THE CITY OF NEW YORK
OFFICE OF THE COMPTROLLER

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COMPTROLLER

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TO THE PEOPLE OF THE CITY OF NEW YORK

I am pleased to present The City of New York's Comprehensive Annual Financial Report (CAFR) for Fiscal Year 2018. This report, the fifth issued under my administration, shows that The City of New York (City) completed its Fiscal Year with a General Fund surplus, as determined by Generally Accepted Accounting Principles (GAAP), for the 38th consecutive year.

The General Fund remains a primary indicator of the financial activity and legal compliance for the City within the financial reporting model promulgated by the Governmental Accounting Standards Board (GASB). The General Fund had revenues and other financing sources in Fiscal Year 2018 of $87.936 billion and expenditures and other financing uses of $87.931 billion, resulting in a surplus of $5 million. These expenditures and other financing uses include transfers and subsidy payments of $4.576 billion to help eliminate the projected budget gap for Fiscal Year 2019. Fiscal year expenditures and other financing uses were $4.468 billion more than in Fiscal Year 2017, an increase of 5%. Excluding the transfers and subsidy payments to eliminate future Fiscal Year projected gaps, expenditures and other financing uses increased by $4.072 billion or 5.1%. A detailed analysis of the City's fund and government-wide financial statements is provided in Management's Discussion and Analysis (MD&A), which immediately precedes the basic financial statements contained in this report.

ECONOMIC CONDITIONS IN FISCAL YEAR 2018 AND OUTLOOK FOR FISCAL YEAR 2019

The City's Economy in Fiscal Year 2018

The pace of economic growth accelerated in both the City and the nation in Fiscal Year 2018 relative to Fiscal Year 2017. The City's economy, as measured by the change in real gross city product calculated by the Office of the Comptroller, grew 3.1% in Fiscal Year 2018 after growing 2.2% in Fiscal Year 2017. The national economy grew 2.6% in Fiscal Year 2018, better than the 1.9% growth in Fiscal Year 2017. Fiscal Year 2018 marks the sixth consecutive year that New York City's economy has outperformed the nation's.

The City's economic growth was supported by gains in payroll jobs, improvement in household employment, increases in average hourly earnings, and improvements in the real estate market. The City's private sector added 76,600 jobs, a gain of 2%, in Fiscal Year 2018, slightly less than the 2.1% growth in the previous year, but faster than the 1.8% gain in the nation.

The distribution of jobs across income segments in Fiscal Year 2018 was the same as in Fiscal Year 2017 as low-wage jobs, such as employment in bars, restaurants, and retail, accounted for more than half of the new private-sector jobs. Of the 76,600 new private-sector jobs created in Fiscal Year 2018, 64% (or 49,000) were in industries where the average wage is less than $62,000 per year, including retail trade and many healthcare and social assistance jobs; 17.5% (or 13,400) were in industries where the average wage is between $62,000 and $124,000 per year, such as construction and wholesale trade; and 18.5% (or 14,100) were in industries where the average wage is greater than $124,000 per year, including financial activities and professional services (*Job numbers are rounded to the nearest hundred and individual components may not sum due to rounding*).

Export-sector employment in NYC—jobs that provide goods and services to people and firms outside of the metropolitan area and depend on the national and global economies, such as leisure and hospitality, finance, and professional and business services—added 30,900 jobs and represented 40% of all new private-sector jobs. Export-sector employment growth is seen as beneficial for a regional economy because these jobs generally serve as a catalyst for local-sector employment, which provides goods and services to residents. Local-sector job growth added 45,600 jobs, or 60%, of all new private-sector jobs.

Of the 76,600 new private-sector jobs created in Fiscal Year 2018, 25,500 or 33.3% were office workers, less than the 36.1% or 29,100 in Fiscal Year 2017. Although the share of new office workers hired within new private sector jobs has been on a downward trend since Fiscal Year 2016, it is still above the 29.0% long-term average.

Except for manufacturing, which lost 2,300 jobs, all other sectors gained jobs in Fiscal Year 2018. The biggest gain was in education and health services (+34,300), as education added 1,200 jobs and health care and social assistance added 33,100 jobs. Professional and business services added 17,600 jobs of which 7,800 were in professional services—generally a high-wage sector. Leisure and hospitality added 7,700 jobs, mostly in food services and bars, which added 5,600 of those jobs. Construction added 5,400 jobs, trade, transportation and utilities added 4,900 jobs, information added 2,000 jobs, and finance and insurance added 3,100 jobs.

The unemployment rate fell to 4.3% in Fiscal Year 2018, the lowest rate on record. The labor force grew by 17,000, bringing it to a record level of over 4.2 million New Yorkers. As a result, the labor-force participation rate rose to a record high of 60.9%. Residential employment (NYC residents with jobs) also hit a record high of over 4 million and led to an employment-to-population ratio of 58.3%, the highest on record. The unemployment rate improved in all five boroughs in Fiscal Year 2018, and except for Staten Island, hit the lowest levels on record. Unemployment fell to 3.8% in Queens and Manhattan, 4.4% in Brooklyn, and 5.9% in the Bronx. The unemployment rate fell to 4.3% in Staten Island, the lowest since Fiscal Year 2007.

Average hourly earnings of all private NYC employees rose 2.8% in Fiscal Year 2018, slightly higher than the 2.7% growth in Fiscal Year 2017. U.S. average hourly earnings grew 2.6% in Fiscal Year 2018, the same as in Fiscal Year 2017.

Pre-tax profits of New York Stock Exchange member firms were almost $25.9 billion in Fiscal Year 2018, 27.5% more than the $20.3 billion in Fiscal Year 2017. The main contributors were $16.8 billion in other revenue related to securities business, about $8.3 billion in fees for account supervision, investment advisory and administrative services, $4.5 billion in margin interest, and $2 billion in underwriting revenues.

Both the commercial and residential real estate markets improved in Fiscal Year 2018. New commercial leasing activity in Manhattan increased by 3.2 million square feet (msf) or 11.4% to about 31.3 msf in Fiscal Year 2018, according to Cushman and Wakefield. As a result, Manhattan's overall office vacancy rate, including sublease space, fell slightly to 9% in Fiscal Year 2018 from 9.3% in Fiscal Year 2017. Total inventory, which includes all existing competitive office buildings located in Manhattan, remained almost unchanged, but total available space fell by 1.1 msf.

In contrast, the housing market in Manhattan softened. According to Douglas Elliman, average sales prices fell 4.5%, average price per square foot fell 2.3%, and the number of sales decreased by 16.6% in the fourth quarter of Fiscal Year 2018, on a year-over-year basis. The listing inventory rose 10.7% from the prior year leading to an increase in the absorption rate. The absorption rate, defined as the number of months it takes to sell all inventory at the current rate of sales, rose to eight months in the fourth quarter of Fiscal Year 2018 from six months in the fourth quarter of Fiscal Year 2017.

According to PwC Money Tree, venture capital investment in the New York metro area rose 47.9% to $12.9 billion in Fiscal Year 2018. Venture capital investment in the U.S. rose 36.2% over this period. The New York metro area ranks third after San Francisco ($22.3 billion) and Silicon Valley ($13.0 billion) in dollars of venture capital invested. Total investment in San Francisco, which has the biggest concentration of venture capital investment, rose 33.4% and in Silicon Valley 27.1% over the same period, on a year-over-year basis. The share of New York metro area venture capital investment has increased to 14.8% of the U.S. total in Fiscal Year 2018, the highest since 16.2% in Fiscal Year 2005.

The Outlook for the City's Economy

After a relatively solid performance in Fiscal Year 2018, both the City and the U.S. economies are expected to grow even more strongly in Fiscal Year 2019. High consumer confidence, combined with growing corporate profits due to corporate tax cuts and regulatory rollbacks, and expansionary fiscal policy, should fuel near-term growth in an already strong economy. The national economy is expected to get continued stimulus from federal fiscal policy, including higher government spending and lower taxes under the federal Tax Cuts and Jobs Act (TCJA), which should yield continued increases in both private investment and consumer spending.

Repatriation of corporate profits from abroad should help boost private investment, especially nonresidential investment in equipment, nonresidential structures, and intellectual property products. In addition, investment in residential structures should be stronger, as predicted by an increase in the number of building permits issued by local authorities.

In addition to private investment, consumer finances appear to be in solid shape. According to the most recent data (third quarter of Fiscal Year 2018) released by the Federal Reserve Board of Governors, household debt service payments and financial obligations as a percentage of disposable personal income are hovering around their historical lows. Households' net worth, which is total assets minus total liabilities, is at record high and households' net worth as a percentage of disposable personal income is the second highest on record.

There are risks to this forecast, including an overly aggressive contractionary monetary policy, which, combined with an expansionary fiscal policy paid for with additional government issued debt, could raise interest rates to levels where economic growth is choked off. Ongoing trade tensions also pose risks, including higher prices of imported goods fueling inflation, and reduced exports of agricultural and manufactured goods.

While in the recent past the City's economic growth has been outperforming growth nationally, the two are inextricably linked. Any drag on the national economy will have a deleterious effect on the local economy. Moreover, the effects of the recent tax reform—limiting the amount of state and local taxes City residents can deduct from their federal income taxes and the mortgage interest deduction—on the City's residential real estate market and high-earning taxpayers, remain unknown.

REPORTS FROM THE DIVISIONS AND BUREAUS OF THE COMPTROLLER'S OFFICE

BUREAU OF BUDGET

Division of Fiscal and Budget Studies

The Division of Fiscal and Budget Studies in the Comptroller's Bureau of Budget monitors the City's finances, capital spending, and economy. In analyzing the City's budget and financial plan, the division focuses on the City's debt capacity and economic outlook. After each budget modification, the division conducts an in-depth analysis of the Mayor's budget proposal and shortly thereafter releases a report to the general public that highlights the major findings. The report reviews the main components of the City's budget, analyzing the soundness of the City's budgetary and economic assumptions, changes in expense and capital budget priorities, and financial and economic conditions and developments affecting the City's fiscal outlook and budget. Modification of the City's current year budget and four-year financial plan occurs quarterly during the Fiscal Year. Coinciding with the release of quarterly modifications, the budget review and preparation generally adheres to the following cycle: (1) the Mayor's submission of a preliminary budget for the ensuing Fiscal Year in January, (2) the Mayor's presentation of the Executive Budget to the City Council in April, (3) budget adoption prior to July 1, the beginning of the new Fiscal Year, and (4) the first quarterly modification to the Adopted Budget, which is typically released in November. As part of the budget process, the division prepares a number of reports and letter statements as mandated by the New York City Charter:

- An annual report to the City Council on the state of the City's economy and finances by December 15, including an evaluation of the City's updated financial plan.
- An annual report on the City's capital debt and obligations including the maximum amount of debt the City may soundly incur in subsequent fiscal years and the indebtedness against the General Obligation debt limit in the current and subsequent three fiscal years as stipulated by the New York State Constitution.
- A certified statement of debt service submitted by the Comptroller to the Mayor and the City Council by March 1. The statement, which is published in The City Record, contains a schedule of the appropriations for debt service for the subsequent fiscal year.
- A letter statement certifying the Adopted Budget Resolutions and filed with the City Clerk.

