



Office of the
New York City Comptroller
Scott M. Stringer
Bureau of Fiscal and Budget Studies

www.comptroller.nyc.gov
(212) 669-2507



Fiscal Year 2015 Annual Report on Capital Debt and Obligations

December 1, 2014

SCOTT M. STRINGER
Comptroller

First Deputy Comptroller
Alaina Gilligo

Deputy Comptroller for Budget
Tim Mulligan

Assistant Director for Budget
Suri Grussgott

Bureau Chief
Eng-Kai Tan

Assistant Budget Chief
Peter E. Flynn

Deputy Comptroller for Public Finance
Carol Kostik

TABLE OF CONTENTS

EXECUTIVE SUMMARY	v
I. PROFILE OF NEW YORK CITY DEBT	1
A. COMPOSITION OF DEBT.....	1
B. ANALYSIS OF PRINCIPAL AND INTEREST AMONG THE MAJOR NYC ISSUERS.....	6
II. DEBT LIMIT.....	9
A. THE CITY'S DEBT-INCURRING POWER.....	9
III. DEBT BURDEN AND AFFORDABILITY OF CITY DEBT	13
A. BACKGROUND	13
B. DEBT BURDEN	17
C. COMPARISON WITH SELECTED MUNICIPALITIES	20
GLOSSARY OF ACRONYMS.....	25

LIST OF TABLES

TABLE 1.	GROSS NYC DEBT OUTSTANDING AS OF JUNE 30, 2014	2
TABLE 2.	NYW DEBT OUTSTANDING AS OF JUNE 30, 2014.....	5
TABLE 3.	MTA DEBT OUTSTANDING AS OF JUNE 30, 2014	6
TABLE 4.	NYC PROJECTED BONDS OUTSTANDING, THREE MAJOR ISSUERS, FYS 2014 – 2024	7
TABLE 5.	PRINCIPAL AND INTEREST ESTIMATED PAYMENTS, GO, TFA AND TSASC	8
TABLE 6.	AMORTIZATION OF PRINCIPAL OF THE THREE MAJOR ISSUERS	8
TABLE 7.	CALCULATION OF FULL VALUE OF REAL PROPERTY IN NEW YORK CITY AND THE GENERAL DEBT LIMIT, FY 2015	10
TABLE 8.	NYC DEBT-INCURRING POWER	11
TABLE 9.	CITY CAPITAL COMMITMENTS FROM FY 2001 TO FY 2018	15
TABLE 10.	DEBT PER CAPITA FOR SELECTED CITIES, 2013.....	21
TABLE 11.	DEBT PER CAPITA COMPARISONS FOR SELECTED CITIES – 2000 AND 2013.....	21
TABLE I.	RATINGS OF MAJOR NEW YORK CITY DEBT ISSUERS	vi
TABLE II.	NYC DEBT-INCURRING POWER	vii

LIST OF CHARTS

CHART 1.	NYC’S REMAINING DEBT-INCURRING POWER FYS 2003 – 2018, AND DEBT OUTSTANDING AS A PERCENT OF DEBT LIMIT	12
CHART 2.	ACTUAL AND PROJECTED CAPITAL COMMITMENT ANNUAL AVERAGES, CITY-FUNDS	14
CHART 3.	ACTUAL AND PROJECTED AVERAGE CITY-FUNDS CAPITAL COMMITMENTS, EXCLUDING DEP	16
CHART 5.	NYC GROSS DEBT AS A PERCENT OF PERSONAL INCOME, FYS 1970 – 2014	18
CHART 6.	NYC DEBT PER CAPITA AND DEBT AS A PERCENTAGE OF THE ASSESSED VALUE OF TAXABLE REAL PROPERTY	19
CHART 7.	NYC DEBT SERVICE AS A PERCENT OF TAX REVENUES.....	20
CHART 8.	DEBT OUTSTANDING AS A PERCENT OF THE FULL VALUE OF REAL PROPERTY, FY 2013	22
CHART 9.	DEBT OUTSTANDING AS A PERCENT OF PERSONAL INCOME, FY 2012 (PER CAPITA).....	23

Executive Summary

New York City's (the "City") debt has grown from \$2,951 per capita in FY 1990 to \$9,665 in FY 2014, an increase of 228 percent. Over the same 24 year period, the NYC area Consumer Price Index (CPI) grew by 89 percent. This growth in the City's capital spending for infrastructure is a corollary of the neglect of the 1970's in the early part of this period. In the latter part of this period, growth is driven by new capital needs and the on-going maintenance of its complex infrastructure. While such spending is necessary, it is costly because of the City's varied and aging infrastructure. The City's debt finances the maintenance and upkeep of an infrastructure that must accommodate not only 8.4 million City residents, but also 800,000 daily commuters and more than 54 million tourists annually.

The City may issue long-term debt only for capital purposes (assets with useful lives of five years or greater). Over forty-seven (47.2) percent of the outstanding debt of the three primary issuers of debt backed by City General Fund revenues — General Obligation (GO), New York City Transitional Finance Authority (TFA), and Tobacco Settlement Asset Securitization Corporation (TSASC) — is scheduled to come due over the next ten years.

Debt is issued by the City, or on behalf of the City, through a number of different mechanisms. This report assesses the debt condition of the City of New York in accordance with Section 232 of the City Charter. The Charter requires the Comptroller to report the amount of debt the City may incur for capital projects during the current fiscal year and projections for each of the three succeeding fiscal years.

Despite its magnitude, the amount of outstanding City debt counted against the City's debt limit is well under the City's statutory debt-incurring power for the current year. New York City's general debt limit, as set forth in the New York State Constitution, is 10 percent of the five-year rolling average of the full value of taxable city real property. The City's FY 2015 general debt-incurring power of \$81.36 billion is projected to increase to \$84.81 billion in FY 2016, \$88.59 billion in FY 2017, and \$90.73 billion by FY 2018.

Outstanding City debt counted towards the debt limit totaled \$55.91 billion as of July 1, 2014, leaving the City with a net debt-incurring power of \$25.45 billion. This total included \$39.28 billion of outstanding net GO debt, \$10.51 billion of outstanding TFA debt above the \$13.5 billion authorization limit and \$6.12 billion in contract and other liabilities, as shown in the Debt-Incurring Power Table on page vii.

By the beginning of FY 2018, the City's total indebtedness is expected to grow to \$65.77 billion. The City is projected to have remaining debt-incurring capacity of \$24.32 billion on July 1, 2015, \$24.81 billion on July 1, 2016, and \$24.96 billion on July 1, 2017.

Certain other entities issue debt for the financing of capital programs within the City. While the City may be obligated to pay a certain portion of these debts, they are not counted towards the City's statutory debt limit. The City is responsible for the interest on Hudson Yards Infrastructure Corporation (HYIC) debt (but not its related principal of \$3 billion) to the extent that revenues from the Hudson Yards district are insufficient to pay interest. Significant funding

for the City’s Capital Plan is also provided by debt issued by the New York City Municipal Water Finance Authority (NYW), which is backed by water and sewer system revenues. TFA Building Aid Revenue Bonds (BARBs) are issued to finance construction in City schools and are funded through revenues the City receives from the State. While TSASC bonds raised a total of \$1.3 billion for capital construction in the City between FYs 2000 and 2006, there are no current plans to provide any further support to the City’s capital program.

Based on a comparison of other jurisdictions, in FY 2013 New York City’s debt burden per capita was double the average of comparable large U.S. cities. Among the cities compared in this report, New York City ranks the highest in two measures of debt burden that factor in a locality’s taxable base, and is well above the averages of the comparable cities and counties. New York City’s outstanding debt as a percentage of full value of real property in FY 2013 was 9.5 percent. This is almost twice the comparable other-city average of 4.9 percent. Of the comparable cities, only San Antonio, at 9.9 percent, was higher than New York. The next two largest cities by population, Los Angeles and Chicago, have ratios that are lower than New York City’s, 4.5 and 7.5 percent, respectively. New York City’s debt as a percentage of personal income in FY 2012 was 16.6 percent, almost twice the average of the other comparable cities.¹ San Antonio and Houston were the next highest, at 13.0 and 12.6 percent, respectively, while Boston had the lowest debt to personal income ratio at 3.1 percent.

While New York City has a large amount of outstanding debt and great capital needs, its credit rating remains strong. Ratings agencies cite the City’s large and diverse economy, strong financial management, and liquidity among positive credit attribute that support GO ratings. High TFA and NYW ratings also reflect their strong legal frameworks and debt service coverage by pledged revenues.

Table I. Ratings of Major New York City Debt Issuers

Rating Agency	GO	TFA Senior Bonds	TFA Subordinate	BARBs	NYW First Resolution	NYW Second Resolution
S & P	AA	AAA	AAA	AA-	AAA	AA +
Moody's	Aa2	Aaa	Aa1	Aa2	Aa1	Aa2
Fitch	AA	AAA	AAA	AA-	AA +	AA +

¹ Since the U.S. Department of Commerce’s Bureau of Economic Analysis (BEA) provides personal income figures by county, the analysis in Chart 9 uses annual financial reports, when available, of the *county* in which each city is located. The latest available BEA data for personal income is 2012. Both the respective cities and counties of San Francisco and Philadelphia are coterminous geographic entities.

Table II. NYC Debt-Incurring Power

(\$ in millions)

	July 1, 2014	July 1, 2015 ^a	July 1, 2016 ^a	July 1, 2017 ^a
Gross Statutory Debt-Incurring Power	\$81,355	\$84,805	\$88,591	\$90,729
Actual Bonds Outstanding as of July 1, 2014 (net) ^b	41,308	39,289	36,956	34,680
Plus New Capital Commitments ^c				
FY 2015		7,665	7,665	7,665
FY 2016			6,458	6,458
FY 2017				5,212
Less: Appropriations for General Obligation Principal	(2,029)	(2,356)	(2,300)	(2,275)
Incremental TFA Bonds Outstanding Above \$13.5 billion	10,513	9,776	8,891	7,909
Subtotal: Net Funded Debt Against the Limit	\$49,792	\$54,374	\$57,670	\$59,649
Plus: Contract and Other Liability	6,116	6,116	6,116	6,116
Subtotal: Total Indebtedness Against the Limit	\$55,908	\$60,490	\$63,786	\$65,765
Remaining Debt-Incurring Power within General Limit	\$25,447	\$24,315	\$24,805	\$24,964

^a FYs 2016 through 2018 debt limits are based on the NYC Comptroller's Office's forecast of billable assessed value and related full market value of real property estimates.

