax Exemption

- In addition to being federally tax exempt, interest on the bonds is exempt from taxation in both New York and New Jersey.

Consolidated Bonds (cont.)

Moody's Aa3 S&P AA- Fitch AA-

Debt Service Reserve Fund

- The Authority maintains two reserve funds: The General Reserve Fund and the Consolidated Bond Reserve Fund. Both are funded from surplus net revenues after payment of debt service. The General Reserve Fund is filled first, to an amount equal to 10% of the par value of bonds currently outstanding. It is available to pay debt service only on consolidated bonds. The Consolidated Bond Reserve Fund is to be funded with excess monies after the required payments. Monies in the Consolidated Reserve Fund are available to pay debt service on consolidated bonds, versatile structure obligations, commercial paper and variable rate master notes.

Additional Bonds Test

- None.

Anticipated Borrowings

- Estimated 2017-2026 issuance is \$11.3 billion.

Revenue Bonds

Moody's Aa1 S&P AA Fitch AA

Purpose

- Bonds finance electric power generation and transmission facilities used to provide electric power and energy primarily to municipal and investor-owned utilities and rural electric cooperatives located throughout New York State and to industries, other businesses, and various public corporations within the New York City metropolitan area and certain out-of state customers.

Security

- The bonds are payable from and secured by a senior lien pledge of the Trustee estate. Debt service is payable from operating revenues net of operating expenses.

Rate Covenant

- The Authority shall maintain rates, fees, or charges sufficient, together with other monies available, to pay operating expenses of the Authority and debt service on all obligations.

Bonds Outstanding

- \$827 million as of June 30, 2017

Anticipated Borrowings

- Estimated 2018-2021 issuance is \$1.3 billion.

Debt Service Reserve Fund

- None.

Additional Bonds Test

- None.

General Obligation Bonds

Moody's Aa2 S&P AA Fitch AA

Purpose

- The City issues General Obligation bonds for various capital projects in areas such as facilities, education, and transportation.

Security

- Full faith and credit of the City.

Bonds Outstanding

- \$37.9 billion as of June 30, 2017

Anticipated Borrowings

- Estimated 2018-2022 issuance is \$20.2 billion.

Metropolitan Transportation Authority (MTA)

Dedicated Tax Fund Bonds

Moody's NR S&P AA Fitch AA

Purpose

- Bond proceeds are used to finance the various capital programs of the Authority and its affiliates and their subsidiaries, which include the New York City Transit Authority, the Manhattan and Bronx Surface Transit Operating Authority, the Staten Island Rapid Transit Operating Authority, the Long Island Rail Road Company, and the Metro-North Commuter Railroad Company.

Bonds Outstanding

- \$5.0 billion as of December 31, 2016

Debt Service Reserve Fund

- None.

Anticipated Borrowings

- None specified.

Security

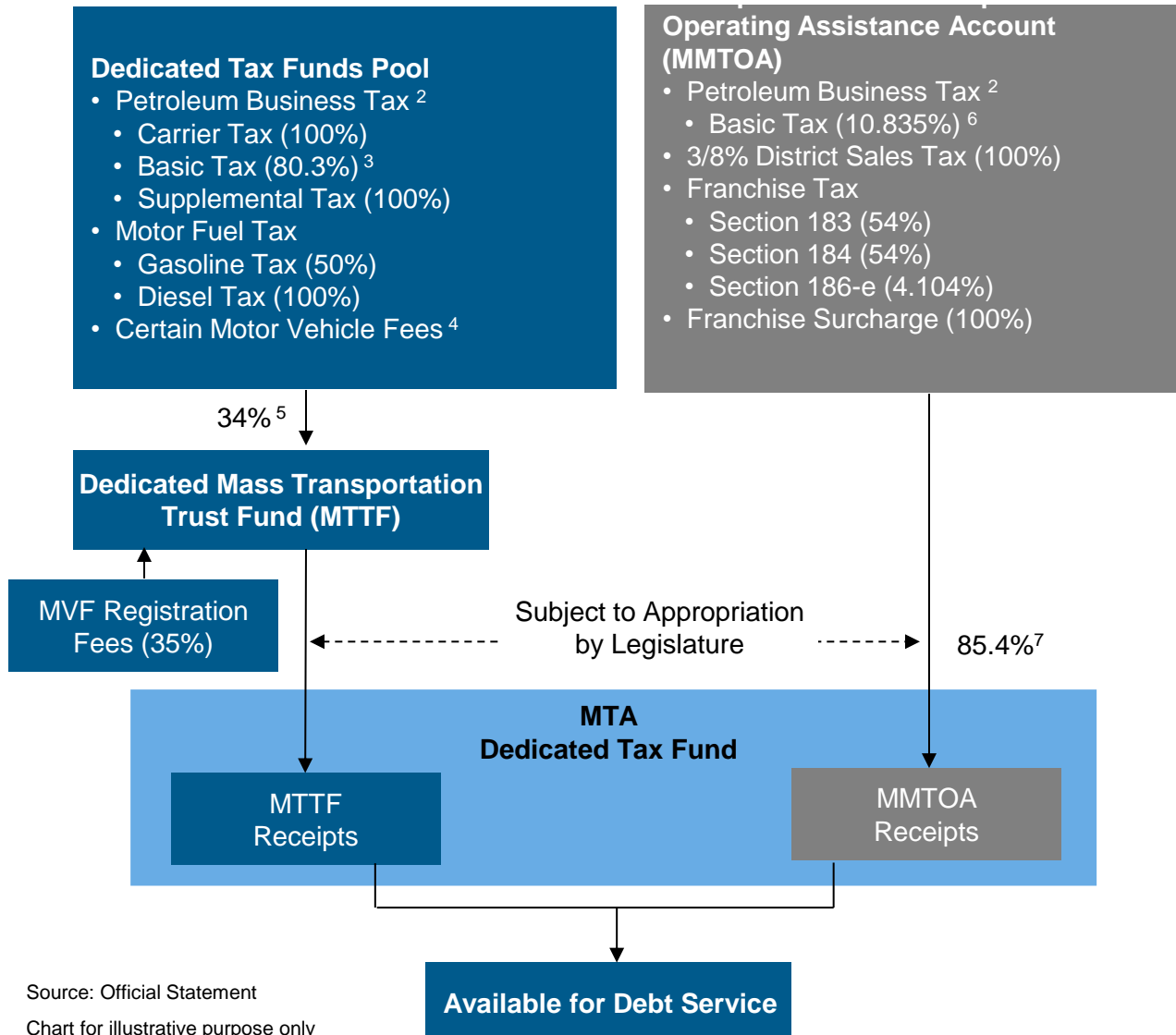
- Bonds are secured by monies deposited into the MTA Dedicated Tax Fund, which are subject to annual appropriation by the State. Certain taxes flow through the Dedicated Mass Transportation Trust Fund ("MTTF") and the Metropolitan Mass Transportation Operating Assistance Account ("MMTOA") for deposit into the MTA Dedicated Tax Fund. These taxes include petroleum business taxes, the 3/8 district sales tax in New York City and surrounding suburban counties, motor tax, franchise taxes, and a temporary franchise surcharge levied on certain companies.