Fiscal Year 2018 Analysis

The City adopted a Fiscal Year 2018 (July 1-June 30) budget totaling $84.57 billion (less Interfund Agreements) on June 6, 2017. Actual Fiscal Year 2018 tax revenues were $2.30 billion more than projected in the Fiscal Year 2018 Adopted Budget. Non-tax City-funds revenues were $501 million more than projected in the Fiscal Year 2018 Adopted Budget, aided by a $154 million reduction in the reserve for disallowances of Federal, State and other aid. The elimination of a $1.2 billion General Reserve and $250 million Capital Stabilization Reserve for Fiscal Year 2018, City-funds debt service savings of $407 million, and a net decrease of $20 million in all other City-funds expenditures, along with the aforementioned revenue increases provided the City with $4.68 billion in additional resources above the Adopted Budget projections.

The additional resources cited above allowed the City to prepay $2.174 billion of Fiscal Year 2019 New York City Transitional Finance Authority debt service, $1.902 billion of Fiscal Year 2019 General Obligation debt service, $300 million of Fiscal Year 2019 pay-as-you-go retiree health benefits, and $200 million of Fiscal Year 2019 subsidies to NYC Health and Hospitals Corporation (HHC). The remaining resources were used to deposit an additional $100 million into the Retiree Health Benefits Trust above the required retiree pay-as-you-go health benefits for Fiscal Year 2018.

Division of Financial Analysis

The Division of Financial Analysis (DFA) within the Bureau of Budget monitors the daily cash balance in the City's Central Treasury to ensure adequate levels of cash-on-hand throughout the fiscal year. DFA forecasts daily cash balances to determine the potential need and timing for seasonal borrowing. The Comptroller issues a Cash Letter with these projections and regularly updates it throughout the year. DFA also prepares the Quarterly Cash Report, which provides an overview of the City's cash position and highlights major changes during the quarter. The City's Central Treasury carried an average daily unrestricted cash balance of $7.52 billion during Fiscal Year 2018, with a Fiscal year-end balance of $9.39 billion. For the fourteenth consecutive year, the City did not need to issue short-term notes

BUREAU OF LAW AND ADJUSTMENT

The Bureau of Law & Adjustment (BLA) is responsible for carrying out the Comptroller's Charter-mandated responsibility of adjusting claims for and against the City.

Claims against the City arise out of the vast undertakings of City agencies and HHC. The City is generally uninsured with respect to risks, including, but not limited to, property damage and personal injury claims. Typically, the cost of claims is paid out of the City's General Fund.

The City spent $730 million on judgments and claims in Fiscal Year 2018, a decrease of $20 million from the prior year. The Comptroller's Office also approved approximately $19.9 million in affirmative settlements—that is monies paid to the City based on its claims against others—in Fiscal Year 2018.

In Fiscal Year 2018, the Comptroller's Office collected $7.1 million from claimants who received settlements from the City and who had outstanding obligations to the City for public assistance and child support. This achievement was made possible by partnering with other City agencies, particularly with the Human Resources Administration/Department of Social Services, to improve the automated City systems.

The Comptroller's Office continues to expand efforts to collect compensation from those who have damaged City property. In Fiscal Year 2018, the Comptroller's Office collected $2.93 million in property damage affirmative claims.

The Comptroller's Office has been successfully working with the New York State Office of Victims Services and the New York State Attorney General's Office to identify settlements reached with convicted persons from which victims can recover money (Son of Sam Law-New York State Executive Law § 632-a). BLA collected a total of $997,360 in settlements for victims of crime by the end of Fiscal Year 2018. As of the end of the Fiscal Year, the Comptroller was withholding $2.7 million pending the outcome of crime victims' civil actions against the convicted persons' settlements.

BUREAU OF LABOR LAW

The Bureau of Labor Law (BLL) sets and enforces prevailing wage and supplement rates for workers performing:

1. Construction, alteration and repair of New York City public works under New York State Labor Law (Labor Law) Article Eight;
2. Building services on City contracts under Labor Law Article Nine and at properties receiving tax exemption benefits under New York State Real Property Tax Law (RPTL) § 421-a;
3. Street excavations by utilities under New York City Administrative Code (NYC Admin. Code) § 19-142; and
4. Food services and temporary office services on City contracts under NYC Admin. Code § 6-109.

BLL also enforces living wage and supplement rates for employees performing homecare, day care, Head Start and Cerebral Palsy services on City contracts under NYC Admin. Code § 6-109, enforces minimum average hourly wages for construction workers on properties receiving tax exemption benefits under RPTL § 421-a (16)(c) and investigates alleged violations of prevailing wage and living wage laws for building service and other employees of entities receiving financial assistance from the City under NYC Admin Code § 6-130 and 6-134.

In Fiscal Year 2018, BLL assessed over $2 million in underpayments and interest against City contractors. In addition, BLL assessed over $100,000 in civil penalties against those City contractors. During the same Fiscal year, BLL opened up 108 new cases and resolved 74 cases. In that same time period, BLL debarred eight contractors from New York State and City public works for egregious conduct.

During Fiscal Year 2018, BLL also:

- Promulgated new regulations in the Rules of the City of New York concerning the setting of prevailing wage and supplement rates and the enforcement of prevailing wage, living wage and minimum average hourly wage laws on City contracts and at buildings receiving property tax exemption benefits;
- Redesigned the Bureau's webpage to include more information on prevailing wage, living wage and minimum average hourly wage laws, including lists of covered buildings receiving property tax exemption benefits or financial assistance from the City;
- Developed Comptroller's M/WBE University workshop on prevailing wage to provide guidance to M/WBE contractors on complying with prevailing wage while remaining competitive as bidders on City construction contracts; and
- Conducted compliance sweeps of over 70 buildings receiving property tax exemption benefits under RPTL §421-a, resulting in over 40 new prevailing wage investigations under that law.

BUREAU OF PUBLIC FINANCE

The Comptroller's Bureau of Public Finance is charged with issuing debt to finance the City's capital program and managing the City's portfolio of outstanding bonds, in conjunction with the Mayor's Office of Management and Budget. The City borrows for capital projects in accordance with its capital plan and budget and Comptroller's Directive #10, which allows for borrowing on projects with a useful life of five years or longer and costing $35,000 or more.

In Fiscal Year 2018, the City and the New York City Transitional Finance Authority (TFA), which is a blended component unit, issued $7.42 billion of long-term debt to finance the City's capital needs. The New York City Municipal Water Finance Authority (Water Authority), a discretely presented component unit, issued $1.50 billion of long-term debt to finance the City's water- and sewer-related capital needs. Also, the New York City Tax Lien Trust, NYCTLT 2017-A, sold $68.02 million of bonds to monetize delinquent taxes and other liens.

In addition to financing its new money capital needs mentioned above, the City was able to refinance outstanding high-coupon bonds to provide direct budget relief to City taxpayers and to water and sewer ratepayers. A total of $4.64 billion of refunding bonds were issued through the General Obligation (GO), TFA, and Water Authority credits. This accounted for 34% of the total issuance for these credits and generated a total of $613.38 million in budgetary savings and $389.34 million of savings for ratepayers over the life of the bonds.

The City and its related issuers file required continuing disclosure relevant to their respective bondholders with the Municipal Securities Rulemaking Board (MSRB) Electronic Municipal Market Access (EMMA). These disclosures are available at emma.msrb.org.

General Obligation (GO)

New York City GO bonds have been issued for over 200 years and are backed by the City's faith and credit. All real property subject to taxation by the City is subject to the levy of ad valorem taxes, without limitation as to rate or amount, to pay the principal of and interest on GO bonds.

- As of June 30, 2018, the City had $38.63 billion of GO bonds outstanding, consisting of $31.89 billion of fixed rate bonds and $6.74 billion of variable rate bonds.
- The City issued $5.14 billion of refunding and new money GO bonds in Fiscal Year 2018. The City issued $3.30 billion of new money bonds and $1.84 billion to refund a portion of its outstanding bonds at lower interest rates. In Fiscal Year 2018, the City also converted $625.12 million of outstanding bonds from variable rate mode to fixed rate mode.
- The City's refunding strategy of focusing on currently-callable bonds allowed for efficient, high-value refundings. The GO refundings will generate $341.94 million in budgetary savings over the life of the bonds or $314.50 million of savings on a net present value basis.

New York City Transitional Finance Authority (TFA)

Future Tax Secured Bonds (FTS)

The TFA, a bankruptcy-remote separate legal entity, is authorized to issue debt secured by the City's collections of personal income tax and, if necessary, sales tax. The TFA is authorized to have $13.50 billion of FTS debt outstanding, without limitation. In addition, State law provides that further FTS Bonds outstanding over the $13.50 billion limit, together with the amount of indebtedness contracted by the City, cannot exceed the debt limit of the City. In September 2001, the New York State Legislature approved a special TFA authorization of $2.5 billion to fund capital and operating costs relating to or arising from the events of September 11, 2001 (Recovery Bonds). The TFA has issued $2 billion in Recovery Bonds. TFA Recovery Bonds do not count against the debt limits described above.

- As of June 30, 2018, the TFA had $35.41 billion of FTS bonds outstanding, consisting of $787.83 million of Senior Bonds and $34.62 billion of Subordinate Bonds, which includes $682.14 million of Recovery Bonds.
- The TFA issued $3.62 billion of FTS bonds in Fiscal Year 2018 for new money capital purposes and converted $161.08 million of bonds from variable rate mode to fixed rate mode.

Building Aid Revenue Bonds (BARBs)

In Fiscal Year 2006, the New York State Legislature authorized the TFA to issue bonds and notes or other obligations in an amount outstanding of up to $9.40 billion to finance a portion of the City's educational facilities capital plan. The legislation further authorized the City to assign to the TFA all or any portion of the state aid payable to the City or the Department of Education pursuant to Section 3602.6 of the New York State Education Law (State Building Aid) as security for the obligations. Pursuant to this authority, the TFA BARBs credit was created. TFA BARBs are not secured by personal income tax or sales tax revenues and do not count against the TFA Future Tax Secured Bond debt limits.

- As of June 30, 2018, the TFA had $7.94 billion of BARBs bonds outstanding, all of which is fixed rate.
- The TFA issued $2.08 billion of BARBs in Fiscal Year 2018, consisting of $500 million for new money capital purposes and $1.58 billion to refund a portion of its outstanding bonds at lower interest rates. The refundings will generate $271.45 million in budgetary savings over the life of the bonds or $256.80 million of savings on a net present value basis.