^b Net adjusted for Original Issue Discount, Capital Appreciation Bonds, GO bonds issued for the water and sewer system, Business Improvement District debt, and cash on hand. The \$41.31 billion is derived from the \$41.665 billion GO total minus \$357 million of the aforementioned adjustments.

^c Reflects City-funds capital commitments as of the FY 2015 Adopted Capital Commitment Plan (released in October 2014) and includes cost of issuance and certain Inter-Fund Agreements. In July 2009, the State Legislature included future debt of the TFA Future Tax Secured bonds under the general debt limit; thus City-funds capital commitments will be funded by the TFA as well.

NOTE: The Debt Affordability Statement released by the City in May 2014 presents data for the last day of each fiscal year, June 30th, instead of the first day of each fiscal year, July 1, as reflected in this table. The City's Debt Affordability Statement forecasts that indebtedness would be below the general debt limit by \$17.4 billion at the end of FY 2015.

SOURCE: NYC Comptroller's Office and the NYC Office of Management and Budget.

I. Profile of New York City Debt

Debt is issued by New York City, or on behalf of New York City, through a number of different mechanisms. This debt (gross NYC debt) is used to finance the City's capital projects, and includes the City's General Obligation bonds, all categories of NYC Transitional Finance Authority bonds (TFA), TSASC bonds, Sales Tax Asset Receivable (STAR) Corporation bonds and other conduit issuers included in the capital lease obligations and other category (see Table 1).² New York Water Municipal Finance Authority (NYW) bonds are not included in this figure as they are paid for through fees and other revenues paid directly to the NYW.

In the 1980s, gross NYC debt grew at an average annual rate of 4.5 percent. During the 1990s, it increased by 6.4 percent annually. The substantial increase during the 1990s resulted mainly from the rehabilitation of facilities that were neglected during the 1970s fiscal crisis. Gross debt outstanding grew at a rate of 5.3 percent per year from FY 2000 to FY 2014. The FY 2015 Adopted Budget and Financial Plan shows a downward trend and projects that over the next four fiscal years, gross NYC debt will increase by approximately 3.8 percent annually.³

A. COMPOSITION OF DEBT

The City issues five types of debt to finance its capital program, with General Obligation (GO) bonds accounting for 51.4 percent of the total, as shown in Table 1. General fund revenues are used to pay off the bonds in four of these categories. STAR Corporation debt service is paid by an annual transfer of \$170 million of NYS sales tax revenues from Local Government Assistance Corporation (LGAC). New York Water Finance Authority (NYW) debt service is paid for by water and sewer user fees. Table 1 contains information on those debts paid for by general fund revenues and STAR.

Each of the categories of debt, with the exception of TSASC debt, which is only issued as tax-exempt, is comprised of both tax-exempt and taxable bonds.

Tax-exempt debt is issued to finance projects that have a public purpose, while taxable debt is issued for projects that have a public purpose but are ineligible for federal tax exemption, such as housing loan programs that benefit from federal tax credits. Certain bonds that the City issues are hybrids of taxable and tax-exempt. The City was authorized to issue Build America Bonds (BABs) in calendar years 2009 and 2010 and continued to issue taxable Qualified School Construction Bonds (QSCBs) until October 2013 when the federal allocation was exhausted. BABs and QSCBs are taxable but because the City receives federal interest subsidy payments for these bonds, they must meet the same public purpose standards as tax-exempt bonds. Tax-exempt debt accounted for 82.8 percent of the total value of the City's outstanding debt at the end of FY 2014.⁴

² All bonds cited are paid from General Fund revenues except for STAR Corporation.

³ GO, TSASC, and TFA debt outstanding are used as a proxy for the estimated growth rate, due to the unavailability of data regarding future lease-purchase debt issuance.

⁴ The remaining 17.2 percent of debt, categorized as taxable, includes Build America Bonds (BABs) and Qualified School

To diversify its interest rate risk, gross NYC debt consists of both fixed and variable rate debt, with the bulk of the debt in fixed rate borrowing. In FY 2014, fixed rate debt accounted for 86.5 percent of gross NYC debt outstanding.

Table 1. Gross NYC Debt Outstanding as of June 30, 2014

(\$ in millions)

	GO Bonds	TFA	TSASC	STAR Corporation	Capital Lease Obligations & Other^a	Gross Debt Outstanding
Tax-Exempt						
Fixed Rate	\$27,383	\$21,433 ^c	\$1,228	\$1,869	\$4,547	\$56,460
Variable Rate ^b	<u>7,000</u>	<u>3,579^c</u>	<u>0</u>	<u>0</u>	<u>156</u>	<u>10,735</u>
Subtotal	\$34,383	\$25,012	\$1,228	\$1,869	\$4,703	\$67,195
Taxable						
Fixed Rate	\$7,073	\$6,026	\$0	\$106	\$514	\$13,719
Variable Rate ^b	<u>209</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>209</u>
Subtotal	\$7,282	\$6,026	\$0	\$106	\$514	\$13,928
Total	\$41,665	\$31,038	\$1,228	\$1,975	\$5,217	\$81,123^e
Percent of Total	51.4%	38.3%	1.5%	2.4%	6.4%	100.0%

^a This figure includes capital leases of \$514 million, City University Construction Fund (CUCF) debt of \$113 million, and \$3 billion of Hudson Yards Infrastructure Corporation debt but excludes FY 2005 Securitization Corporation debt, and includes \$46 million of Tax Lien debt.

^b Variable rate debt varies in term from two to 30 years with interest-payment terms that are reset on a daily, weekly, or other periodic basis.

^c The New York City Transitional Finance Authority (TFA) fixed rate figure includes \$6.05 billion for TFA Building Aid Revenue Bonds (BARBs). The variable rate figure contains \$974 billion of Recovery Bonds.

^d The TFA taxable fixed rate figure includes \$3.02 billion of Build America Bonds (BABs) and \$1.14 billion of Qualified School Construction Bonds (QSCB).

^e Figures do not include premium/discounts impact on debt outstanding which is estimated at \$3.16 billion in FY 2014.

SOURCE: Comprehensive Annual Financial Report of the Comptroller for the Fiscal Year Ended June 30, 2014.

Elements of Outstanding Gross NYC Debt

General Obligation (GO) debt is backed by the full faith and credit of the City. As of June 30, 2014, GO debt totaled \$41.67 billion and accounted for 51.4 percent of gross NYC debt outstanding. Debt service for GO bonds is paid from the proceeds of real property taxes which are deposited with and retained by the State Comptroller under a statutory formula for the payment of debt service. This “lock-box” mechanism assures that debt service obligations are satisfied before property tax revenues are released to the City’s general fund. The FY 2014 GO debt total is \$73 million more than at the same time last year. During FY 2014, the City issued \$2.3 billion of GO bonds for capital projects.

New York City Transitional Finance Authority (TFA) issues two different types of debt, one backed by the City’s personal income tax (PIT) revenues and the other supported by revenue the City receives from New York State for school building aid (BARBs). At the close of FY 2014, TFA debt totaled \$31.04 billion, comprised of \$24.99 billion of PIT-supported debt and \$6.05 billion of BARBs. This total is 6.3 percent greater than at the close of FY 2013. As a result, the TFA’s share of gross NYC debt outstanding increased from 36.8 percent in FY 2013

Construction Bonds (QSCBs). However, although BABs and QSCBs are taxable, they must meet the same public purpose standards as tax-exempt bonds.

to 38.3 percent in FY 2014. The increase reflects the issuance of \$2.81 billion of TFA bonds in support of the City's capital program in FY 2014.

The TFA was created as a public benefit corporation in 1997 with the power and authorization to issue bonds up to an initial limit of \$7.5 billion, but after several legislative changes the limit was increased to \$13.5 billion. This borrowing did not count against the City's general debt limit.⁵ The City exhausted the \$13.5 billion bonding authority in FY 2007. In July 2009, the State Legislature authorized TFA to issue debt beyond the \$13.5 billion limit. However, this additional borrowing was made subject to the City's general debt limit. Thus, the incremental TFA bond debt issued in FY 2010 and beyond, to the extent the amount outstanding exceed \$13.5 billion, has been combined with City GO debt when calculating the City's indebtedness within the debt limit.

Building Aid Revenue Bonds (BARBs) – In April 2006, the State Legislature authorized the TFA to issue an additional \$9.4 billion of debt supported by building aid payments the City receives from the State. This debt is to be used to finance a portion of the City's five-year educational facilities capital plan. In addition to the TFA authorized portion, the legislature authorized \$1.8 billion of the Dormitory Authority of the State of New York (DASNY) Expanding our Children's Education and Learning (EXCEL) bonds for education purposes. These bonds, backed by State personal income tax revenues, were authorized to be issued by DASNY. Between FYs 2007 and 2009, \$4.25 billion of BARBs and all \$1.8 billion of EXCEL bonds were issued. The TFA issued \$1.3 billion of additional BARBs in FYs 2011 and 2012. In FY 2013, another \$850 million of BARBs debt was issued. As a result of those debt issues, less amortization through June 30, 2014, there are currently \$6.05 billion of BARBs outstanding. TFA BARBs are excluded from the calculation of the City's debt counted against the debt limit. No BARBs were issued in FY 2014. By the end of FY 2017, however, if bond issuances are to continue as planned in FYs 2015-2017, the \$9.4 billion limit will be reached.

TSASC debt totaled \$1.23 billion as of June 30, 2014. This represents a \$17 million decrease from FY 2013. There currently are no plans for future TSASC offerings. TSASC is a local development corporation created under and subject to the provisions of the Not-for-Profit Corporation Law of the State of New York. TSASC bonds are secured by tobacco settlement revenues as described in the Master Settlement Agreement among 46 states, six jurisdictions, and the major tobacco companies. In February 2006, TSASC refinanced all bonds issued under its original indenture. The revised refunding bond structure allows the tobacco settlement revenues (TSRs) to flow to both TSASC and the City.⁶ Approximately 40 percent of the TSRs are pledged to TSASC bondholders and the remainder goes to the City's general fund.

