The City of New York
Executive Budget
Fiscal Year 2021

Bill de Blasio, Mayor

Mayor’s Office of Management and Budget
Melanie Hartzog, Director

Message of the Mayor

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April 16, 2020

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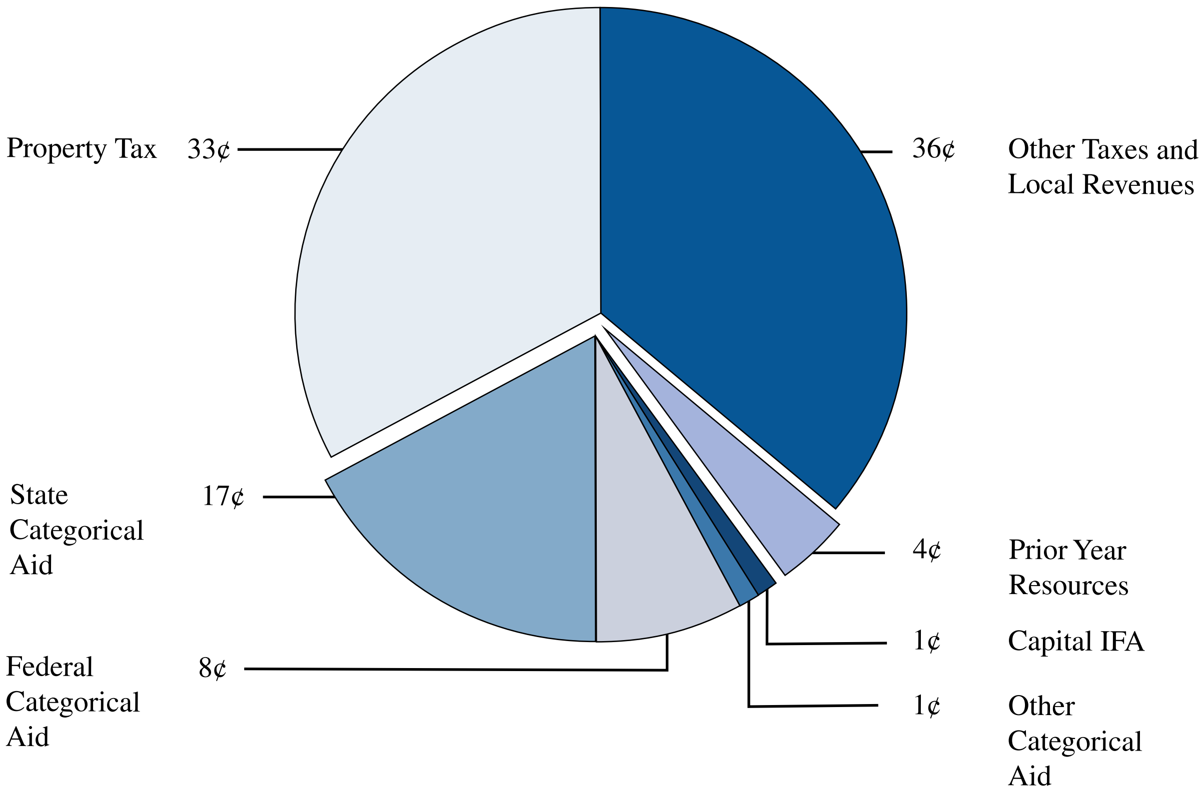
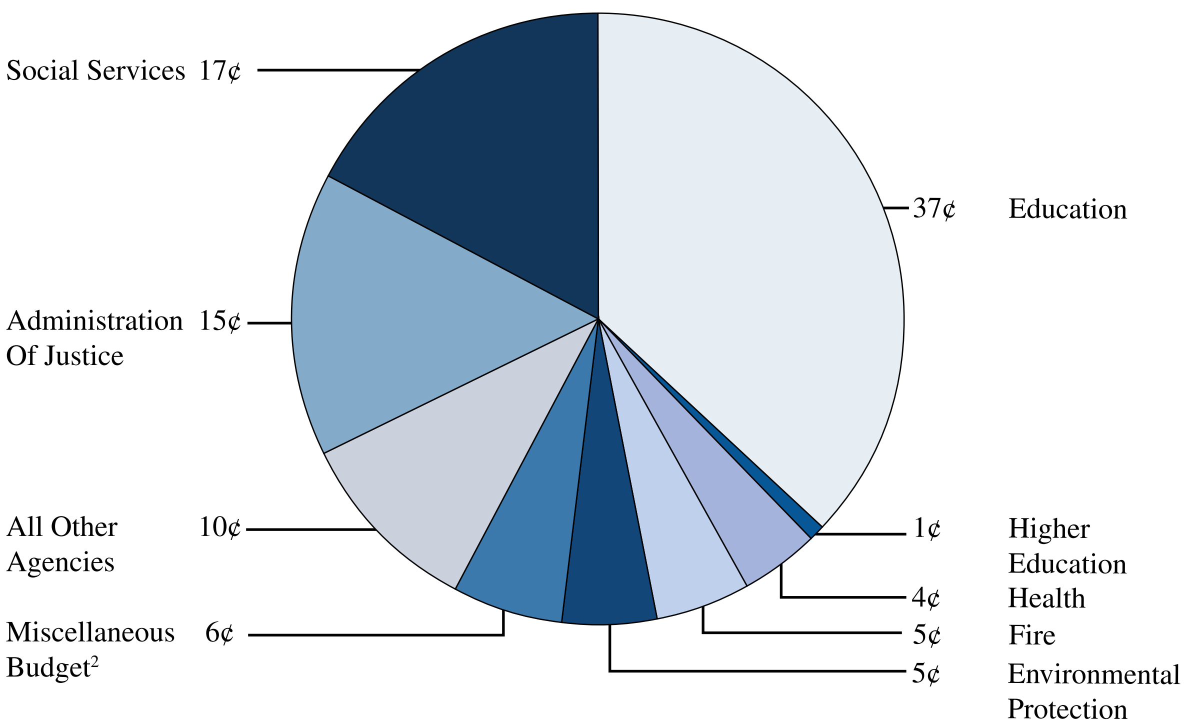


Where the 2021 Dollar Goes To[1]



[1] Reflects the allocation of Fringe Benefits, Pensions and Debt Service to the agencies. Excludes the impact of prepayments.
[2] Includes Labor Reserve, General Reserve, Judgments and Claims, MTA Subsidies and Other Contractual Services.

Source: NYC OMB

BUDGET AND FINANCIAL PLAN OVERVIEW

The Fiscal Year 2021 Executive Expense Budget is $89.3 billion. This is the forty-first consecutive budget which is balanced under Generally Accepted Accounting Principles (GAAP), except for the application of Statement No. 49 of the Governmental Accounting Standards Board ("GASB 49") which prescribes the accounting treatment of pollution remediation costs, and without regard to changes in certain fund balances described in General Municipal Law 25. The following chart details the revenues and expenditures for the five year financial plan.

($ in Millions)

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Revenues					
Taxes:					
General Property Tax	$29,612	$30,834	$31,906	$32,831	$33,260
Other Taxes	31,502	28,431	32,007	33,723	34,579
Tax Audit Revenue	999	921	721	721	721
Subtotal - Taxes	$62,113	$60,186	$64,634	$67,275	$68,560
Miscellaneous Revenues	7,552	6,877	6,830	6,815	6,817
Unrestricted Intergovernmental Aid	1,411	—	—	—	—
Less: Intra-City Revenues	(2,178)	(1,848)	(1,834)	(1,831)	(1,831)
Disallowances Against Categorical Grants	(15)	(15)	(15)	(15)	(15)
Subtotal - City Funds	$68,883	$65,200	$69,615	$72,244	$73,531
Other Categorical Grants	1,072	872	861	860	857
Inter-Fund Revenues	672	675	675	675	675
Federal Categorical Grants	10,832	7,137	6,964	6,922	6,917
State Categorical Grants	15,979	15,448	16,283	16,738	16,788
Total Revenues	$97,438	$89,332	$94,398	$97,439	$98,768
Expenditures					
Personal Service:					
Salaries and Wages	$29,750	$30,355	$30,370	$31,255	$31,800
Pensions	9,819	9,927	10,502	10,434	10,106
Fringe Benefits	11,255	11,615	12,504	13,311	14,119
Retiree Health Benefits Trust	(1,000)	(1,600)	—	—	—
Subtotal – Personal Service	$49,824	$50,297	$53,376	$55,000	$56,025
Other Than Personal Service:					
Medical Assistance	5,987	5,399	5,915	5,915	5,915
Public Assistance	1,601	1,651	1,651	1,650	1,650
All Other[1]	35,312	30,498	31,037	31,253	31,494
Subtotal – Other Than Personal Service	$42,900	$37,548	$38,603	$38,818	$39,059
Debt Service[1,2]	6,938	7,390	8,027	8,732	9,166
FY 2019 Budget Stabilization & Discretionary Transfers[1]	(4,221)	—	—	—	—
FY 2020 Budget Stabilization[2]	4,155	(4,155)	—	—	—
Capital Stabilization Reserve	—	—	250	250	250
General Reserve	20	100	1,000	1,000	1,000
Less: Intra-City Expenses	(2,178)	(1,848)	(1,834)	(1,831)	(1,831)
Total Expenditures	$97,438	$89,332	$99,422	$101,969	$103,669
Gap To Be Closed	**$—**	**$—**	**$(5,024)**	**$(4,530)**	**$(4,901)**

1. Fiscal Year 2019 Budget Stabilization and Discretionary Transfers totals $4.221 billion, including GO of $1.702 billion, TFA-FTS of $2.319 billion and subsidies of $200 million.
2. Fiscal Year 2020 Budget Stabilization totals $4.155 billion, including GO of $1.590 billion and TFA-FTS of $2.565 billion.