TSASC, Inc.

TSASC, Inc. is a special purpose, bankruptcy-remote local development corporation created under the Not-for-Profit Corporation Law of the State of New York. TSASC issues debt secured by tobacco settlement revenues (TSRs), which are paid by cigarette companies as part of a Master Settlement Agreement (MSA) with 46 states, including the State of New York, and other U.S. Territories.

- TSASC had no financing activity in Fiscal Year 2018. As of June 30, 2018, TSASC had $1.07 billion of bonds outstanding.

Sales Tax Asset Receivable Corporation (STAR)

STAR is a local development corporation created to issue bonds to retire the outstanding bonds of the Municipal Assistance Corporation of the City of New York ("MAC") and the outstanding bonds of the City held by MAC. STAR bonds are secured by $170 million paid annually through June 30, 2034 to STAR from the New York State Local Government Assistance Corporation.

- STAR had no financing activity in Fiscal Year 2018. As of June 30, 2018, STAR had $1.8 billion of bonds outstanding.

Fiscal Year 2005 Securitization Corporation (FSC)

FSC is a local development corporation that issued bonds in order to facilitate the restructuring of an escrow account used to pay debt service on refunded City bonds.

- FSC had no financing activity in Fiscal Year 2018. As of June 30, 2018, FSC had $86.15 million of debt outstanding.

Hudson Yards Infrastructure Corporation (HYIC)

HYIC is a local development corporation established by the City in 2005 to provide financing for infrastructure improvements to promote economic development and growth on Manhattan's far West Side, including the extension of the No. 7 subway line. Principal and interest on HYIC bonds is payable from revenues generated by the new development in the Hudson Yards District. To the extent that such revenues are not sufficient to cover interest payments, the City has agreed, subject to appropriation, to make interest support payments to HYIC. The interest support payments do not cover principal repayment of the bonds.

- HYIC had no financing activity in Fiscal Year 2018. As of June 30, 2018, HYIC had $2.72 billion of bonds outstanding.

New York City Educational Construction Fund (ECF)

ECF is a public benefit corporation established to facilitate the construction of new school facilities and improvements to existing City elementary and secondary school buildings, thereby increasing the number of seats for the New York City Department of Education on behalf of New York City schoolchildren. ECF also encourages comprehensive neighborhood development by enabling mixed-use real estate projects which feature new school facilities. The City is required to make rental payments on the school portions of the ECF projects sufficient, together with the revenue received by the ECF from the non-school portions of the ECF projects, to make debt service payments as they come due on ECF bonds.

- ECF had no financing activity in Fiscal Year 2018. As of June 30, 2018, ECF had $231.20 million of bonds outstanding.

New York City Tax Lien Trusts

The New York City Tax Lien Trusts (NYCTLTs) are Delaware statutory trusts which were created to acquire certain liens securing unpaid real estate taxes, water rents, sewer surcharges, and other payables to the City and the New York City Water Board in exchange for the proceeds from bonds issued by the NYCTLTs, net of reserves funded by the bond proceeds and bond issuance costs. The City is the sole beneficiary of the NYCTLTs and is entitled to receive distributions from the NYCTLTs after payments to the bondholders and certain reserve requirements have been satisfied.

- The New York City Tax Lien Trust, NYCTLT 2017-A, sold $68.02 million of bonds in Fiscal Year 2018. As of June 30, 2018, the New York City Tax Lien Trusts had in aggregate $32.36 million of bonds outstanding.

New York City Municipal Water Finance Authority

The New York City Municipal Water Finance Authority (Water Authority), a bankruptcy-remote separate legal entity established in Fiscal Year 1986, has the power to issue bonds to finance the renovation and improvement of the City's water and sewer facilities. The Water Authority, together with the New York City Water Board (Water Board) and the New York City Department of Environmental Protection (DEP), administers the City's water and wastewater system. DEP operates and maintains the system, while the Water Board has the primary responsibility to levy and collect water and wastewater rates and charges, and the Water Authority finances the system's capital needs.

- As of June 30, 2018, the Water Authority had $24.8 billion of long-term, fixed rate bonds outstanding, including $375.4 million of First Resolution and $24.4 billion of Second Resolution bonds. The variable rate bonds outstanding were $5 billion.
- In Fiscal Year 2018, the Water Authority issued bonds directly to the public and also to the New York State Environmental Facilities Corporation (EFC). EFC issues Clean Water and Drinking Water Revolving Funds Revenue Bonds for eligible City projects, and the Water Authority bonds placed with EFC are an element of security for these EFC bonds.
- The Water Authority issued $2.9 billion in revenue bonds in Fiscal Year 2018. Of this total, the Water Authority issued $1.5 billion for new money capital purposes and $1.2 billion to refund outstanding bonds for interest savings. The Water Authority also issued $164.42 million of bonds to convert certain variable rate mode bonds to fixed rate mode. In addition, it issued $59.56 million of Refundable Principal Installments (RPIs) to redeem $70 million of outstanding RPIs.
- The refundings will generate $389.3 million of savings for ratepayers over the life of the bonds or $270.4 million in net present value savings.
- The Water Authority relies on its $600 million commercial paper program and from time to time issues bond anticipation notes to EFC to access the short-term market. As of June 30, 2018, the Water Authority had $215.7 million of bond anticipation notes outstanding. It had no commercial paper outstanding.

Interest Rate Exchange Agreements

To lower borrowing costs over the life of its bonds and to diversify its existing portfolio, the City has, from time to time, entered into interest rate exchange agreements (swaps) and sold options to enter into swaps at future dates. The City received specific authorization to enter into such agreements under Section 54.90 of the New York State Local Finance Law. No new swaps were initiated and no swaps were terminated in Fiscal Year 2018. As of June 30, 2018, the outstanding notional amount on the City's swap agreements in connection with General Obligation debt and City-related debt of the Dormitory Authority of the State of New York was $1.31 billion and the mark-to-market value was approximately negative $79.45 million.

The Water Authority has also entered into interest rate exchange agreements from time to time in order to lower its borrowing costs over the life of its bonds and to diversify its existing portfolio. In Fiscal Year 2018, the Authority did not initiate or terminate any swaps. As of June 30, 2018, the outstanding notional amount on the Water Authority's various swap agreements was $401 million and the mark-to-market value was approximately negative $81.01 million.

BUREAU OF ASSET MANAGEMENT

About the Bureau of Asset Management

The Comptroller is by law the custodian of City-held trust funds and the assets of the New York City Public Pension Funds, and serves as Trustee on four of the five funds. Further, the Comptroller is delegated to serve as investment advisor by all five pension boards. The Comptroller's Bureau of Asset Management oversees the investment portfolio for each system and related defined contribution funds. In this role, the Comptroller provides investment advice, implements Board decisions, and reports on investment performance. The Bureau of Asset Management advises the Boards on all investment-related topics, including investment policy and strategy, asset allocation, manager structure, manager selection and financial and economic developments that may affect the systems. The systems' portfolios are managed predominantly by external investment managers, and are largely invested in publicly traded securities, with additional allocations to private equity, real estate, infrastructure, hedge funds, and opportunistic fixed income investments.

Investment Policy

City Treasury

The Comptroller's Office, through the Bureau of Asset Management, invests the City's cash reserves subject to conservative investment guidelines. City Treasury and fiduciary funds' assets were invested in obligations of the U.S. Treasury, various federal agencies, high grade commercial paper, and medium term notes. The maturities of the investments range from one day to five years with an average of 100 days. Despite the Federal Reserve Bank rising interest rate environment, the City earned an average of 1.29%, which compares with the average return of 1.36% on three month Treasury bills, and 1.25% for a representative institutional money market fund index. The City earned $242 million in the short-term accounts during Fiscal Year 2018.

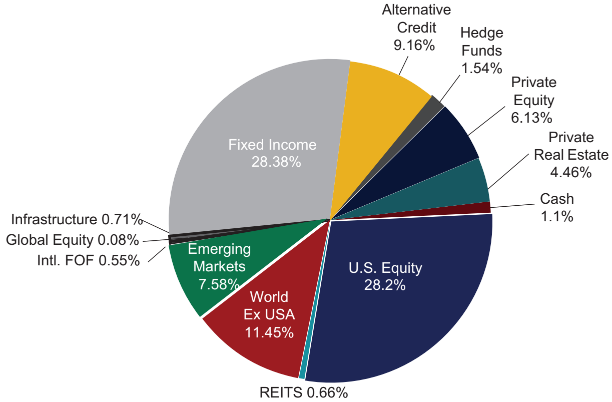
Pension Funds

The Comptroller's Office, through the Bureau of Asset Management, serves as the financial advisor to the City pension funds. The City's primary pension trust funds are New York City Employees' Retirement System (NYCERS), Teachers' Retirement System of The City of New York (TRS), New York City Police Pension Fund (Police), New York City Fire Pension Fund (Fire), and the New York City Board of Education Retirement System (BERS). Each of these pension systems provides pension benefits through its Qualified Pension Plan (QPP) as well as certain other retirement benefits that vary by plan and retiree status. As of June 30, 2018, the Bureau of Asset Management had responsibility for $195.8 billion of City's combined five pension systems investment assets. These assets include funds invested by certain employee investment plans and exclude cash from the settlement of pending purchases and sales. This represented an increase of $13.5 billion from the June 30, 2017 value of $182.3 billion. During the Fiscal Year, the market value of the assets ranged from a low of $185.5 billion (July 2017) to a high of $198.8 billion (January 2018). The time weighted return (net of all fees) of the aggregate portfolio was 8.7% in Fiscal Year 2018, and 13% in Fiscal Year 2017.

Assets are managed in accordance with investment policy statements adopted periodically by each of the City pension funds' Board of Trustees in consultation with the Comptroller's Office and the City pension funds' independent consultants. The allocation to each asset class is based in part on an analytical study indicating the expected rates of return and levels of risk and correlations for various asset allocations. The policy mix ranged from 67% equity to 72% equity among funds, and each fund permits the mix to float within a narrow range to limit portfolio turnover and to accommodate tactical shifts.

Collectively as of June 2018, the City pension funds utilize 14 domestic equity managers, 18 international equity managers, 18 hedge fund managers, 26 fixed income managers, 15 opportunistic fixed income managers, 116 private equity managers, 45 private real estate managers, 10 infrastructure managers, and 9 real estate equity securities managers. The City pension funds' assets are invested for the benefit of the plan participants and their beneficiaries. With the exception of certain private equity, real estate, infrastructure and opportunistic fixed income investments where registration is not required, all fund assets are managed by investment advisers registered in their respective jurisdictions pursuant to guidelines issued by the Comptroller's Office. In addition, all short-term assets managed by the Comptroller's Office Bureau of Asset Management are traded through registered broker-dealers.