Additional Bonds Test

- Two-tiered test requires that for any 12 consecutive months ended within the prior six months: (1) MTTF receipts and investment income be at least equal to 1.35X MADS; and (2) MTTF receipts, MMTOA receipts, and investment income be at least 2.5X MADS.

Metropolitan Transportation Authority (MTA)

Sources of Revenue MTA Dedicated Tax Fund Bonds (March 31, 2018)¹



¹ Parenthetical amounts and percentages, as well as flow of fund percentages, indicate the amount or percent of that tax or fund to be deposited for the year ending March 31, 2018 in the respective fund or account. The allocations shown may be changed at any time by the Legislature..

² Effective December 1, 2017, all receipts from aviation fuel will be directed to an aviation purpose account, from which no revenue is directed to MTTF or MMTOA. Currently, aviation fuel receipts are part of the Basic Tax. The impact in State fiscal year 2017-2018 is projected to result in a reduction of \$1.0 million for MTTF and \$0.4 million for MMTOA.

³ In addition, the first \$7.5 million of the Basic Tax is appropriated to the Dedicated Tax Funds Pool prior to any percentage split of the Dedicated Tax Funds Pool.

⁴ Beginning with the State fiscal year 2014-2015, and each year thereafter, a portion of the State fiscal year 2013-2014 Motor Vehicle General Fund transfer of \$169.4 million has been replaced with a direct transfer of \$62.7 million from the State General Fund to the MTTF; \$57.7 million of such amount flows to the MTA Dedicated Tax Fund as MTTF Receipts as defined in the DTF Resolution.

⁵ Percentage of Dedicated Tax Funds Pool.

⁶ The remaining 8.865% share of the Basic Tax is deposited in an account for certain upstate transportation entities.

⁷ Percentage based upon appropriations for State fiscal year 2017-2018

Metropolitan Transportation Authority (MTA)

Transportation Revenue Bonds

Moody's A1 S&P A+ Fitch AA-

Purpose

- Bond proceeds are used primarily to make improvements to the mass transportation systems located within New York City, including the MTA's subsidiary, the New York City Transit Authority ("Transit Authority"), and its subsidiary, the Manhattan and Bronx Surface Transit Operating Authority ("MaBSTOA"). These two entities operate all subway transportation and most public bus transportation within the City.

Security

- The bonds are secured by pledged revenues that include fare collections of the Transit Authority and the MaBSTOA; income from concessions and advertising; reimbursement by New York City for special fare programs; operating subsidies provided by New York State and New York City from their general funds; special tax-supported operating subsidies (petroleum business taxes, 1/4% sales and use tax within the service area, certain taxes imposed on particular companies, and certain transfer and recording taxes); and transfers from the Triborough Bridge and Tunnel Authority ("TBTA") operating surplus. Payment of debt service is senior to payment of operating and maintenance expenses.

Bonds Outstanding

- \$21.2 billion as of December 31, 2016

Debt Service Reserve Fund

- The Bond Debt Service Reserve Account must be maintained at MADS.

Anticipated Borrowings

- Estimated 2018-2021 new money issuance is \$9.6 billion.