Sales Tax Asset Receivable (STAR) Corporation debt totaled \$1.975 billion at the end of FY 2014. This represents a decrease of \$10 million from FY 2013. The proceeds of STAR bonds were used to pay off the remaining debt of the Municipal Assistance Corporation (MAC) in FY 2005. The STAR Corporation is a local development corporation organized under the Not-for-Profit Corporation Law of the State of New York. While the Corporation is separate and

⁵ The debt limit is discussed in further detail in Section II.

⁶ The former TSASC indenture called for all tobacco revenues to flow first to TSASC and then to the City's general fund.

apart from the City of New York, for City accounting purposes, it is a blended component unit of the City. Debt service for STAR Corporation bonds is paid by the LGAC, a State agency and is not included when calculating the City's debt limit.⁷

In October 2014, the STAR Corporation restructured its debt and the resulting savings along with debt service reserve releases, generated significant resources. These resources were used to defease \$592 million of TFA debt, resulting in TFA debt service savings of \$16.1 million in FY 2015, \$234.3 million in FY 2016, \$201.3 million in FY 2017, and \$197.7 million in FY 2018.

Capital Lease, Conduit Debt and Other Obligations totaled \$5.22 billion as of June 30, 2014, a decrease of \$10 million from FY 2013.

The City makes annual appropriations from its general fund for agreements with other entities that issue debt to build or maintain facilities on behalf of the City. These agreements are known as "leaseback" transactions. These leaseback obligations are included in the gross NYC debt outstanding, but are excluded in the calculation of the City's indebtedness under the general debt limit. Capital lease obligations include debt issued by the Health and Hospitals Corporation (HHC) (\$628 million), DASNY for the New York City Courts Capital Program (\$506 million), the Educational Construction Fund (\$266 million), the City University Construction Fund (CUCF) (\$113 million), the Industrial Development Agency (\$90 million), the Primary Care Development Corporation (\$34 million), the Urban Development Corporation (\$19 million), as well as general lease obligations (\$514 million).⁸ In addition, due to Governmental Accounting Standards Board (GASB) reporting requirements, \$46 million of NYC Tax Lien Trust debt was included in this category.

The Hudson Yards Infrastructure Corporation (HYIC) is a not-for-profit local development corporation formed in July 2004, to finance development in the Hudson Yards district of Manhattan — primarily to extend the number 7 subway line westward to 11th Avenue and 34th Street. HYIC has issued \$3 billion in bonds. To the extent that project revenues are insufficient to meet interest payments, the City pays HYIC the amount sufficient to cover such interest on the debt, in the form of interest support payments. The corporation will be considered to be self-sufficient when HYIC has two fiscal years with adequate recurring revenues to pay its debt service directly. When HYIC is self-sufficient, it will also start paying down principal.⁹ Through FY 2014, the City had paid \$330.7 million in interest support payments.

⁷ LGAC receives its revenues primarily from amounts derived from the New York State 1.0 percent Sales Tax. Estimated revenues in FY 2014 were \$2.9 billion.

⁸ Although for reporting purposes \$654 million of Health and Hospitals Corporation (HHC) debt is included in the category of *Capital Lease Obligations*, the debt of HHC is not fully guaranteed by New York City.

⁹ HYIC will be able to pay its debt service directly when its outstanding bonds convert to a self-amortizing fixed rate structure, which will occur when it has: 1) at least 125 percent revenue coverage on Maximum Annual Debt Service (MADS) on then outstanding senior bonds, 2) 105% of MADS on all then outstanding bonds from recurring revenues.

Other Issuing Authorities

In addition to the financing mechanisms cited above, a number of independent authorities issue bonds to finance large infrastructure projects in the City and throughout the metropolitan area. The two largest issuers are the New York City Municipal Water Finance Authority (NYW) and the New York State Metropolitan Transportation Authority (MTA). The debt of NYW and MTA is not an obligation of the City; nevertheless, bond proceeds are used to support services provided to City residents. The outstanding debt of these two authorities is summarized in Tables 2 and 3.

New York City Municipal Water Finance Authority as of June 30, 2014 had \$30.39 billion in debt outstanding, an increase of \$897 million, or 3.0 percent from FY 2013. Debt issued by NYW is supported by rates, fees and charges for the use of services provided by the system. Created by State law in 1984, NYW is responsible for funding water and sewer-related City capital projects administered by the City's Department of Environmental Protection (DEP), such as sewers, water mains, and water pollution control plants. Avoiding the need to build water filtration plants for upstate watersheds continues to be a high priority for the DEP capital program. Land acquisition strategies and measured local development help the goals of continued water quality. DEP's FYs 2015-2018 Four-Year Capital Program assumes an average annual cash funding need of \$1.46 billion.¹⁰ The Capital Plan will continue to be a driver of water and sewer rate increases over the Financial Plan period. The current City-funds commitment plan annual average of \$1.96 billion per year is 42 percent higher than the agency's capital commitments between FYs 2011 – 2014, when DEP City-funds capital commitments averaged \$1.38 billion per year. Although the current plan is higher than the prior four-year period, it is less than FYs 2007-2010, when federal mandates drove much of the program and DEP's City-funds commitments averaged \$2.8 billion per year.

Table 2. NYW Debt Outstanding as of June 30, 2014

(\$ in millions)

Tax Exempt	
Fixed Rate	\$25,599 ^a
Variable Rate	4,792 ^b
Total	\$30,391

^a Includes \$556 million of Bond Anticipation Notes.

^b Includes \$500 million of Commercial Paper.

SOURCE: NYC Municipal Water Finance Authority.

New York State Metropolitan Transportation Authority – the State-controlled MTA is composed of six major agencies providing transportation throughout the metropolitan area. The MTA is responsible for the maintenance and operation of the New York City Transit buses and subway system as well as the Long Island and Metro North Railroads and various bridges and tunnels.

¹⁰ This figure represents the estimated borrowing need for DEP, issued via NYW. This differs from the commitment plan figure.

Table 3. MTA Debt Outstanding as of June 30, 2014

(\$ in millions)

Tax Exempt	
Fixed Rate	\$29,384
Variable Rate	5,021
Total	\$34,405

SOURCE: Metropolitan Transportation Authority.

Debt issued to fund the MTA's capital program is secured by several sources: revenues from system operations, surplus MTA Bridges and Tunnels revenue, state and local government funding, and certain taxes imposed in the metropolitan commuter transportation mobility tax district, which includes the counties of New York, Bronx, Kings, Queens, Richmond, Rockland, Nassau, Suffolk, Orange, Putnam, Dutchess, and Westchester.

As of June 30, 2014, the MTA had \$34.4 billion of debt outstanding, an increase of \$1.53 billion, or 4.7 percent, from June 30, 2013. Outstanding MTA debt has increased in all but one of the last fifteen years. MTA debt has grown by 142 percent or \$20.2 billion since FY 2000. This growth rate is more than 35 percent higher than the growth in gross NYC indebtedness during the same period. Due to the lack of on-going direct State debt issuance support, the MTA managed debt outstanding will continue its recent trend of increases.

B. ANALYSIS OF PRINCIPAL AND INTEREST AMONG THE MAJOR NYC ISSUERS

The three major issuers that either have financed and/or continue to finance City capital projects outside the water and sewer system are: NYC General Obligation, TFA, and TSASC bonds. There is no additional planned debt issuance of TSASC debt. As a result, any new debt issuances will involve a mix of GO debt, TFA bonds, and TFA BARBs.

Table 4. NYC Projected Bonds Outstanding, Three Major Issuers, FYs 2014 – 2024

(\$ in millions)

End of Fiscal Year	Debt Outstanding for GO, TFA, & TSASC	Percent Change
2014	\$75,906	2.5%
2015	\$79,243	4.4%
2016	\$82,367	3.9%
2017	\$85,446	3.7%
2018	\$88,243	3.3%
2019	\$90,151	2.2%
2020	\$91,116	1.1%
2021	\$91,465	0.4%
2022	\$91,275	(0.2%)
2023	\$90,306	(1.1%)
2024	\$88,698	(1.8%)

NOTE: Above figures include STAR debt and TFA BARBs.
 SOURCE: Comprehensive Annual Financial Report of the Comptroller for the Fiscal Year Ended June 30, 2014 and the NYC Office of Management and Budget, June 2014 Financial Plan.

Based on Office of Management and Budget (OMB) forecasts, the annual growth rate in debt outstanding, which averaged 5.3 percent per year from FY 2000 to FY 2014, is expected to slow to 1.6 percent between FY 2014 to FY 2024.¹¹ However, the average annual growth rate of debt outstanding in the first half of this period is significantly higher than the rate for the period as a whole.

As shown in Table 4, between FYs 2014 and 2018, the growth rate averages 3.8 percent per year. Growth estimates beyond the Financial Plan period tend to be lower, due to the lack of OMB and agency focus on capital projects in the outer-years. Projections for decreases in debt outstanding planned for FYs 2022 to 2024 are likely to change as more detailed information about funding requirements becomes available. Because City agencies are not yet focused on the latter years of the Ten-Year Capital Strategy, their capital plans for the future projections are less defined.

The principal and interest composition for the City’s three major issuers combined is shown in Table 5.¹² The Financial Plan assumes principal repayments totaling \$2.818 billion in FY 2015, \$3.298 billion in FY 2016, \$3.375 billion in FY 2017, and \$3.392 billion in FY 2018. Principal is estimated to comprise 44.1 percent of debt service in FY 2015, 46.5 percent in FY 2016, 46 percent in FY 2017 and 44.5 percent in FY 2018.¹³

¹¹ *Comprehensive Annual Financial Report of the Comptroller for the Fiscal Year Ended June, 30, 2014*, page 366, used as source for FY 2000 to FY 2014 rate of growth. Includes \$3 billion of HYIC bonds. Excludes premiums and discounts.

¹² Since TFA BARB and STAR debt service are not paid with City general fund revenues, they are not included in Table 5.

¹³ Debt service excludes lease-purchase debt, interest on short-term notes, and debt service on STAR debt as of the FY 2015 Adopted Budget and June 2014 Financial Plan.

