

CREDIT OPINION

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New Issue

Contacts

Nicholas Samuels 212-553-7121
VP-Sr Credit Officer MIS
nicholas.samuels@moodys.com

Emily Raimes 212-553-7203

VP-Sr Credit Officer
emily.raimes@moodys.com

New York (City of), NY

New Issue - Moody's assigns Aa2 to \$800M NYC GO refunding bonds Fiscal 2016 Series C&D; outlook stable

Summary Rating Rationale

Moody's Investors Service has assigned Aa2 ratings to the City of New York's \$750 million General Obligation Bonds Fiscal 2016 Series C and \$50 million Series D. The ratings reflect the city's large and resilient economy, its extraordinarily large tax base, its institutionalized budgetary and financial management controls, its proactive responses to budget strain during economic downturns, the key but diminishing role of the volatile financial services sector, and a high budgetary burden from the combination of debt service, pension, and employee and retiree health care costs.

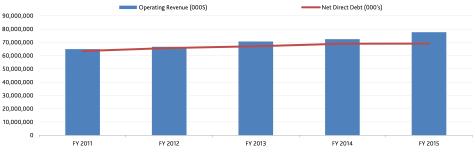
Credit Strengths

- » Exceptionally large and diverse economy driven by city's position as an international center of the high-income financial services industry
- » Strong governance and financial best practices, tested through periods of fiscal stress
- » Strong liquidity

Credit Challenges

- » High and growing burden from debt service, pension and retiree health care costs
- » Cyclical economic base driven by the financial services industry
- » Ongoing need to close out-year budget gaps

Exhibit 1
New York City's Revenues Grow While Debt Levels Off



Source: Moody's Investors Service

Rating Outlook

The outlook for New York City's general obligation bonds is stable. The city's institutionalized budgetary controls and early recognition of future budget pressure help it maintain a balanced financial position and weather economic downturns. The city's economy is reliant on a volatile financial services sector, but it continues to diversify, and its finances will benefit. Despite its strong budgetary controls, high costs for debt service, pensions and retiree health care will continue to be a challenge for the city

Factors that Could Lead to an Upgrade

- » Sustained reduction in the growth of the city's debt burden and other fixed costs, and establishment of formal policy for managing debt within prescribed constraints
- » Establishment of significant formal budget reserves to buffer the inherent volatility of the financial services sector
- » Improved and continuing growth in city employment and the property tax base

Factors that Could Lead to a Downgrade

- » Inability to manage rapidly rising costs in non-discretionary spending such as debt service, personnel costs, or pensions
- » Divergence from well-established fiscal practices
- » Emergence of significant liquidity strain and the need for large cash-flow borrowings

Key Indicators

Exhibit 2

New York City	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Total Full Value (000s)	793,742,000	814,422,100	838,003,200	858,102,400	906,273,800
Full Value Per Capita	97,643	97,691	101,343	101,059	106,732
Median Family Income as % of US	106.1%	106.5%	108.3%	106.7%	
Operating Revenue (000S)	64,889,788	66,603,415	70,631,865	72,387,292	77,608,673
Available Fund Balance as a % of Revenue	9.8%	6.9%	5.9%	6.1%	9.1%
Cash Balance as a % of Revenue	7.3%	12.4%	12.8%	16.4%	17.4%
Net Direct Debt (000's)	63,431,639	65,703,394	67,000,247	68,940,172	69,071,880
Net Direct Debt to Operating Revenue (x)	1.0x	1.0x	0.9x	1.0x	0.9x
Net Direct Debt as % of Full Value	8.0%	8.1%	8.0%	8.0%	7.6%
Moody's ANPL (3-Year Average) as % of Full Value (x)	7.9x	8.8x	10.3x	11.2x	11.1x
Moody's ANPL (3-Year Average) as % of Operating Revenues (x)	1.0x	1.1x	1.2x	1.3x	1.3x

Source: Moody's Investors Service

Recent Developments

Recent developments are incorporated into the sections below.