Metropolitan Transportation Authority (MTA)

Transportation Revenue Bonds (cont.)

Moody's A1 S&P A+ Fitch AA-

Additional Bonds Test

- Subject to a statutory ceiling, the MTA may issue additional new money bonds if: (1) Transit Authority and MaBSTOA operating revenues are projected to be at least equal to MADS plus O&M expenses less non-fare box revenues and federal operating subsidies for the current and next three years; (2) operating revenues are at least 4.0X MADS; (3) operating revenues and non-fare box revenues for 12 consecutive of the most recent 15 months are at least 4.0X MADS for existing and proposed debt; and (4) operating revenues for any 12 consecutive of the last 15 months are at least 3.0X MADS for all indebtedness. Refunding bonds may be issued if MADS for existing and proposed debt will be equal to or lower than MADS prior to the issuance of refunding debt.

Rate Covenant

- The Transit Authority and the MaBSTOA must fix and collect fares, fees, rentals, and other charges that, together with other available monies, will be sufficient to pay debt service, maintain reserves at required levels and pay all operating and maintenance expenses and other obligations.

Metropolitan Transportation Authority (MTA)

State Service Contract Bonds

Moody's Aa2 S&P AA Fitch AA

Purpose

- Bond proceeds were used to finance certain projects operated by the MTA's affiliates and subsidiaries.

Security

- Debt service is payable from annual appropriations made by the State from its General Fund under service contracts with the Authority. The annual appropriations are set equal to debt service requirements.

Bonds Outstanding

- \$145 million as of December 31, 2016

Anticipated Borrowings

- None specified.

Debt Service Reserve Fund

- None.

Triborough Bridge and Tunnel Authority

General Purpose Revenue Bonds

Moody's Aa3 S&P AA- Fitch AA-

Purpose

- Bonds are issued to improve, rehabilitate, and reconstruct various facilities of the TBTA, including toll bridges and tunnels in New York City, the Battery Parking Garage, and the Coliseum. The Authority is an affiliate of the MTA and operates as the MTA Bridges and Tunnels.

Bonds Outstanding

- Senior Lien - \$6.8 billion as of December 31, 2016
- Subordinate Lien - \$1.5 billion as of December 31, 2016

Debt Service Reserve Fund

- None.

Additional Bonds Test

- Additional parity bonds may be issued to improve or rehabilitate a facility or to prevent a loss of revenue from a facility without meeting any coverage test. For all other new money bonds, an authorized officer must certify that the historical 12-month period net revenue is at least 1.40X the MADS on all senior lien bonds and proposed debt.

Security

- Bonds are secured by net revenues collected on the bridges and tunnels operated by the MTA Bridges and Tunnels. These net revenues represent gross revenues generated from seven bridges and two tunnels, less O&M and ordinary repair, replacement, and reconstruction expenses. The TBTA is required by law to transfer amounts released from the General Fund to the MTA, and a statutory formula determines how the MTA allocates that money between the transit and commuter systems.

Anticipated Borrowings

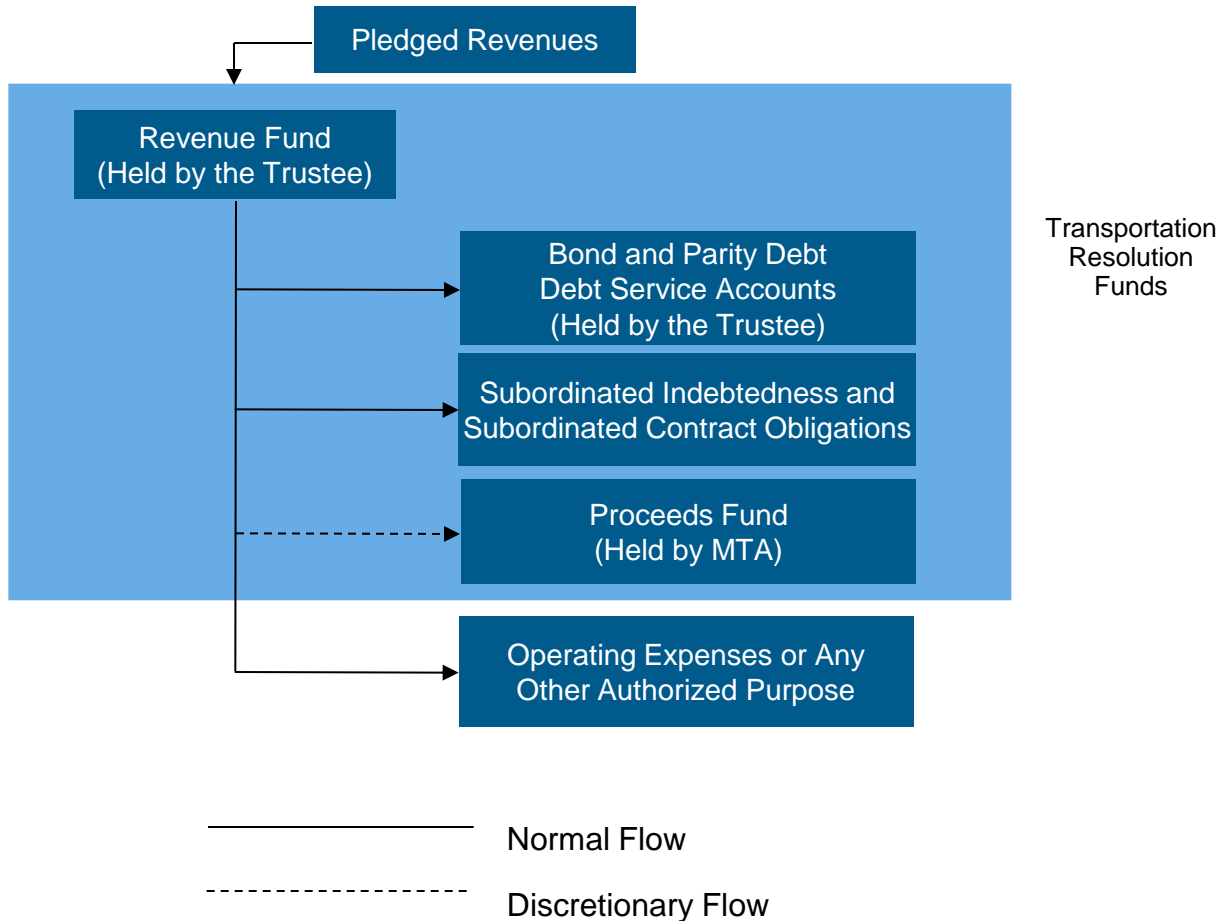
- Estimated 2018-2021 new money issuance is \$1.5 billion.