STATE AND FEDERAL AGENDA

STATE

The State's Executive budget proposal included $1.4 billion of cuts and cost shifts, some of which were excluded from the Enacted Budget. The Enacted Budget rejects the Governor's proposals to shift Medicaid costs to localities, withhold Enhanced Federal Medical Assistance Percentages (eFMAP) savings, and reactivate a number of previously closed or dormant charter schools.

The State Fiscal Year 2020-2021 Enacted Budget results in approximately $800 million in cuts or cost shifts to the City over City Fiscal Years 2020 and 2021. This includes a school aid shortfall of $360 million, authorization for the State to withhold Sales Tax revenue of $400 million over two years ($250 million in Fiscal Year 2021 and $150 million in Fiscal Year 2022) to support financially distressed hospitals and a $122 million cut to social services programs.

In Education, the Enacted Budget uses $717 million from the Federal Stimulus funds to keep School Aid flat against Fiscal Year 2020 levels. The lack of School Aid growth leaves the City with a budget shortfall of $360 million in total school aid. Charter school tuition is also held flat year over year.

Within Human Services, the Enacted Budget imposes a five percent reduction in the reimbursement rate for Temporary Assistance to Needy Families (TANF) ($102 million over fiscal years 2020 and 2021) and limits the total amount available to be claimed for certain services under the Flexible Fund for Family Services ($21 million over fiscal years 2020 and 2021).

For Health and Hospitals (H+H), the Enacted Budget includes several recommendations from the Medicaid Redesign Team, though the State Budget Director has the authority to delay implementation.

For Transportation, the State budget requires the city to contribute $3 billion towards the MTA's 2020-2024 Capital program and imposes a mandate to pay fifty percent of the MTA's paratransit costs, up from thirty three percent. The Enacted Budget also includes authorization to impose a $12 million fine if the City does not vacate Pier 76 in Manhattan by December 2020, with an added penalty of $3 million for every partial or full month that the tow pound remains in place.

The Enacted Budget includes language that allows the State Division of Budget (NYS DOB) to periodically reduce appropriations following the months of April, June, and December if State revenue is insufficient to balance the budget, or if expenditures are higher than anticipated. Prior to making reductions, NYS DOB must first inform the State legislature in writing. The Legislature has 10 days to respond and pass by resolution its own plan. Additionally, if the budget is unbalanced after any month, NYS DOB may withhold appropriations if it believes the actions are necessary to respond to COVID-19. These COVID-19 related withholdings only require that the Legislature be informed five days prior to payment reductions.

FEDERAL

In February, the President released his proposed budget for Federal Fiscal Year (FFY) 2021. The proposals contained significant cuts to major programs such as the TANF block grant, Medicaid, Homeland Security, as well as a consolidation of major education grants, and a complete elimination of the Community Development, Community Services and the Social Services Block Grants. While many of the same cuts were rejected last year, we are monitoring Congressional action on the FFY 2021 budget.

Congress established FFY 2021 spending levels at $635 billion, an increase of $3 billion from FFY 2020 levels. These levels were agreed to in the 2019 Bipartisan Budget Control Act. Congress is expected to begin bill drafting in the next few weeks on specific agency and program allocations for FFY 2021.

On March 13, 2020, President Trump declared a national emergency concerning the novel coronavirus disease (COVID-19) outbreak. Over the month of March, Congress passed a total of three stimulus bills to address the impact of the COVID-19 outbreak on the public health system and on the economy. Based on Federal announcements to date, the three stimulus bills provide New York City with access to approximately $3 billion in aid, excluding FEMA reimbursement. With the exception of $1 billion from Medicaid revenue, all of this aid is targeted to specific programs and or must be used for new COVID-19 expenditures. The package also includes relief programs targeted to small businesses and New York City residents.

On March 6th, Congress passed the first stimulus bill, the Coronavirus Preparedness and Response Supplemental Appropriations Act, which provided an additional $8.3 billion nationally, mainly targeting testing, surveillance, medical preparedness and prevention, as well as containing international spread. City health organizations received $24 million from this allocation from the Centers for Disease Control.

On March 18th Congress passed the second stimulus bill, the Families First Coronavirus Response Act (FFCRA), directing aid to workers through paid sick and annual leave, expanding unemployment insurance, and providing Medicaid relief to States. FFCRA temporarily increases Federal Medicaid funds to New York State by 6.2 percentage points, bringing the Federal reimbursement rate to 56.2 percent. The City expects to receive nearly $1 billion dollars over City Fiscal Years 2020 and 2021. The bill also directs additional funds to the State for WIC and Commodity Assistance programs and senior food programs including home-delivered meals.

On March 27th Congress passed a third stimulus bill. The Coronavirus Aid, Relief, and Economic Security (CARES) Act provides more than $2.2 trillion nationally for direct relief to residents, small businesses, non-profits, state and local governments, and supplemental appropriations for safety net programs.

The CARES Act includes $150 billion in the Coronavirus Relief fund to provide direct relief to states and localities. New York City expects to receive $1.4 billion, however funding can only be used for new COVID-19 expenses and cannot be used to make up for lost revenues.

The CARES Act also appropriates several billion dollars nationally to support housing, economic and community development efforts in response to the COVID-19 pandemic. Community Development Block Grant funds are increased by $5 billion to be distributed in three allocations. New York City has been awarded $102 million from the first distribution. Subsequent allocations have yet to be announced. New York City also expects to receive supplemental awards from homeless assistance grants.

The CARES Act provides $30 billion nationally for elementary, secondary and college aid through the Education Stabilization Fund. The funding is intended for uses including planning for long-term school closures, sanitizing schools, purchasing educational technology for distance learning, and providing mental health supports. However, based on the enacted budget school aid runs, New York State used $1.1 billion of the Federal CARES funds to backfill reductions in State Aid, keeping school aid funding flat to the prior year. New York City's State school aid was reduced by $717 million and backfilled with Federal CARES funds.

The CARES Act also delays Disproportionate Share (DSH) payment cuts until December 1, 2020.

SANDY RECOVERY AND RESILIENCY

Sandy's Impact on the City and its Communities

When Hurricane Sandy made landfall on October 29, 2012, it caused devastation in all five boroughs of New York City and claimed the lives of 44 people. The City has made substantial and meaningful progress in its Sandy recovery over the seven-and-a-half years since the storm occurred, including the construction of resilient infrastructure, and repair work in residents' homes, businesses, and communities. Investments from Sandy allow the City to enhance its ability to withstand future disasters related to climate change and to reduce risk to life and property.

Funding for Sandy Recovery: Infrastructure and Community Investment

Funding for Sandy Recovery has come primarily from two sources, the Federal Emergency Management Agency (FEMA), and the U.S. Department of Housing and Urban Development (HUD), totaling approximately $15 billion.

FEMA funding supports the City's costs for emergency response and repairs to damaged infrastructure including resiliency improvements. The overall cost of the City's FEMA-funded emergency response and infrastructure recovery is projected to be about $10.7 billion. Of the $10.6 billion in federal grants secured, the City has been reimbursed over $4.0 billion to date.

Hurricane Sandy Expense and Capital Cost Estimates by Agency
($ in millions)

	Expense	Capital - Repair	Capital - Mitigation	Total
Health + Hospitals (H+H)1	$127	$988	$757	$1,872
Parks	97	814	245	1,156
DEP	617	263	295	1,175
Education (DOE and SCA)	95	547	192	834
Transportation (DOT) 2	10	758	5	773
Police Department	202	85	11	298
Fire Department	25	208	4	237
Sanitation	177	31	11	219
All Other Agencies	$171	$675	$120	$966
Subtotal	**$1,521**	**$4,369**	**$1,640**	**$7,530**
New York City Housing Authority 3	268	1,460	1,458	3,186
Grand Total	**$1,789**	**$5,829**	**$3,098**	**$10,716**

1. Total estimates include $1.73 billion for H+H 428 PAAP grants for four hospitals.
2. Transportation includes $630 million of Federal Highway Administration and Federal Transit Administration funding.
3. NYCHA figures include damages to be covered by approximately $421 million of insurance.

HUD provides funding through the Community Development Block Grant–Disaster Recovery (CDBG-DR) program to cover unmet recovery needs remaining after all other funding sources are accounted for in the areas of housing, assistance for businesses, and long-term resiliency improvements. The City was awarded $4.2 billion in CDBG-DR funds and has been reimbursed over $3.5 billion to date, or approximately 84% of the grant.

CDBG-DR Funding
($ in Millions)

Program Area	Total Funding
Housing	$2,967
Build it Back Single Family	2,213
Build it Back Multifamily	426
NYCHA	317
Other	11
Business	$91
Infrastructure and Other City Services	$418
Coastal Resiliency	$473
Rebuild by Design - East Side Coastal Resiliency	338
Rebuild by Design - Hunts Point	45
Other	90
Planning/Admin	$264
Total	**$4,214**

Source: CDBG-DR Action Plan, www.nyc.gov/cdbgdr

The Executive Financial Plan for Fiscal Year 2021 makes only moderate adjustments to these federal funds for Sandy recovery and resiliency efforts.

Recovery Accomplishments

Much has been accomplished in the seven-and-a-half years since Sandy. The expense-budgeted emergency response activities conducted by City agencies are largely over, with anticipated reimbursements from FEMA for emergency work estimated at $2.1 billion.

The City has partnered with FEMA to pursue innovative approaches to improving long-term recovery efforts. For example, the City is the largest participant in FEMA's 428 Public Assistance Alternative Procedures pilot program designed to expedite disaster recovery and was awarded both the largest and second largest disaster assistance grants in the history of the FEMA Public Assistance program. The City's pioneering approach to the 428 program resulted in more than $6.0 billion of funding that the City is optimizing to rebuild damaged assets in a more resilient and useful fashion. Examples include elevation of critical building infrastructure, upgrading miles of conduit throughout the City, major redesign of City hospitals, and rebuilding Rockaway Boardwalk in a manner that protects the structure in the long-term.

