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 2019. This report, the sixth 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).

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 2019 of $91.784 billion and expenditures and other financing uses of $91.779 billion, resulting in a surplus of $5 million. These expenditures and other financing uses include transfers and subsidy payments of $4.221 billion to help eliminate the projected budget gap for Fiscal Year 2020. Fiscal year expenditures and other financing uses were $3.848 billion more than in Fiscal Year 2018, an increase of 5%. Excluding the transfers and subsidy payments to eliminate future Fiscal Year projected gaps, expenditures and other financing uses increased by $4.203 billion or 5%. 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 2019 AND OUTLOOK FOR FISCAL YEAR 2020

### The City's Economy in Fiscal Year 2019

The economies of both New York City and the U.S. posted solid growth in Fiscal Year (FY) 2019. The City's economy, as measured by the change in real gross city product calculated by the Office of the Comptroller, grew 3.0% in FY 2019 slightly below the 3.1% growth in FY 2018. The national economy grew 2.6% in FY 2019, slightly less than the 2.8% growth in FY 2018. Fiscal Year 2019 marks the seventh consecutive year that New York City's economy has outperformed the national economy.

The City's economic growth was supported by gains in payroll employment and robust increases in average hourly earnings. The City's private sector continued to grow for the ninth consecutive year and added 79,700 jobs, a gain of 2.0%, in FY 2019, less than the 2.4% growth in FY 2018, but faster than the 1.9% gain observed nationally.

The distribution of newly created jobs across income segments in FY 2019 followed the recent trend 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 79,700 new private-sector jobs created in FY 2019, 74.4% (or 59,300) were in industries where the average wage is less than $63,000 per year, including retail trade and many healthcare and social assistance jobs, 10.1% (or 8,100) were in industries where the average wage is between $63,000 and $126,000 per year, such as construction and wholesale trade, and 15.5% (or 12,400) were in industries where the average wage is greater than $126,000 per year, including financial activities and professional services.

Fiscal Year 2019 export-sector employment growth (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) was the smallest since the current recovery began in FY 2011. Export-sector employment in New York City in the 2019 fiscal year added 22,400 jobs and represented 28.0% of all new private-sector jobs. Export-sector employment growth is seen as particularly 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 57,300 jobs, or 72.0%, of all new private-sector jobs.

Of the 79,700 new private-sector jobs created in FY 2019, 25,100 or 31.5% were office workers, 7,000 fewer than in FY 2018. Office worker hiring has been on a downward trend since FY 2016, but it is still above the 29.0% long-term average.

The biggest job gain was in education and health services (+48,200), as education added 3,000 jobs and health care and social assistance added 45,300 jobs. The large increase in health care providers is likely a result of changes in federal health care rules which allow family members to be paid to care for their loved ones. Professional and business services added 17,900 jobs of which 12,800 were in administrative and support services and waste management. Financial activities added 3,200 jobs of which 3,100 were in the securities industry. Other industries of note include: information, adding 4,000 jobs; construction, adding 3,600 jobs; and trade, transportation, and utilities adding 2,800 jobs—mainly due to 3,000 new retail trade jobs.

Industry sectors losing jobs include leisure and hospitality which lost 300 jobs; and manufacturing which continued a three-year trend, losing 2,400 jobs.

The City's unemployment rate fell to 4.2% in FY 2019, the lowest on record. Although the City's labor force participation rate remained unchanged at a record high of 60.7% in FY 2019 (the same as in the previous year), the City's labor force fell by 15,100. Residential employment (New York City residents with jobs) fell by 4,300, but the employment-to-population ratio rose to a record high of 58.2% in FY 2019 from 58.0% in FY 2018.

Unemployment rates fell to their lowest levels on record in all five boroughs in FY 2019. Unemployment fell to 3.6% in Queens, 3.7% in Manhattan, 4.1% in Staten Island, 4.3% in Brooklyn, and 5.7% in the Bronx.

Average hourly earnings of all private New York City employees rose 4.1% in FY 2019, the highest on record. U.S. average hourly earnings grew 3.2% in FY 2019, the highest since FY 2009.

Pre-tax profits of NYSE member firms were about $28.8 billion in FY 2019, the highest since FY 2010, and 10.9% more than the $25.9 billion in FY 2018. The main contributors were $27.0 billion in other revenue related to securities business, $5.6 billion in gains on firm securities trading accounts, $3.4 billion in fees for account supervision, investment advisory and administrative services, and $2.8 billion in margin interest revenues.

Both the commercial and residential real estate markets improved in FY 2019. New commercial leasing activity in Manhattan increased by 6.8 million square feet (msf) or 21.7% to about 38.1 msf in FY 2019, according to Cushman and Wakefield. Manhattan's overall office vacancy rate, including sublease space, rose to 9.9% in FY 2019 from 9.0% in FY 2018 as a result of more space becoming available. Total inventory, which includes all existing competitive office buildings located in Manhattan, increased by almost 3.0 msf and total available space increased 3.8 msf.

The housing market in Manhattan also improved. According to Douglas Elliman, while average sales prices was flat, growing only 0.2%, the average price per square foot rose 1.7%, and sales volume increased by 12.5% in the fourth quarter of FY 2019, on a year-over-year basis. The listing inventory rose 8.2% from the prior year likely spurred by a decline 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, fell to 7.7 months in the fourth quarter of FY 2019 from eight months in the fourth quarter of FY 2018.

According to PwC Money Tree, venture capital investment in the New York metro area rose 16.1% to $17.0 billion in FY 2019, the highest level on record. Venture capital investment in the U.S. rose 39.2%. The New York metro area ranks second in dollars of venture capital invested, after San Jose-San Francisco-Oakland, CA ($66.0 billion). Total investment in San Jose-San Francisco-Oakland, CA, which has the biggest concentration of venture capital investment, rose 78.6% in FY 2019, on a year-over-year basis. The share of New York metro area venture capital investment fell to 13.7% of the U.S. total in FY 2019 from 16.4% in FY 2018.

**The Outlook for the City's Economy**

The economy is expected to continue growing, but at a more moderate pace in both the City and the U.S. in Fiscal Year 2020. The biggest risks to the economy are the trade war with China, followed by the global economic slowdown, and geopolitical risks. The New York Federal Reserve Bank puts the probability of recession in the 12 months ending September 2020 at 34.8%.

Current economic data are mixed. On one hand, the latest consumer spending data is strong and it is expected to remain strong because of the low unemployment rate, increasing wages, and strong consumer balance sheet. On the other hand, business fixed investment is weak despite the significant tax cuts provided to businesses under the Tax Cuts and Jobs Act (TCJA).

A major risk to the economic outlook include impacts from the escalating tariffs between China and the U.S. This "trade war" has had minimal impact thus far on most segments of the U.S. economy, with distributors and retailers absorbing the tariffs they are required to pay to import the goods while they are searching to replace Chinese manufacturers with those in non-tariff countries. While in the long run China's substantial trade surplus with the U.S. make it more vulnerable to the impacts of a sustained trade conflict, a tariff-related slowdown in China's economy could impact its other trading partners' economies (Germany, for example) and lead to a broader global slowdown—signs of which have already appeared. The International Monetary Fund's most recent outlook points to a global economic slowdown. This could hurt the U.S. economy through lowering foreign demand for U.S. exports. In fact, U.S. exports fell 5.7% in the fourth quarter of FY 2019.