The chart below summarizes the City pension funds' investment asset allocation (in millions) as of June 30, 2018. Cash includes all short term securities with terms of less than five years.



	(In Millions)
U.S. Equity	$ 55,212
REITS	1,301
World Ex USA	22,415
Emerging Markets	14,838
Intl FOF	1,068
Global Equity	149
Infrastructure	1,400
Fixed Income	55,567
Alternative Credit	17,925
Hedge Funds	3,010
Private Equity	12,007
Private Real Estate	8,732
Cash	2,147
Total	$195,771

U.S. Equity

For Fiscal Year 2018, the broad U.S. equity market, as measured by the Russell 3000 Index, returned 14.78% as compared to 18.51% for Fiscal Year 2017. As of June 30, 2018, U.S. Equities represented 28.2% of the City pension funds' investment assets with a market value of $55.2 billion across the systems. The total U.S. equity return for the City pension funds' investment assets for Fiscal Year 2018 was 14.88% as compared to 18.38% for Fiscal Year 2017. Overall, approximately 14% of the City pension funds invested in U.S. equity are actively managed versus 86% passively managed by index managers, which compares to 13% and 87%, respectively during Fiscal Year 2017. The returns of the U.S. equity market during Fiscal Year 2018 occurred as the U.S. economy experienced moderate growth levels and rising interest rates on the front of the yield curve. In the broader economy, unemployment rates approached cyclical lows and inflation was higher but remained subdued.

REITs

Three of the five New York City pension funds have invested in Real Estate Investment Trusts (REITs) to temporarily invest a portion of its Real Estate's unfunded commitments. The City pension funds' REITs returned 4.74% for Fiscal Year 2018 compared to -0.04% for Fiscal Year 2017. The one year returns for the program benchmark, Dow Jones US Select Real Estate Securities Index, for Fiscal Years 2018 and 2017 were 4.23% and -2.43%, respectively. As of June 30, 2018, REITs represented 0.66% of the City pension funds' investment assets with a market value of $1.3 billion across the systems.

World ex-US Equity

For Fiscal Year 2018, the MSCI World ex-USA Investable Market Net Dividends Index (MSCI World ex USA IMI Net) returned 7.74% as compared to 19.74% for Fiscal Year 2017. The City's developed markets managers returned 11.69% for Fiscal Year 2018 as compared to 22.30% for Fiscal Year 2017. As of June 30, 2018, World ex-US Equity represented 11.45% of the City pension funds' investment assets with a market value of $22.4 billion across the systems.

Emerging Markets Equity

For the Fiscal Year 2018, the MSCI Emerging Markets Index returned 8.2% as compared to 23.75% for Fiscal Year 2017. The City's emerging markets managers returned 3.22% for Fiscal Year 2018 as compared to 23.73% for Fiscal Year 2017. As of June 30, 2018, Emerging Markets Equity represented 7.58% of the City pension funds' investment assets with a market value of $14.8 billion across the systems.

International Fund of Funds/Emerging Managers

For the Fiscal Year 2018, the MSCI ACWI ex USA IMI Net Dividend index returned 7.75%. The City's international fund of fund/emerging managers returned 8.66% for Fiscal Year 2018. As of June 30, 2018, International Fund of Funds/Emerging Managers represented 0.55% of the City pension funds' investment assets with a market value of $1.07 billion across the systems.

Fixed Income

As of June 30, 2018, the public markets fixed income program, which excludes the high yield and bank loan program, represented 28.38% of the City pension funds' investment assets with a market value of $55.56 billion across the systems. The total overall U.S. fixed income program returned 0.27% (net) for Fiscal Year 2018 as compared to 0.51% (net) in Fiscal Year 2017.

The total Structured Fixed Income program, which is comprised of the Government, Mortgage and Credit sectors, returned -0.50% (net), slightly trailing the program's customized index, The NYC Core+5 Index, which returned -0.48% for Fiscal Year 2018. The broader Bloomberg Barclays Aggregate Index returned -0.40%. The individual indexes benchmarking the three sectors of the structured program saw varying results: The Investment Grade Credit Index and the NYC Treasury/Agency+5 Index posted negative returns of -0.72% and -0.96%, respectively, for the period, while the FTSE Mortgage Index posted positive return of 0.11%.

The Treasury Inflation-Protected Securities (TIPS) program generated a positive return of 2.18% (net), while the benchmark, Bloomberg Barclays Capital U.S. TIPS Index, returned 2.11% for the Fiscal Year.

Convertible Bonds trailed the program's benchmark, the Bank of America Merrill Lynch All U.S. Convertibles ex-Mandatory Index, posting 7.14% (net) versus the benchmark's 13.41% for the Fiscal Year.

The Economically Targeted Investments (ETI) program generated a negative return of -0.83% (net) for the Fiscal Year, while the benchmark Bloomberg Barclays Agg. Index, returned -0.40% and its ETI's custom benchmark returned 0.19% for the Fiscal Year.

Alternative Credit

The Alternative Credit program comprises three portfolios: High Yield Bonds, Bank Loans, and Opportunistic Fixed Income (OFI).

The High Yield portfolio represents 4.5% of City pension funds' investment assets as of Fiscal Year 2018, with a market value of $8.8 billion invested across eight investment managers. High Yield returned 1.73% (net) over this period, while the portfolio benchmark (Citigroup BB/B Index) returned 2.42%.

The Bank Loan portfolio represents 2% of City pension funds' investment assets as of Fiscal Year 2018, with a market value of $3.9 billion invested across six investment managers. The Bank Loan portfolio returned 4.41% (net) over this period, while its benchmark (Credit Suisse US Leveraged Loan Index) generated 4.67%.

The OFI portfolio represents 2.7% of City pension funds' investment assets as of Fiscal Year 2018. The portfolio's market value of $5.3 billion is invested across 15 investment managers and total current commitments are $5.9 billion. The strategies pursued within this portfolio include distressed debt, non-performing loans, direct corporate loans, commercial real estate loans and mortgage-backed securities (CMBS), residential mortgage-backed securities (RMBS), collateralized loan obligations (CLOs), and other private and public exposures in domestic and global credit markets. In Fiscal Year 2018, City pension funds committed $792 million to new OFI investment mandates. The program returned 7.33% net Internal Rate of Return (net IRR) in Fiscal Year 2018, compared to its overall benchmark (a 50/50 blend of the JP Morgan Global High Yield and Credit Suisse US Leveraged Loan Index, plus 300 basis points), which produced 6.72%. Since its inception, the OFI program has returned 7.80% (net IRR).

Private Equity

As of June 30, 2018, the private equity program represented 6.1% of the City pension funds' investment assets with a market value of $12.0 billion (cash flow adjusted) and unfunded capital commitments of $8.2 billion, resulting in a total exposure of $20.2 billion across 221 funds and 116 managers. As of June 30, 2018, the private equity program generated a since inception

10.3% net IRR, compared to its public market equivalent (PME) benchmark (Russell 3000 + 300 basis points) of 13.2% (cash flow adjusted). The private equity portfolio remains diversified, based on total exposure (cash flow adjusted), with 64% allocated to buyouts, 9% special situations, 8% growth equity, 8% secondaries, 5% co-investment, 1% energy, and 4% other, which includes venture capital, mezzanine, and funds-of-funds. The City pension funds received distributions of $3.1 billion and funded $2.4 billion for new and existing investments during Fiscal Year 2018 as compared to $2.8 billion and $1.9 billion in Fiscal Year 2017, respectively.

During Fiscal Year 2018, City pension funds made $2.5 billion of new commitments to 12 funds across 12 managers versus $1.6 billion to four funds across four managers during the prior Fiscal Year. This includes the City pension funds' $500 million in-house Private Equity Emerging Manager Program which committed $240 million during Fiscal Year 2018. Overall, the private equity program continues to strategically seek geographically diversified investment opportunities across most sub-asset classes with an aim to maintain a consistent investment pace.

The private equity industry continues to experience a strong fundraising environment, after exceptionally strong years in 2016 and 2017. This has been due to robust investor demand and meaningful liquidity as investors recycle distributions received from managers and seek to maintain or increase their allocations to private equity. The energy commodity markets have begun to recover and the general equity and debt capital markets remain relatively stable, with a modest up-tick in initial public offerings. Despite geopolitical concerns, asset prices continue to remain at record levels. Although valuations remain high, deal activity has not moderated as private equity managers and strategic buyers continue to compete for assets. Managers have continued to focus on exit activity, given the strong M&A-driven valuations and this has been a key driver of distributions and liquidity to investors. The industry has also witnessed a series of manager-led liquidity opportunities, fund restructurings and extensions, as managers and investors pursue solutions for funds that are approaching the end of their terms or managers seek capital for new funds, products or growth initiatives.

Real Estate

As of June 30, 2018, the real estate program had approximately $12.7 billion in commitments to 81 current investments and 45 managers. This compares to $11.4 billion in commitments at the end of Fiscal Year 2017. During Fiscal Year 2018, the City pension funds made $1.2 billion in new commitments to four funds versus $1.6 billion to seven funds in the prior Fiscal Year. The City pension funds invest in real estate primarily through commingled funds, and these new additions enhance the diversification of this global portfolio by geography, property type, investment strategy, vintage and manager. All four investments represent additional capital allocations to proven existing investment partners which enables the City to expand its relationships with managers that deliver strong performance over market cycles.

As of June 30, 2018, the real estate program represents 4.5% of the City pension funds' investment assets. The City pension funds' net invested capital of $4.5 billion (contributions less distributions) in real estate programs had a market value of $8.7 billion (cash flow adjusted) and unfunded capital commitments of $3.7 billion. The portfolio is well diversified by geographic region and property type with allocations to all the major sectors including residential (29.4%), office (27.4%), industrial (13.7%), retail (15.0%), hotel (4.7%), and other commercial real estate investments (9.8%).

The consensus of market research reports indicate the U.S. real estate industry is in the later stages of the recovery cycle, pushing prices higher for institutional quality assets. Demand remains strong for well-positioned assets that reflect the broader economic and demographic trends in the economy. E-commerce, an aging population, and urbanization trends have pushed valuations higher, making asset selection and capital preservation key in managing real estate portfolios. Positioning the real estate portfolio to take advantage of these trends and continuing the focus on sectors that have proven returns across market cycles have been key tenets of the commitments made during Fiscal Year 2017. The real estate program invested in asset classes with lower leverage, higher income, and a focus on those with meaningful downside protection, as exhibited with investments in core-plus funds, industrial-focused managers and debt strategies.

As of June 30, 2018, the real estate program has generated a since inception 8.56% net IRR compared to its PME benchmark (50% Russell 3000 and 50% Barclays U.S. Aggregate Index) of 8.68%. Considering the peak pricing surfacing in certain major real estate markets and recognizing the new market opportunities in the economy, the real estate program will continue to selectively identify opportunities that will complement the existing portfolio.