One of the primary investments of CDBG-DR funds has been the Build It Back program, which assists homeowners and tenants with the resources necessary to recover and make their homes and communities more resilient. Over 99 percent of all homeowners through the Build It Back Single Family program have been assisted, and the very few remaining construction projects are in the remaining stages of getting completed. Work on a handful of multifamily developments and on public housing under the jurisdiction of the New York City Housing Authority continues, and the vast majority of funding has been disbursed. For small businesses, financial assistance has been disbursed, and the remaining work is focused on preparedness and resiliency.

Preparing for a Protected City and Resilient Neighborhoods

Remaining work for Sandy recovery is primarily associated with large-scale resilient infrastructure and coastal protection projects. These infrastructure repair, coastal protection and mitigation projects are funded significantly by federal resources from FEMA and HUD and include City funds, as outlined in the City's over $20 billion resiliency plan. Highlights of these projects include the following:

- NYCHA: 33 housing developments at $3.2 billion.
- H+H: four hospitals (Coney Island, Bellevue, Metropolitan, and Coler) at $1.8 billion.
- East Side Coastal Resiliency: coastal protection along the East Side of Manhattan from East 25th Street to Montgomery Street at $1.45 billion.
- DPR: beaches, parks, and recreational facilities estimated at $1.1 billion.
- DEP: wastewater treatment plants and pump stations citywide estimated at $1.1 billion.
- SCA: 43 public schools across the five boroughs estimated at $791 million.
- DOT: transportation infrastructure (roads, ferries, and lighting systems) estimated at $773 million.
- Lower Manhattan Coastal Resiliency: coastal protection at various locations in Lower Manhattan with funding of $500 million.
- Additional investments: coastal protection work is also being done for the Rockaways, Coney Island, the South Shore of Staten Island, and other vulnerable shorelines across the City.

CONTRACT BUDGET

The Contract Budget is presented as part of the 2021 Executive Budget submission. The Contract Budget includes all projected expenditures for contracts that are personal service, technical or consulting in nature, as defined in Section 104 of the City Charter. Purchase orders and open market orders, as well as small purchases that do not require registration by the Comptroller's Office, are included in the Contract Budget. Contracts for the purchase of supplies, materials and equipment are not included.

The 2021 Executive Contract Budget contains an estimated 17,791 contracts totaling approximately $16.70 billion. Over 77 percent of the total contract budget dollars will be entered into by the Department of Social Services, the Administration for Children's Services, the Department of Homeless Services, the Department of Health and Mental Hygiene and the Department of Education. The Administration for Children's Services has $1.51 billion in contracts, approximately 64 percent of which represents contracts allocated for Children's Charitable Institutions ($477 million) and Day Care ($489 million). Of the $7.93 billion in Department of Education contracts, approximately 46 percent of the contracts are allocated for Transportation of Pupils ($1.30 billion) and Charter Schools ($2.39 billion).

Each agency's Contract Budget is delineated by object code within the agency's other than personal service units of appropriation. The Executive Budget Supporting Schedules further break down the Contract Budget by budget code within unit of appropriation. All object codes in the 600 object code series are included in the Contract Budget. In addition, the Executive Budget Supporting Schedules reference the 2020 Modified Budget condition for these contract object codes.

Agencies in preparing their contract budgets were requested to categorize their contracts into 51 specific contract objects. The distribution of these contracts is summarized as follows

	Est # of Contracts	Dollars (Millions)	% Total Dollars
Social Service Related and Health Services............ · Home Care, Child Welfare, Employment Services, Public Assistance, Day Care, Family Services, Homeless Programs, AIDS, Senior Citizen Programs, Health, Mental Hygiene & Prison Health, etc.	4,682	$5,730	34.3%
Youth and Student Related Services........................ · (including Transportation of Pupils and Payments to Contract Schools)	3,096	5,847	35.0%
Other Services.. · Custodial, Security Services, Secretarial, Cultural Related, Employee Related, Economic Development, Transportation, Municipal Waste Exporting, etc.	3,100	1,707	10.3%
Professional Services/Consultant............................. · Accounting, Auditing, Actuarial, Education, Investment Analysis, Legal Engineering & Architectural, System Development & Management Analysis, etc.	3,550	1,742	10.4%
Maintenance & Operation of Infrastructure .... · Lighting, Street Repair, Buildings, Parks, Water Supply, Sewage and Waste Disposal, etc.	1,644	1,241	7.4%
Maintenance of Equipment...................................... · Data Processing, Office Equipment, Telecommunications & Motorized Equipment, etc.	1,719	434	2.6%
TOTAL	**17,791**	**$16,701**	**100.0%**

COMMUNITY BOARDS

New York City's 59 community boards provide a formal structure for local citizen involvement in the budget process as well as other areas of City decision making. The Charter mandates that the community boards play an advisory role in three areas: changes in zoning and land use, monitoring the delivery of City services in the community district and participating in the development of the City's capital and expense budgets.

Each community board receives an annual budget to support a district manager, additional staff, and other operating expenses. In FY 2021 the uniform base budget for each community board is $248,795. This excludes the cost of office rent and heat, light and power, which are in a separate unit of appropriation.

Each Borough President appoints board members for staggered two year terms. City Council members in proportion to each member's share of the district's population select nominees from which half the appointments are made. All fifty members of the community board either live or work in the district.

Each year agencies that deliver local services consult with community boards about budget issues and the needs of the districts, prior to preparing their departmental estimates. Each board then develops and prioritizes a maximum of 40 capital and 25 expense budget requests. For FY 2021 community boards submitted 1,836 capital requests and 1,575 expense requests to 35 agencies. Community board expense budget requests concentrate on local services and personnel increases.

District specific budget information is available in the following geographic budget reports, which accompany the release of the FY 2021 budget.

Register of Community Board Budget Requests for the Executive Budget, Fiscal Year 2021 – lists the funding status for all community board proposals in priority order within community district.

Geographic Report for the Executive Expense Budget for Fiscal Year 2021 – details the expense budgets of fourteen agencies that deliver local services by borough and service district. Includes FY 2021 Executive Budget information as well as FY 2020 current modified budget and budgeted headcount data.

Executive Capital Budget for Fiscal Year 2021 – details the Mayor's Capital Budget by project within agency. Budget data is presented by community district and by agency within borough.

Geographic Fiscal Year 2021 Executive Budget Commitment Plan – presents information on capital appropriations and commitments by community board, including implementation schedules for the current year and four plan years for all active projects by budget line.

ECONOMIC OUTLOOK

Overview

The rampant spread of COVID-19 across the globe and the far-reaching restrictions enacted by governments to check its propagation brought the longest expansion in the post-World War II era to an end. Despite stable growth and positive fundamentals through the end of 2019, stay-at-home mandates, travel bans, school closures, and other strict social distancing policies will likely create a sharp contraction lasting through the first three quarters of 2020. The impact will fall disproportionately on sectors that involve large gatherings or close personal interaction such as leisure and hospitality, retail, education, and transportation. The distinctive economic challenge of the pandemic is that it creates both a supply and demand shock. Not only were international supply chains disrupted early on by the Chinese lockdown, but aggressive social distancing measures have shuttered thousands of firms and resulted in millions of furloughs and layoffs. The severe, but necessary, slowing of activity is weakening demand as consumers see shrinking incomes and heightened uncertainty. The historic selloff in asset markets further contributes to the demand drop through wealth effects. Moreover, decreased investment spending is both a cut in current demand and a drag on future productivity.

The COVID-19 pandemic brought the record-breaking expansion of the U.S. job market to an abrupt and unexpected halt. U.S. payrolls contracted sharply in March as every sector except information and government shed jobs. Even more ominous, the pace of initial unemployment claims in the three weeks ending in early April suggest that the next jobs report for April will show an unprecedented drop in employment. Over ten percent of the U.S. civilian labor force has filed for unemployment benefits since the last payroll survey and processing bottlenecks by state unemployment offices imply that this is likely an undercount. Other high-frequency data is revealing a rapid downturn in air transportation, hotel occupancy, and consumer and business confidence.

Since most national-level data will not reflect the sudden deceleration for at least another month, the range of estimates for the contraction in growth have varied widely, ranging from four to six percent for full-year 2020. Like many of these forecasts, NYC OMB expects the steepest drop will occur in the second quarter of this year followed by a recovery starting at the end of the year. Moreover, the growth impact of the $2.3 trillion Coronavirus Aid, Relief, and Economic Security (CARES) Act is muted as much of the provisions act as a safeguard against further deterioration and not as an outright stimulus. The Federal Reserve (Fed) has rapidly reworked monetary policy to support the economy and bolster financial markets. The Fed's aggressive March cuts to the fed funds rate have brought it to the zero lower bound, a target last seen in 2015. The Fed also resumed purchases of Treasury securities and mortgage-backed securities to smooth financial market operations, a policy that has resulted in a rebound of the Fed's balance sheet. Moreover, it has resurrected and expanded several loan programs from the 2008 financial crisis in a wide-ranging effort to support credit markets for household and mortgage debt, commercial loans, and municipal bonds.

Equity markets dropped by a third in March bringing the eleven-year bull market to an end. Volatility measures jumped to record levels and NYSE trading halts were triggered an unprecedented four times. Risk-averse retail investors have been moving funds out of equity and bond funds into safe haven assets such as money market funds and Treasury securities. Nonetheless, unlike the financial crisis, lending markets have continued to function relatively smoothly. To offset revenue shortfalls, firms have been tapping fixed income markets, resulting in a jump in corporate bond issuance. In addition, commercial bank lending has accelerated as companies secured new bank loans and drew on existing lines of credit. After generating profits of $5.5 billion in the fourth quarter of 2019, the extreme financial market volatility in the first half of 2020 will likely result in Wall Street losses and a steep decline in the bonus pool for the year.