Rate Covenant

- Revenues must be sufficient to pay all operating expenses, pay calculated debt service as well as debt service on all subordinated indebtedness and maintain any reserves. In addition, revenues less operating expenses shall equal at least 1.25X calculated debt service on all senior lien bonds.

Triborough Bridge and Tunnel Authority

Flow of Funds General Purpose Revenue Bonds (cont.)



Source: Official Statement
Chart for illustrative purposes only

New York City Health and Hospitals Corporation

Health System Bonds

Moody's Aa3 S&P A+ Fitch AA-

Purpose

- The Bonds are issued to support the operations and facilities of the municipal hospital system of the City.

Bonds Outstanding

- \$757 million as of June 30, 2017

Capital Reserve Fund

- Must be maintained at MADS. In the event of a shortfall, the Corporation shall annually request from the City an amount sufficient to restore the DSRF to its requirement. The amount shall have been first appropriated by the City.

Additional Bonds Test

- Projected net cash available for debt service for each of the four years following the issuance of the additional bonds will be at least 1.0X MADS of the outstanding debt and any proposed debt and health care reimbursement revenues will be at least 7.0X MADS.

Security

- The bonds are a general obligation of the Corporation and secured by a pledge of Health Care Reimbursement Revenues (HCRR). These revenues constitute all revenues, income, receipts, and other revenues derived from the operation of the Health System. However, HCRR specifically does not include such items as reimbursement funds by the City of capital expenditures; revenues derived from MetroPlus; revenues derived from the operation of non-patient services facilities, gifts, grants and donations, and certain other items.

Anticipated Borrowings

- None specified.

Rate Covenant

- The Corporation is required to conduct its operations so that net cash available for debt service will not be less than 1.0X annual debt service.

New York City Transitional Finance Authority

Future Tax Secured Bonds

Senior: Moody's Aaa S&P AAA Fitch AAA
Subordinate: Moody's Aa1 S&P AAA Fitch AAA

Purpose

- The Authority was created in 1997 to allow New York City to continue to finance its capital program without violating its general obligation debt limit.

Bonds Outstanding

- Senior Lien - \$990 million as of June 30, 2017
- Subordinate Lien - \$31.8 billion as of June 30, 2017

Anticipated Borrowings

- Estimated 2018-2022 issuance is \$21.5 billion.