Table 5. Principal and Interest Estimated Payments, GO, TFA and TSASC

(\$ in millions)

Fiscal Year	Estimated Principal Amount	Estimated Interest	Estimated Total Debt Service	Principal as Percent of Total
2015	\$2,818	\$3,568	\$6,386	44.1%
2016	\$3,298	\$3,798	\$7,096	46.5%
2017	\$3,375	\$3,969	\$7,344	46.0%
2018	\$3,392	\$4,224	\$7,616	44.5%

NOTE: Adjusted for prepayments and includes interest on short-term notes but not debt service for capital lease / conduit debt.

SOURCE: NYC Office of Management and Budget, June 2014 Financial Plan and the City of New York, Office of the Comptroller.

During FY 2014, the City issued \$4.88 billion of GO debt, of which \$2.61 billion was used for refunding transactions with present-value savings of \$217 million. The remaining \$2.27 billion represented new debt for capital purposes. The refundings produced savings of \$6 million in FY 2014, \$220 million in FY 2015, and \$1.2 million in FY 2016. At the end of FY 2014, outstanding GO debt totaled \$41.67 billion. Approximately \$22.28 billion of the total GO debt currently outstanding (53.5 percent) will mature in the next ten years, as shown in Table 6.

Table 6. Amortization of Principal of the Three Major Issuers

(\$ in millions)

Fiscal Years	GO	TFA^a	TSASC	Total	Percent of Total
2015-2024	\$22,284	\$12,293	\$288	\$34,865	47.2%
2025-2034	\$14,924	\$11,974	\$660	\$27,558	37.3%
2035 and After	\$4,457	\$6,771	\$280	\$11,508	15.5%
Total	\$41,665	\$31,038	\$1,228	\$73,931	100.0%

^a Includes \$986 million of Recovery Bonds and \$6.15 billion of TFA BARBs.

In FY 2014, TFA issued \$3.16 billion of debt, of which \$2.81 billion was new debt. The remaining \$350 million of debt issuance was for a refunding transaction that produced budgetary savings of \$24.23 million over the life of the bonds. TFA's debt outstanding was \$31.04 billion at the end of FY 2014. Of the total TFA debt outstanding, \$12.29 billion, or 39.6 percent, will come due over the next ten years, as reflected in Table 6. Of the outstanding debt of the City's three primary issuers, 47.2 percent is scheduled to come due over the next ten years.

II. Debt Limit

A. THE CITY'S DEBT-INCURRING POWER

NYC's general debt limit, as provided in the New York State Constitution, is 10 percent of the five-year rolling average of the full value of taxable real property. The process by which the City's annual debt limit is established involves a number of different elements:

- No later than February 15th, the City's Department of Finance issues a preliminary estimate of the assessed valuation of taxable real property for the ensuing fiscal year. Assessed value is statutorily less than the market value of properties.
- The general debt limit is based on the full market value of taxable real property and not on assessed value. To derive a market value of taxable properties, the New York State Office of Real Property Tax Services (ORPTS) develops special equalization ratios that express the relationship between assessed value and market value. ORPTS uses the most recent market survey and a projection of market values based on recent surveys to obtain the full market value for the ensuing fiscal year. The special equalization ratio is then expressed as the ratio of the assessed value of taxable real property over the full market value of taxable real property. ORPTS calculates equalization ratios for the ensuing fiscal year and the four fiscal years preceding it. These equalization ratios are used to compute the market values that are used to establish the City's debt-incurring power (debt limit) for the current fiscal year. Market values of the ensuing fiscal years are forecasted by the Comptroller's Office.
- The State Constitution provides that, with certain exceptions, the City's general debt limit cannot be greater than 10 percent of the average full value of taxable real property in the City over the most recent five years. Full values are established using the equalization ratios and the assessed values of taxable real property for the relevant five-year period. The City's debt limit for the ensuing fiscal year is then calculated by averaging the estimated full values of real property over the five-year period.
- By June 30th, the City Council adopts the City's yearly budget and fixes the property tax rates for the ensuing fiscal year. The resolution fixing the property tax contains the five-year average of the full value of real property that is used to derive the debt limit.
- The debt limit is effective as of July 1st, the start of each fiscal year.

Table 7 illustrates the calculation of the FY 2015 debt limit. The full market value for each of FYs 2011 through 2015 was calculated by dividing the assessed value of taxable real estate for each year by the special equalization ratios provided by ORPTS. The average of the computed full values of this five-year period is calculated. Finally, the FY 2014 debt limit (\$81.355 billion) is derived by multiplying the five-year average value (\$813.549 billion) by 10 percent.

Table 7. Calculation of Full Value of Real Property in New York City and the General Debt Limit, FY 2015

Fiscal Year	Billable Assessed Value of Taxable Real Estate	Special Equalization Ratio	Full Value
2011	\$149,311,931,232	0.2000	\$746,559,656,160
2012	\$157,121,003,987	0.2048	\$767,192,402,280
2013	\$164,036,985,806	0.2081	\$788,260,383,498
2014	\$173,429,032,559	0.2073	\$836,608,936,609
2015	\$184,059,201,523	0.1981	\$929,122,673,009
5-Year Average Value			\$813,548,810,311
10 Percent of the 5-Year Average			\$81,354,881,031

SOURCE: New York City Council Tax Fixing Resolution for FY 2015.

Table 8 summarizes the estimated growth in the City’s debt-incurring power. The City’s FY 2015 general debt-incurring power of \$81.36 billion is projected to increase to \$84.81 billion in FY 2016, \$88.59 billion in FY 2017, and \$90.73 billion by FY 2018.¹⁴ The City’s indebtedness counted against the statutory debt limit is projected to grow from \$55.91 billion at the beginning of FY 2015 to \$65.77 billion by the beginning of FY 2018. TFA and TSASC together have provided resources totaling over \$29 billion through FY 2014.¹⁵ The TFA is authorized to borrow beyond its original \$13.5 billion limit provided the combined additional TFA debt and GO debt does not exceed the City’s general debt limit. The impact of these capital costs is discussed in Section III.

¹⁴ The full value of taxable real property in the outyears is based on the Comptroller’s Office forecast of future real estate trends.

¹⁵ The figure used excludes the issuance of \$2 billion of TFA recovery bonds and \$6.15 billion of TFA BARBs.

Table 8. NYC Debt-Incurring Power

(\$ in millions)

	July 1, 2014	July 1, 2015 ^a	July 1, 2016 ^a	July 1, 2017 ^a
Gross Statutory Debt-Incurring Power	\$81,355	\$84,805	\$88,591	\$90,729
Actual Bonds Outstanding as of July 1, 2014 (net) ^b	41,308	39,289	36,956	34,680
Plus New Capital Commitments ^c				
FY 2015		7,665	7,665	7,665
FY 2016			6,458	6,458
FY 2017				5,212
Less: Appropriations for General Obligation Principal	(2,029)	(2,356)	(2,300)	(2,275)
Incremental TFA Bonds Outstanding Above \$13.5 billion	10,513	9,776	8,891	7,909
Subtotal: Net Funded Debt Against the Limit	\$49,792	\$54,374	\$57,670	\$59,649
Plus: Contract and Other Liability	6,116	6,116	6,116	6,116
Subtotal: Total Indebtedness Against the Limit	\$55,908	\$60,490	\$63,786	\$65,765
Remaining Debt-Incurring Power within General Limit	\$25,447	\$24,315	\$24,805	\$24,964

^a FYs 2016 through 2018 debt limits are based on the NYC Comptroller's Office's forecast of billable assessed value and related full market value of real property estimates.

^b Net adjusted for Original Issue Discount, Capital Appreciation Bonds, GO bonds issued for the water and sewer system, Business Improvement District debt, and cash on hand. The \$41.31 billion is derived from the \$41.665 billion GO total minus \$357 million of the aforementioned adjustments.

^c Reflects City-funds capital commitments as of the FY 2015 Adopted Capital Commitment Plan (released in October 2014) and includes cost of issuance and certain Inter-Fund Agreements. In July 2009, the State Legislature included future debt of the TFA Future Tax Secured bonds under the general debt limit; thus City-funds capital commitments will be funded by the TFA as well.

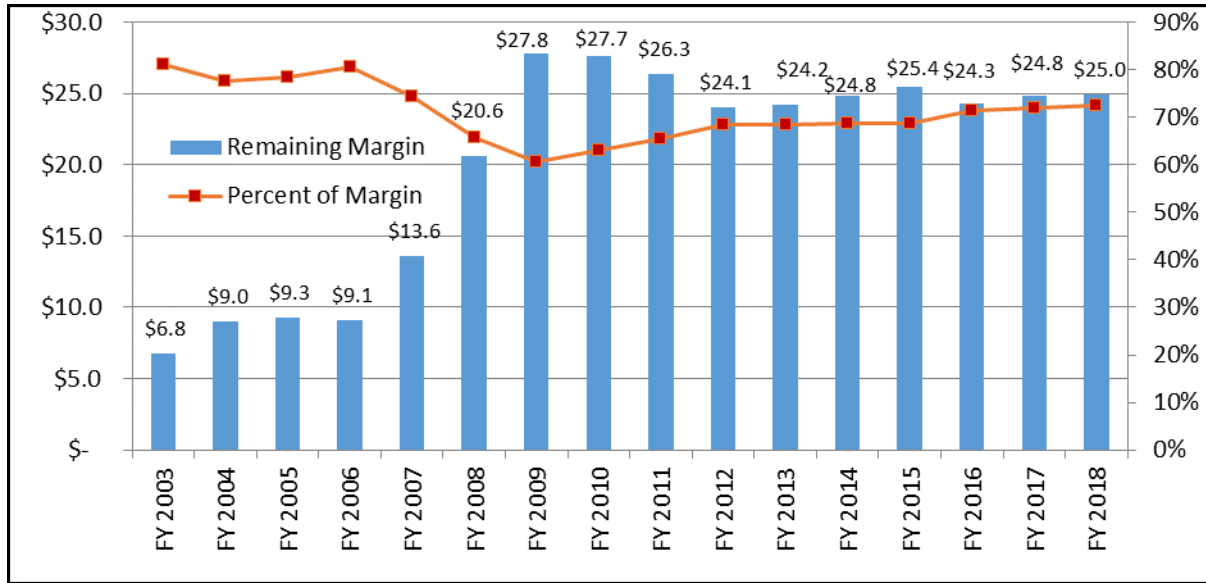
NOTE: The Debt Affordability Statement released by the City in May 2014 presents data for the last day of each fiscal year, June 30th, instead of the first day of each fiscal year, July 1, as reflected in this table. The City's Debt Affordability Statement forecasts that indebtedness would be below the general debt limit by \$17.4 billion at the end of FY 2015.