The global economic slowdown and investor expectations have led investors to seek safe havens like U.S. Treasuries, driving down yields. The yield on the ten-year Treasury bond, which hit a seven-year high of 3.2% in October 2018, is currently hovering around 1.6%, close to its all-time low of 1.3% a few years ago. The decline of the ten-year Treasury rate has caused a flat, and sometimes inverted, yield curve. While an inverted yield curve is historically associated with an upcoming recession, some of the decline in longer-term yields may be explained by increasing capital inflows to the U.S.

The growing uncertainties around the economic outlook were reflected in the change in the Federal Reserve's monetary policy stance during Fiscal Year 2019. Fiscal Year 2019 started with the expectation of four rate increases, and ended with the expectation of four rate cuts, the first of which was delivered in July, characterized, however, as a "mid-cycle adjustment," rather than the beginning of an easing cycle.

Another risk is that the uncertainties caused by the trade war could dampen domestic business sentiment and business investment. If businesses stop hiring, then consumer spending could halt, weakening economic growth. To mitigate this risk and to sustain economic growth, the Fed is lowering the Fed Funds rate.

The City's and national economic growth are inextricably linked. Thus, any drag on the national economy will ultimately spill over into the local economy. However, there are two risks that are of special concern to the City. First, provisions of the TCJA limiting the amount of state and local taxes City residents can deduct from their federal income taxes and reducing the mortgage interest deduction could impact the City's residential real estate market and lead to the loss of high-earning taxpayers. Neither of these has yet manifested in a measurable way. Second, low interest rates could adversely impact profits in the banking industry, which remains an important economic sector and a significant source of tax revenue.

In summary, the U.S. economy is strong for now, largely on the strength of consumer spending. Mounting trade tensions and a slowdown in global economic growth pose growing risks, however, including a slowdown in business investment. The outlook for the next year is characterized by higher-than-usual risks and uncertainties, and will likely prove to be either a turning point in the decade-long expansion, or a continuation of it at a more modest pace.

## 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 2019 Analysis

The City adopted a Fiscal Year 2019 (July 1-June 30) budget totaling $88.48 billion (less Interfund Agreements) on June 14, 2018. Actual Fiscal Year 2019 tax revenues were $1.42 billion more than projected in the Fiscal Year 2019 Adopted Budget. Non-tax City-funds revenues were $1.31 billion more than projected in the Fiscal Year 2019 Adopted Budget, aided by a $128 million reduction in the reserve for disallowances of Federal, State and other aid. The elimination of a $1.13 billion General Reserve and $250 million Capital Stabilization Reserve for Fiscal Year 2019, City-funds debt service savings of $523 million, along with the aforementioned revenue increases provided the City with $4.62 billion in additional resources above the Adopted Budget projections.

The additional resources cited above allowed the City to prepay $2.32 billion of Fiscal Year 2020 New York City Transitional Finance Authority debt service, $1.70 billion of Fiscal Year 2020 General Obligation debt service, and $200 million of Fiscal Year 2020 subsidies to NYC Health + Hospitals. The remaining resources were used to fund an increase of $298 million in City-funds expenditures from the Adopted Budget, and 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 2019.

### 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 $7.56 billion during Fiscal Year 2019, with a Fiscal year-end balance of $7.11 billion. For the fifteenth 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 NYC Health + Hospitals. 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 $705 million on judgments and claims in Fiscal Year 2019, a decrease of $25 million from the prior year. The Comptroller's Office also approved approximately $23.9 million in affirmative settlements—that is monies paid to the City based on its claims against others-in Fiscal Year 2019.

In Fiscal Year 2019, the Comptroller's Office collected $12.4 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 2019, the Comptroller's Office collected $2.38 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 $1,385,088 in settlements for victims of crime by the end of Fiscal Year 2019. As of the end of the Fiscal Year, the Comptroller was withholding $2.5 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 (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 2019, BLL assessed over $2.4 million in underpayments and interest against City contractors. In addition, BLL assessed over $20,000 in civil penalties against those City contractors. During the same fiscal year, BLL opened up 60 new cases and resolved 89 cases. In that same time period, BLL debarred three contractors from New York State and City public works for egregious conduct.

During Fiscal Year 2019, BLL also:

- Worked with the New York State Attorney General's Office to prosecute a City contractor who had previously been debarred by BLL and was thus ineligible to work on State and City public work projects. The contractor continued to underpay workers after his debarment, then opened a new corporation with his wife. Although the wife was listed as the owner of the new corporation, the husband managed its day to day operations as it continued to perform construction work on City contracts at public schools and once again underpaid workers on those contracts. The husband and wife pleaded guilty to Failure to Pay Prevailing Wages and Benefits and the husband was sentenced to 30 days of incarceration.
- Recovered almost $1.5 million for building service employees in the first settlements since the Comptroller was given enforcement authority under RPTL § 421-a. As a condition of receiving partial property tax exemptions, certain property owners are required to pay their building service employees prevailing wages and benefits, as determined in the annual schedules published by the BLL. Under the recently amended law, BLL investigates, conducts hearings and/or reaches settlement agreements with property owners, and the New York City Department of Housing Preservation and Development, which administers the tax exemption program, approves settlements and issues final orders.
- Worked with the Consul General of Ecuador to locate a worker who was owed over $40,000 in unpaid prevailing wages and had returned to his native Ecuador. BLL had recovered the money for that worker and sent checks to him in Ecuador via the consulate's diplomatic pouch.

**BUREAU OF PUBLIC FINANCE**

The Comptroller's Bureau of Public Finance issues debt to finance the City's capital program and manages 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 Internal Control and Accountability Directive #10, which allows for borrowing on projects with a useful life of five years or longer and costing at least $35,000, or three years or longer for projects consisting of computer hardware, software, networks, and information technology systems.

In Fiscal Year 2019, the City and the New York City Transitional Finance Authority (TFA), which is a blended component unit, issued $6.18 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 $1.47 billion of long-term debt to finance the City's water- and sewer-related capital needs. The New York City Tax Lien Trust, NYCTL 2018-A Trust, sold $74.66 million of bonds to monetize delinquent taxes and other liens.

In addition to financing its new money capital needs, the City refinanced outstanding high-coupon bonds to provide direct budget relief to City taxpayers and to water and sewer ratepayers. The City, TFA, and Water Authority issued a total of $4.90 billion of refunding bonds in Fiscal Year 2019. This accounted for 39% of the total issuance for these credits and generated a total of $612.18 million in budgetary savings and $323.81 million of savings for ratepayers over the life of the Water Authority's bonds.

**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, 2019, the City had $37.52 billion of GO bonds outstanding, consisting of $31.19 billion of fixed rate bonds and $6.33 billion of variable rate bonds.
- The City issued $3.02 billion of refunding and new money GO bonds in Fiscal Year 2019. The City issued $1.20 billion of new money bonds and $1.82 billion to refund a portion of its outstanding bonds at lower interest rates. In Fiscal Year 2019, the City also converted $316.13 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 $263.80 million in budgetary savings over the life of the bonds or $235.67 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 legal entity that is separate from the City, 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. 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, 2019, the TFA had $38.51 billion of FTS bonds outstanding, consisting of $703.19 million of Senior Bonds and $37.81 billion of Subordinate Bonds, which includes $558.45 million of Recovery Bonds.
- The TFA issued $4.48 billion of FTS bonds in Fiscal Year 2019 for new money capital purposes and converted $351.53 million of bonds between modes.