Additional Bonds Test

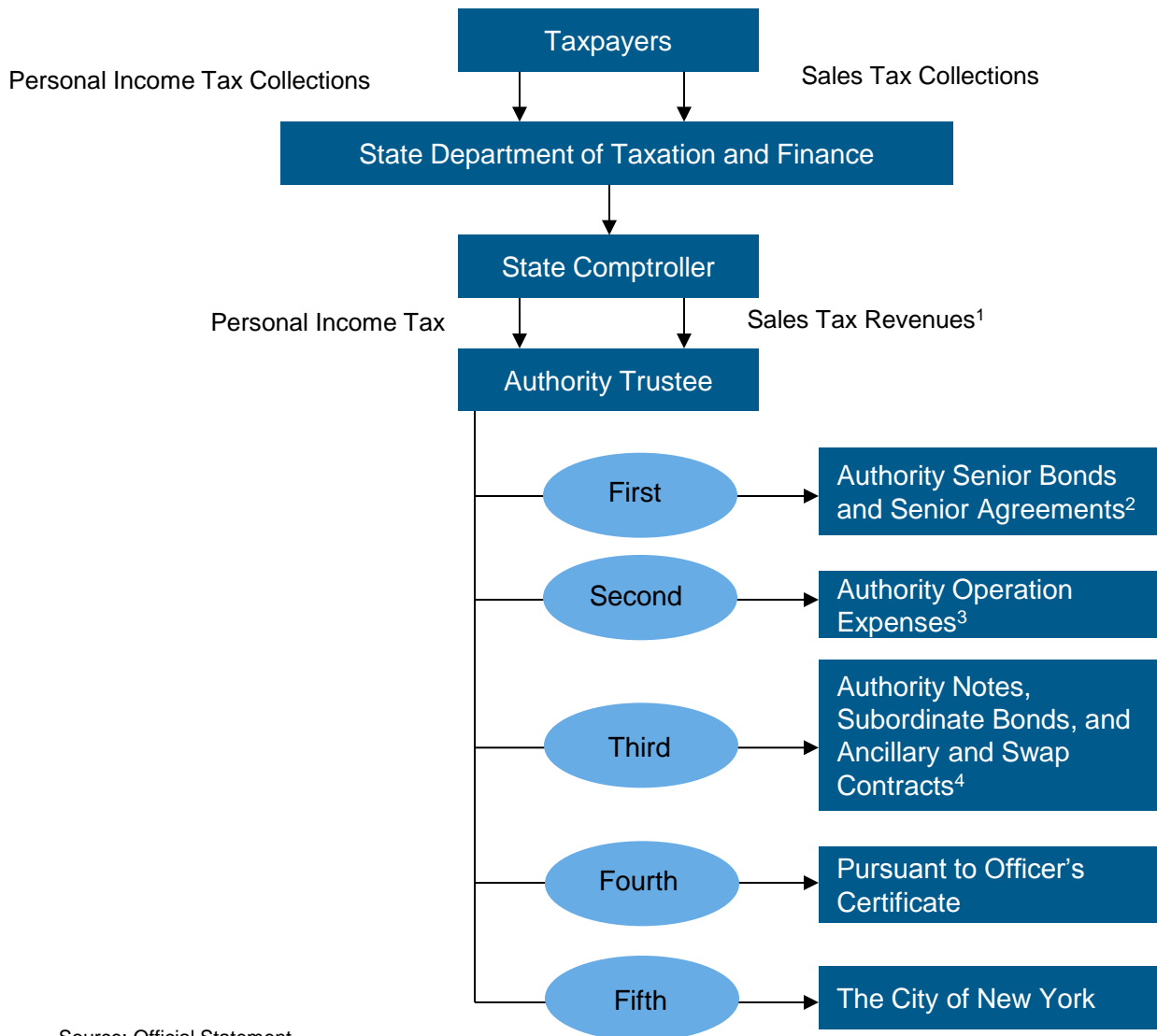
- In order to issue additional bonds, personal income taxes and sales taxes for 12 consecutive months ended not more than two months prior to issuance must be at least 3.0X MADS of senior bonds and annual debt service of parity debt.

Security

- Bonds are secured by two revenue sources: personal income tax and sales tax revenues. The primary source is revenue from the personal income tax imposed by the City as authorized by the State on the income of City residents and nonresidents in the City. The secondary source is sales tax imposed by the State on the sales and use of personal property and services, net of the funding requirements of the Municipal Assistance Corporation. Sales tax revenues are available for debt service payment only if personal income tax is insufficient to provide at least 1.50X MADS on the Authority's outstanding bonds.
- The sales tax is currently levied by the State at a rate of 4% on the sale of intangible personal property and services in the City. After July 1, 2008, the tax will be imposed by the City. Also, until that date, tax collections are subject to appropriation by the State. It is assumed the sales tax rate will be 4% after July 1, 2008, which will require legislation.

New York City Transitional Finance Authority

Flow of Funds Future Tax Secured Bonds (cont.)



Source: Official Statement
Chart for illustrative purposes

¹Sales tax revenues are available to the Authority only in the event that projected personal income tax revenues are less than 150% of maximum annual debt service on outstanding bonds of the Authority. For further information, see "Sales Tax."

²Tax revenues will be retained by the Trustee for the payment of senior debt service, in accordance with the retention procedures detailed below.

³After-tax revenues are retained by the Trustee for the payment of senior debt service, such tax revenues are paid to the Authority for its operating expenses.

⁴Excluding all items payable from state building aid. After payment of Authority operating expenses, tax revenues are applied for the benefit of noteholders (for interest only), subordinate bondholders, and parties to ancillary and swap contracts.

New York City Transitional Finance Authority

Building Aid Revenue Bonds

Moody's Aa2 S&P AA Fitch AA

Purpose

- The Bonds are issued to fund the City's educational facilities capital plan.

Bonds Outstanding

- \$7.8 billion as of June 30, 2017

Anticipated Borrowings

- None specified.

Additional Bonds Test

- The additional bonds test (ABT) requires 1.0x coverage of outstanding Bond debt service by confirmed building aid revenue in every year. This ABT does not rely on any future approval of City education capital projects or on the associated incremental building aid. It relies solely on approved projects for which the state has committed to provide a 30-year stream of building aid payments subject to annual appropriation.