SOURCE: NYC Comptroller's Office and the NYC Office of Management and Budget.

As shown in Chart 1, the City’s debt margin is forecast to decline from \$25.45 billion at the beginning of FY 2015 to \$24.32 billion in FY 2016, and then increases slightly to \$24.81 billion by the beginning of FY 2017, and to \$24.96 billion by the beginning of FY 2018. The debt limit, which is driven by the full market value of taxable properties, is projected to increase by 3.7 percent per year from FY 2015 to FY 2018, outpaced by the projected 5.6 percent annual increase of total indebtedness during the same period.

While the debt margin is forecast to decline from current levels in FYs 2015 through 2018, the FY 2015 level is near the high for the last decade. The City’s debt margin reached a high of \$27.8 billion in FY 2009 up from the low of \$6.8 billion at the beginning of FY 2003. The significant increase in the City’s debt margin over this period was a manifestation of the City’s rising real estate values. Between FY 2002 and FY 2010, the City’s debt limit grew at an average of 9.8 percent per year. The Comptroller’s Office projects that annual debt limit growth will decline to 3.7 percent over the next three years.

Chart 1. NYC’s Remaining Debt-Incurring Power FYs 2003 – 2018, and Debt Outstanding as a Percent of Debt Limit



SOURCE: NYC Comptroller’s Office and the NYC Office of Management and Budget.

III. Debt Burden and Affordability of City Debt

This section presents statistics assessing the size of the City’s debt burden and its affordability. The proper measure of affordability is subject to debate since there are alternative measures that can be used to assess a locality’s available resources. This section provides measures of debt per capita, debt as a percent of the value of real property, debt as a percent of personal income, and debt as a percent of local tax revenues and City-funds expenditures.¹⁶ For several of these measures, comparisons with other jurisdictions are presented.

Recently, ratings agencies have moved towards assessing debt together with pension and other post-employment benefits liabilities (OPEB). While these analyses are beyond the scope of this report, the combined metric is a growing interest to the rating community.¹⁷

A. BACKGROUND

The City’s infrastructure was greatly neglected during the fiscal crisis of the 1970s. Deferred maintenance led to dilapidated roads, bridges, and schools. Following that difficult period, the City commenced with a series of ambitious capital plans to repair and maintain its on-going infrastructure needs. This trend, which began in the early 1980s, continues today.

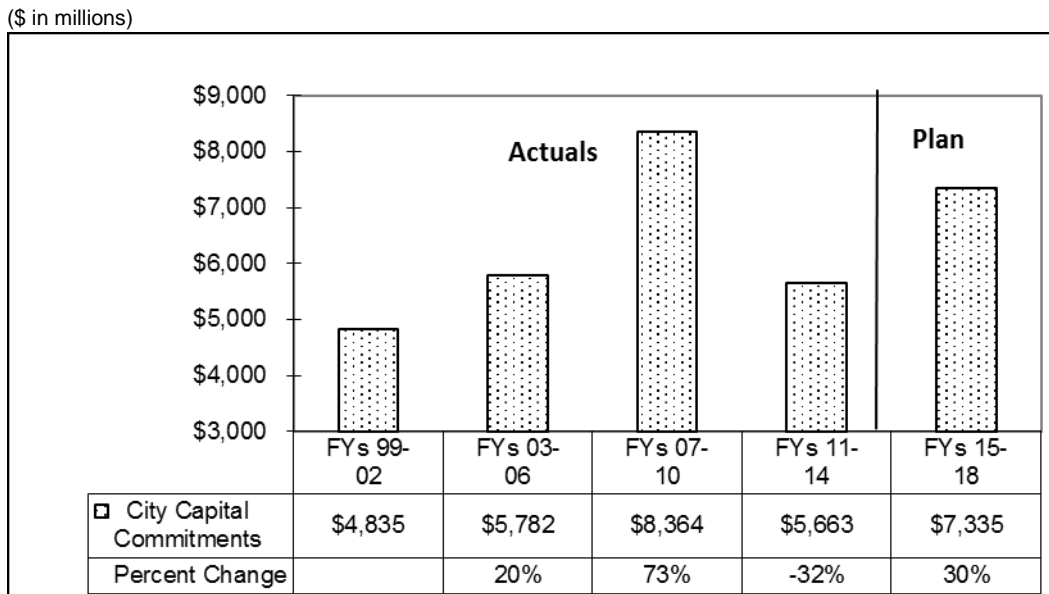
During the period spanning FY 1999 to FY 2002, the City committed an average of \$4.84 billion per year on capital projects. In the subsequent four years, this number grew to \$5.78 billion per year and increased again to \$8.36 billion per year during FYs 2007 through 2010. The average annual capital commitment declined to \$5.66 billion in the period between FY 2011 and FY 2014. In FYs 2015 – 2018, City-funded commitments are projected to average \$7.34 billion, 30 percent more than the prior four-year period, as shown in Chart 2.¹⁸

¹⁶ New York City’s FY 2013 debt per capita is used for comparison because the available data for the other sample cities are from either fiscal year or calendar year 2013.

¹⁷ The FY 2014 Comptroller’ Annual Financial Report discusses OPEB and Pensions in the Other Postemployment Benefits and Pension actions in the “Notes to the Financial Statements”.

¹⁸ Figures include commitments for the DEP that are funded primarily with NYW debt.

Chart 2. Actual and Projected Capital Commitment Annual Averages, City-Funds



SOURCE: Message of the Mayor, various FYs 1996 – 2010, and FY 2015 Adopted Capital Commitment Plan (Published October 2014).

In FY 2001, the City embarked on what was then a historically high capital commitment program, with City-funded capital commitments totaling \$6.1 billion, a 63.8 percent increase over FY 2000. City-funded commitments declined slightly to \$5.83 billion in FY 2002, \$5.39 billion in FY 2003 and \$4.54 billion in FY 2004. The trend reversed in FY 2005 when City-funded commitments increased to \$7.29 billion. Capital commitments continued to grow each year reaching a high of \$9 billion in FY 2008. Capital commitments declined to \$7.26 billion in FY 2009 before rising again to \$9 billion in FY 2010 and dropping considerably to \$5.4 billion in both FYs 2011 and 2012, before rising to \$6.2 billion in FY 2013 and a relatively modest \$5.6 billion in FY 2014, as shown in Table 9.

Table 9. City Capital Commitments from FY 2001 to FY 2018

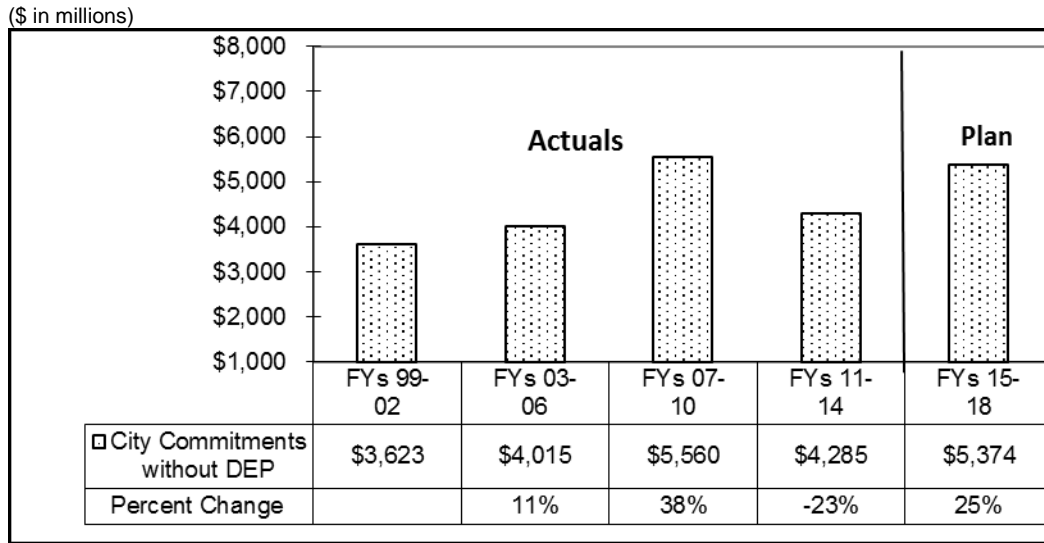
(\$ in millions)

Fiscal Year	City Capital Commitments	Year-over-Year Percent Change	Six-Year Rolling Average	Year-over-Year Percent Change
2001*	\$6,094	N/A		
2002*	\$5,832	(4.3%)		
2003*	\$5,389	(7.6%)		
2004*	\$4,539	(15.8%)		
2005*	\$7,288	60.6%		
2006*	\$5,911	(18.9%)	5,842	
2007*	\$8,171	38.2%	6,188	5.9%
2008*	\$9,008	10.2%	6,718	8.6%
2009*	\$7,264	(19.4%)	7,030	4.7%
2010*	\$9,014	24.1%	7,776	10.6%
2011*	\$5,369	(40.4%)	7,456	-4.1%
2012*	\$5,458	1.7%	7,381	-1.0%
2013*	\$6,196	13.5%	7,052	-4.5%
2014**	\$5,630	(9.1%)	6,489	-8.0%
2015**	\$9,945	76.6%	6,935	6.9%
2016**	\$8,254	(17.0%)	6,809	-1.8%
2017**	\$5,852	(29.0%)	6,889	1.2%
2018**	\$5,290	(9.6%)	6,861	-0.4%

* FYs 2001 – 2013 are actuals. ** FY 2014 is a preliminary actual - FYs 2015 – 2018 are estimates.