NYC OMB projects that the COVID-19 outbreak will have a significant impact on the New York City economy, with total employment forecast to contract by over half a million jobs over the first three quarters of 2020. The downturn will end the decade-long job expansion, the longest spell of City employment growth since 1950. Most of the losses are projected to occur in the second quarter, with retail and leisure & hospitality accounting for nearly half of the job cuts; recent initial unemployment claims and WARN notices have been concentrated in the latter sector. One sizable driver of both sectors is the tourism industry, which slowed substantially in March. As a result, hotel occupancy rates and room rates are expected to remain weak through the third quarter. A contraction of professional & business service employment is also projected in 2020 as firms cut back on temporary and administrative positions. However, the sector is expected to resume growth by 2021. Wage rates are expected to weaken this year. Combined with steep employment losses, this will result in the first decline in wage earnings since the 2008 financial crisis.

The weak growth of office-using employment will constrain demand for office space while significant supply enters the market. As a result, vacancy rates are projected to spike in 2020 and remain above pre-coronavirus levels through the end of the forecast horizon. While asking rents dip in 2020, the full pipeline of new, high-end office properties in Hudson Yards and Downtown should help support rent growth. The City's housing market is expected to soften further after two years of weakness. Sales volume is projected to fall drastically in 2020, but deferred demand and low mortgage rates should contribute to a rebound in 2021. Average prices drop in 2020, driven by a steep decline in condo prices and are projected to remain flat in 2021.

* *All economic data are reported on a calendar year basis.*

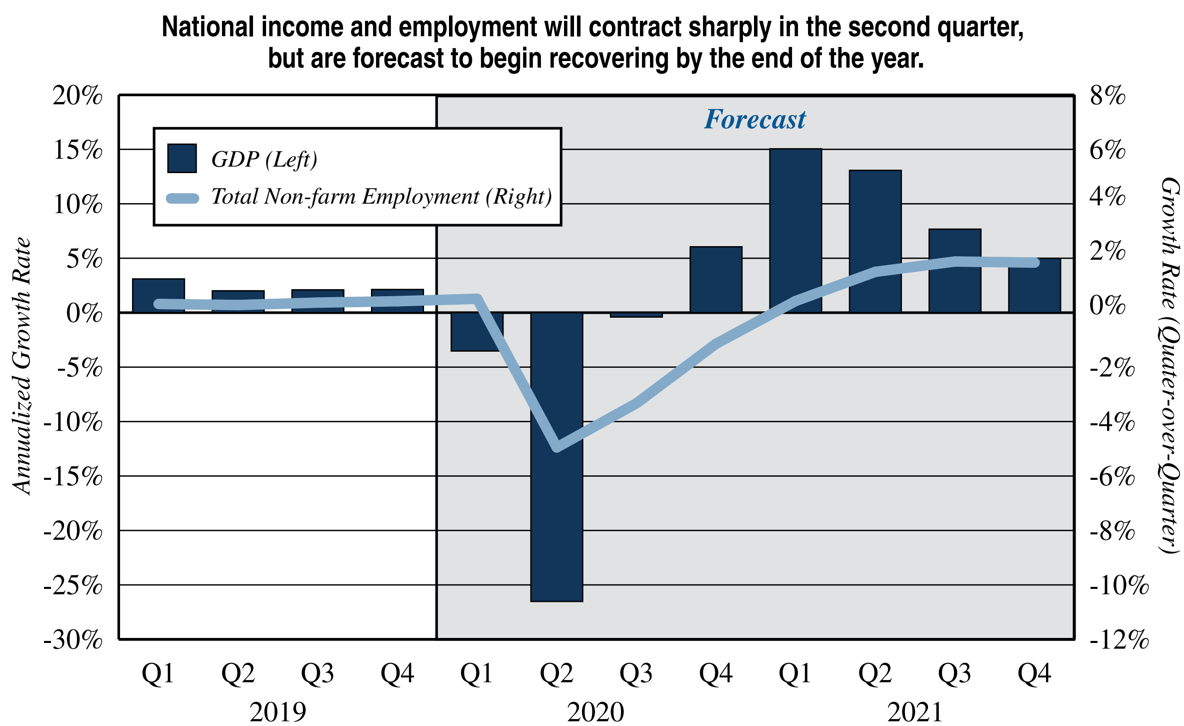
THE U.S. ECONOMY

The breakout of the Coronavirus into a worldwide pandemic and the disruption of global economic activity has been unprecedented. Prior to March, nearly every indicator was upbeat, but the leading edge of the downturn is just now starting to show up in monthly data releases. Higher frequency data, such as the weekly initial jobless claims, are showing the alarming, but unavoidable result of strict social distancing mandates – as of early April, 42 States and the District of Columbia were under statewide stay-at-home orders, up from just nine three weeks prior.

The US and New York City forecasts reflect a fundamental fact that measures to limit the harm and spread of the virus are having a direct negative impact on economic activities that entail large gatherings or close personal interaction. Thus, sectors such as leisure and hospitality, retail, education, and transportation activities will be hit the hardest. Another characteristic that makes this downturn different from prior recessions is that the shock affects both supply and demand. International supply chains have been disrupted while the policy response has, predictably, suppressed both domestic supply and demand. The production slowdown, layoffs, and slump in equity markets will have downstream impacts due to lower income, wage earnings and wealth. A longer-term impact will result from a pause in investment spending, which is both a drop in current demand and a reduction in future potential and productivity.

Prior to the explosive spread of COVID-19, the U.S. economy appeared to be downshifting after a brief acceleration spurred by the 2017 Tax Cuts and Jobs Act. Fourth quarter 2019 GDP grew 2.1 percent (annual rate), slightly above the Congressional Budget Office (CBO) estimates of the economy's steady state pace. Consumption accounted for 59 percent of growth, slightly below the long-run average of two-thirds. Net exports provided a large 1.5 percentage point (ppt) boost, mainly driven by a decline of imports into the U.S., which have been encumbered by the Trump administration's trade policies. The main headwind to growth came from changes in private inventories, which subtracted a full percentage point from growth. Typically, large positive or negative inventory contributions are transitory.

GDP AND EMPLOYMENT GROWTH



Source: U.S. Bureau of Economic Analysis, NYC OMB

While nonresidential fixed business investment was a small drag in the fourth quarter (-0.33 ppt), residential investment added nearly a quarter of a percentage point to growth, the second consecutive quarter of contributions following six quarters of subtractions. The rebound in housing continued into 2020 with both seasonally adjusted new and existing home sales hitting 13-year highs in January and February, respectively, spurred on by low borrowing costs and strong employment. Thirty-year fixed mortgage rates ended February at 3.45 percent, nearly a full percentage point lower than the year-ago level. February also marked the 113th consecutive month of employment gains, the longest expansion in data extending back to 1939. Over this period starting with the fourth quarter 2010, the U.S. produced over 22 million jobs. The monthly pace in the first two months of 2020 averaged 245 thousand jobs, well above the still-strong average of 178 thousand per month in 2019.

The rapid proliferation of COVID-19 abruptly ended the expansion. Monthly payrolls in March contracted by 701 thousand, the first monthly data to reflect the disruption caused by the social distancing policies enacted by states and municipalities. This is just a preview of the expected flood of furloughs and layoffs. Weekly initial claims data for the three weeks ending April 4th show an unprecedented 16.8 million new jobless claims, more than 10 percent of the U.S. civilian labor force. Furthermore, due to processing bottlenecks at state unemployment offices, these numbers are likely undercounts.

Other high-frequency indicators are likewise showing unparalleled declines. Transportation Security Administration data shows a 95 percent year-over-year (YoY) drop in passengers passing through airport check points during the first week of April. At the same time, national hotel occupancy rates plunged to 22 percent, down from 69 percent a year ago. The NY Federal Reserve recently started publishing a weekly measure of economic conditions, scaled so that the index value is the year-over-year growth rate implied if the weekly value persisted for a full quarter. In early April, their index had dropped to -8.9 percent, down from 1.6 percent at the end of February.[1] Surveys of consumer and business sentiment have also started to reflect the challenging environment. March consumer confidence dropped by 12.6 points, while the corresponding University of Michigan consumer sentiment index for April fell 18.1 points, the largest monthly decline ever recorded. The National Federation of Independent Business (NFIB) small-business optimism index in March posted its steepest decline in the survey's three-decade history.

Since the national economic data will not catch up to the sudden deceleration for months, forecasting is particularly challenging and dependent on assumptions about the length of the shutdown. Currently the projected drop in 2020 real GDP growth ranges from 4.2 percent (Morgan Stanley) to over six percent (Goldman Sachs, Bank of America). NYC OMB has adopted the IHS-Markit scenario, which includes a 5.4 percent contraction in 2020 followed by a rapid 6.3 percent rebound in the subsequent year. The steepest drop occurs in the second quarter with a 26.5 percent quarterly contraction at an annual rate. Peak-to-trough employment losses total 14 million with the unemployment rate breaching 10 percent by the end of 2020. There are no other quarterly drops of this magnitude in data going back to 1947. The closest episode was a ten percent plunge in the first quarter of 1958. In an historic twist, this recession was exacerbated by the 1957-58 H2N2 flu pandemic, which the CDC estimates resulted in more than 100,000 deaths in the U.S.

Fiscal policy assumptions behind the forecast include the three-phase federal response, which ramped up quickly over the month of March. Initially, Washington allocated new funding for vaccine research efforts, an expanded FEMA emergency response, and money for coronavirus testing, sick leave, and enhanced social safety net programs. As the dire nature of the outbreak unfolded, Congress passed the $2.3 trillion Coronavirus Aid, Relief, and Economic Security (CARES) Act, signed by the president at the end of March. The legislation includes relief for individuals through tax rebates and cuts, increased food stamp funding, and expanded unemployment benefits, covering also independent contractors, and part-time and "gig" economy workers. On the business side, it provides for loans, loan guarantees, grants, and tax breaks. Other provisions are directed at supporting state and local governments, expanding health infrastructure, protecting transportation providers and education systems. See the CARES Act discussion in the tax revenue section for further details.