Security

- In 2006, the TFA enabling act was amended pursuant to the School Financing Act to change the way the state provides support for the City's educational capital plan. Under the Act, the City assigns to the TFA all of the state building aid payable to the City.
- When a project goes into contract, the School Construction Authority submits it to the State Education Department (SED). The SED approval process establishes an "aidable cost" of the project and creates a 30-year amortization schedule. Once SED has approved the project, the state is statutorily required to provide a 30-year stream of building aid payments, subject to annual appropriation. The stream of building aid payments is a function of both the aidable cost and the current funding ratio, and provides the security for the bonds. Although the state is able to vary the building aid ratio on a year-to-year basis, the state has covenanted not to impair the rights of the bondholders in any way.

New York City Municipal Water Finance Authority

Water and Sewer System Revenue Bonds

First GR: Moody's Aa1 S&P AAA Fitch AA+
Second GR: Moody's Aa1 S&P AA+ Fitch AA+

Purpose

- Bond proceeds are used to finance capital improvements to the water and sewer system utilized by most of New York City and four upstate counties, and to refund GO debt of NYC used for water or sewer purposes.

Bonds Outstanding

- First GR - \$2.2 billion as of March 31, 2018
- Second GR - \$28.6 billion as of March 31, 2018

Debt Service Reserve Fund

- Required to be funded to the level of MADS. Second GR Bonds have no DSRF.

Additional Bonds Test

- The Authority may issue additional bonds if: (a) revenues for either of the last two years were at least 1.15X aggregate debt service and 1.0X operating expenses and required deposits for the year; and (b) revenues for the year in which additional bonds are issued and each of the five years following issuance are projected to be at least 1.15X MADS and 1.0X operating expenses and required deposits for such years.

Security

- The bonds are issued under the Authority's General Resolution (GR) and are secured by and payable from the gross revenues of the water and sewer system, prior to payment of system O&M costs or other expenses. All gross revenues of the system are deposited with the trustee on a daily basis until the monthly requirements for debt service, Authority expenses, the Debt Service Reserve, and subordinated indebtedness are met. Lease payments due to the City are subordinated in the flow of funds. The Second GR bonds are secured by a second lien on gross revenues.

Anticipated Borrowings

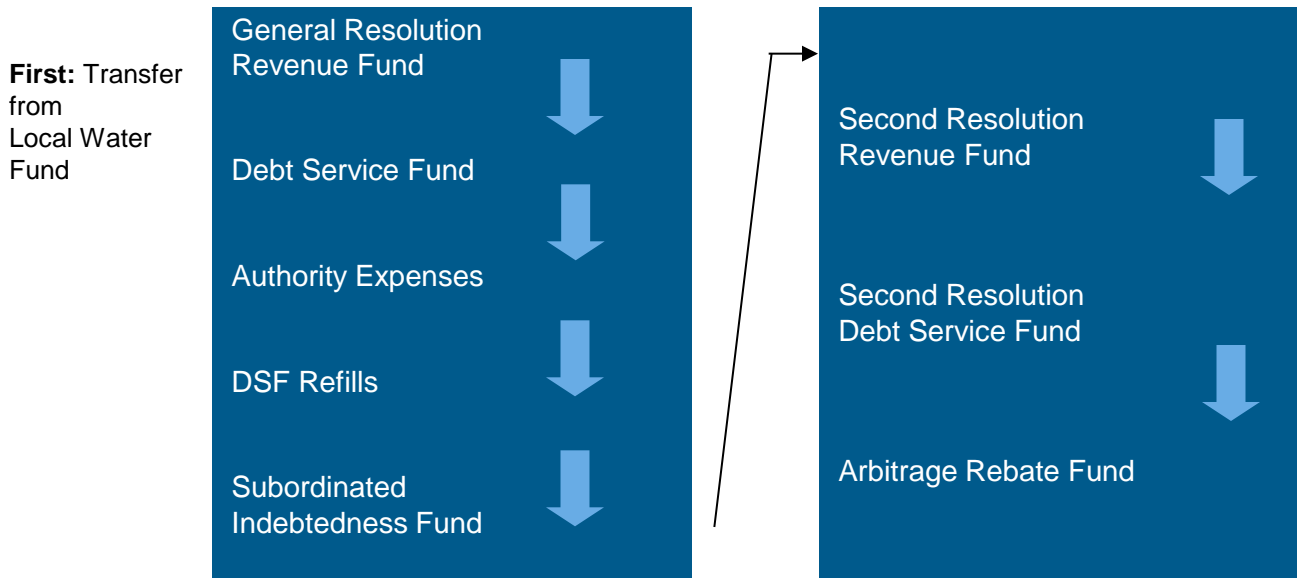
- Estimated 2018-2022 issuance is \$9.5 billion.

Rate Covenant

- The Board covenants to set rates such that revenues will be at least 1.15X annual debt service and 1.0X operating expenses and the required deposits will be to specific funds.

New York City Municipal Water Finance Authority

Flow of Funds Water and Sewer System Revenue Bonds (cont.)