**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, 2019, the TFA had $8.11 billion of BARBs bonds outstanding, all of which is fixed rate.
- The TFA issued $2.46 billion of BARBs in Fiscal Year 2019, consisting of $500 million for new money capital purposes and $1.96 billion to refund a portion of its outstanding bonds at lower interest rates. The refundings will generate $348.37 million in budgetary savings over the life of the bonds or $326.46 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 2019. As of June 30, 2019, TSASC had $1.05 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 2019. As of June 30, 2019, STAR had $1.72 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 2019. As of June 30, 2019, FSC had $21.79 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 are 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. No interest support payments were made in Fiscal Year 2019.

- HYIC entered into a $350 million term loan agreement in Fiscal Year 2019, which it did not draw upon. As of June 30, 2019, 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 issued $40.35 million of revenue bonds in Fiscal Year 2019 to refund a portion of its outstanding bonds at lower interest rates. As of June 30, 2019, ECF had $218.36 million of bonds outstanding.

**New York City Tax Lien Trusts**

The New York City Tax Lien Trusts (NYCTL Trusts) 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 NYCTL Trusts. The City is the sole beneficiary of the NYCTL Trusts and is entitled to receive distributions from the NYCTL Trusts after payments to the bondholders and certain reserve requirements have been satisfied.

- The New York City Tax Lien Trust, NYCTL 2018-A Trust, sold $74.66 million of bonds in Fiscal Year 2019. As of June 30, 2019, the New York City Tax Lien Trusts had in aggregate $45.43 million of bonds outstanding.

**New York City Municipal Water Finance Authority**

The New York City Municipal Water Finance Authority (Water Authority), a bankruptcy-remote legal entity separate from the City 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, 2019, the Water Authority had $24.89 billion of long-term, fixed rate bonds outstanding, including $327.48 million of First Resolution and $24.56 billion of Second Resolution bonds, and $5.13 billion of variable rate bonds outstanding.

- In Fiscal Year 2019, 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 $2.86 billion in new money and refunding revenue bonds in Fiscal Year 2019. The Water Authority issued $1.47 billion for new money capital purposes and $1.13 billion to refund outstanding bonds for interest savings. The Water Authority also issued $264.04 million of bonds for restructuring purposes.
- The refundings will generate $323.81 million of savings for ratepayers over the life of the bonds or $225.25 million in net present value savings.
- The Water Authority has a $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, 2019, the Water Authority had $27.60 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 in Fiscal Year 2019. The City terminated a swap with a notional value of $500 million on March 21, 2019, with no payment due from either party. As of June 30, 2019, 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 $724.85 million and the mark-to-market value was approximately negative $97.70 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 2019, the Authority did not initiate or terminate any swaps. As of June 30, 2019, the outstanding notional amount on the Water Authority's various swap agreements was $401 million and the mark-to-market value was approximately negative $113.09 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 three years with an average of 93 days. The Federal Reserve Banks increased interest rates in the first half of the fiscal year peaking in December. In the second half of the year there was downward trend in interest rates. In the fiscal year, NYC Treasury earned an average 2.47%, which compares with the average return of 2.31% on three month Treasury bills, and 2.10% for a representative Treasury institutional money market fund. The City earned $413 million in the short-term accounts during Fiscal Year 2019.

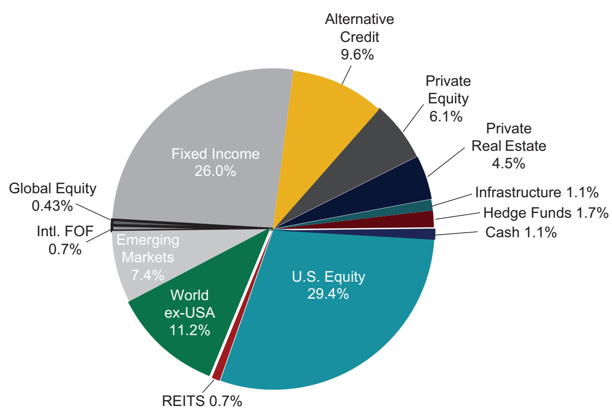
#### Pension Funds

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, 2019, the Bureau of Asset Management had responsibility for $207.9 billion of the 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 $12.1 billion from the June 30, 2018 value of $195.8 billion. During the Fiscal Year, the market value of the assets ranged from a low of $186.3 billion (December 2018) to a high of $207.9 billion (June 2019). The time weighted return (net of all management fees) of the aggregate portfolio was 7.2% in Fiscal Year 2019 and 8.7% in Fiscal Year 2018.

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 2019, the City pension funds utilize 10 domestic equity managers, 16 international equity managers, 2 global managers, 21 hedge fund managers, 13 fixed income managers, 31 alternative credit managers, 113 private equity managers, 46 private real estate managers, 10 infrastructure managers, and 4 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, 2019. Cash includes all short term securities with terms of less than five years.




| | (In Millions) |
|---|---|
| U.S. Equity | $ 61,201 |
| REITS | 1,425 |
| World ex-USA | 23,235 |
| Emerging Markets | 15,332 |
| Intl FOF | 1,406 |
| Global Equity | 891 |
| Fixed Income | 53,986 |
| Alternative Credit | 20,050 |
| Private Equity | 12,785 |
| Private Real Estate | 9,390 |
| Infrastructure | 2,204 |
| Hedge Funds | 3,611 |
| Cash | 2,372 |
| **Total** | **$207,887** |

### U.S. Equity

For Fiscal Year 2019, the broad U.S. equity market, as measured by the Russell 3000 Index, returned 8.98% as compared to 14.78% for Fiscal Year 2018. As of June 30, 2019, U.S. Equities represented 29.4% of the City pension funds' investment assets with a market value of $61.2 billion across the systems. The total U.S. equity return for the City pension funds' investment assets for Fiscal Year 2019 was 8.68% as compared to 14.88% for Fiscal Year 2018. Overall, approximately 17% of the City pension funds invested in U.S. equity are actively managed versus 83% passively managed by index managers, which compares to 14% and 86%, respectively during Fiscal Year 2018. The returns of the U.S. equity market during Fiscal Year 2019 occurred as the current U.S. economic expansion became the longest in U.S. history.

**REITs**

Two 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 9.59% for Fiscal Year 2019 compared to 4.74% for Fiscal Year 2018. The one year returns for the program benchmark, Dow Jones US Select Real Estate Securities Index, for Fiscal Years 2019 and 2018 were 9.75% and 4.23%, respectively. As of June 30, 2019, REITs represented 0.69% of the City pension funds' investment assets with a market value of $1.4 billion across the systems.

**World ex-US Equity**

For Fiscal Year 2019, the MSCI World ex-USA Investable Market Net Dividends Index (MSCI World ex USA IMI Net) returned 0.16% as compared to 7.74% for Fiscal Year 2018. The City's developed markets managers returned 0.28% for Fiscal Year 2019 as compared to 11.69% for Fiscal Year 2018. As of June 30, 2019, World ex-US Equity represented 11.2% of the City pension funds' investment assets with a market value of $23.2 billion across the systems.

**Emerging Markets Equity**

For the Fiscal Year 2019, the MSCI Emerging Markets Index returned 1.21% as compared to 8.21% for Fiscal Year 2018. The City's emerging markets managers returned 3.81% for Fiscal Year 2019 as compared to 3.22% for Fiscal Year 2018. As of June 30, 2019, Emerging Markets Equity represented 7.4% of the City pension funds' investment assets with a market value of $15.3 billion across the systems.