While the nominal value is large, the economic impact of the CARES Act will be muted because much of the resources are acting as a prophylaxis against further deterioration and are not outright stimulus. From a national accounting perspective, the provisions that are most likely to boost growth are the portions of unemployment benefits, tax rebates, and wage supports

1 Daniel Lewis, Karel Mertens, and Jim Stock, "Monitoring Real Activity in Real Time: The Weekly Economic Index," Federal Reserve Bank of New York Liberty Street Economics, March 30, 2020

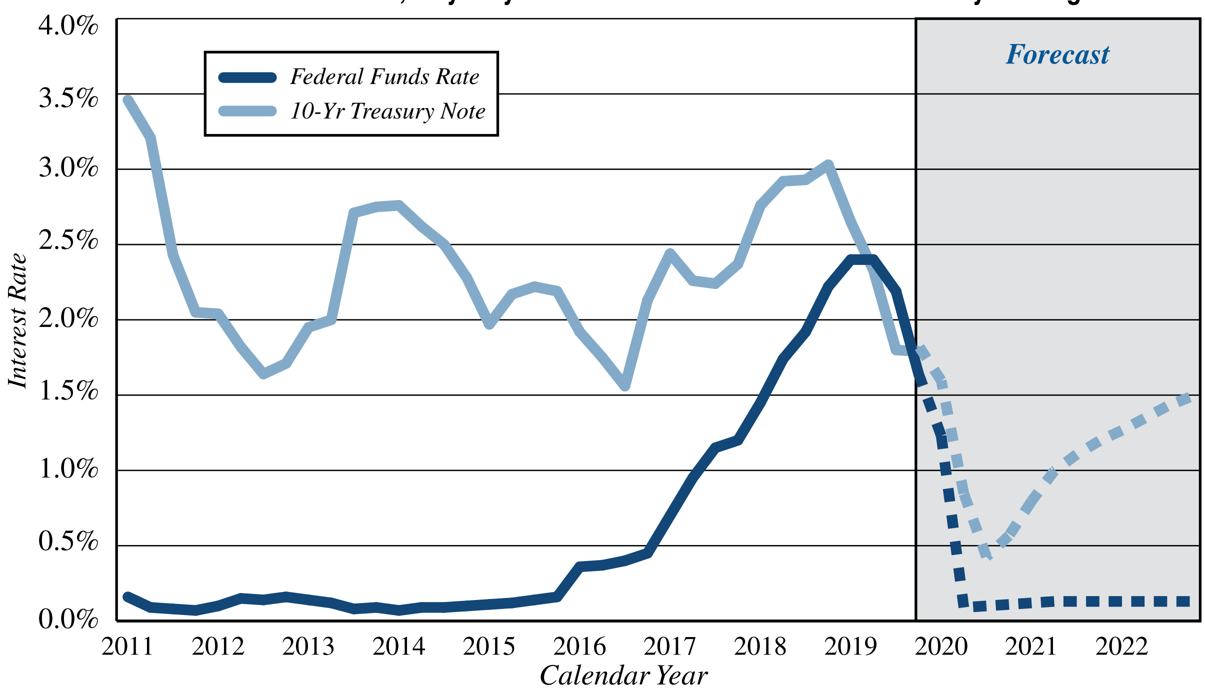
that are spent on consumption by individuals. As a result, IHS reports that the stimulative impact on GDP growth is just 0.2 ppt in 2020 and 0.7 ppt in 2021.

The Fed has likewise moved decisively in early March to support the economy and financial markets amid the COVID-19 pandemic, abandoning last year's stance of wait-and-see, which followed a series of three cuts in mid-2019. In an attempt to control the risk posed to the economy by COVID-19, the Fed pivoted to an accommodative policy that enhanced liquidity. First, the Federal Open Market Committee (FOMC) lowered interest rates by half a percentage point on March 3rd in an unscheduled rate cut, marking the largest one-time cut and the first emergency rate reduction since after the 2008 financial crisis. By mid-March, the FOMC slashed interest rates by a full percentage point, bolstering the economy as the viral infections intensified and more cases were reported in the United States. To match the lower fed funds target, the Fed also reduced the interest rate paid on excess reserves to 0.10 percent and the interest rate paid on overnight reserves purchase agreements to zero. The series of cuts in March brought the Federal Funds Rate down to a target range of 0 to 0.25 percent, enacting the first zero lower bound since 2015. As a result, the Effective Federal Funds Rate dropped to 0.05 percent as of early April. Financial markets projected that the Fed would keep the rate low in the upcoming year to support economic growth. The Chicago Mercantile Exchange (CME) reported that the probability of an increase in the next ten FOMC meetings implied by fed fund futures prices is zero as of early April. NYC OMB forecasts that the federal funds rate will remain near zero percent for the rest of the forecast horizon given the current Fed's position and outlook.

In addition to the rate cuts, the Fed also increased its holdings of Treasury securities and mortgage-backed securities to address liquidity strains, backtracking from the balance sheet normalization program that started in 2017. In mid-March, the Fed announced an increase of $700 billion in its holdings of Treasury ($500 billion) and mortgage-backed securities ($200 billion) as part of the intervention to support the bond markets. The Fed later added that it will continue to purchase Treasury securities and agency mortgage-backed securities in the "amounts needed to smooth market function." As a result, the Fed's balance sheet climbed to $6.1 trillion by early April—more than twice the asset level ($2.2

U.S. INTEREST RATES

The fed funds rate and 10-year Treasury yields have fallen steeply in 2020. While the Fed holds short-term rates at the zero lower bound, 10-year yields are forecasted to rebound modestly starting in 2021.



Source: St. Louis Federal Reserve Bank, NYC OMB trillion) held by the Fed immediately after the Great Recession. The Fed also committed to reinvesting all principal payments from their holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities. These steps were taken in part to control the yield on Treasury bonds and to ward off a credit crunch. NYC OMB projects that yields on 10-year Treasury notes will drop below 1 percent for 2020 before gradually bouncing back to near 2 percent in 2024, weaker than the pre-outbreak five-year average of 2.3 percent.

The Fed also revived several financial crisis-era initiatives such as the Term Asset-Backed Securities Loan Facility (TALF) and the Primary Dealer Credit Facility to support market operation and provide credit flows to businesses. However, Federal Reserve Chairman Jerome Powell stated that the Fed's emergency lending powers are conditioned on the backdrop of the Treasury Department. Hence, the third phrase of the CARES Act provides further resources to the Fed in supporting credit flows to businesses and households. Section 4003(b) of the CARES Act allocates $454 billion toward the Fed's lending programs. The Fed announced that around half of the $454 billion will go toward crucial programs such as the TALF, the Main Street Lending Program, and the Municipal Liquidity Facility targeted at consumer lending, business funding, and municipal bond markets, respectively.

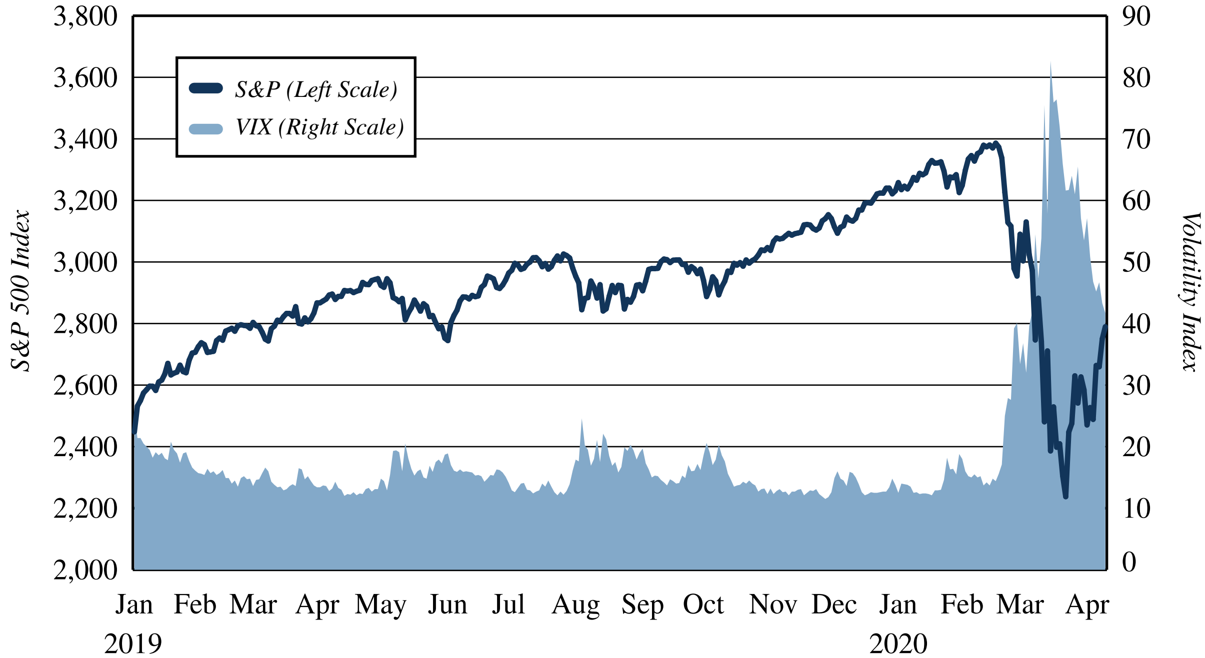
In term of inflation, March's Beige Book, a summary of current economic conditions across the 12 Federal Reserve districts, showed that a number of producers were concerned about the effects of COVID-19 on prices. Meanwhile, oil and gas prices were already affected by the virus, dropping due to weaker demand from China amid the outbreak and the subsequent Russia-Saudi Arabia oil price war. Overall, prices are growing but are weaker than the Fed's target. On a year-over-year basis, the headline inflation associated with personal consumption expenditure (PCE) grew 1.8 percent in February compared to 1.3 percent YoY last February. The core PCE (excluding volatile foods and energy costs) also grew at a rate of 1.8 percent YoY in February, up from 1.6 percent YoY last February. However, these growth rates captured the period prior to the acceleration of COVID-19 in the United States. NYC OMB projects that core PCE will decelerate in 2020 and 2021 to 1.5 percent and 1.3 percent, respectively, before rebounding in 2022. This deceleration is mostly driven by businesses responding to lower demand through diminished prices.