Detailed Rating Considerations

Economy and Tax Base

New York City's economy is notably large, with real GDP larger than all but four US states. The city's labor market has recovered remarkably well. Private sector employment as of December 2015 was nearly 14% greater than the pre-recession peak in August 2008; for the year it increased 2.8%, slightly faster than the US rate but somewhat slower than in recent years. The city's unemployment rate had remained high as residents re-entered the labor force to seek jobs, but it has decreased in recent months, to 5.0% in December 2015, the same as the US rate.

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The important financial activities sector, which accounts for 10.9% of the city's employment, played a key role in helping the city regain jobs following the early 2000s recession, but employment performance is volatile. Jobs in the sector are still lower than their pre-recession levels but still account for 20% of wages in the city.

Tourism continues to hit record levels, even with a strong dollar, with an estimated 58.3 million visits in 2015, 3.2% more than 2014. The city's tourism bureau estimates tourism generates \$10.5 billion in tax revenue. The city's economy continues to diversify, with strong higher education and health care sectors and a burgeoning high tech industry. Growth in those areas will continue to mitigate the volatility of finance.

Similar to the size of the city's economy overall, New York's real property tax base is the largest of any US city, with a fiscal 2016 full value of \$986 billion; for fiscal 2017, full values is estimated to have topped \$1 trillion. State law that limits the amount of real property tax that a municipality may levy in any year do not apply to New York City. Proposals from time to time would extend the limitation to the city and while one has never passed, if it did it would significantly constrain the city's financial flexibility.

Financial Operations and Reserves

The January 2016 revision of the city's fiscal 2016-2020 financial plan reflects continued economic and financial health and a cautious approach to outyear challenges. Based on that plan, outyear budget gaps have increased slightly to \$2.3 billion, \$2.9 billion and \$2.7 billion in fiscal years 2018, 2019 and 2020, respectively. Those gaps are still manageable by the city and reflect 3.7%, 4.5% and 4.1% of estimated city-funds revenue in each of those years; by comparison, over the prior 12 years gaps average 8.0% of total revenue.

Certain parts of the proposed state budget would adversely impact the city if enacted and would increase outyear gaps. These include shifting a portion of the costs of City University of New York senior colleges to the city, and shifting certain Medicaid costs currently paid by the state to the city. The state budget proposal also would distribute \$600 million of city sales tax to the state instead between the current fiscal year and fiscal 2019. In total, if implemented those proposals would cost the city \$1.3 billion, \$1.4 billion and \$1.3 billion in fiscal years 2017 through 2020, respectively. The city and state say they are working together to make the proposals cost-neutral to the city. The outyear gaps also would increase for a variety of other factors, including if the city has to increase grants for mass transit significantly, or to raise subsidies to the Health and Hospitals Corporation.

Taxes are forecasted to grow in fiscal years, 2016, 2017, 2018, 2019 and 2020 by 2.7%, 3.2%, 4.0%, 4.2% and 4.1%, respectively, moderate estimates in our opinion since they include the phase-in of current property tax assessments as well as the city's other more economically sensitive taxes. The budget also continues the city's recent efforts to bolster its reserves. The budget maintains the General Reserve at \$1 billion for all four years of the financial plan; in recent prior years, it had been funded at \$300 million. The Retiree Health Benefits Trust Fund is increased from \$2.4 billion to \$3.4 billion, and maintains a \$500 million Capital Stabilization Reserve in fiscal 2017. These funds can be used to cash fund capital expenditures, to defease debt, or pay for other capital-related costs and position the city in a favorable position to be able to weather the next economic downturn. The city's fiscal 2015 GAAP-basis available fund balance has increased to 9.1% of revenue, good progress but still lower than the fiscal 2014 Aa2 large local government median fund balance ratio of 12.3%.