Hedge Funds

Certain City pension funds invest in hedge funds, and they continued to increase their investments in direct hedge funds which are now 95% of the portfolio. The remainder of the portfolio is held in a fund of funds structure. As of June 30, 2018, the hedge fund program represented 1.54% of the City pension funds' investment assets with a market value of $3.01 billion (cash flow adjusted).The total direct hedge fund portfolio return for the City pension funds for the Fiscal Year ended June 30, 2018 was 8.9%, net of all fees. The hedge fund benchmark return was 6.2% (HFRI Fund of Hedge funds index +1%). The portfolio that is held in a fund of funds structure returned 4.7%.

Infrastructure

The infrastructure program seeks to gain exposure to capital-intensive assets that underpin the global economy. These assets typically have a low volatility return profile with a high percentage of returns coming in the form of current yield. Targeted investments within the infrastructure program seek to lower correlation with public equities and fixed income and to hedge against inflation.

As of the end of Fiscal Year 2018, the infrastructure program represented 0.7% of the City pension funds' assets with a market value of $1.4 billion (cash-adjusted basis) and total exposure of $3.1 billion. During Fiscal Year 2018, the City pension funds made $957 million of new commitments to four funds across four managers through the infrastructure program. At the end of Fiscal Year 2018, the infrastructure program was diversified across 13 funds and 10 managers. The infrastructure program generated a since inception net IRR of 13.9% compared to its PME benchmark (50% Russell 3000 Index and 50% Barclays U.S. Aggregate Index) of 7.5%.

Corporate Governance and Responsible Investment

The City pension funds, through the Corporate Governance and Responsible Investment group within the Bureau of Asset Management, actively monitors their investments and promotes corporate governance and responsible business practices that seek to protect and create long-term shareowner value. These activities include actively voting proxies and pro-actively engaging with companies and regulators to improve corporate governance, enhance corporate disclosure and strengthen shareowner rights.

During Fiscal Year 2018, the Comptroller's Office voted on 26,062 individual ballot items at 3,082 annual and special meetings for domestic portfolio companies. Additionally, the funds, via the Comptroller's Office, began taking back voting authority for global accounts from international managers beginning January 1, 2018. In Fiscal Year 2018, the Comptroller's Office voted on 45,813 individual ballot items at 4,152 global meetings as part of this initiative. Of all votes cast, 77.2% were for the management recommended vote. Major proxy voting issues included: (1) the election of directors, (2) management proposals to ratify auditors, approve executive compensation, and approve mergers and acquisitions, and (3) shareowner proposals on a wide range of environmental, social and governance (ESG) policies and practices.

In addition to proxy voting, the City pension funds also seek to protect and create long-term shareowner value by proactively advancing company-specific and regulatory reforms to strengthen investor rights, improve corporate governance, align executive pay with long-term performance and promote sustainable business practices. The City pension funds are among the most active institutional investors in terms of filing shareowner proposals and also engaging with portfolio companies through letters and dialogue, often in collaboration with other institutional investors.

During Fiscal Year 2018, the Comptroller's Office, on behalf of the City pension funds, submitted 67 shareowner proposals to a total of 64 portfolio companies. Overall, approximately 80% of the proposals (54 of 67) were withdrawn after the companies agreed to take steps to implement the request.

In a continuation of the Boardroom Accountability Project (BAP) launched by the City pension funds in Fiscal Year 2015, half of the proposals (39 out of 67) requested a "proxy access" bylaw that would require the company to include shareowner-nominated director candidates in the company proxy materials, and on the company ballot, that is furnished to all shareowners. The BAP is an ambitious effort to enact proxy access, which many investors view as a fundamental investor right, across the U.S. market on a company-by-company basis.

Consistent with the methodologies used since Fiscal Year 2015, the 39 proxy access focus companies included those that failed to align executive compensation with business performance, companies with little or no apparent gender or racial diversity on their board, and carbon-intensive energy companies that are among the most vulnerable to long-term business risks related to climate change. They also included, for the first time, companies that lacked gender or racial diversity among their top five executives and companies that failed to disclose their greenhouse gas emissions, the latter being a red flag for a board that is not sufficiently focused on overseeing risks related to climate change.

Thirty-three companies agreed to enact, or to take the steps necessary to enact, a meaningful proxy access bylaw with terms substantially similar to those requested by the shareowner proposal, prompting the Comptroller's Office to withdraw the proposal.

Additionally, the office launched the Boardroom Accountability Project 2.0 (BAP 2.0), which pushed for greater corporate board diversity and transparency reforms. The initiative sought to have companies disclose a table describing the skills, gender and race/ethnicity of individuals. BAP 2.0 seeks to refresh boards with new voices and engaged directors who have the time and skills necessary to effectively manage the companies. The Comptroller's Office engaged 151 public companies — 80% of which are in the S&P 500. Since then, over 85 companies have adopted improved processes and increased transparency and over 35 companies are now disclosing not only the qualifications of their board members, but also details on boardroom gender and racial/ethnic diversity. The Comptroller's Office filed six shareholder proposals associated with the initiative, and all but one were withdrawn after the companies agreed to take steps to implement the request.

In addition to proxy access proposals, the City pension funds submitted shareowner proposals requesting that companies report to shareowners on their policies and practices to ensure gender pay equity, reaching agreements with eight major healthcare and insurance companies; the City pension funds also submitted proposals requesting that companies (1) disclose data on the race and gender of their workforce by job category, (2) disclose their direct and indirect political expenditures (3) adopt greenhouse gas reduction goals; and (4) adopt or strengthen executive play claw back policies.

The Post-season Report, available on the Comptroller's website, provides additional information covering the City pension funds' shareowner initiatives and includes detailed results for all Fiscal Year 2018 shareowner proposals.

BUREAU OF CONTRACT ADMINISTRATION

The Bureau of Contract Administration (BCA) fulfills the Comptroller's Charter-mandated role of registering all contracts and agreements for goods, services and construction executed pursuant to the Charter, including all agreements memorializing the terms of franchises, revocable consents or concessions that are paid out of the City Treasury or paid out of money under the control of the City. The Comptroller has 30 calendar days from the date a contract action is fully submitted by the respective agency to register or object to the registration of the contract. The process is designed to ensure that sufficient funds exist to make payments for that contract, that all appropriate certifications and documentation have been obtained and collected, that the contractor is not debarred or involved in corrupt activity, and that there was no corruption in the letting of the contract. Contracts for the provision of goods, services or construction that are not to be paid for out of the City Treasury or out of moneys under the control of the City do not have to be registered by the Comptroller, and emergency procurements may be registered after the contract commences, rather than before.

In Fiscal Year 2018, BCA received 20,931 contract actions for registration. Of those, approximately 93% were ultimately registered while around 7% were returned to or withdrawn by the submitting agency.

In addition to its Charter-mandated registration function, the Bureau also satisfies the Comptroller's obligation under the New York City Administrative Code to publish a summary report no later than January 30 following the close of each fiscal year. This report includes certain data for registered franchises, concessions and contracts for goods or services including, but not limited to, contract type, award method and aggregate dollar values of registered contract actions. The data that forms the basis of this report is generated from a computerized database jointly maintained by the Comptroller and the Mayor and contains detailed information on contracts, agreements, franchises and concessions reflecting the City's financial commitment assumed through registered agreements. The Annual Report on Contracts for Fiscal Year 2018 will be released by January 30, 2019.

BUREAU OF ECONOMIC DEVELOPMENT

The Bureau of Economic Development leverages the authority and responsibilities of the Office of the Comptroller to create new and sustainable opportunities for the economic growth and development of The City of New York and its people. The Bureau's mission includes executing the Comptroller's statutory obligation to oversee City agencies and related entities that are responsible for economic development, conducting rigorous economic research that will form the basis of future economic development policy, and actively managing and making investment recommendations to the New York City Retirement Systems (NYCRS) for its Economically Targeted Investment (ETI) program.

ETI's are prudent investments that provide risk-adjusted market rates-of-return to NYCRS. ETIs seek to fill capital gaps and provide collateral benefits, such as affordable housing and job creation, to the geographic target area. The geographic target area includes the five boroughs of the City and the six New York State counties in close proximity to New York City where City employees are permitted to live (Nassau, Orange, Putnam, Rockland, Suffolk and Westchester counties). NYCRS have successfully invested in ETIs since 1981. ETIs have an allocation of 2% of the total assets of NYCRS. The market value of the ETI Program at the end of Fiscal Year 2018 is $1.97 billion (1.01% of total assets) with an additional $402.9 million committed to specific ETI investments. In addition, the Real Assets ETI investments have a market value of $677.2 million, and together with the other ETI investments and commitments constitute 1.56% of total assets.

As of June 30, 2018, the ten-year overall performance of ETIs was 4.94% net of fees as compared to the benchmark performance of 3.72% (Barclays Capital U.S. Aggregate Bond Index).

During Fiscal Year 2018, the ETI program made cumulative investments of $49.8 million in individual multifamily projects through its Public/Private Apartment Rehabilitation (PPAR) program. These investments financed the rehabilitation or new construction of 892 units of affordable housing. The PPAR program also issued additional commitments for $71.5 million for new loans financing 681 units during Fiscal Year 2018. NYCRS's commitments to provide permanent financing ensures that construction will go forward on these projects. Since the inception of the PPAR program in 1982, more than $1.30 billion has been invested.

NYCRS maintained their investment in the AFL-CIO Housing Investment Trust (HIT). The June 30, 2018 cumulative market value of HIT investments is $810.1 million. Since 2002, the HIT has invested $1.20 billion to preserve 34,512 units of the geographic target area's affordable housing stock, which generated jobs and provided for the long-term affordability of the units.

RBC Access Capital Strategies (RBC Access), a division of the Royal Bank of Canada, invests in mortgage-backed securities comprised of loans issued to single family homeowners making up to 200% of the Area Medium Income. All loans are screened for compliance with anti-predatory lending practices. RBC Access investments can also include securities backed by first mortgage loans issued to developers of multifamily rental housing, and other types of community development loans in New York City. In Fiscal Year 2018, RBC Access launched an initiative to invest a minimum of $5 million annually in VA Home Loans for the NYCRS portfolio with the objective of VA Home Loans achieving a target 10% of the portfolio's assets. As of June 30, 2018, RBC Access has a market value of $435.3 million, and has invested $775.3 million for 2,419 single family units, 35,275 multifamily units, including Mitchell-Lama buildings, and 17 small business loans.