- Second:** Transfer from Local Water Fund → Water Board Expenses
- Third:** Transfer from Local Water Fund → System Operating and Maintenance
- Fourth:** Transfer from Local Water Fund (Up to Annual Requirement) → Pro rata to:
- General Resolution Revenue Fund for: Annual Debt Service, Authority expenses, DSRF, Subordinate indebtedness (Second Resolution)
 - System Operations and Maintenance
- Fifth – Seventh:** Transfer from Local Water Fund Debt Service is set aside; typically funded during the last few months of the fiscal year → City lease payment, operating and maintenance (after reserve replenishment, surplus including pay-as-you-go capital)

Source: Official Statement
Chart for illustrative purposes only

New York State Personal Income Tax

Personal Income Tax Revenue Bonds

Moody's Aa1 S&P AAA Fitch: AA+

Purpose

- Various projects.

Bonds Outstanding

- \$31.8 billion as of March 31, 2017

Debt Service Reserve Fund

- None.

Additional Bonds Test

- Revenue Bond Tax Fund Receipts for any 12 consecutive calendar months ended not more than six months prior to the date of the calculation is at least 2.0X MADS on all outstanding State Personal Income Tax Revenue Bonds and proposed debt.

Security

- The Enabling Act provides a source of payment for the State Personal Income Tax Revenue Bonds by establishing the Revenue Bond Tax Fund for the purpose of setting aside New York State Personal Income Tax Receipts sufficient to make financing agreement payments to authorized issuers. The source of the financing agreement is a statutory allocation of 25% of the monthly receipts from the New York Personal Income Tax imposed by Article 22 of the New York State Tax Law. Such New York State Personal Income Tax Receipts currently exclude refunds owed to taxpayers and deposits to the School Tax Relief Fund. The payments are subject to annual appropriation for such purpose by the State Legislature. All State Personal Income Tax Revenue Bonds are on a parity with one other as to payment from the Revenue Bond Tax Fund.

New York State Personal Income Tax

Personal Income Tax Revenue Bonds (cont.)

Moody's Aa1 S&P AAA Fitch: AA+

Covenant

- The State Comptroller is required to set aside, monthly, in the Revenue Bond Tax Fund (RBTF), amounts such that the combined total of the amounts previously set aside and deposited in the RBTF and the monthly amount required to be deposited is not less than 125% of the financing agreement payments in the following month. In the event that Revenue Bond Tax Fund Receipts are insufficient to meet the debt service and other cash requirements of all the authorized issuers, the State Comptroller is required by the Enabling Act, without further appropriation, to immediately transfer amounts from the General Fund of the State to the RBTF.

Authorized Issuers

- New York State Thruway Authority
- Dormitory Authority of the State of New York
- New York State Environmental Facilities Corporation
- New York State Housing Finance Agency
- New York State Urban Development Corporation

Anticipated Borrowings

- Estimated 2017-2022 issuance is \$25.5 billion.

New York State Sales Tax

Sales Tax Revenue Bonds

Moody's Aa1 S&P AAA Fitch: AA+

Purpose

- Various projects.

Bonds Outstanding

- \$5.0 billion as of March 31, 2017

Debt Service Reserve Fund

- None.

Additional Bonds Test

- Sales Tax Revenue Bond Tax Fund Receipts for any 12 consecutive calendar months ended not more than six months prior to the date of the calculation is at least 2.0X MADS on all outstanding State Sales Tax Revenue Bonds and proposed debt.

Security

- The State Sales Tax Revenue Bonds are secured by 1% of the State's 4% sales tax. All revenues derived from the 1% sales tax are required to be deposited in the Sales Tax Revenue Bond Tax Fund (STRBTF). Sales Tax bond debt service is paid from the STRBTF, subject to annual appropriation by the State. If an appropriation has been made and all payments are current, then the Comptroller is required to distribute excess monies to the General Fund of the State.
- The Enabling Act provides a source of payment for the State Sales Tax Revenue Bonds by establishing the STRBTF for the purpose of setting aside New York State Sales Tax Receipts sufficient to make financing agreement payments to authorized issuers. All State Sales Tax Revenue Bonds are on a parity with one other as to payment from the STRBTF.

New York State Sales Tax

Sales Tax Revenue Bonds (cont.)

Moody's Aa1 S&P AAA Fitch: AA+

Covenant

- The State Comptroller deposits the dedicated sales tax receipts into the STRBTF upon certification of revenues by the Commissioner of the State's Department of Taxation and Finance. The funds are deposited monthly on a 1/5 of interest, 1/11 of principal basis. There must be a legislative appropriation to transfer funds out of the STRBTF to pay debt service and the monthly financing agreement payments must be made in order for receipts in excess of debt service requirements to be transferred to the General Fund and used for any other purpose.

Authorized Issuers

- New York State Thruway Authority
- Dormitory Authority of the State of New York
- New York State Urban Development Corporation

Anticipated Borrowings

- Estimated 2017-2022 issuance is \$8.0 billion.

Hudson Yards Infrastructure Corporation

Second Indenture Revenue Bonds

Moody's Aa3 S&P A+ Fitch A+

Purpose

- The project consists of extension of the subway line, construction of a system of parks, public open spaces and streets in the project area and the acquisition of certain development rights over the Eastern Rail Yard from the TBTA. The construction of this infrastructure will support planned development of commercial and residential properties on the west side of Manhattan.