Starting in May 2014 the city announced new contract agreements with its labor unions that include retroactive 4% pay increases each for 2009 and 2010 for employees who remain with the city during fiscal years 2015-2021 and for retirees during that period, which will be paid between fiscal 2016 and fiscal 2021. The contract also includes a 10% total base wage and salary increase through fiscal 2018 and a \$1,000 per employee "ratification bonus". Since then, nearly every civilian bargaining unit has settled with the same terms. The city has also settled with its uniformed superior officers unions, the police sergeants, rank and file sanitation workers, and recently won arbitration with rank and file police officers. The city says in total it has settled with 95% of its bargaining employees.

The city has a history of "pattern" bargaining in which for the total net costs of the first contract settled in a round of bargaining set the pattern, or maximum cost, for the others in that round, and the financial plan assumes that outstanding settlements will reflect those already settled. Including amounts that already had been reflected in the city's financial plans as a "labor reserve", the city estimates that when the same pattern settlement is applied to all municipal workers the net cost is \$9.8 billion through fiscal 2018. That net figure reflects the use of \$1 billion from the Health Stabilization Fund that offsets healthcare premium costs for employees, in addition to savings anticipated from agreements between the city and labor to reduce employee healthcare costs by \$3.4 billion between fiscal 2015 and 2018. The city has negotiated the right to enforce the health savings through arbitration, but says it is on track to meet its

healthcare savings targets. As inducement to hit those goals, the agreements include provisions that would share savings greater than \$3.4 billion between labor and the city.

Finally settling outstanding labor costs and incorporating them into the city's budget is significant because personnel costs drive city spending: salaries and wages average 31% of the city's total budget, while total personnel costs, which include pension contributions, fringe benefits such as employee and retiree health care and social security contributions, average 55% of total revenue.

LIQUIDITY

The city's liquidity position has been strong in recent years. The strongest cash balances ever recorded were in fiscal 2014 and fiscal 2015 results were only slightly lower: the ending cash balance was \$9.50 billion and the average daily cash balance was \$9.46 billion. Amid the city's strong economic performance, during the first quarter of fiscal 2016 (July-September) the average daily balance was \$10.0 billion.

Debt and Pensions

DEBT STRUCTURE

New York City, through general obligation, Transitional Finance Authority (TFA) and other debt issuance vehicles uses variable rate debt to lower its borrowing costs. Variable rate debt (reflecting general obligation, lease and TFA debt) amounts to 16% of the city's total outstanding net tax-supported debt. While that amount is sizeable, the annual interest rate risk it poses is manageable in the context of the city's \$81.7 billion fiscal 2016 all-funds budget, its strong liquidity, and the favorable terms of its bank liquidity facilities and interest rate agreements.

The city has \$5.2 billion of general obligation variable rate demand debt outstanding, and the Transitional Finance Authority (TFA) has a total of \$3.3 billion of outstanding variable rate demand debt. Additionally, the city has \$30 million of appropriation-backed variable rate debt outstanding. Counterparty risk is mitigated through the use of a diverse array of liquidity providers: 18 banks provide liquidity support for general obligation variable rate debt and 17 support TFA variable rate demand debt.

The city monitors its variable rate portfolio closely and proactively works to renew or replace expiring liquidity facilities or to convert variable rate bonds to fixed rate or other interest rate modes if necessary. In an effort to reduce its overall borrowing costs and mitigate bank exposure, the city has converted various variable demand bonds to floating rate index modes. Those bonds do not have the put risk associated with demand debt but the city must refinance them most of them at specific dates or interest rates will step up to higher levels. Those risks are manageable given the city's record of market access. The city currently has \$1.1 billion of general obligation index mode bonds outstanding and \$434 million outstanding issued through TFA. The city also has \$635 million of general obligation auction rate bonds outstanding, and \$222 million issued through TFA.