Chart 3 summarizes historical actual capital commitments exclusive of capital commitments made for DEP projects. Non-DEP City-funded capital commitments averaged \$3.62 billion in FYs 1999 – 2002, \$4.01 billion in FYs 2003 – 2006, \$5.56 billion in FYs 2007 – 2010, and \$4.29 billion in FYs 2011 – 2014. City-funded capital commitments exclusive of DEP commitments are projected to average \$5.37 billion per year between FYs 2015 – 2018, a 25 percent increase from the actual average of the four prior fiscal years.

Chart 3. Actual and Projected Average City-Funds Capital Commitments, Excluding DEP



SOURCE: Message of the Mayor, various FYs 1996 – 2010, and FY 2015 Adopted Capital Commitment Plan (Published October 2014).

The City-funded capital program relies almost exclusively on the issuance of bonds. The City’s annual borrowing excluding NYW debt, grew from \$1.08 billion in FY 1982 to \$5.08 billion in FY 2014. The FY 2014 borrowing was the sixth highest annual borrowing in the City’s history, with the highest annual borrowing of \$7.75 billion occurring in FY 2009. These record borrowing levels reflect the aggressive Capital Commitment Plan in FYs 2007 through 2010 when City-funded commitments, excluding DEP, averaged \$5.56 billion per year. OMB expects the City’s borrowing to average \$6.58 billion annually between FYs 2015 through 2018, with the peak estimated borrowing of \$6.79 billion in FY 2017.¹⁹

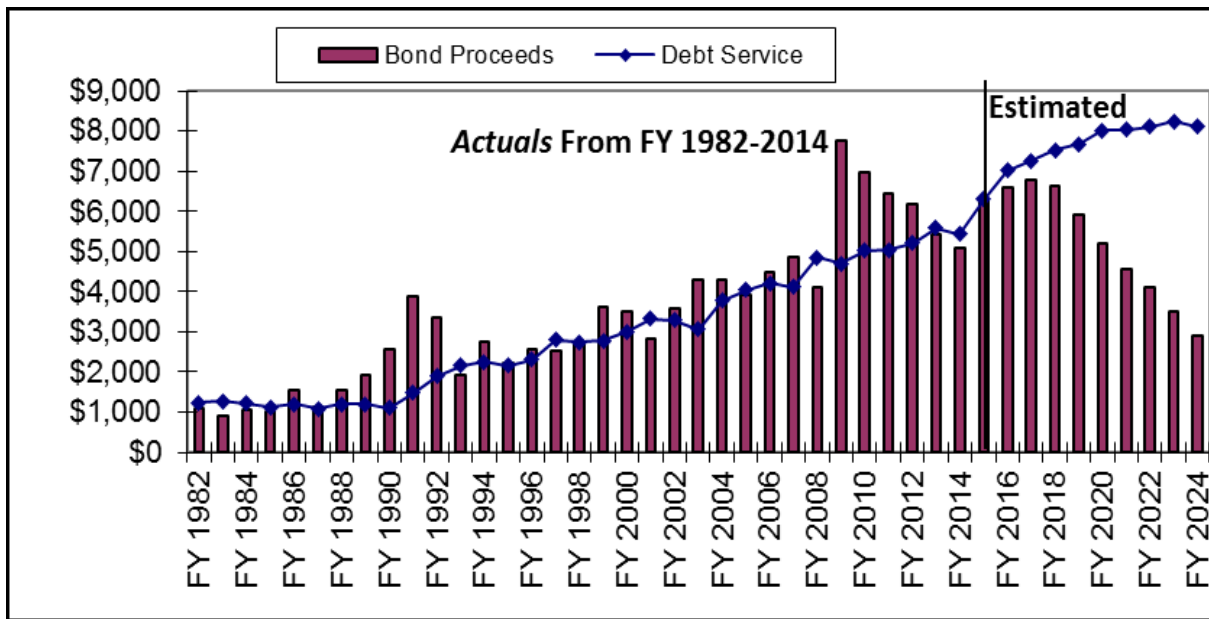
The annual average growth rate of City debt service payments between FY 1982 and FY 2014 was 4.7 percent per year, growing from \$1.22 billion in FY 1982 to \$5.34 billion in FY 2014. According to the OMB, the City’s debt service is expected to grow at an average of 4.2 percent per year over the next ten years, to \$8.03 billion by FY 2024, as illustrated in Chart 4. Projected growth during the first four years of the Financial Plan period is 8.7 percent, twice the projected average growth over the entire FYs 2014 – 2024 period. This rate of growth over the Financial Plan period is potentially high as refunding actions, low variable rate demand bonds (VRDB) rates, and conservative long-term bond interest rates will help mitigate growth over the Financial Plan period. In addition this demonstrates an average annual growth of 1.1 percent per year in FYs 2019 – 2024, well below the 32 year average growth rate of 4.7 percent. This

¹⁹ This includes estimated bond proceeds for GO, TFA, and TFA BARB bonds. Without BARBs, estimated borrowing would be \$5.23 billion per year. While City-funded commitments include DEP commitments, because it is a mayoral operating agency, borrowing for DEP capital projects are not included in our analysis of the City’s debt. Financing for DEP’s capital program is done by the NYW financing entity.

outyear growth is low and it is more than likely that debt service will be higher than projected over this period.²⁰

Chart 4. Bond Proceeds and Debt Service, FYs 1982 – 2024

(\$ in millions)



SOURCE: City of New York, Office of the Comptroller, Comprehensive Annual Financial Reports, 1982-2014 and Office of Management and Budget, FY 2015 Adopted Financial Plan, June 2014. Debt-service payments exclude interest on short-term notes, Municipal Assistance Corporation debt, BARBs debt and lease-purchase debt and are adjusted for budget surpluses prepaid to the debt-service fund. However, BARBs are included in proceeds.

B. DEBT BURDEN

Even after adjusting for the effects of population change and tax revenue, New York City’s debt has expanded significantly since FY 1990. Debt per capita, which was \$2,951 in FY 1990, has grown to \$9,665 in FY 2014, an increase of 228 percent.²¹ The cumulative growth in debt per capita over this period was 2.6 times the City’s rate of inflation.²² The debt per capita figure does not include the debt of the NYW and the MTA, both of which rely upon user fees

²⁰ Debt service figures exclude TSASC, interest on short-term notes, and lease-purchase debt service as well as the State-supported BARBs debt service.

²¹ Debt per capita is calculated by dividing gross NYC debt by total population as reported in the Comprehensive Annual Financial Report of the Comptroller for the Fiscal Year Ended June 30, 2014. Excludes bond premium and discount adjustments.

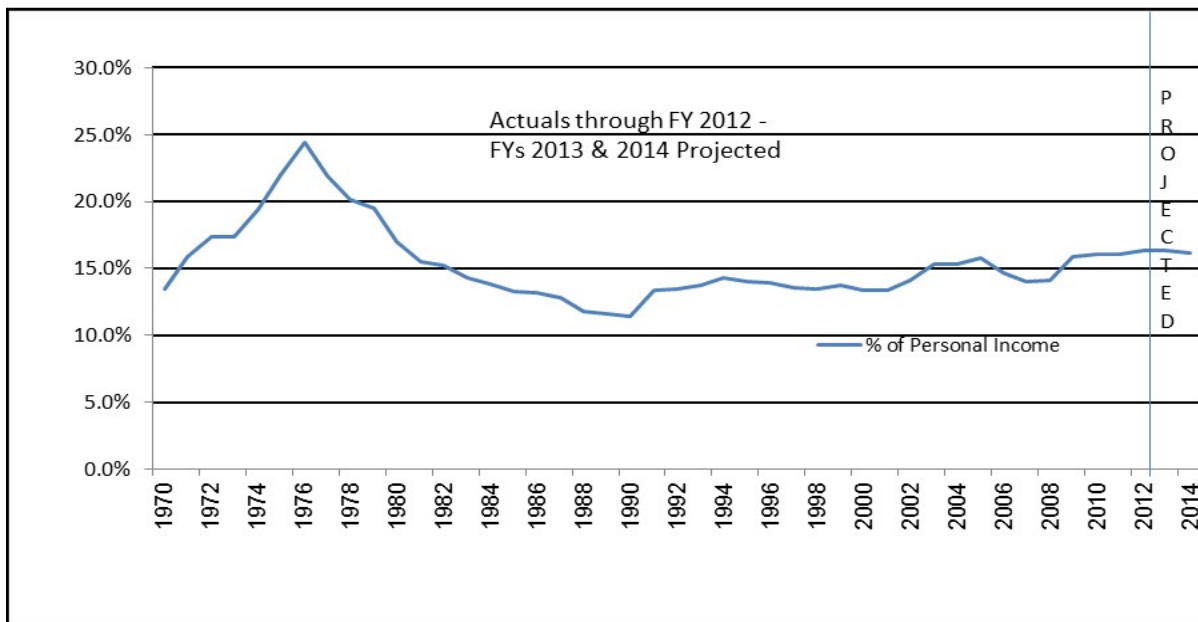
²² FY 2014 debt per capita of \$9,665 is used for section B’s analysis; however, FY 2012’s debt per capita figure of \$9,378 is used when comparing other municipalities, due to data limitations. In addition, 1990 is used as the base year to provide a uniform reference point from report to report. In prior reports, FY 1990’s debt per capita was reported as \$2,490 which was based on *net debt* outstanding. For better comparability, the FY 1990 figure of \$2,951 now based on *gross debt* outstanding.

paid by residents in the City and the metropolitan area. If this debt were included in the calculation, the FY 2014 debt per capita figure would increase to more than \$17,000.²³

Historical Debt Outstanding as a Percent of Personal Income, FYs 1970 – 2014

In the early 1970s, the City issued short-term notes which it did not entirely redeem at the end of each fiscal year. From 1970 to 1975, the City’s year-end short-term note balance averaged \$2.95 billion, with \$4.44 billion outstanding at the end of FY 1975. This signal of financial stress contributed to the City’s inability to access the credit markets and the eventual involvement of State and Federal governments beginning in March 1975. Confronted with external controls in the aftermath of the fiscal crisis, the City rapidly brought down its indebtedness in the late 1970s. This, combined with the resurgence of Wall Street in the 1980s, resulted in the decline of the ratio of debt to personal income from 1976 to 1990.