**International Fund of Funds/Emerging Managers**

For the Fiscal Year 2019, the MSCI ACWI ex USA IMI Net Dividend index returned 0.26%. The City's international fund of fund/emerging managers returned -0.41% for Fiscal Year 2019. As of June 30, 2019, International Fund of Funds/Emerging Managers represented 0.7% of the City pension funds' investment assets with a market value of $1.4 billion across the systems.

**Fixed Income**

As of June 30, 2019, the public markets fixed income program, which excludes the high yield and bank loan programs, represented 26.0% of the City pension funds' investment assets with a market value of $54.0 billion across the systems.

The total core Fixed Income program, which is comprised of the Government, Mortgage and Credit sectors, represented 19.1% of City pension funds' investment assets with a market value of $39.8 billion across the systems. The total core Fixed Income program returned 8.93% (net) for Fiscal Year 2019. The broader Bloomberg Barclays Aggregate Index returned 7.87%. The individual indexes benchmarking the three sectors of the core program saw varying results: The Investment Grade Credit Index and the NYC Treasury/Agency+5 Index posted positive returns of 10.13% and 10.38%, respectively, for the period, while the FTSE Mortgage Index posted positive return of 6.39%.

The Treasury Inflation-Protected Securities (TIPS) program represented 4.3% of City pension funds' investment assets with a market value of $9.0 billion across the systems. The TIPS program generated a positive return of 4.82% (net), while the benchmark, the Bloomberg Barclays Capital U.S. TIPS Index, returned 4.84% for the Fiscal Year.

Convertible Bonds program represented 1.0% of City pension funds' investment assets with a market value of $2.0 billion across the systems. The Convertible Bonds program trailed its benchmark, the Bank of America Merrill Lynch All U.S. Convertibles ex-Mandatory Index, posting 6.55% (net) versus the benchmark's 8.00% for the Fiscal Year.

The Fixed Income Developing Managers program represented 0.3% of City pension funds' investment assets with a market value of $686.6 million across the systems. The Fixed Income Emerging Managers program represented 0.2% of City pension funds' investment assets with a market value of $375.8 million across the systems. The Developing Managers program returned 7.91% (net) while the Emerging Managers program returned 7.88% (net) for the Fiscal Year. Both programs are benchmarked to the Bloomberg Barclays Aggregate Index which returned 7.87% for the Fiscal Year.

The Economically Targeted Investments (ETI) fixed income program had a market value of $2.1 billion across all five systems or roughly 1.02% of the total assets. The portfolio generated a positive return of 9.33% (net) for the Fiscal Year, while the benchmark, Bloomberg Barclays Agg. Index, returned 7.87% and its ETI's custom benchmark returned 7.21% for the Fiscal Year.

**Alternative Credit**

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

The High Yield portfolio represents 4.8% of City pension funds' investment assets as of Fiscal Year 2019, with a market value of $10.0 billion invested across nine investment managers. High Yield returned 7.50% (net) over this period, while the portfolio benchmark (Barclays US High Yield 2% Issuer-Capped) returned 7.48%.

The Bank Loan portfolio represents 1.9% of City pension funds' investment assets as of Fiscal Year 2019, with a market value of $4.0 billion invested across eight investment managers. The Bank Loan portfolio returned 3.33% (net) over this period, while its benchmark (Credit Suisse US Leveraged Loan Index) generated 4.15%.

The OFI portfolio represents 2.9% of City pension funds' investment assets as of Fiscal Year 2019. The portfolio's market value of $6.1 billion is invested across 16 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, residential mortgage-backed securities, collateralized loan obligations, and other private and public exposures in domestic and global credit markets. The program produced a 5.21% net Internal Rate of Return (IRR) in Fiscal Year 2019, compared to overall public market equivalent benchmark (a 50/50 blend of the JP Morgan Global High Yield and Credit Suisse US Leveraged Loan Index), which produced 6.10%. Since inception, the OFI program returned a net 7.40% IRR.

**Private Equity**

As of June 30, 2019, the private equity program represented 6.1% of the City pension funds' investment assets with a market value of $12.8 billion (cash flow adjusted) and unfunded capital commitments of $9.3 billion, resulting in a total exposure of $22.1 billion across 225 funds and 113 managers. As of June 30, 2019, the private equity program generated a since inception 10.1% net Internal Rate of Return (IRR), compared to its public market equivalent (PME) benchmark (Russell 3000 + 300 basis points) of 12.8% (cash flow adjusted). The private equity portfolio remains diversified, based on total exposure (cash flow adjusted), with 62% allocated to buyouts, 8% special situations, 10% growth equity, 10% secondaries, 6% co-investment, 1% energy, and 4% other, which includes venture capital, mezzanine, and funds-of-funds. The City pension funds received distributions of $2.8 billion and funded $2.2 billion for new and existing investments during Fiscal Year 2019 as compared to $3.1 billion and $2.4 billion in Fiscal Year 2018, respectively.

During Fiscal Year 2019, City pension funds made $3.1 billion of new commitments to 11 funds across 11 managers versus $2.5 billion to 12 funds across 12 managers during the prior fiscal year. This includes the City pension funds' $500 million in-house Private Equity Emerging Manager Program which committed $135 million during Fiscal Year 2019. 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 strong years in 2016, 2017 and 2018. 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. Despite public market volatility and geopolitical concerns, including U.S./China trade negotiations, 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 meaningful increase in manager-led liquidity opportunities, fund restructurings, minority sales of general partners and fund 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, 2019, the real estate program had approximately $14.8 billion in commitments to 87 current investments and 46 managers. This compares to $12.7 billion in commitments as June 30, 2018. During Fiscal Year 2019, the City pension funds made $2.0 billion in new commitments to seven funds versus $1.2 billion to four 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. Six of the seven 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, 2019, the real estate program represented 4.5% of the City pension funds' investment assets. The City pension funds' net invested capital of $4.4 billion (contributions less distributions) in real estate programs had a market value of $9.4 billion (cash flow adjusted) and unfunded capital commitments of $5.5 billion. The portfolio is well diversified by geographic region and property type with allocations to all the major sectors including residential (29.9%), office (25.5%), industrial (16.9%), retail (13.2%), hotel (4.5%), and other commercial real estate investments (10.0%).

The real estate sector has been through more than a decade of recovery and growth. Despite the late stage in the cycle, attractive opportunities still exist in select markets where fundamentals remain strong. Managers have emphasized the importance of taking a measured and cautious approach to investing. The real estate portfolio has been focused on building a balanced, cycle resilient portfolio taking advantage of strategies that protect the downside, that seek income producing assets in well-located growth markets and that are following secular trends such as e-commerce, the maturing millennial segment of the population, and the aging cohort of the baby boomers. The real estate portfolio has benefited from these trends through investing alongside managers that have demonstrated a consistency of generating strong performance across market cycles. The real estate program invested in asset classes with lower leverage and higher income as exhibited with investments in core-plus funds and niche strategies.

As of June 30, 2019, the real estate program has generated a since inception 8.4% net IRR compared to its PME benchmark (50% Russell 3000 and 50% Barclays U.S. Aggregate Index) of 7.7%. 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 96% of the portfolio. The remainder of the portfolio is held in a fund of funds structure. As of June 30, 2019, the hedge fund program represented 1.74% of the City pension funds' investment assets with a market value of $3.6 billion (cash flow adjusted). The total overall hedge fund portfolio return for the City pension funds for the Fiscal Year ended June 30, 2019 was 4.03%, net of manager fees. The total direct hedge fund portfolio and the portfolio that is held in a fund of funds structure returned 4.24% and -0.88%, respectively, net of manager fees. The hedge fund benchmark return was 2.15% (HFRI Fund of Hedge funds index +1%).