DEBT-RELATED DERIVATIVES

The city has eight outstanding interest rate swap agreements associated with its general obligation bonds, with five separate counterparties, and two swaps related to city-appropriation backed debt issued through the Dormitory Authority of the State of New York (DASNY) with two counterparties. In our analysis, the swap portfolio's potential risks to the city are manageable: rating triggers that would cause the agreements to terminate early or post collateral are low, ranging between Baa1 and Baa3. As of December 31, 2015 the combined outstanding notional amount of the swaps was \$1.5 billion, with a mark-to-market value of -\$147.2 million.

PENSIONS AND OPEB

Unlike most other large cities, no separate school district or county government exists that also finances New York City's capital costs, which results in a relatively greater bonded debt load when compared to similarly-rated local governments: New York City net debt as a percentage of full value is 8.0% compared to 3.1% for Aa2-rated large local governments, although unlike most property-tax dependent local governments, New York City's revenue base includes personal income taxes, sales taxes and other taxes. Based on the current financial plan, fixed costs for debt service, pensions and retiree health benefits (OPEB) are high, nearly 34% of fiscal 2016 estimated tax revenue and 22% of total revenue.

The city's pension system includes three multi-employer cost-sharing plans (the New York City Employees Retirement System, Teachers Retirement System, and Board of Education Retirement System), and separate plans for fire and police. The city's shares of the multi-employer plans are 55.5%, 97.3% and 99.9%, respectively. Reflecting those plans, the city's fiscal 2014 Moody's-adjusted net pension liability (ANPL) is \$98.5 billion, or 1.36 times operating revenues. While the city's three-year adjusted ANPL as a percentage

of full value is the fourth largest of the 50 largest local governments, at 10%, the burden is more moderate as percentage of operating revenue: 122%, ranking 34th. Moody's adjustments improve comparability of reported pension liabilities, but the adjustments are not intended to replace the city's reported liability information. In 2012, the New York City Retirement Systems reduced the assumed investment rate of return to 7.0% from 8.0% and replaced the frozen initial liability actuarial funding method with the more commonly used entry age normal method. The change increases the city's pension expense, but over the long run will lead to greater stability, since using the 7% rate in its actuarial calculations will help to mitigate market-related volatility in asset performance.

Management and Governance

The city's financial management is characterized by strong, institutional financial management practices that emerged from the 1970s fiscal crisis. These include four-year financial planning and quarterly updates, which must be submitted to a state oversight board; the segregation of real property tax revenue into a General Debt Service Fund, held by the state comptroller, and the state's covenant not to impair the rights of city bondholders to be paid when due; a statutory requirement to phase-in changes in property tax billable assessed value over five years evens out ups and downs in the city's real estate market; quarterly interest rate derivatives reporting, submitted to a state oversight board; and oversight by a state control board and by the state comptroller.

Legal Security

The bonds are general obligation, full faith and credit obligations of the city, secured by a real property tax levied without limitation as to rate or base.

Use of Proceeds

The bonds will be used to refund outstanding general obligation bonds for debt service savings.

Obligor Profile

In addition to the notable size of its economy discussed above, New York City has population of 8.5 million people (the US Census Bureau's most current estimate, as of July 2014) and personal income per capita that is 128% of the US level.

Methodology

The principal methodology used in this rating was US Local Government General Obligation Debt published in January 2014. Please see the Ratings Methodologies page on www.moodys.com for a copy of this methodology.

Ratings

Exhibit 3

NEW YORK (CITY OF) NY

Rating
Aa2
Underlying LT
\$750,000,000
02/23/2016
General Obligation
Aa2
Underlying LT
\$50,000,000
02/23/2016
General Obligation

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Contacts

Nicholas Samuels 212-553-7121 VP-Sr Credit Officer nicholas.samuels@moodys.com

 Americas
 1-212-553-1653

 Asia Pacific
 852-3551-3077

 Japan
 81-3-5408-4100

 EMEA
 44-20-7772-5454

CLIENT SERVICES