The news about the novel coronavirus outbreak in China began to rattle markets in February, with the Dow and S&P 500 hitting 2020 peaks in mid-February. Subsequently, over the next 23 trading sessions, the S&P shed a third of its value, and by end of March, had plunged to levels last seen in 2016. Likewise, the Dow lost over 37 percent in 27 trading days, effectively ending an eleven-year bull market starting in 2009. NYSE circuit breakers, which force a pause in trading to dampen price swings, were triggered an unprecedented four times in March. Volatility measures soared due to the turmoil, with the CBOE volatility index (VIX) hitting an all-time high of 83 on March 16, eclipsing the prior record set during the 2008 financial crisis. Likewise, the share of monthly S&P 500 trading days with price movements in excess of one percent, the trading days ratio, was an astonishing 95 percent in March, which had only one calm session out of 22 trading days. This surpassed the prior record of 87 percent set in October 2008.

Predictably, retail investors accelerated redemptions of equity-based mutual and exchange traded funds. Preliminary data from the Investment Company Institute show that investors pulled nearly $44 billion out of equity funds in March, the highest monthly outflow since December 2018 when markets were roiled by the federal shutdown and escalating trade frictions with China. Bond funds also suffered $296 billion in outflows in March, the first monthly contraction since the same December 2018 episode. Investors are moving resources into safe haven assets. In March, retail and institutional investors moved $117 billion and $471 billion, respectively, into money market mutual funds, and the pace of inflows remained strong over the first week of April. By comparison, investors only added $13 billion to money market funds in February. Yields of ultra-safe Treasuries also reflected the flight to safety with the entire Treasury yield curve dropping below one percent on March 9th, the same day that the S&P 500 shed 7.6 percent. Since then, the yield curve has steepened as shorter rates were driven lower by the Fed cuts and longer yields climbed 20 to 30 basis points (bps).

S&P 500 AND VOLATILITY

Equity prices dropped by a third in March as the impact of the COVID-19 pandemic worsened, ending an eleven-year expansion. At the same time, volatility measures set new records.



Source: S&P Down Jones Indices, CBOE

Unlike the 2008 financial crisis, credit markets have continued to function, albeit with some signs of higher financial stress and tighter credit conditions. As corporations suffered revenue shortfalls in March, they tapped bond markets to help bridge the losses – total corporate bond issuance jumped by $103 billion, up 60 percent from year-ago levels. Nevertheless, high-yield bond issuance withered, dropping by over 85 percent YoY as investors shunned risk. The shift in risk aversion also affected the normally staid commercial paper market, which all but froze during the financial crisis. Over the first two months of the year, the spread between safe and riskier categories of non-financial commercial paper averaged 20 bps, below the 5-year average of 35 bps. This climbed rapidly through March to about 120 bps, which caused the Fed to reactivate its Commercial Paper Funding Facility to calm short-term debt markets. This action helped keep spreads well below the 450 bps that occurred after the collapse of Lehman Brothers in 2008. In addition to fixed income markets, firms have also been able to access bank loans and lines of credit. As a result, commercial banks lent $380 billion of new funds in the first three weeks of March, up from net loans of just $5 billion in January and February.

Wall Street often benefits from market volatility. During the fourth quarter 2018 market correction, NYSE member-firms still managed to earn $6.7 billion, over twice the 5-year average fourth quarter profit. Furthermore, performance through the end of 2019 was steady. Fourth quarter 2019 profits declined 18 percent YoY to $5.5 billion, which brought full-year profits to $28 billion, up 2.8 percent YoY. The decline in fourth quarter profits resulted from revenue (down 2.7 percent YoY) falling faster than expenses (down 0.7 percent). Wall Street bonus pool growth for 2019 was estimated to be $29.6 billion, up 4.9 percent from 2018.

Looking forward, Wall Street is unlikely to escape the current turmoil unscathed. Extreme market volatility usually slows trading activity. Underwriting and mergers and acquisition activity is likely to drop as well. As a result, NYC OMB is forecasting losses of $6.4 billion for 2020, followed by a quick rebound to $21 billion in 2021. Average wage is projected to decline nearly 11 percent, as the bonus pool contracts by 34 percent in 2020. This drop in is line with other estimates – the compensation consultancy Johnson Associates recently predicted that incentive pay will decline 30 to 40 percent in 2020. During the financial crisis, Wall Street lost nearly $54 billion over two years and the bonus pool dropped over 50 percent in 2008.

THE NEW YORK CITY ECONOMY

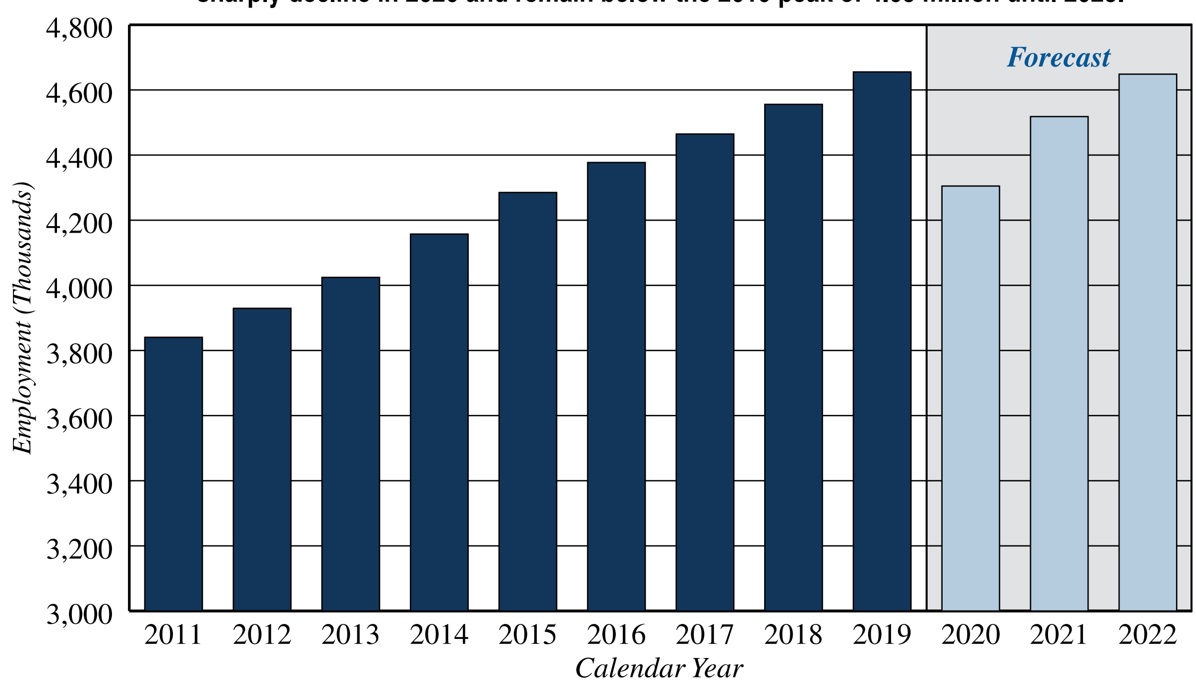
The aggressive social distancing measures necessary to contain the COVID-19 pandemic have severely disrupted economic activity in the City starting in March. The labor market contracted sharply when the New York State PAUSE Executive Order directed all non-essential businesses to halt in-office work. As a result, NYS recorded 330 thousand initial unemployment claims in the City in the three weeks ending on April 4. Total employment in the City is expected to fall by 563 thousand jobs in the first three quarters of 2020 with the bulk of losses in the second quarter. The leisure & hospitality and retail trade sectors are expected to account for nearly half of the job cuts. The City's economic rebound is expected to follow the national recovery, with job gains starting in the fourth quarter of 2020 and picking up speed in the first half of 2021. However, employment is projected to remain below the 2019 peak of 4.65 million until 2023. The recession also impacts compensation: the average wage is expected to decline by 3.4 percent in 2020 and grow near the five-year average of 2.5 percent through the remainder of the forecast horizon. As a result, total wage earnings are forecast to decline 9.7 percent in 2020 before rebounding 6.6 percent in 2021.

In 2019, NYC employment grew for a tenth consecutive year, marking the longest jobs expansion on record in data going back to 1950. Employment in the private sector expanded by 92.3 thousand jobs, a 2.3 percent growth that matched the pace set in 2018 and 2017. The annual benchmark revision released in March by the NYS Department of Labor (NYS DOL) raised private employment levels for 2019 and 2018 by 20.4 thousand and 8.1 thousand jobs, respectively. Professional & business services had the largest upward revision in 2019, adding 13.7 thousand positions. The finance & insurance and real estate industries had initially reported annual declines, but the benchmark lifted both estimates to solid gains, adding 5.7 thousand and 1.7 thousand jobs in 2019 respectively. On the other hand, retail trade recorded the largest downward revision, bringing the sector into contraction. The benchmark reduced retail trade employment by 9.8 thousand jobs in 2019, resulting in an annual decline of 4.1 thousand jobs.

While all industries are facing disruptions from the COVID-19 pandemic, the hardest hit sectors are likely to include leisure & hospitality, retail trade,

NYC EMPLOYMENT

Due to the COVID-19 outbreak in 2020, total NYC employment is forecasted to sharply decline in 2020 and remain below the 2019 peak of 4.65 million until 2023.