**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 2019, the infrastructure program represented 1.1% of the City pension funds' assets with a market value of $2.2 billion (cash-adjusted basis) and total exposure of $4.69 billion. During Fiscal Year 2019, the City pension funds made $1,145 million of new commitments to five investments across four managers through the infrastructure program. At the end of Fiscal Year 2019, the infrastructure program was diversified across 19 funds and 10 managers. The infrastructure program generated a since inception net IRR of 12.8% compared to its PME benchmark (50% Russell 3000 Index and 50% Barclays U.S. Aggregate Index) of 7.8%.

**Corporate Governance and Responsible Investment**

The City pension funds, through the Corporate Governance and Responsible Investment group within the Bureau of Asset Management, actively monitor their investments and promote sound corporate governance and responsible business practices at portfolio companies in order 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 2019, the Comptroller's Office voted on 126,775 individual ballot items at 13,122 shareowner meetings in 86 markets around the world, including 26,177 individual ballot items at 3,121 annual and special meetings for U.S. portfolio companies. 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 2019, the Comptroller's Office, on behalf of most or all of the City's pension funds, submitted 58 shareowner proposals to a total of 57 portfolio companies. Overall, approximately 72% of the proposals (42 of 58) were withdrawn after the companies agreed to take steps to implement the request. Fourteen proposals went to a vote during the fiscal year, two of which received majority shareowner support, as detailed below (including the proposals requesting disclosure of corporate political spending at Alliant Energy and requesting a proxy access bylaw at Masimo Corp.)

In a continuation of the Boardroom Accountability Project (BAP) launched by the City pension funds in Fiscal Year 2015, almost half of the proposals (25 out of 58 ) 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. More than 600 U.S. companies—including over 71 percent of the S&P 500—have now adopted proxy access, up from only six companies when the BAP was launched in fall 2014.

Consistent with the methodologies used since Fiscal Year 2015, the 25 proxy access focus companies included those that failed to align executive compensation with performance and companies with little or no apparent gender or racial diversity on their board of directors.

Twenty-two of the 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. Proxy access proposals went to a vote at the three companies, receiving majority support at Masimo Corp., the only one of the three companies at which insiders do not control a substantial share of the vote.

In addition to proxy access proposals, the City pension funds also submitted shareowner proposals to 34 companies seeking policies and disclosures relating to employee and board diversity, corporate political and lobbying spending, greenhouse gas reduction goals, executive compensation, independent board leadership, and inequitable employment practices, defined to include mandatory arbitration of employment-related claims and involuntary nondisclosure agreements. Among the more significant outcomes, the Comptroller's Office withdrew 20 of these proposals, including multiple proposals relating to gender pay equity, following negotiated agreements with responsive companies; the proposal requesting disclosure of corporate political spending at Alliant Energy received a majority vote, and the proposal requesting that Facebook name an independent board chair received the support of the majority of the company's non-management shareowners.

**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 2019, BCA received 22,887 contract actions for registration. Of those, approximately 91% were ultimately registered while around 9% 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 2019 will be released by January 30, 2020.

**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 diligently 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.

Economically Targeted Investments 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 2019 is $2.11 billion (1.02% of total assets) with an additional $383.2 million committed to specific ETI investments. In addition, the Real Assets ETI investments have a market value of $624.8 million, and together with the other ETI investments and commitments constitute 1.50% of total assets.

As of June 30, 2019, the one-year overall performance of ETIs was 9.33% net of fees and the ten-year overall performance was 4.98% as compared to the benchmark performance of 7.87% (Barclays Capital U.S. Aggregate Bond Index) and 3.90%, respectively.

During Fiscal Year 2019, the ETI program made cumulative investments of $69.8 million in individual multifamily projects through its Public/Private Apartment Rehabilitation (PPAR) program. These investments financed the rehabilitation or new construction of 1,174 units of affordable housing. The PPAR program also issued additional commitments for $109.4 million for new loans financing 1,813 units during Fiscal Year 2019. NYCRS' 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 $1.37 billion has been invested.

NYCRS maintained their investment in the AFL-CIO Housing Investment Trust (HIT). The June 30, 2019 cumulative market value of HIT investments is $874.07 million. Since 2002, the HIT has invested $1.36 billion to preserve 34,924 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. RBC Access continued its initiative to invest $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, 2019, RBC Access has a market value of $424 million, and has invested $794.6 million for 2,432 single family units, 35,520 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, 2019, the Vanbarton Fund invested $162.5 million creating or preserving over 462,362 square feet of commercial space and 63 units of affordable housing. In addition, NYCRS have also partnered with NYC Hudson Superstorm Sandy Rebuilding Fund, LLC (Hudson Fund) and RFM-NYCRS Sandy, LLC (Related Fund), committing a total of $500 million towards the rehabilitation and creation of work-force housing as part of the City's response to Superstorm Sandy. As of June 30, 2019, NYC Hudson Fund invested $125.5 million creating or preserving 100,900 square feet of commercial space and 666 workforce units. Separately, Related Fund invested $288.9 million creating or preserving 30,035 square feet of commercial space and a total of 4,130 units among 3,719 are workforce units.

In July 2019, NYCRS increased its investment in the Community Preservation Corporation's construction loan facility by $30 million to $70 million. NYCRS and other investors have committed a total $500 million to the facility. As the investment was executed after Fiscal Year 2019, status of the facility will be discussed in the following year. 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. As of June 30, 2019, the facility financed construction loans for 6,950 units located within New York State and NYCRS' investment in the facility had a market value of $24.65 million.

**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 2019, the Bureau of Audit issued 61 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 76% of the recommendations.