NYCRS committed a combined $155 million in a separate account managed by Vanbarton Group LLC. The NYC Vanbarton Interborough Fund LLC equity fund (Vanbarton Fund) invests in a variety of real property sectors including revitalized multifamily housing and commercial retail and office space in low- and moderate- income neighborhoods in the five boroughs. As of June 30, 2018, the Vanbarton Fund invested $162.5 million creating or preserving over 432,125 square feet of commercial space and 63 units of affordable housing. In addition to the Vanbarton Fund investment, NYCRS has committed $500 million to rehabilitating and creating work-force housing as part of the City's response to Superstorm Sandy.

NYCRS committed $40 million to the Community Preservation Corporation's construction loan facility in Fiscal Year 2015. The facility finances short-term construction loans originated by the Community Preservation Corporation. The construction loans are for housing and commercial spaces in low- and moderate- income City neighborhoods, generating jobs and promoting neighborhood revitalization.

NYCRS continually seeks proposals for new ETIs. The ETI Request for Proposal (RFP) is available on the Comptroller's website and investment proposals may be submitted for any approved asset class, including real estate and private equity.

BUREAU OF AUDIT

The City Charter requires that the Comptroller's Office audit some aspect of every City agency at least once every four years. The City Charter also requires that these audits be conducted in accordance with generally accepted government auditing standards (GAGAS) promulgated by the Comptroller General of the United States. In Fiscal Year 2018, the Bureau of Audit issued 74 audits and special reports focused on the effectiveness and service quality of City programs and on financial issues.

Below is a brief synopsis of some of the audits that had a significant impact on City finances and quality of service delivery. The audits and special reports may have resulted in recommendations to address the deficiencies found. Overall, the agencies and organizations audited and reviewed agreed to implement approximately 80% of the recommendations.

Revenue and Cost Savings

- An audit was conducted to determine whether the School Construction Authority (SCA) properly administered its Other Funds Account in accordance with applicable laws, rules and regulations. The SCA is a public benefit corporation established in 1988 by the New York State Legislature under the New York State Public Authorities Law, responsible for the design, construction, improvement, rehabilitation and repair of the New York City public schools. The SCA periodically receives additional funds from sources other than the City's capital budget appropriations. To maintain these funds, the SCA established a miscellaneous account, known as the "Other Funds Account." The Public Authorities Law provides that funds maintained by the SCA that do not need to be immediately expended, should be invested in accordance with §11 of the General Municipal Law, without regard to the source of those funds. The SCA must comply with all applicable internal controls and accountability directives issued by the Office of the Comptroller. The audit found that the SCA lacked sufficient internal controls over the administration of the Other Funds Account and that as a result, the financial records related to that account, which held in excess of $100 million during the audit period, were inconsistent and inaccurate. These control deficiencies could impair the SCA's ability to make decisions on the appropriate use and allocation of the funds. In addition, the audit found that the SCA did not consistently follow the investment requirements of the Public Authorities Law and that as a result, it maintained in excess of $100 million in a checking account that earned minimal interest, which could have been invested at a higher rate of return.
- An audit examined whether the Taxi and Limousine Commission (TLC) has adequate internal controls to ensure that revenues are properly collected, recorded, and reconciled and that related transactions are supported by adequate documentation. Pursuant to Chapter 65, §2303, of the City Charter, TLC licenses and regulates the medallion taxicabs, street hail liveries

(SHLs) (commonly known as "green cabs"), and other transportation service providers. The administration of TLC's revenue is governed by Comptroller's Directives that prescribe methods for revenue-collection and recording for City agencies. TLC's main revenue categories include fees paid in connection with licensing and inspections, fines, and medallion sales. TLC also administers the collection of revenue related to its Taxicab Improvement Fund (TIF) and the medallion transfer tax. TIF revenue, which is collected through a $0.30 per ride fare surcharge, is used to subsidize the cost of increasing the number of wheelchair-accessible TLC-licensed vehicles. In addition, TLC, on behalf of the New York City Department of Finance (DOF), collects a tax that is levied on all medallion transfers. For Fiscal Years 2015 and 2016, TLC reported total revenue of $95 million and $85 million, respectively. The audit determined that TLC has adequate controls over the core components of its revenue collection, recording, and reconciliation processes. However, the audit also found control weaknesses in certain aspects of TLC's operations that impacted its revenues. Delays and missed opportunities in TLC's enforcement of TIF requirements contributed to an uncollected balance, as of May 2017, of $5.7 million, or 8%, of the $72.7 million of TIF surcharges paid by passengers throughout the two preceding Fiscal Years. The audit also found that TLC relaxed its rules for assessing medallion transfer taxes, which resulted in underassessments of an undetermined amount. Based on the review of 100 transfers out of 232 that occurred during the audit scope period, the audit identified 8 transfers that were under-assessed by a combined total of $29,225. Finally, the audit found TLC erroneously classified approximately $1 million of revenue derived from fines it collected following proceedings at the City's Office of Administrative Trials and Hearings (OATH).

- An audit was conducted to determine whether the New York City Department of Finance (DOF) effectively restrains and seizes City payments due to City vendors with outstanding tax warrants. DOF is responsible for the administration and collection of approximately $37 billion in City revenue, which for Fiscal Year 2017 included approximately $1.3 billion in business and excise tax revenue. As the City's tax collector and enforcer of the City's tax laws, DOF is responsible for collecting taxes due from, among others, private contractors and vendors that do business with the City. DOF's Collections Unit is authorized to take legal action to collect delinquent tax debt, which may include issuing and docketing a tax warrant in the County Clerk's office, enforceable against the tax debtor's assets as a judgment. When a tax debtor with a docketed tax warrant for delinquent business and excise tax is a vendor that sells goods or services to the City, DOF's Collections Unit is also empowered to collect the tax owed by providing certain notices to the vendor and then offsetting its tax debt from the City's payment for the goods and services the vendor provided. The audit found that although DOF effectively restrained City payments due to City vendors with docketed tax warrants, it did not follow up by seizing and offsetting the vouchered funds.

  According to DOF's records, as of February 5, 2018, the agency had docketed 254 open warrants totaling $5.7 million in unpaid business taxes against 192 City vendors, 186 of whom were owed a total of $2.6 million in vouchered funds that had been placed on hold under DOF's process. However, DOF had not used that process to offset-i.e., collect-such tax debt from the vendors for more than three years, and the agency did not systematically track how much it was collecting from City vendors through other means, such as voluntary payment plans.

- An audit was conducted to determine whether advance payments made by the New York City Department of Homeless Services (DHS) to contracted Adult Shelter Providers were issued and recouped in accordance with contract terms and DHS's Fiscal Manual. DHS is the City agency responsible for providing temporary emergency shelter and social services to eligible homeless adults and families, and it contracts with nonprofit and for-profit entities. While the contracts generally provide for payment after services have been delivered, they also allow the service providers to request and receive cash advances in anticipation of services to be rendered. During Fiscal Years 2015 and 2016, DHS had contracts with multiple Adult Shelter Providers totaling $307 million and $335 million and made advance payments to the providers totaling $55.4 million and $82.7 million, respectively. The audit determined that DHS did not consistently follow its procedures for the issuance and recoupment of the advance payments. As a result, approximately three months into Fiscal Year 2018, DHS had failed to recoup $11.8 million it had advanced to providers more than a year earlier, consisting of $75,704 advanced for Fiscal Year 2015 and $11.7 million advanced for Fiscal Year 2016.

Asset Management and Internal Controls

- An audit examined whether the New York City Housing Authority (NYCHA) has adequate controls over playground inspections and ensures that its playgrounds are maintained in a clean and safe manner. The audit included inspections of all 788 NYCHA-maintained playgrounds—located in 238 NYCHA developments—and found unsatisfactory conditions in 549 (70%) of the playgrounds. The audit found numerous playgrounds with substandard and visibly hazardous conditions, including missing and broken play equipment (some with exposed jagged edges), loose and deteriorated safety surfacing, tripping hazards, debris, erosion, and unkempt vegetation. Audit staff conducted follow-up visits of 25 developments with substandard and hazardous playground conditions and found that almost half of those developments had not prepared or retained mandated monthly inspection reports. In those cases where inspection reports were available, they did not consistently reflect the conditions found during inspections of the playgrounds, and numerous reports were missing required signatures by the superintendents or housing managers who were supposed to review the report. The audit further found that NYCHA's development staff were not recording the results of their monthly inspections of the grounds and playgrounds in NYCHA's asset- and work-management system, Maximo, as required by NYCHA's written procedures, a significant omission that deprived NYCHA of a reliable, current, and easily accessible record of the condition of all of its playgrounds.

- An audit was conducted to determine whether the New York City Department of Parks and Recreation (DPR) adequately oversees private construction management firms (CMs) to ensure that capital project work is performed as planned and in a timely manner. DPR's Capital and Forestry Divisions both contract with private construction management firms to oversee the work of construction and landscaping contractors hired by DPR to build and execute the capital construction projects. In-house staff of DPR's Capital and Forestry Divisions are responsible for overseeing the CMs working on projects in their respective divisions. The audit focused on 69 Capital and Forestry Division capital projects supervised by CMs during Fiscal Years 2014 and 2015 with total construction costs of $317 million (exclusive of design and special inspections) and an additional $18 million spent for project management services performed by the contracted CMs. The audit found that DPR needs to improve its oversight of contracted CMs to ensure that their projects are completed appropriately and on time. Thirty-nine percent of DPR's CM-managed projects that were open during the audit scope period were not completed within scheduled timeframes. The affected projects, located throughout the five boroughs, included construction of a carousel, a bikeway, a golf course, and a pool bathhouse, as well as tree-planting projects. The delays ranged from nine days to three years and resulted in DPR's incurring $4.9 million more in fees charged by its contracted CMs than the amounts originally budgeted—a cost overrun of 35% on the CM component of the projects alone.

- A follow up review was conducted to determine whether the New York City Department of Education (DOE) implemented the eight recommendations made in the New York City Comptroller's Office's, *Audit Report on the Department of Education's Oversight of Computer Hardware Purchased through the Apple Inc. and Lenovo Inc. Contracts (Audit # FM14-057A)* issued on December 1, 2014. The 2014 audit found that DOE's controls and management practices in relation to computer hardware inventory were insufficient to ensure that its computer hardware, purchased through contracts totaling $209.9 million, for use by students, teachers, and administrative staff was accounted for properly. Overall, the July 2017 follow up audit found that DOE had not improved its inventory controls over computer hardware because it had not agreed to implement the majority of recommendations made in the Comptroller's 2014 audit report, including that it maintain a centralized inventory of such hardware. Specifically, in the follow-up audit, DOE did not properly account for 4,993 out of the 14,329 pieces of computer hardware in the sample, 34.9%, at nine sampled sites. Of these 4,993 items, the auditors looked for but did not observe 1,816 pieces of computer hardware during physical inspections, and the sites did not include 3,541 pieces of computer hardware in their inventory records. In addition to these findings, the follow up audit found that DOE did not provide sites with sufficient guidance and support to ensure that decentralized inventory records were accurate and complete and that adequate controls were in place to properly safeguard computer hardware.