Chart 5. NYC Gross Debt as a Percent of Personal Income, FYs 1970 – 2014



SOURCES: *Comprehensive Annual Financial Reports of the Comptroller for the Fiscal Year ended June 30, 1990, 1999, and 2013* and the U.S. Bureau of Economic Analysis, personal income for counties and NYC OMB, Message of the Mayor, May 2014.

Chart 5 illustrates the historical trend of gross debt outstanding as a percentage of personal income from FYs 1970 to 2014. After reaching a peak of 24.4 percent in FY 1976, gross debt as a percent of NYC personal income trended downward, reaching a low of 11.4 percent in FY 1990. Through the 1990s, the ratio averaged 13.5 percent before spiking to 15.3 percent in FY 2003 in the aftermath of the September 11th attacks. Between FYs 2007 and 2012, the ratio averaged 15.4 percent. In FYs 2013 and 2014, however, this ratio is forecast to increase to 16.4 percent and 16.2 percent, respectively. Gross NYC debt outstanding increased

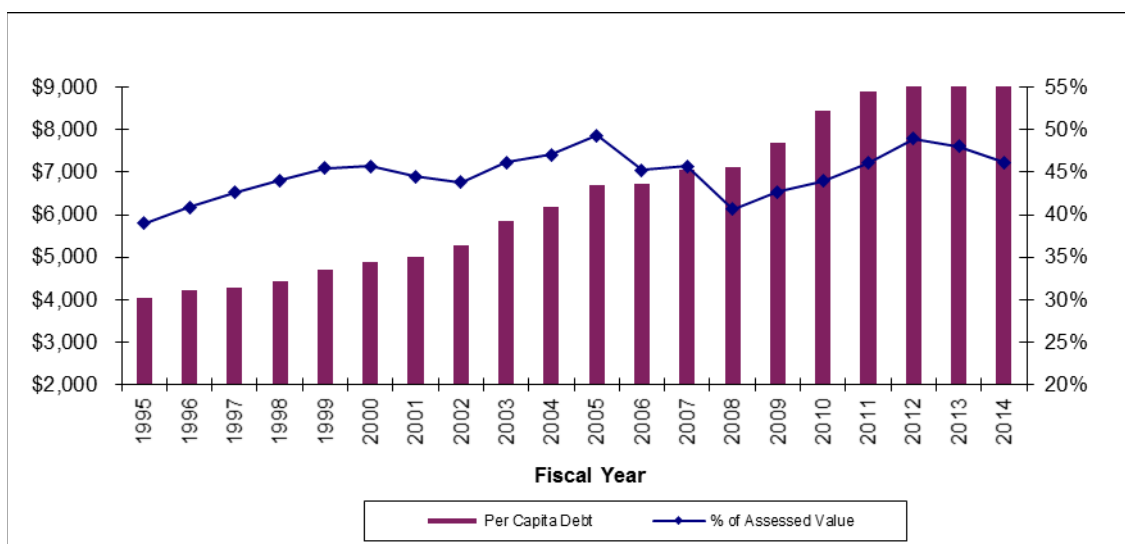
²³ Uses NYC’s population, not all the counties of the MTA region.

2.3 percent from FY 2013 to FY 2014 while the projected increase in personal income is 3.4 percent during the same time period.²⁴

NYC Debt as a Portion of Assessed Real Property

From FY 2008 through FY 2012, gross NYC debt as a proportion of the assessed value of taxable real property had been increasing until FY 2013 and FY 2014. The declines in the ratio in FY 2013 and FY 2014 is primarily due to slower growth in outstanding debt relative to assessed value. Most recently in FY 2014, this is illustrated by a 6.4 percent increase in assessed value versus a debt outstanding increase of 2.3 percent from FY 2013 to FY 2014. As a result, debt outstanding as a percent of assessed drops to 46.2 percent in FY 2014 from 48 percent last year. The City’s debt as a percentage of the assessed value of taxable real property remains high relative to FY 1995’s level of 39 percent.

Chart 6. NYC Debt Per Capita and Debt as a Percentage of the Assessed Value of Taxable Real Property



SOURCE: City of New York, Office of the Comptroller, Comprehensive Annual Financial Reports, FYs 1995 – 2014.

NYC Debt Service as a Percent of Tax Revenues

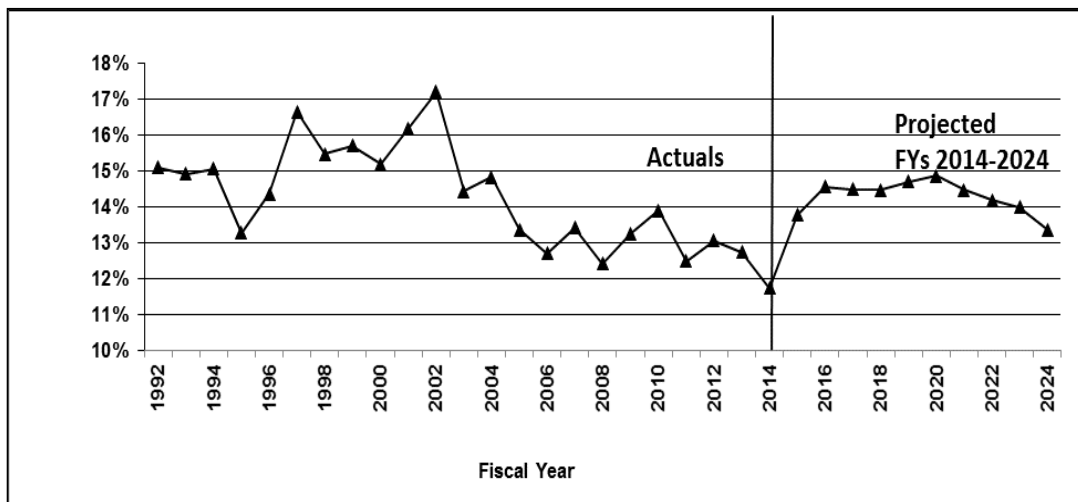
Another measure of debt affordability is annual debt service expressed as a percent of annual tax revenues. This measure shows the pressure that debt service exerts on a municipality’s locally-generated revenues. Debt service exceeded 15 percent of tax revenues in eight of the eleven years from FY 1992 to FY 2003.²⁵ By FY 2008, this ratio fell to a low of

²⁴ New York City’s OMB, Message of the Mayor, May 2014, p.21 was used for NYC personal income growth rate from FY 2013 to FY 2014. Actual personal income data is available through FY 2012.

²⁵ Aside from the recent one-year aberration in FY 2002 related to the World Trade Center (WTC) disaster, the ratio of 15 percent is more comparable to the early 1980’s and early and mid-1990’s when the City was emerging from recessionary periods.

12.4 percent before dropping to its lowest level since 1992, at 11.7 percent in FY 2014, as shown in Chart 7. Debt service as a percentage of tax revenues is projected to reach a high of 14.9 percent in FY 2019 before declining to just below 13.5 percent by FY 2024.²⁶ As discussed earlier, these outyear ratios are reflective of the projected capital borrowing and debt service in FYs 2019 – 2024, both of which are likely understated.

Chart 7. NYC Debt Service as a Percent of Tax Revenues



SOURCE: City of New York, Office of the Comptroller, Comprehensive Annual Financial Reports, FYs 1982 – 2014, and NYC Office of Management and Budget, FY 2015 Adopted Financial Plan, June 2014.

C. COMPARISON WITH SELECTED MUNICIPALITIES

New York City is the largest City in the U.S. with a complex, varied, and aging infrastructure. The City has more school buildings, firehouses, health facilities, community colleges, roads and bridges, libraries, and police precincts than any other city in the country. Moreover, New York City has responsibilities that in other cities are distributed more broadly among states, counties, unified school districts, and public authorities. When comparing levels of debt with other jurisdictions, it is important to adjust the data to establish a comparable measure among and between jurisdictions. Using debt per capita data to compare debt burden among municipalities provides such an adjustment.

As shown in Table 10, in FY 2013, NYC’s debt per capita was twice the average of a sample of eleven other large U.S. cities, and 1.53 times the per capita debt of Chicago which had the next highest debt burden.²⁷

²⁶ From the City of New York, Office of the Comptroller, Comprehensive Annual Financial Reports, 1982-2014, and NYC Office of Management and Budget, Adopted Financial Plan, June 2014 and adjusted for prepayments and includes TSASC.

²⁷ The sample cities consist mostly of the highest population cities in the U.S. San Francisco and Boston were selected due to their density.

Table 10. Debt Per Capita for Selected Cities, 2013

City	Population	Direct and Overlapping Debt Outstanding (\$ 000)	Debt Per Capita ^a
Boston	636,479	\$1,349,167	\$2,120
Seattle	626,600	1,354,820	\$2,162
San Jose	984,000	3,515,080	\$3,572
San Francisco	839,109	3,016,301	\$3,595
Dallas	1,232,243	5,314,154	\$4,313
Phoenix	1,485,719	6,574,503	\$4,425
Los Angeles	3,863,839	17,910,785	\$4,635
Houston	2,160,821	10,171,485	\$4,707
Philadelphia	1,547,607	7,539,800	\$4,872
San Antonio	1,383,194	8,253,295	\$5,967
Chicago	2,695,598	16,794,855	\$6,230
<i>Average of Sample Cities</i>	<i>1,569,810</i>	<i>\$7,435,840</i>	<i>\$4,686</i>
New York City	8,336,697	\$79,385,000	\$9,522

^a Table 10 above is based on data extracted from each city's "Direct and Overlapping Debt Outstanding" exhibit included in that city's Comprehensive Annual Financial Report. While the individual exhibits are similar in format, there is no assurance that the components of the data published in those exhibits are comparable.

While gross NYC debt per capita is higher than all other cities in the sample, NYC's growth in debt per capita is lower than all but three sample cities. Gross NYC debt per capita grew by 93.4 percent from 2000 to 2013. This growth is below the average growth of 137 percent for the 11 sample cities as shown in Table 11.