**Revenue and Cost Savings**

- An audit was conducted to determine whether the Department of Environmental Protection (DEP) accurately billed hotels for water and sewer usage and whether DEP is making efforts to collect all outstanding water and sewer usage fees from those properties. As of Fiscal Year 2019, DEP's Bureau of Customer Services managed 834,000 water and sewer customer accounts, which included 1,866 accounts related to 1,211 hotels, motels, hostels, college dormitories, and co-living spaces. The audit found that DEP properly billed 1,180 (97%) of the 1,211 hotels and similar properties located in New York City for their water and sewer usage in accordance with its policies and procedures and the *New York City Water Board Water and Wastewater Rate Schedule*. However, the audit found that the remaining 31 accounts reviewed (3%) were not properly billed. As a result of the finding the agency inspected the 31 properties and rebilled 26 of them a total of $2,162,693 for previously-unbilled and under billed water and sewer usage. The 26 undercharges were a result of three types of errors or omissions: (1) underestimated usage for 23 accounts, mostly hotels; (2) a failure to bill two hotels; and (3) an inapplicable exemption allowed for one college dormitory. In addition, DEP credited two hotels for $750,424 after determining that it had previously overestimated their water consumption.
- An audit was conducted to determine whether the Department of Correction (DOC) is maintaining adequate internal controls over commissary operations. The average daily inmate population of DOC is approximately 8,896 individuals. Most of the inmates in DOC custody are housed on Rikers Island, which has 10 individual jails that can house as many as 15,000 inmates. DOC operates 11 commissaries—eight on Rikers Island and three in borough facilities—where inmates may purchase various items, such as toiletries, batteries, snacks, and beverages. DOC utilizes the Inmate Financial Commissary Management system (IFCOM) to electronically perform the accounting functions for inmate accounts, commissary transactions, and commissary inventory. IFCOM is also utilized to record the inventory activities at each commissary, including the actual count of all items in each commissary on a monthly basis, the comparison of physical inventory counts with the IFCOM "on hand counts," the reconciliation of any discrepancies, any adjustments for damaged inventory, and approval by the Commissary Manager of any adjusted inventory balances. The audit found that while DOC's commissaries are providing the intended services for the inmates, controls need to be strengthened to prevent duplicate payments to vendors and waste, and to better ensure proper accounting for inventory. In particular, the audit found that DOC made duplicate payments to 16 vendors totaling $109,701 because the agency did not follow New York City Comptroller's Directive #11 and DOC's Directive # 1501R-A, both of which stipulate that payment should be made only on the required original invoice bearing the proper approval signatures. In addition, the audit noted minor discrepancies between the actual inventory found at two commissaries and the inventory reported on the IFCOM system.
- The City, through DOT, entered into a lease agreement (the Lease) with Port Imperial Ferry Corporation (PIFC) to operate and manage the West Midtown Ferry Terminal and to provide commuter ferry services at Pier 79. The Comptroller's Office conducted an audit to determine whether PIFC (1) properly reported all revenue, made accurate and timely payments, and complied with other major requirements of its lease agreement such as insurance coverage and payment of water and sewer charges; and (2) whether the Department of Transportation (DOT) and the Economic Development Corporation (EDC) had proper oversight over the Lease. The audit found that PIFC maintained the required insurance coverage and paid the applicable water and sewer charges on time in accordance with its Lease. However, the audit also found that PIFC underreported the revenue generated through its commuter ferry and terminal operations to the City, misclassified certain revenue, and did not pay the required rents on time. In connection with those inaccuracies, underpayments, and late payments, we found that, as of February 28, 2019, PIFC owed a total of $70,769 to the City for additional Percentage Rent, overdue rents, and associated late charges. In addition, the audit found that EDC: (1) did not promptly and accurately calculate the rate increases on Base Rent every fifth year as required under the Lease; (2) did not credit the correct accounts for certain payments PIFC made; (3) incorrectly calculated late charges; and (4) inappropriately waived $5,597 in Base Rent and late charges. As a result, at least $44,075 of the City's revenue, while ultimately received, was not received timely. In addition, EDC did not implement procedures to verify the accuracy of the reports submitted by PIFC. As a result, EDC was unable to determine whether the ridership information provided by PIFC was accurate.

**Asset Management and Internal Controls**

- A series of five special reports were issued to present the findings related to exterior door security at New York City Housing Authority (NYCHA) developments, based on observations made throughout the five boroughs in July and August 2018. Auditors visited 299 NYCHA developments throughout New York City and observed conditions of 4,551 exterior doors. Auditors found that over 1,000 entrance, side, and rear doors in 195 NYCHA developments were physically propped open with ropes and chains, damaged with broken latches and missing parts, or otherwise left unsecured, compromising residents' security and exposing buildings' interiors to damaging weather conditions. Further, 1,023 building doors in 61 developments were found to be broken, tampered with, or unlockable, leaving developments open to intruders, including roughly 23% of all front doors and 21% of all rear or side doors. Finally, auditors searched for security cameras by front doors and found that just 53% (1,887) of all 3,538 entrance doors had cameras placed by the entrance.
- An audit found that DPR had inadequate controls over its Trees & Sidewalks Program to ensure that sidewalks are repaired in a timely manner. DPR has a weekly Trees and Sidewalks Indicator Report that contains various activity and performance measures; however, it does not track the timeliness with which the sidewalks are inspected or repaired. A review of 11,392 service requests and 9,118 associated addresses found that homeowners had to wait an average of 101 days after submitting a request to have their sidewalks inspected, 71 days longer than the 30-day internal DPR Service Level Agreement. Additionally, a review of 1,069 repaired sidewalks found that the average time from inspection to repair was 419 days, with the longest time for a repair taking over 11 years. DPR's data revealed that 95% of the sidewalk repairs were completed within 2 years and 98% were completed within 2.5 years. According to DPR officials, the Trees & Sidewalks Program does not have a target time frame for how long it should take for a sidewalk scoring above the priority rating threshold to be repaired following an inspection. In addition, the audit found that no data was recorded within the inspection fields in DPR's Forestry Management System (ForMS) 2.0 for 1,527 service requests (associated with 1,509 unique addresses). According to DPR, no inspection record was generated for these service requests. Finally, the audit found that DPR did not consistently label service requests as duplicates when it received multiple service requests for the same address. A review of 6,446 service requests, associated with 2,706 unique addresses, each of which had two or more service requests recorded in ForMS 2.0, found that 1,494 service requests were not identified as duplicates by DPR. Of these, 187 addresses received two or more inspections. Additionally, of the 2,741 service requests in ForMS 2.0 that were reviewed and that were marked as duplicates, the auditors were unable to find additional service requests for 72 of them.

**Service Delivery and Program Performance**

- An audit was conducted to determine whether the Department of Health and Mental Hygiene (DOHMH) has adequate controls to ensure that initial inspections at Universal Pre-Kindergarten (UPK) group child care (GCC) centers are conducted in accordance with the agency's policies and procedures. DOHMH's Bureau of Child Care oversees inspections and permitting of City-regulated child care centers. Inspections of all child care centers are conducted by DOHMH's Public Health Sanitarians (PHSs) and Early Childhood Education Consultants (ECECs). According to DOHMH's Field Activity Protocol (DOHMH protocols), both the PHS and the ECEC inspections, referred to as initial inspections, are required to be conducted annually by PHS and ECEC inspectors respectively. The audit found that DOHMH needs to strengthen its controls to ensure that initial inspections at UPK GCC centers are conducted in accordance with DOHMH protocols. Specifically, during Fiscal Year 2017, DOHMH records reflect that it failed to ensure that any initial inspections were conducted in 73 of the 1,035 UPK GCC centers in operation that fiscal year and further failed to ensure that both of the initial inspections (one by an ECEC and one by a PHS) required as per DOHMH protocols were conducted for 531 of the 1,035 centers. Further, a review of DOHMH inspection records for Fiscal Years 2015 through 2017 revealed that the percentage of UPK GCC centers for which DOHMH failed to perform at least one of the two required inspections ranged from 48% to 60%. The audit also found that DOHMH had no evidence that it monitors the adequacy of its staffing levels and has not developed a uniform process for initial training or any ongoing training for its staff and supervisors to better help them carry out their day-to-day responsibilities.
- An investigation was conducted to determine the reliability and transparency of the Metropolitan Transportation Authority's (MTA's) reporting of subway performance as a result of the rising numbers of delays attributed to overcrowding at the same time that ridership numbers were decreasing. The investigation revealed that MTA databases and delay tracking protocols were routinely unable to accurately identify the causes of delays and, in particular, misattributed delays to "Overcrowding." Further, MTA officials repeatedly asserted to its Board that subway service was improving based on changes in Wait Assessment scores, a metric intended to approximate the amount of time passengers must wait on platforms and long-touted by the MTA as its most important indicator of subway service. However, MTA internal analyses indicated that such changes were meaningless and likely the result of sample error. Additionally, the investigation found that the MTA distorted its publicly reported statistics on delays for nearly a decade by failing to publicly report certain delays internally attributed to "Unknown" causes. Instead, it effectively hid these delays by apportioning them among the 15 publicly reported categories of delays and failing to provide the public with any explanation of this practice. Finally, the investigation found that the MTA's reporting of Major Incidents obscures critical information and is based on unreliable data. Publicly defined by the MTA as any incident that delays 50 or

more trains, Major Incident reporting is based on MTA tracking protocols that routinely misidentify the number of delays caused by an incident, such that the MTA cannot reliably determine the number of incidents that cause 50 or more delays. In addition, the MTA's Major Incidents reporting methodology excludes significant numbers of Major Incidents the MTA has historically tracked internally, particularly all incidents charged to Planned Work. Neither this exclusion nor the MTA's methodology for identifying Major Incidents has ever been clearly explained to the public.