Service Delivery and Program Performance

- An audit was conducted to determine whether the New York City Department of Education (DOE) conducted adequate outreach and provided sufficient oversight of the attendance of students residing in Department of Homeless Services (DHS)-operated homeless shelters. According to DHS' records, 32,243 school-aged children resided in DHS family shelters during the 2015-2016 School Year (September 9, 2015 through June 28, 2016). The responsibility for tracking school attendance rests with the individual schools and their principals. Incidences of poor school attendance have been found to be more prevalent among students who reside in homeless shelters than the general student population. In part to address this national phenomena, the federal McKinney-Vento Homeless Assistance Act of 2001 (the McKinney-Vento Act) mandates that homeless children be guaranteed equal access to the same free appropriate public education provided to children who are permanently housed within the community. To achieve the goals of the McKinney-Vento Act, every community school district under DOE management assigns DOE employees called Family Assistants to work at local shelters with the homeless families and monitor school attendance of the children in those families. DOE and DHS have each established their own procedures and requirements intended to ensure that school-aged children (Pre-Kindergarten through grade 12), ages 4-21, residing in City shelters attend school regularly and that outreach and intervention is conducted when necessary.

  The audit found that the DOE does not engage in adequate outreach or have sufficient oversight of efforts made to track and monitor the attendance of students residing in temporary housing who are chronically absent from school, particularly those residing in DHS-operated homeless shelters. Further, DOE does not have adequate oversight mechanisms to ensure that its protocols are followed. Out of a sample of 73 students who were identified by DOE as having resided in DHS homeless shelters during the 2015-2016 School Year and were chronically absent according to DOE's criteria, the audit revealed no evidence that schools conducted outreach for 87% of the absences reported and for 94% of the instances of lateness reviewed. Since students who reside in temporary housing are known to have higher rates of absenteeism than permanently-housed students, DOE's oversight weaknesses could increase safety and welfare risks to this already vulnerable group of children.

- An audit was conducted to determine whether the New York City Board of Elections (BOE) took effective actions to ensure that certain voters inappropriately purged from voter rolls in 2014 and 2015 were restored to the voting rolls for the November 2016 elections, whether adequate assistance was provided to voters at polling sites, and whether polling sites were accessible to all voters, including persons with disabilities. The BOE is charged with conducting federal, State and local elections in New York City. To carry out its functions, the BOE distributes, receives, and processes New York City residents' voter-registration forms, and maintains the roll of the City's registered voters. To facilitate Election Day operations, the BOE employs poll workers to open and close the polling sites, administer voting operations, assist voters, and electronically transmit the preliminary results from scanners to the BOE's General Office.

Between March 2014 and July 2015, the BOE's Brooklyn office canceled, or "purged," the registrations of over 117,600 voters, which prevented them from voting during the April 19, 2016 Presidential Primary Election. The BOE's action triggered an investigation by the New York State Attorney General and by the US Department of Justice. The BOE subsequently agreed to restore these voters to the rolls.

The audit found that the BOE took efforts to ensure that Brooklyn voters inappropriately purged from voter rolls for the April 2016 Primary Election were restored in time for the November 2016 General Election and, through sample testing, those efforts appear to have been effective. However, the audit found that the BOE failed to ensure that the polls operated effectively and efficiently and in accordance with applicable law, rules and guidelines, which ultimately could have impacted the ability of individuals to vote. Among the deficiencies found were problems with the assistance provided to voters, including those who require language interpreters and those with disabilities; problems with the information provided to voters; and problems with the accessibility of the poll sites themselves for disabled voters. The audit also found issues with the quality and amount of training BOE provides for Election Day workers.

- An audit was conducted to determine whether the Metropolitan Transportation Authority New York City Transit (NYCT) has established adequate controls over the Access-A-Ride (AAR) complaint resolution process. Specifically, the audit determined whether the controls provide reasonable assurance that: (1) all complaints are accounted for; (2) complaints are properly categorized; (3) complaints are adequately addressed and resolved in a timely manner; and (4) investigatory procedures are consistently followed. Under the Americans with Disabilities Act of 1990 (ADA), public transportation authorities are required to provide a paratransit system for people with disabilities who are unable to use public bus or subway service. In New York City, NYCT administers the AAR paratransit service, which provides shared-ride, door-to-door transportation 24 hours a day, seven days a week, including holidays. AAR primarily delivers service through contracts with a network of private vendors, including 13 Dedicated Carriers (DCs) and two Broker Car Service Providers (BCSPs). During Calendar Year 2016, NYCT's Paratransit program paid over $292 million to DCs and over $34 million to BCSPs for more than six million combined AAR trips. The audit focused on NYCT's handling of customer complaints about AAR services provided by the DCs. Approximately 86% of the 32,938 incident records were based on calls made to the Comment Line. Although the audit found that NYCT generally follows its internal procedures for receiving, processing and referring AAR complaints to the appropriate Paratransit units for investigation, the audit identified deficiencies in several areas. The audit found internal control weaknesses in NYCT's processes for handling AAR complaints that have led to some complaints not being investigated and others not being investigated within required timeframes. These deficiencies posed increased health and safety risks to AAR customers and to the general public.
- Seven audits were conducted—including four in Fiscal Year 2018—to determine whether personnel working at *EarlyLearn NYC* child care centers under contract with the Administration for Children's Services (ACS) had been properly screened through the Statewide Central Register of Child Abuse and Maltreatment (SCR). The New York City Health Code, §47.19, requires that all child care center employees and volunteers undergo an SCR clearance review prior to being hired and every two years thereafter. The four Fiscal Year 2018 audits reviewed the SCR-clearance status of a total of 97 individuals working at the respective centers on the dates of auditors' unannounced visits and found that the centers had not obtained required SCR clearances for 24 individuals whose clearances were late by periods that ranged from 4 days to 866 days. The audits also found that the centers employing four individuals had not received the required renewal SCR clearance at all. One of those centers thereafter failed to obtain the required renewal clearances for three employees for an additional year. All of the audit reports were provided to the centers and to ACS.
- An audit was conducted to determine whether the Department of Education (DOE) has adequate controls over payments to independent and contracted service providers who work with school-aged students in need of special education services such as physical therapy, occupational therapy, speech therapy and psychological counseling, called "related services." When a student requires related services, DOE first attempts to identify a DOE employee who can provide them. If no suitable DOE employee is available, DOE seeks a contracted related-service provider, and when neither a suitable DOE employee nor a contracted provider is available, DOE issues a Related-Service Authorization to the family, which enables the student's parents or guardians to secure the services from an independent provider at DOE's expense. According to DOE, the agency paid $84,033,968 in Fiscal Year 2016 to 1,102 independent and contracted providers for related services for school-aged students.

  The audit found that DOE does not have adequate controls over payments to related-service providers. As a result, DOE was unable to provide reasonable assurance that related services billed to and paid for by the agency were adequately supported and actually provided. Moreover, DOE's payment review process, which might have found errors in billing and payments, was not consistently implemented or effectively designed. In addition, the audit found that DOE's process for confirming with parents and guardians that services were rendered was significantly flawed. Thus, DOE's processes were not an effective means of verifying that billed services were actually performed. Further, the DOE's Vendor Portal edit checks, which should have been designed to automatically reject certain billing irregularities, did not provide adequate protection against vendors' billing and receiving payment for duplicate and overlapping billing of related services. The auditors review of the related-service billing data for Fiscal Year 2016 identified an estimated $131,913 in erroneous payments made to 597 providers resulting from (1) overlapping sessions billed by the same provider; (2) duplicate sessions billed by different providers; and (3) overlapping sessions billed by different providers.

Information Technology

- An audit of the New York City Department of Transportation's (DOT's) access controls over its computer systems was conducted to determine whether DOT had adequate system security and access controls in place to protect the information in its computerized environment. DOT manages one of the most complex urban transportation networks in the world. It is responsible for the condition and operation of 6,300 miles of streets, highways, public plazas and 789 bridge structures. As part of its operations, DOT uses 88 computer applications. The agency identified 15 of those applications as critical. The 15 critical applications process private information in addition to public data. The private information includes driver's license numbers, personal medical data, the names and addresses of the employers of permit applicants, and other information restricted to agency use. All of DOT's applications and their data are regulated by the agency's policies and the New York City Department of Information Technology and Telecommunications' (DoITT's) policies. The audit found that DOT has established controls for application access and data protection, and has implemented security controls to protect its computerized environment. However, it found weaknesses in certain access and security controls. Specifically, DOT had not deactivated or disabled the user accounts of 113 former or on-leave employees, as required by DoITT's policies, increasing the risk that unauthorized users could gain access to DOT's applications and attempt to modify, delete, or steal data. In addition, DOT did not implement and enforce DoITT's password-expiration and complexity rules for three critical applications. We also found that two DOT public web applications used an unsecured network protocol—a method by which computers communicate with each other—that rendered the applications and the communications the protocol carries vulnerable to unauthorized intrusion and interception.

- Another IT audit was conducted to determine whether the New York City Administration for Children's Services' (ACS') Division of Preventive Services (DPS) properly secures personal information from unauthorized access and has adequate security controls over personally identifiable information (PII) that is being collected and stored. DPS is the unit of ACS that oversees the delivery and monitoring of preventive services for children and families in their communities through contracted service providers. Among its services are in-home family counseling, support groups for parents and youth and homemaking services. To accomplish its varying tasks, DPS uses several specialized computer applications. The agency's critical applications may contain PII that is private, sensitive and/or confidential, including names, addresses, social security numbers and medical information. ACS is responsible for ensuring that security controls are in place to protect PII that is collected and stored. The audit found that ACS has established policies, procedures and guidelines for access control, data protection and data classification to protect the PII that is collected and stored by DPS. However, the audit found several weaknesses in the agency's access controls, including inactive network user accounts that were not disabled and passwords for certain remote user accounts that never expired. In addition, ACS did not comply with DoITT's *Password Policy* with respect to two critical applications, did not properly monitor external service providers' access to its critical applications and did not properly limit users' access privileges in one application.