Source: New York State Department of Labor, NYC OMB

New York City Job Growth Forecast

		Forecast	
	2019	2020	2021
NYC Employment (Thousands)	Level	Level Change	Level Change
Total	4,655	-350	213
Private	4,067	-353	213
Financial Activities	482	-22	11
Securities	182	-7	3
Professional & Business Services	794	-59	25
Information	212	-4	2
Education	257	-39	23
Health & Social Services	799	36	25
Leisure & Hospitality	467	-111	89
Wholesale & Retail Trade	486	-85	33
Transportation & Utilities	148	-37	5
Construction	160	-7	0
Manufacturing	67	-19	-2
Other Services	195	-7	3
Government	588	3	0

Source: NYC OMB
Note: Values from seasonally-adjusted quarterly estimates. Totals may not add up due to rounding.

and professional & business services (particularly employment agencies). As travel restrictions and stay-at-home orders were issued, the leisure & hospitality industry faced a sudden drop in spending and visitation. Until payroll data is released and can be used to estimate how businesses reacted to the economic shock, the scale of the initial impacts can be inferred in part by data on unemployment claims and Worker Adjustment and Retraining Notifications (WARN notices), which are filed by employers to provide notice of closings or mass layoffs. Citywide initial jobless claims in the three weeks ending April 4 surged by twenty-times the level last year, and NYS DOL specifically cited a statewide concentration of layoffs in the leisure & hospitality sector. However, the reported level of claims is likely an underestimate as NYS DOL has experienced difficulty processing the large volume of applications. Reflecting a similar trend, the cumulative number of WARN notices for city-based businesses swelled by nearly twenty-times in the last two weeks of March. Over 70 percent of the businesses are in the accommodation & food services subsector of the leisure & hospitality industry.

In 2019, leisure & hospitality accounted for ten percent of total employment in the city (466 thousand), similar to the national share, but local job growth had notably slowed over the year. Accommodation & food services contributed 80 percent of the jobs in this sector, while arts, entertainment & recreation accounted for 20 percent. NYC OMB forecasts a loss of 162 thousand jobs by the third quarter of 2020 or 34.8 percent. The recovery is expected to begin in the fourth quarter with a return of 12.9 thousand jobs, followed by stronger growth of 100 thousand positions in the first quarter of 2021. Job gains are projected to continue subsequently, but slow through 2024.

In 2001, the leisure & hospitality sector also experienced a sudden contraction following the events of 9/11. While the expected job losses in 2020 are greater in magnitude than those in 2001, the recovery could follow a similar path. Following a 4.9 percent drop in sector employment in the fourth quarter 2001, modest gains were made in the next quarter before growth accelerated. Most of the jobs lost returned over the next four quarters, as is projected for 2020. Nevertheless, employment in leisure & hospitality remained below peak levels for eight quarters following 2001, and the recovery following the COVID-19 outbreak is expected to take nine quarters.

Tourism in NYC had been experiencing healthy growth before the outbreak. Showing the industry's strength, room nights sold totaled 38.8 million in 2019, and hotel inventory rose by 4.2 percent for the year. Prior to the pandemic, NYC & Co projected 68.9 million visitors to the City for 2020, including 14.3 million from overseas. Against those estimates, Oxford Economics now expects a decline of at least 23 percent this year for international visits to the United States. Occupancy rates have witnessed a precipitous fall, affecting room rates. NYC OMB forecasts that occupancy rates will fall to 60 percent in 2020. However, on a quarterly basis, occupancy is expected to rebound modestly in the third quarter of 2020 after the pandemic abates. Similarly, room rates are expected to fall to $225 in 2020 and stage a bounce back in the last quarter. Both occupancy and room rates are expected to recover to near pre-outbreak levels over the forecast horizon.

Annual average employment in the retail trade sector is projected to contract 26.7 percent through the first three quarters of 2020, with more than half of the jobs lost expected to return by the third quarter of 2021. Considering this industry's weak position prior to the economic shock, limited opportunities to maintain operations off-site, and the weakness of visitor and resident spending, the recovery is expected to be slow.

Professional & business services contributed 30 percent of job gains in 2019. Employment in this sector is expected to drop by 13.1 percent by the third quarter of 2020, or 104.6 thousand positions, but regain nearly 75 percent of those jobs in the following four quarters. NYC OMB expects this sector to recover following the path established after the great recession and employment remaining below peak levels for more than three years.

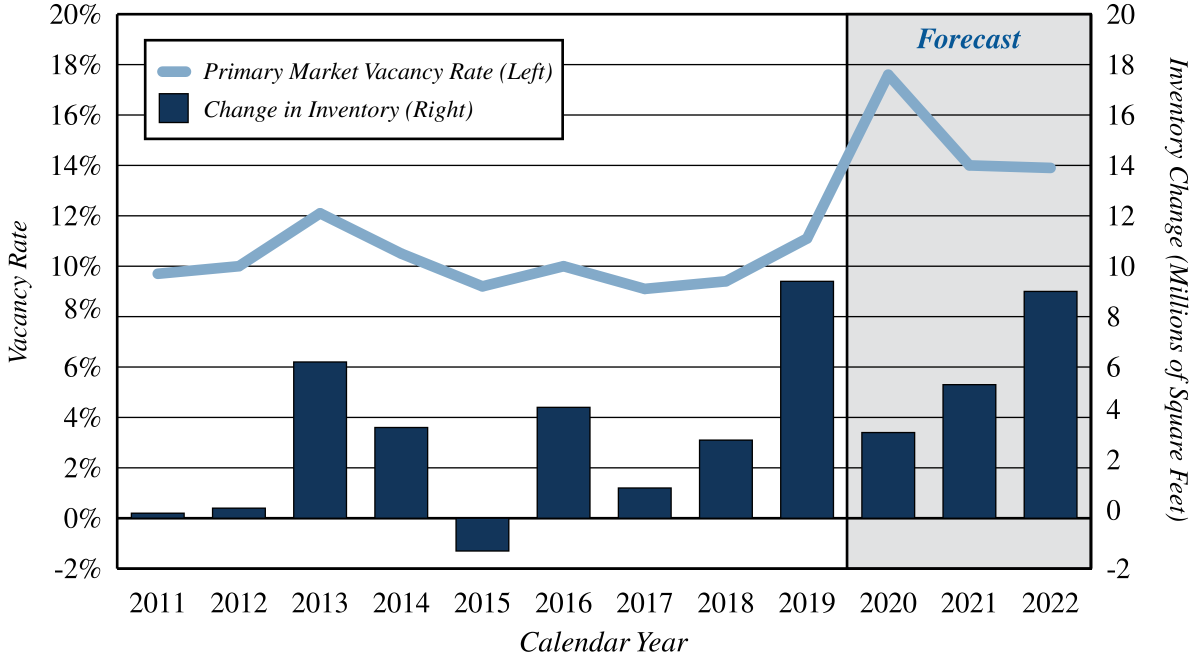
Finance and real estate-related employment accounted for about a third of all office-using employment in 2019, with professional & business services and information accounting for the remainder. All sectors are expected to contract in 2020, but their recoveries will likely follow different patterns. While employment in finance and professional & business services is forecast to drop significantly before rebounding in 2021 and then decelerating, the impact on the information sector in 2020 should be smaller with strong job growth in 2022. Within the finance sector, employment in the highly-compensated securities subsector is forecast to contract by seven thousand jobs in 2020, accounting for nearly half of the losses in the finance sector, but return to 2019 employment levels by the end of 2021. Securities wages are expected to fall by 10.7 percent in 2020 to $368 thousand, a steeper decline than in the other office-using sectors. Employment in the real estate component is expected to decline through 2021 as residential sales and commercial leasing markets remain weak. However, real estate job growth is projected to stage a large rebound in 2022 and level off thereafter. Altogether, office-using employment will remain below 2019 levels until 2023.

According to reports from Cushman and Wakefield, office leasing activity in 2019 totaled 34.7 million square feet (msf), 3.4 percent short of the record set in 2018, but elevated relative to the prior five years. The City's total office inventory expanded to a record high in 2019, pushing vacancy rates up to 11.1 percent. As new and delayed developments enter the market, the supply of office space is forecast to continue growing but at a slower pace. Midtown and Downtown are projected to add 3.4 msf of class A inventory in 2020. However, demand is expected to drop given the reduction in office-using employment and vacancy rates are set to rise to 17.6 percent in 2020. Vacancy rates are projected to edge lower in 2021 to 14 percent and to remain above 13 percent through the forecast horizon.

Expensive new properties placed upward pressure on primary market asking rents in 2019. Midtown North led the market with 1.7 percent rent growth, while rents in Midtown South and Downtown declined. As demand retreats, primary market rents are expected to fall in 2020 with Downtown dropping 12.6 percent and Midtown declining by 9.5 percent. Growth in primary asking rents is expected to rebound by seven percent in 2021.

PRIMARY OFFICE MARKET VACANCY RATES AND INVENTORY

The overall vacancy rate is expected to rise in 2020 due to the drop in office-using employment, while additions to inventory are projected to decelerate.