- The Administration for Children's Services (ACS) was audited to determine whether the agency ensures that ACS-contracted foster care agencies certify foster parents in accordance with criteria set forth in City and State regulations. The New York State Office of Children and Family Services regulates and supervises foster care in the State. In accordance with ACS' contracts with nonprofit foster care providers, the providers are responsible for certifying individuals' eligibility to be foster parents. The audit found that ACS does not have adequate oversight over the foster care certification process performed by its contracted foster care providers. As a result, during Fiscal Year 2017, 81% of the 110 sampled foster home files that auditors reviewed were missing evidence of one or more of the prerequisites required for a family to be certified to provide foster care-specifically: mandated training; medical exams; an FBI and/or SCR clearance; a home study narrative establishing that the physical space met State requirements; and character references for new foster parents. The audit also found that ACS has no process in place to independently verify that its contracted foster care providers are properly certifying prospective foster care families in accordance with City and State requirements prior to their issuance of certifications and the placement of children with foster families. In addition, although ACS conducts post-certification audits to assess whether required steps were taken and documented for recently certified and initially recertified foster care families, the audit found that ACS is not utilizing this tool effectively. As a result, the audit found that, when using ACS' methodology, 9 (24%) of the 37 homes that ACS found to be compliant with City and State certification requirements during its audits lacked the requirements for certification. For those foster homes that ACS audits determined to not be in full compliance with applicable City and State requirements, the length of time that these homes were certified prior to the ACS audits ranged from 90 to 484 days; seven of these homes were allowed to recertify in the following year, while they continued to be out of compliance.
- The Department of Housing Preservation and Development (HPD) was audited to determine whether the agency adequately monitors Marketing Agents' compliance with eligibility guidelines and established preferences of the City's Affordable Housing Lottery. Since 2013, HPD's Marketing Unit has been using its online application system, Housing Connect, which allows people to search and submit applications for affordable housing opportunities in New York City. Developers creating City-sponsored affordable housing are required to follow marketing and tenant selection procedures dictated by HPD and the City's Housing Development Corporation. The Developer's representative (the Marketing Agent) is responsible for determining whether the applicants meet the requirements for household size and annual household income; verifying the information submitted by the applicants, performing background and credit checks; and submitting the Application Information Form along with income-supporting documentation to HPD for approval prior to renting or selling a unit. The audit found that HPD's monitoring of the Marketing Agents' compliance with eligibility guidelines and established preferences of the Affordable Housing Lottery was generally adequate. However, the audit found that HPD's files lacked specific documentation, such as asset certification forms, that it should have received and reviewed as part of its oversight of applicant eligibility. Through an independent asset review of a sample of applicants, we found that all but one met HPD's property ownership requirement and thus were eligible for the housing they received. As to that one applicant, however, the audit found that the applicant who was awarded an apartment owned property in another state and the assessed value of that property exceeded the asset limit for a four-person household by more than $60,000 for that particular affordable housing project. Finally, the audit found that HPD does not receive and review any documentation for applicants whom the Marketing Agent deemed ineligible.
- An audit of DPR's monitoring of Minority- and Women-Owned Business Enterprise (M/WBE) utilization on its contracts found weaknesses in DPR's controls that undermine its ability to ensure that contractors are adequately being monitored and that they are accurately reporting their M/WBE utilization. Although the audit found that DPR has an M/WBE Unit responsible for monitoring compliance with Local Law 1 of 2013 (LL1), sets the annual agency M/WBE participation goals as required, and performed the M/WBE initiatives described in its Fiscal Year 2016 and 2017 Agency M/WBE Utilization Plans, the audit also found that DPR does not conduct formal reviews of the prime contractors' books and records as the contracts progress to obtain greater assurance that M/WBE subcontractors actually worked on the contracts. As a result, DPR has insufficient evidence that they confirmed the level of participation of the M/WBE subcontractors reported by prime contractors on the sampled contracts. The audit also found that DPR did not perform the required reviews of the City's Financial Management System (FMS) to ensure that its prime contractors were accurately reporting their payments to M/WBE subcontractors in the Payee Information Portal. Further, DPR did not verify that contracts subject to M/WBE participation goals were consistently recorded in the designated fields in FMS' Contract Goals Header table to help ensure the accuracy of City reports regarding the M/WBE participation percentage and the dollar amounts awarded to M/WBEs. Finally, the audit found that DPR has not developed comprehensive policies and procedures governing its administration of the M/WBE Program and does not track or maintain a central list of all contracts and subcontracts covered by LL1.



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- An audit found that the Department of Consumer and Worker Protection (DCWP) needed to strengthen its controls to more effectively enforce the New York City Earned Sick Time Act (ESTA). Although DCWP successfully completed numerous ESTA investigations that led to orders that employers pay restitution to their employees, DCWP had no evidence to show that 38% of the employees in the audit sample received the restitution payments specified in such orders. The lack of such evidence resulted in part from DCWP's insufficient tracking and pursuit of these payments. In addition, DCWP generally did not impose the late fees stipulated in its consent orders when employers failed to pay the agreed-upon restitution or fines by the due dates. Moreover, DCWP was often untimely in performing some of the key intake and investigative steps for the cases in the audit sample. DCWP also did not consistently document the reasons for significant time gaps in the investigative process and, in some instances, did not document the reasons for key decisions on a case. Further, the case files for all of the complainant-initiated cases in the audit sample for which DCWP pursued investigations were missing one or more key documents needed to show that the standard intake, investigative, and litigation steps it deemed necessary were actually taken.

**Information Technology**

- The Audit Bureau's Information Technology (IT) division conducted an audit to determine whether the Department of Sanitation (DSNY) had adequate critical system security and access controls in place to protect the information in its computerized environment. As part of its operations, DSNY uses 136 computer applications, and has identified 10 of them as critical. This audit examined those 10 critical applications and 10 other randomly selected non-critical applications. The audit found that DSNY has implemented controls for application access and data protection, and has implemented security controls to protect its computerized environment. However, the audit found that DSNY did not deactivate or disable the application user accounts of 583 former or on-leave employees. The audit also found weaknesses in application security controls including: use of generic login IDs; use of passwords that do not expire after 90 days; use of passwords that do not comply with password length and complexity rules; use of an application that does not lock out after consecutive failed logons; and the use of an insecure network protocol in web-based applications. Further, the audit found that certain hand-held devices use unsupported hardware and software, and store unencrypted information in a removable memory card. In addition, the audit found that one critical application stores scanned documents without protection. Furthermore, the audit found that DSNY has not conducted vulnerability scans on three critical applications, and the network vulnerability scans it has run produce reports that are unreliable. Finally, the audit notes that DSNY has fully implemented only two out of seven recommendations from a security assessment it obtained from a third-party vendor in 2016.