- An audit was conducted to determine whether the New York City Department of Parks and Recreation (DPR) had adequate system security and access controls in place to protect information in its computerized environment. DPR is responsible for the maintenance of a 30,000-acre municipal park system, which includes most of the City's parks and playgrounds. It also manages forests and trees (both in the parks and on the street), and provides recreational and educational opportunities for New Yorkers of all ages. To accomplish its varying tasks and conduct its operations, DPR maintains a computer network used by its employees and consultants to access agency emails and files. DPR also maintains several mission-critical computer applications that are accessible to its network users. Many of those mission-critical applications contain sensitive and private information, which includes names, birthdates, addresses, and other information that is intended for agency use only. DPR is responsible for ensuring that it has policies and procedures in place to protect the information in the agency's computerized environment. The audit found that DPR has established policies, procedures and guidelines for access control, data protection, and security controls to protect information in the agency's computerized environment. However, the audit also found access-control weaknesses, including a failure to disable the accounts of former City employees and inactive users, which could increase security risks. In addition, DPR did not always implement and enforce applicable City password-expiration and complexity rules for its mission-critical applications. Further, the audit found security weaknesses in DPR's computer environment. Specifically, DPR did not perform the required intrusion-detection and vulnerability scans to identify security weaknesses and threats to the servers for which it was responsible. In addition, DPR did not have a formal disaster recovery plan for certain mission-critical applications.

OFFICE OF DIVERSITY INITIATIVES

The Comptroller's Office of Diversity Initiatives works to develop innovative solutions that expand economic opportunities for all. The Office is led by the Chief Diversity Officer, an executive level diversity and inclusion strategist reporting directly to the Comptroller. The Chief Diversity Officer serves as a watchdog for the inclusion of women and people of color in competing for public and private sector procurements, and focuses on launching initiatives that put diversity at the heart of the way the City does business. The first Chief Diversity Officer within the Comptroller's Office was appointed in 2014.

The Office of Diversity Initiatives is responsible for implementing and monitoring a letter-grading program that holds City agencies accountable to comply with Local Law 1 of 2013 and advocating for additional measures to increase the City's utilization of minority and women-owned business enterprises (M/WBEs). It also assists the Corporate Governance team on supplier, workplace and board diversity initiatives and leads the Comptroller's Advisory Council on Economic Growth through Diversity and Inclusion.

The Office of Diversity Initiatives also designs and manages the Comptroller's Office internal M/WBE program. As a result, the office more than doubled its spending with M/WBEs achieving 29% spending in Fiscal Year 2018, up from 12% in Fiscal Year 2014. Among micro purchases, the Office spent 38% with M/WBEs, more than double compared with Fiscal Year 2014. More than 50% of the Bureau of Law and Adjustment's claims hearings budget is allocated to M/WBE firms.

In addition, the Office of Diversity Initiatives works with the Comptroller's Bureau of Asset Management on diversity initiatives involving investment managers and portfolio companies held by the New York City Retirement Systems. In Fiscal Year 2018, the Comptroller appointed a Diversity and Inclusion Director in the Bureau of Asset Management, the first time the bureau has had staff dedicated to diversity across all asset classes.

The Office also introduced Comptroller's M/WBE University, which offered a series of workshops designed to increase access to the Comptroller's Office and citywide procurement opportunities for M/WBEs, engaging 600 diverse businesses in Fiscal Year 2018.

Also for the first time, the Comptroller's Office began tracking the number of M/WBEs on the prequalified list of certified public accountants, a list of firms that can provide audit services to the City's agencies. In Fiscal Year 2018, the Comptroller's Office also changed the criteria for the list to increase access for M/WBE auditors and now accepts both engagement and systems peer reviews. As of June, 2018, there were 16 M/WBEs prequalified to provide the City with audit services.

THE COMPTROLLER'S COMPREHENSIVE ANNUAL FINANCIAL REPORT

The Comprehensive Annual Financial Report (CAFR) is required by Section 93(1) of the New York City Charter, and is presented in three sections. This transmittal letter serves as an introduction and summary. The financial section includes the basic financial statements, combining fund financial statements and schedules and other required supplementary information. The statistical section includes selected financial and demographic information, generally presented on a multi-year basis.

The City is responsible for both the accuracy of the data and the completeness and fairness of the presentation, including all disclosures. To the best of the Comptroller's Office's leadership's knowledge and belief, the enclosed data is accurate in all material respects and is reported in a manner designed to fairly present the financial position and results of operations of the City and its various funds. All disclosures necessary to enable the reader to gain an understanding of the City's financial activities have been included.

The City is required to undergo an annual Single Audit in conformity with the provisions of the Single Audit Amendments Act of 1996 and the United States Office of Management and Budget's (OMB) *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* and other related documents. Information related to the Single Audit, including the Schedule of Expenditures of Federal Awards, findings and recommendations, and auditors' reports on internal controls and compliance with applicable laws and regulations, are issued as a separate report.

Budgetary and Financial Controls

The City is responsible for establishing and maintaining internal controls designed to ensure that municipal assets are protected from loss, theft, or misuse and to ensure that adequate accounting data is compiled to allow for the preparation of financial statements in conformity with GAAP. Internal controls are designed to provide reasonable, but not absolute, assurance that these objectives are met. The concept of reasonable assurance recognizes that: (1) the cost of a control should not exceed the benefits likely to be derived, and (2) the valuation of costs and benefits requires estimates and judgments by management. These internal controls are subject to continuous evaluation by the City.

Budgetary Controls

The City maintains budgetary controls to ensure compliance with legal provisions embodied in the Annual Appropriated Budget approved by the City's governing body. Activities of the General Fund are included in the Annual Appropriated Budget. The City also makes appropriations in the Capital Budget to authorize the expenditure of funds for various capital projects. A level of budgetary control, i.e., the level at which expenditures cannot legally exceed the appropriated amount, is established within each individual fund. As reported in the schedules to the financial statements, several agencies have expended more than legally appropriated amounts. The City also maintains an encumbrance accounting system as another technique of accomplishing budgetary control. Encumbrances lapse at the end of each Fiscal Year.

Financial Controls

The City maintains financial controls through the use of an integrated accounting and budgeting system, referred to as the Financial Management System (FMS). FMS maintains the City's centralized accounting and budgetary controls. FMS is also used by the City to maintain information on City contracts as well as capital projects. FMS provides the ability for the Comptroller's, Mayor's, and individual agencies' financial managers to access, analyze, and utilize the City's financial data. These capabilities are continuously improved to meet new information needs.

Section 93 of the New York City Charter grants the Comptroller broad powers for establishing accounting and internal control policies and procedures for the City. To ensure the adequacy of the City's internal controls, directives and memoranda that outline appropriate policies and procedures for all City agencies and component units are issued and periodically updated. These directives and memoranda establish internal controls and accountability, which safeguard City assets. The Comptroller's Office and agency auditors periodically check City agencies' and component units' adherence to internal control policies and procedures. Each year, in accordance with the *Comptroller's Directive #1 — Principles of Internal Control*, every City agency is required to prepare a report on its internal controls. Each agency's report must include an "Agency Financial Integrity Compliance Statement" signed by the agency head. The statement must include the agency head's opinion as to whether the agency's internal controls provide reasonable assurance that internal control objectives were achieved during the Fiscal Year and can continue to be achieved in the future.

The Comptroller's Office Audit Bureau administers the "Agency Financial Integrity Compliance Statement" program that is part of the "Principles of Internal Control" Directive and collects agency responses. In addition, the auditors collate these responses and use the results as part of a risk assessment to identify future audits. This approach helps to ensure that agencies genuinely assess their internal controls, rather than just examine them perfunctorily. The Comptroller's Office also asks agencies to assess the adequacy of their internal audit functions.

Should a control weakness prevent any significant control objective from being achieved, the agency head must describe management's plans for correcting it. Agencies must also explain and describe planned corrective action for any outstanding weakness described in audit reports prepared by the City Comptroller's Office auditors, the City's independent auditors, the State Comptroller, or other oversight or audit bodies.

The Comptroller revised and reissued the following Comptroller's Internal Control and Accountability Directives during Fiscal Year 2018: *Directive #9 — Administration of Cash and Securities Held as Collateral for Performance on Contracts, Franchises, Revocable Consents and Concessions, and Other Agreements, and Directive #22 — Accounting, Financial Reporting, and Audit Requirements for Entities Included in the Financial Reporting Entity of the City of New York.*

Directive #9 was reissued to clarify the rules and procedures for the administration of cash and securities that The City of New York holds as collateral for performance on contracts, franchises, revocable consents and concessions, and other agreements. The Comptroller, as the Chief Fiscal Officer of the City, is the custodian of all deposited cash and securities, and is responsible for the administration of all collateral deposits. No substantial changes were made to this Directive, however more detailed instructions were provided with regards to certain procedures and guidance for addressing retainage held and not released upon substantial completion of a project.

The revision to Directive #22 provides clarification and additional requirements for entities identified as part of The City's financial reporting entity, also known as Component Units. Due to recent promulgations issued by the Governmental Accounting Standards Board, which redefines a governments Blended Component Unit, this Directive was reissued in order to ensure financial reporting compliance by each of The City's Component Units. For a complete listing of The City's financial reporting entities, please see page 11.

In addition to the reissued directives, the Comptroller issued a new memoranda in Fiscal Year 2018: *Comptroller's Memorandum (CM) #17-01 — Amendment to Section 7.0, Computer Hardware, Software, Networks and Systems, of the Office of the Comptroller's*

Directive #10 — Charges to the Capital Projects Fund. This amendment provides guidance on the capital eligibility and treatment of frequent scenarios surrounding cloud computing projects.

All Comptroller directives and memoranda may be found on the Comptroller's Office website.

AWARDS

For the 38th consecutive year, The City of New York was awarded the prestigious Certificate of Achievement for Excellence in Financial Reporting by the Government Finance Officers Association (GFOA). The Certificate signifies that the City's CAFR meets the highest standards of governmental financial reporting. Only 2,621 of some 38,843 governmental counties, municipalities, and townships have received the Certificate thus far, and New York City is one of a very select group of 136 to have received the award for 38 or more consecutive years. To be awarded a Certificate of Achievement for Excellence in Financial Reporting, a government must publish an easily readable and efficiently organized CAFR. The CAFR for Fiscal Year 2017 again satisfied these requirements.

ACKNOWLEDGEMENTS

First, I want to thank the hundreds of accounting and financial professionals in every city agency who work every day on behalf of the people of the City of New York, comprising the foundation of our City's financial accountability and transparency. Your hard work in partnership with the staff of the Comptroller's office made this report possible.

I also wish to convey my deep appreciation to my staff who have worked so diligently to prepare the financial statements and the entire CAFR. I offer special thanks to Deputy Comptroller for Accountancy Jacqueline Thompson, Bureau Chief Katrina Stauffer, and the entire management team and staff of the Bureau of Accountancy. I am also grateful for the assistance of the Office of the Actuary, the Mayor's Office of Management and Budget, and the Financial Information Services Agency.

I want to thank the City's independent auditors, Grant Thornton LLP, as well as the Pension Systems' independent auditors, Marks Paneth, LLP, for their efforts throughout this audit engagement. Finally, I want to acknowledge the work of the City's Audit Committee, and especially the private members who serve a vital role in assuring the integrity of the independent audit process.

Scott M. Stringer
New York City Comptroller