Additional Bond Test

- The original first indenture (senior) bonds were issued with a 40-year final maturity and no principal amortization until the recurring PILOT and TEP revenues for 2 consecutive fiscal years provide 125% coverage of MADS, 105% coverage of MADS on all outstanding first indenture bonds and 100% of HYIC operating expenses. That benchmark, defined in the first indenture as the "conversion" benchmark, was reached for the senior bonds in 2017. The second indenture bonds refunded most of the senior bonds.

Bonds Outstanding

- \$2.75 billion as of June 30, 2017

Security

- The bonds are special obligations of HYIC secured by and payable solely from (i) recurring revenues that include payments in lieu of taxes (PILOTs) and tax equivalency payments (TEPs), and (ii) nonrecurring revenues that include payments in lieu of mortgage recording taxes; density bonus payments; and certain future development revenue derived from the development potential of the eastern rail yards owned by the MTA. Recurring revenue PILOTs are paid by commercial office property owners directly to HYIC and TEPs are paid by residential, hotel, and other commercial properties to New York City, which has agreed to pay them to HYIC through a support agreement. The city's obligation to pay the TEPs to HYIC is absolute and unconditional, subject to appropriation. At the time the original bonds were issued the recurring revenues were estimated to be 96% of all pledged revenue.

Debt Service Reserve Fund

- None.

New York Liberty Development Corporation

Revenue Bonds (Goldman Sachs Headquarters Issue)

Moody's A3 S&P BBB+ Fitch A

Purpose

- To finance the construction of the new headquarters of the Goldman Sachs Group, Inc., located in Battery Park City.

Bonds Outstanding

- \$1.497 billion as of March 31, 2017

Debt Service Reserve Fund

- None.

Security

- The bonds are secured solely by revenues pledged under the loan and trust agreement, which will consist primarily of loan payments paid by Goldman Sachs Headquarters LLC ("Borrower"). The Borrower is obligated to make payments that will equal the amount of principal and interest on the bonds. Furthermore, the Goldman Sachs Group, Inc., will guarantee the payment obligations of the Borrower. The guaranty is an unsecured obligation of the guarantor.
- The bonds are not secured by any lien or mortgage on or other security interest in the project.

Long Island Power Authority (LIPA)

Electric System General Revenue Bonds

Moody's A3 S&P A- Fitch A-

Purpose

- LIPA owns the electric transmission and distribution system on Long Island. As of January 2014, the Public Service Enterprise Group (PSEG), a New Jersey-based utility, operates and maintains LIPA's transmission and distribution system.

Security

- The bonds are secured by the Trust Estate, consisting primarily of revenues generated by LIPA.

Bonds Outstanding

- \$3.2 billion as of December 31, 2017

Additional Bonds Test

- There is no historical coverage test for additional bonds.

Debt Service Reserve Fund

- None

Anticipated Borrowings

- None specified.

Rate Covenant

- Revenues available for debt service must be at least 1.0X senior debt service and 1.0X all debt service.

Utility Debt Securitization Authority (UDSA)

Restructuring Bonds

Moody's Aaa S&P AAA Fitch AAA

Purpose

- The law created UDSA solely to purchase (from the Long Island Power Authority, or LIPA), and own the Restructuring Property, to issue the Bonds which are secured by the Restructuring Property, and to perform any activity incidental thereto; the issuer has no commercial operations.
- LIPA used the proceeds from the sale of its Restructuring Property to retire certain of its outstanding debt, and acts as the servicer of the Restructuring Property under a servicing agreement with UDSA.

Security

- Under the state law that created UDSA, LIPA issued an irrevocable financing order authorizing the creation of the Restructuring Property, which grants UDSA the irrevocable right to impose, bill and collect Restructuring Charges based on electricity usage from all of LIPA's existing and future retail electric customers, including a mandatory uncapped true-up mechanism that periodically adjusts the charges to ensure timely bond payments until the bonds are repaid in full.

Bonds Outstanding

- \$4.3 billion as of December 31, 2017

Debt Service Reserve Fund

- Required to be funded at 0.50% of the initial principal balance of the Bonds.

Additional Bonds Test

- There is no historical coverage test for additional bonds.

Rate Covenant

- Revenues available for debt service must be at least 1.0X debt service.

Anticipated Borrowings

- None specified.

State of New York Mortgage Agency

Homeowner Mortgage Revenue Bonds

Moody's Aa1 S&P NR Fitch NR

Purpose

- Bond proceeds were used to refund certain bonds of the Agency, to provide funds for home mortgage loans and other items.

Security

- The Bonds are special obligations of the Agency payable solely from the mortgages and other property pledged under the Bond Resolution.

Bonds Outstanding

- \$1.8 billion as of October 31, 2017

Additional Borrowings

- None specified.

Debt Service Reserve Fund

- An amount equal to 3% of the sum of the outstanding principal balance of mortgage loans, the amount on deposit to the credit of the Acquisition Fund, and the outstanding principal balance of the collateral mortgage loans pledged to secure bonds.

Loans Loss Fund

- An amount equal to 1% of the sum of the outstanding principal balance of mortgage loans, the amount on deposit to the credit of the Acquisition Fund, and the outstanding principal balance of the collateral mortgage Loans pledged to secure bonds.

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Diversification does not ensure a profit or guarantee against a loss.

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