- The IT division audited DEP's Bureau of Water and Sewer Operations (BWSO) to determine whether it had adequate system security and access controls in place to protect the information in its computer environment. BWSO uses five mission-critical applications to accomplish its business operations, which may contain public, sensitive, private, and confidential information. The audit found that DEP has established policies, procedures, and guidelines for access controls and security controls to protect information in its computerized environment; however, the audit found weaknesses in certain of those access and security controls. Specifically, user access had not been disabled for inactive users and former City employees, which could increase security risks. Also, for two BWSO mission-critical applications, DEP did not implement and enforce the Department of Information Technology and Telecommunications' password expiration and complexity rules, which are intended to allow only authorized users to gain access to City applications and systems. In addition, DEP did not perform intrusion detection and vulnerability scans to identify security weaknesses and threats to the servers located in its data center. Furthermore, DEP did not develop and implement a formal agency-wide business continuity and disaster recovery plan to prevent the loss of critical information and operational ability in the event of a disaster or system failure. Finally, DEP maintained outdated servers that have not been supported by the manufacturer since 2015.

- An audit was conducted to determine whether the Department of Citywide Administrative Services' (DCAS') development and implementation of the Archibus system meets its overall goals, and whether it has adequate functions to ensure that the information process is reliable and secure from unauthorized access. DCAS entered into a contract with Computerized Facility Integration, LLC to implement a new commercial off-the-shelf system, Archibus, to improve and centralize the business operations, including work requests, of DCAS' Facilities Management Division. The audit determined that although Archibus was generally meeting its overall business goals as stated in the specifications, it had not been fully utilized by the business units for which it was intended. Further, DCAS did not adequately consider and plan for certain business and security requirements, which contributed to the more than three-year delay in the project's development and deployment and its increased cost. In addition, the audit found the system failed to perform input verification to ensure that the dates entered into the records it maintains correspond to a valid time frame. The audit also found that while DCAS has established policies and procedures to prevent unauthorized access, the system nevertheless has access control weaknesses, in that: (1) external institution users were not required to change their passwords; (2) DCAS did not periodically review all Archibus user account activities; and (3) DCAS did not update the list of other agencies' tenant liaisons, who are responsible for validating the identities of their agencies' users and for notifying DCAS when to create or disable their accounts. Further, the audit found that DCAS did not promptly address the risks identified in the vulnerability scans and did not have a disaster recovery plan for Archibus in the event of an emergency. Finally, we conducted a User Satisfaction Survey and only 34% of respondents indicated that the Archibus is very easy to use, while 30% of respondents reported that the data in the system is always accurate.

## 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 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).

The Office of Diversity leads the Comptroller's Advisory Council on Economic Growth through Diversity and Inclusion. Members of the Council hail from a wide variety of local and national backgrounds including supplier diversity procurement specialists, government, business and community leaders, academics, and advocacy organizations. The Council meets on an annual basis making recommendations on diversity initiatives to the Office of Diversity and Comptroller.

Over the last year, the Office of Diversity Initiatives has championed a City Charter Revision push for a citywide office aimed specifically at increasing MWBE utilization in the City's budget. In November, New Yorkers will have a chance to vote on that Charter Revision Proposal to create a citywide MWBE director reporting directly to the Mayor.

### Diversity within the Operations of the Comptroller's Office

The Office of Diversity Initiatives also designs and manages the Comptroller's Office internal M/WBE program. As a result, the office more than tripled its spending with M/WBEs, achieving 37% spending in Fiscal Year 2019, up from 12% in Fiscal Year 2014. The Office also allocated more than 50% of the Bureau of Law and Adjustment's claims hearings budget to M/WBEs, and it spent more than $600,000 with M/WBEs utilizing New York City's new M/WBE Small Purchase Method in its first full year of implementation through the Procurement Policy Board Rules.

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. The Comptroller's Office changed the criteria for the list to increase access for M/WBE auditors and now accepts both engagement and systems peer reviews. As of August 2019, there were 18 M/WBEs prequalified to provide the City with audit services.

### Pension and Corporate Diversity Initiatives

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 2015, the office of the comptroller began to evaluate new managers the composition of their companies, making diversity a requirement during the selection process. By, 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.

In Fiscal Year 2019, in addition to expanding capital commitments to emerging managers, the Comptroller's Office established a goal to allocate 12 percent to emerging managers across each asset class; allocated an additional $600 million to the direct private equity Emerging Manager Program, bringing total assets committed to the in-house Emerging Manager Program to over $1.5 billion; and began an initiative to deploy $1.5 billion to early-stage and first time fund managers in private equity, real estate, alternative credit, and infrastructure.

The Office of Diversity Initiatives also assists the Corporate Governance team on supplier, workplace and board diversity initiatives. In October 2019, the Comptroller's Office launched the Boardroom Accountability Project 3.0, a new first-in-the-nation initiative calling on companies to adopt a policy requiring the consideration of both women and people of color for every open board seat and for CEO appointments, a version of the "Rooney Rule" pioneered by the National Football League (NFL).

The new initiative is the cornerstone of the Comptroller's Boardroom Accountability Project, a campaign launched in 2014 which seeks to make boards more diverse, independent, and climate competent. The Boardroom Accountability Project brought proxy access to a new, unprecedented milestone of adoption at over 600 companies-a 10,000 percent increase from the initiative's launch in 2014.

### Engagement and Outreach

In Fiscal Year 2019, the Office also conducted 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 1,000 diverse businesses. In addition, every year the Office of the Comptroller host the Annual MWBE & Emerging Manger Conference for over 600 MWBE investors. The conference provides an opportunity to minority and women asset managers to learn how to do business with our various asset classes and speed-networking with pension consultants.

### Staff Diversity Trainings and Education

The Office of Diversity Initiatives briefs on an annual basis Office of the Comptroller procurement staff and deputy comptrollers on the state of diversity citywide and within the agency. The Office offers "Procurement 101" trainings and "Diversity Best Practices" training which includes the role of diversity within the procurement process. In April and June 2019, the Office of Diversity Initiatives and the Agency Chief Contracting Officer (ACCO) conducted webinars to more than 40 M/WBE Officers and ACCOs citywide. During these webinars, the Comptroller's Office trained attendees on how to conduct market analyses in order to create procurements responsive to the M/WBE market and industry trends.

## 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 Internal Control and Accountability 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 *Comptroller's Internal Control and Accountability Directive #10—Charges to the Capital Projects Fund* (Directive #10) during Fiscal Year 2019. Directive #10 was revised to consolidate previously issued Comptroller's Memorandums, and include tablets and cloud computing arrangements as capitally eligible once specific criteria as outlined in the Directive are met. Additionally, the revised Directive #10 modified the minimum useful life for capital funded Information Technology projects from five years to three years, which will allow for more frequent upgrades of equipment and software to ensure that The City is benefitting from the best available technology to help protect against technology failures and cyber-attacks. Lastly, the revised Directive #10 announced the adjustments to both the capital eligibility minimum cost threshold from $35,000 to $50,000; and the minimum eligibility cost requirement for initial outfitting from $110 to $165, effective July 1, 2020, to keep with the pace of inflation. A series of meetings and discussions will continue to be held throughout fiscal year 2020 to ensure that all affected City agencies are fully aware of the changes and eligibility requirements for charges to the capital projects fund.

The revisions to Directive #10 including the supplemental Frequently Asked Questions, along with all other Comptroller directives and memoranda, may be found on the Comptroller's Office website.

**AWARDS**

For the 39th 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 2,647 of some 38,910 governmental counties, municipalities, and townships have received the Certificate thus far, and New York City is one of a very select group of 150 to have received the award for 39 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; and the Fiscal Year 2018 CAFR has satisfied these requirements once again.

**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