Table 11. Debt Per Capita Comparisons for Selected Cities – 2000 and 2013

City	Debt per Capita in 2000	Debt per Capita in 2013	Percentage Change 2000 – 2013
Seattle	\$1,674	\$2,162	27.6%
Philadelphia	\$3,241	\$4,872	50.3%
Boston	\$1,376	\$2,120	54.1%
Houston	\$2,187	\$4,707	115.2%
Phoenix	\$2,041	\$4,425	116.8%
Chicago	\$2,863	\$6,230	117.6%
Los Angeles	\$1,464	\$4,635	216.6%
San Antonio	\$1,929	\$5,967	209.3%
San Francisco	\$1,139	\$3,595	215.6%
Dallas	\$1,273	\$4,313	238.8%
San Jose	\$943	\$3,572	278.8%
<i>Average of All Other Cities^a</i>	<i>\$1,974</i>	<i>\$4,686</i>	<i>137.4%</i>
National CPI (FY)	\$169.3	\$231.4	36.7%
New York City	\$4,923	\$9,522	93.4%

^a From Table 10, a weighted average derived by the sum of total debt outstanding divided by the sum of total population

NOTE: Table 11 above is based on data extracted from each city's "Direct and Overlapping Debt Outstanding" exhibit included in that city's Comprehensive Annual Financial Report. While the individual exhibits are similar in format, there is no assurance that the components of the data published in those exhibits are comparable.

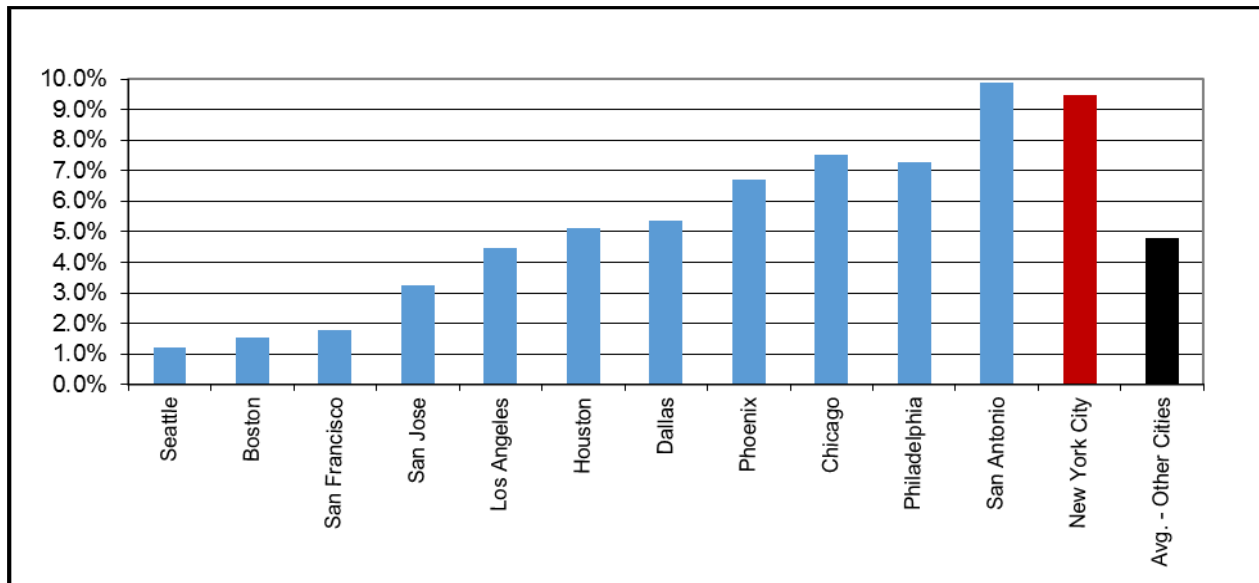
SOURCE: NYC Comptroller's Office and Comprehensive Annual Financial Reports and/or official statements of various cities.

Another way to examine the debt burden of a municipality or city is to measure its debt relative to its taxable base. Two traditional measures of this relationship are outstanding debt divided by the full value of real property and debt divided by personal income. The rationale behind the use of the full value of real property is that the property tax base provides a major revenue source for debt payment and that there is generally some reasonable limit on the amount of debt that can be borrowed against the property tax base.

The rationale behind using personal income is that it is another relative measure of a locality’s taxable base. The wealthier a community, the greater its capacity to pay taxes, and to sustain local government debt and operations.

Among the cities surveyed in this report, New York City ranks the highest in the debt to personal income measure and ranks second in the debt to property value measure. In addition, NYC is well above the averages of the sample cities and counties. As detailed in Chart 8, gross NYC debt as a percentage of full value of real property in FY 2013 was 9.5 percent, nearly twice the sample city average of 4.9 percent. Only San Antonio exceeded New York at 9.9 percent and Chicago at 7.5 percent was ranked third among the cities in the survey.

Chart 8. Debt Outstanding as a Percent of the Full Value of Real Property, FY 2013

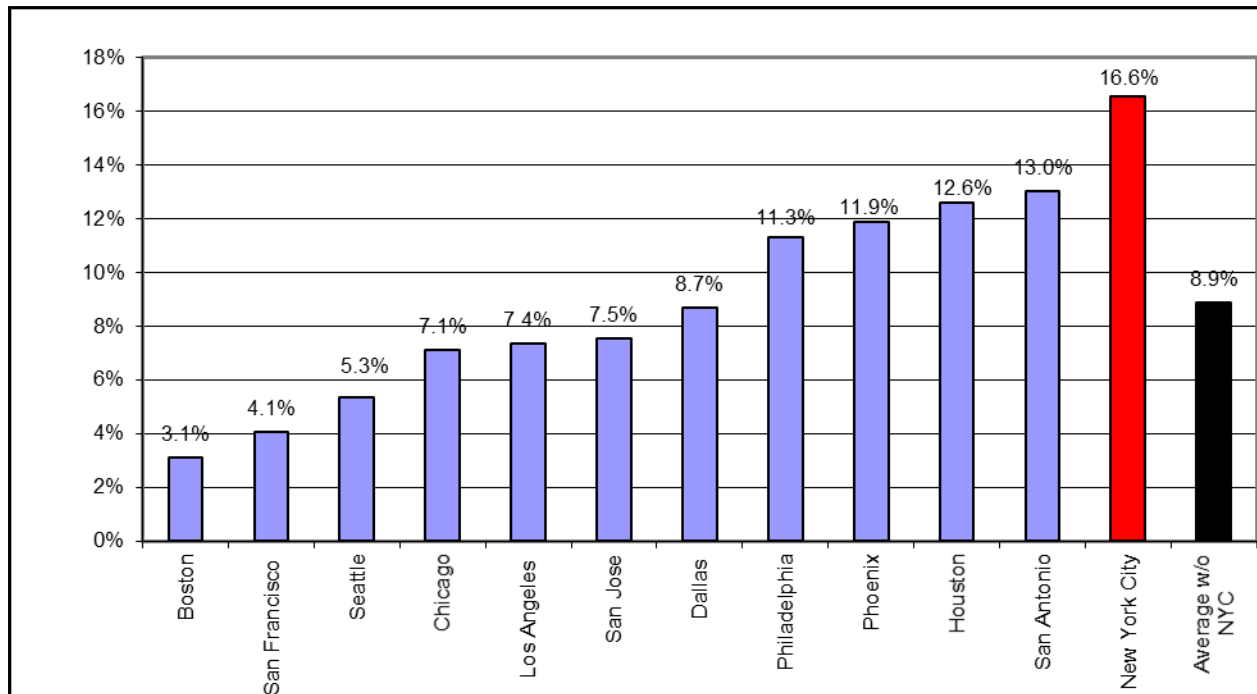


NOTE: Debt per capita is based on data extracted from each city’s Direct and Overlapping Debt Outstanding exhibit included in that city’s Comprehensive Annual Financial Report. While the individual exhibits are similar in format, there is no assurance that the components of the data published in those exhibits are comparable.

SOURCE: Each city’s Comprehensive Annual Financial Report for FY 2013.

Gross NYC debt per capita as a percentage of personal income per capita in FY 2012 was 16.6 percent, the highest among the sample cities as summarized in Chart 9. Gross NYC debt as a percentage of personal income is 1.9 times the 8.9 percent population-weighted average of the 11 sample cities. Cities in the survey with comparable ratios to New York City include San Antonio at 13 percent, Houston at 12.6 percent, Phoenix at 11.9 percent, and Philadelphia with 11.3 percent.

Chart 9. Debt Outstanding as a Percent of Personal Income, FY 2012 (per capita)



¹ Debt per capita is based on data extracted from each city's and select counties' Direct and Overlapping Debt Outstanding exhibits included in that city's or county's Comprehensive Annual Financial Report. While the individual exhibits are similar in form, there is no assurance that the components of the data published in those exhibits are comparable.

² The 2012 Personal Income is the most recent personal income data available from the BEA.

SOURCE: FY 2012 Comprehensive Annual Financial Reports of Sample Counties and the U.S. Department of Commerce – Bureau of Economic Analysis (BEA).

Glossary of Acronyms

BAB	Build America Bonds
BARB	Building Aid Revenue Bond
BEA	Bureau of Economic Analysis
CAFR	Comprehensive Annual Financial Report
CPI	Consumer Price Index
CUCF	City University Construction Fund
CUNY	City University of New York
DASNY	Dormitory Authority of the State of New York
DEP	Department of Environmental Protection
DOE	Department of Education
EXCEL	Expanding our Children's Education and Learning
FTS	Future Tax Secured
FY	Fiscal Year
GASB	Governmental Accounting Standards Board
GO	General Obligation
HHC	Health and Hospitals Corporation

HYIC	Hudson Yards Infrastructure Corporation
LGAC	Local Government Assistance Corporation
MAC	Municipal Assistance Corporation
MTA	Metropolitan Transportation Authority
NY	New York
NYC	New York City
TFA	New York City Transitional Finance Authority
NYW	New York City Municipal Water Finance Authority
OMB	Office of Management and Budget
OPEB	Other Post-Employment Benefits Liabilities
ORPTS	Office of Real Property Tax Services
PIT	Personal Income Tax
QSCB	Qualified School Construction Bonds
S&P	Standard & Poor's
STAR	Sales Tax Asset Receivable Corporation
TSASC	Tobacco Settlement Asset Securitization Corporation
TSR	Tobacco Settlement Revenues

TYCS	Ten-Year Capital Strategy
U.S.	United States
VRDB	Variable Rate Demand Bond
WTC	World Trade Center