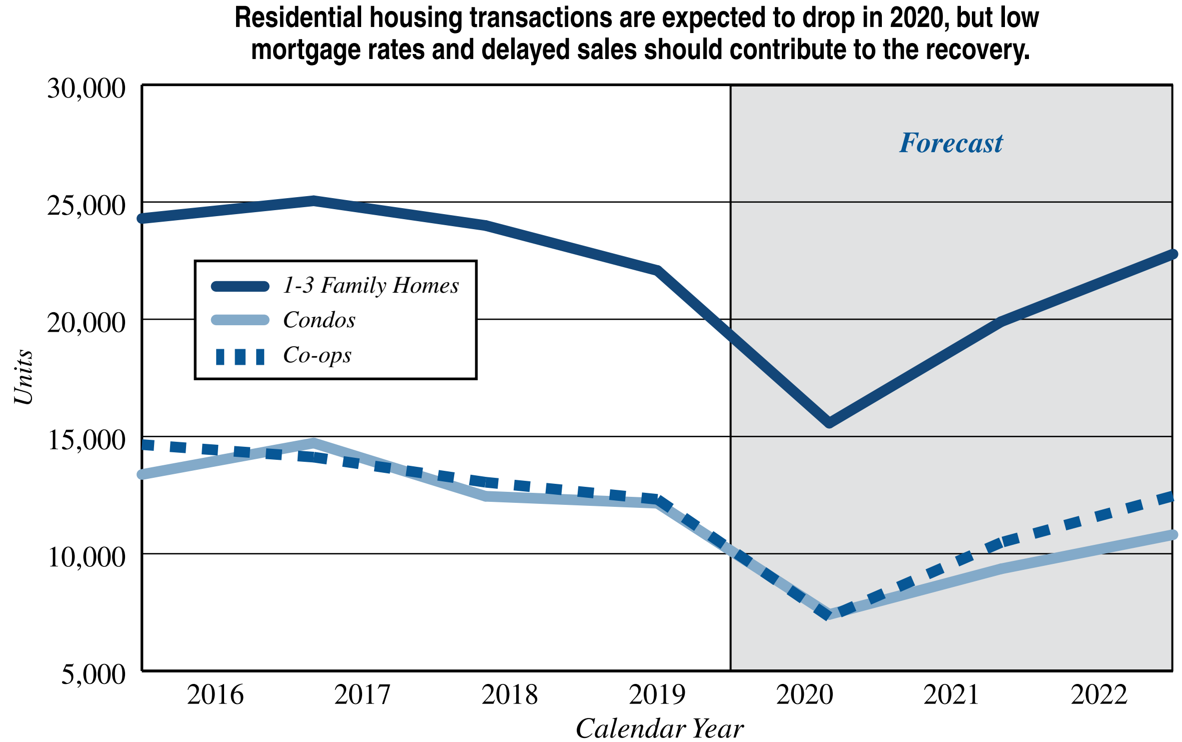
Source: Cushman & Wakefield, NYC OMB

The City's housing market has weakened for the past two years and is expected to take a significant hit in 2020. While activity will rebound in 2021, a full recovery will be slow. NYC Department of Finance data indicate that residential transactions fell six percent in 2019 after dropping 8.2 percent in the prior year. Sales contracted in all categories – single-family homes fell eight percent, co-ops dropped 5.6 percent, and condos ended the year 2.4 percent lower. OMB forecasts total sales volume to decline by a third in 2020 as social distancing restrictions halt open houses and push potential buyers and sellers to the sidelines. While delayed transactions and low mortgage rates should contribute to a rebound in 2021 of about 30 percent, growth in sales is expected to slow to about 15 percent in 2022 and remain mostly flat for the remainder of the forecast.

Although average prices grew in 2019, repeat-sales indexes reveal softer prices. Average prices rose for condos and single-family homes by 5.7 and 3.5 percent, respectively, but co-op prices were down 2.8 percent. However, the S&P CoreLogic Case-Shiller condo price index for the NYC area fell 0.9 percent over the year, the first decline since the housing crash in 2009. Average prices are expected to fall 5.1 percent in 2020, driven by a steep 9.1 percent drop in condo prices. Prices in all three categories resume modest growth in 2021.

Weakness in the housing market is expected to suppress construction activity. Data from the U.S. Census put NYC building permit filings in 2019 at 26 thousand units, the second highest level in a decade, and 25 percent higher than in 2018. New permitted units are expected to fall by half to 12 thousand in 2020 before slowly returning to 17 thousand per year by 2024.

NYC HOUSING SALES VOLUME



Source: NYC Department of Finance, NYC OMB

Risks to the Forecast

COVID-19 remains the single greatest risk to current forecasts. The spread of the disease in NYC has been rapid (see next section for an epidemiological summary) but the timeline of the recovery will be dictated by the virus, which can be certain only once the pandemic is subdued. Furthermore, there is early evidence from recovering Asian countries that the potential for re-infection remains substantial. The staggering loss of employment, earnings, and wealth and the direct health impact of the virus could have long-lasting effects on consumer behavior and business activity. Thus, the possibility of a weaker, prolonged economic recovery is a tangible concern. Other, less significant risks include the persistence of energy price volatility, the possibility of a monetary policy mistake as the Fed expands its balance sheet, and political uncertainty from the upcoming elections in November.

Forecasts of Selected Economic Indicators for the United States and New York City
Calendar Year 2018-2023

	2019	2020	2021	2022	2023	2024	1979-2018*
NATIONAL ECONOMY							
Real GDP							
Billions of 2012 Dollars	19,073	18,047	19,189	19,956	20,280	20,549	
Percent Change	2.3	-5.4	6.3	4.0	1.6	1.3	2.6%
Non-Agricultural Employment							
Millions of Jobs	150.9	144.1	142.7	150.9	154.1	154.5	
Level Change	2.0	-6.9	-1.3	8.2	3.2	0.4	
Percent Change	1.4	-4.5	-0.9	5.7	2.1	0.3	1.3%
Consumer Price Index							
All Urban (1982-84=100)	255.7	257.4	262.7	269.8	277.1	283.8	
Percent Change	1.8	0.7	2.1	2.7	2.7	2.4	3.2%
Wage Rate							
Dollars Per Year	61,601	62,441	65,301	67,499	69,545	71,965	
Percent Change	3.2	1.4	4.6	3.4	3.0	3.5	3.8%
Personal Income							
Billions of Dollars	18,602	18,913	19,494	20,406	21,176	21,992	
Percent Change	4.4	1.7	3.1	4.7	3.8	3.9	5.7%
Before-Tax Corporate Profits							
Billions of Dollars	2,068	1,648	2,482	2,542	2,589	2,754	
Percent Change	0.2	-20.3	50.6	2.4	1.8	6.4	5.1%
Unemployment Rate							
Percent	3.7	8.0	7.9	4.3	3.6	4.0	6.3% avg
10-Year Treasury Note							
Percent	2.1	0.8	1.0	1.3	1.6	1.8	6.2% avg
Federal Funds Rate							
Percent	2.2	0.4	0.1	0.1	0.1	0.1	4.9% avg
NEW YORK CITY ECONOMY							
Real Gross City Product**							
Billions of 2012 Dollars	893.1	778.0	871.0	878.0	879.8	889.7	
Percent Change	3.5	-12.9	12.0	0.8	0.2	1.1	2.8%
Non-Agricultural Employment***							
Thousands of Jobs	4,655	4,305	4,518	4,648	4,721	4,777	
Level Change	99.6	-350.4	213.3	130.3	72.9	55.4	
Percent Change	2.2	-7.5	5.0	2.9	1.6	1.2	0.8%
Consumer Price Index							
All Urban (1982-84=100)	278.2	280.2	285.5	292.6	300.2	307.3	
Percent Change	1.7	0.7	1.9	2.5	2.6	2.4	3.4%
Wage Rate							
Dollars Per Year	95,796	92,507	94,855	97,984	100,297	102,540	
Percent Change	3.3	-3.4	2.5	3.3	2.4	2.2	4.6%
Personal Income							
Billions of Dollars	668.0	661.5	694.2	715.9	740.0	769.5	
Percent Change	3.6	-1.0	4.9	3.1	3.4	4.0	5.8%
NEW YORK CITY REAL ESTATE MARKET							
Manhattan Primary Office Market							
Asking Rental Rate****							
Dollars per Square Feet	79.8	71.7	76.7	79.3	81.2	83.1	
Percent Change	1.2	-10.2	7.1	3.3	2.4	2.3	2.3%
Vacancy Rate****							
Percent	11.1	17.6	14.0	13.9	14.2	13.2	10.5% avg

* *Compound annual growth rates for 1979-2018. Compound growth rate for Real Gross City Product covers the period 1980-2018.*

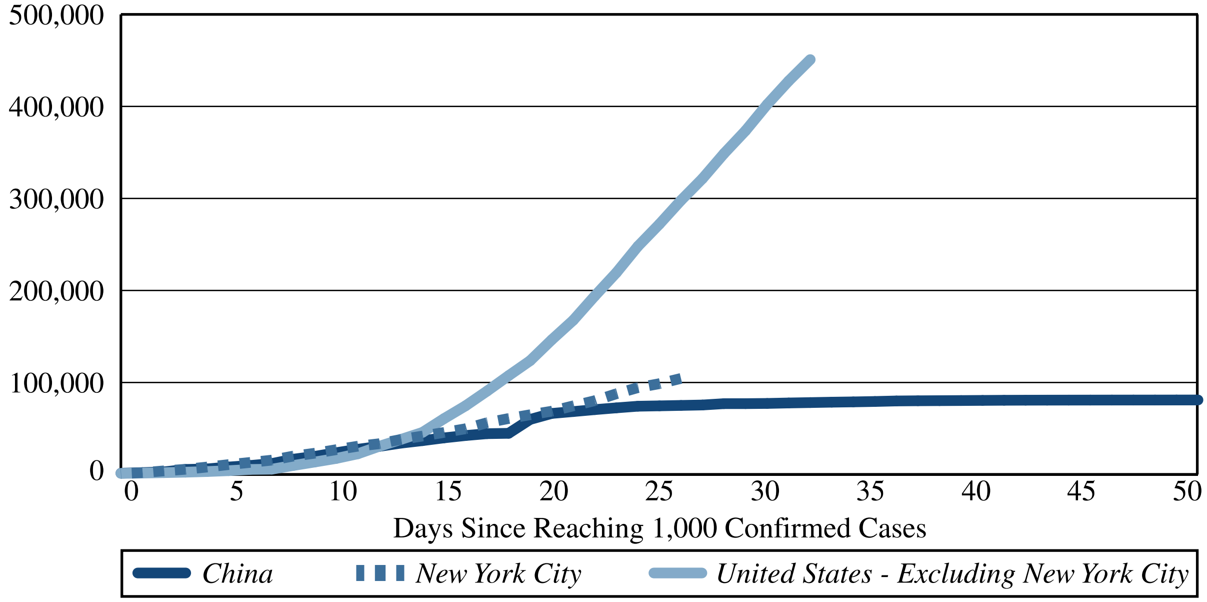
** *GCP estimated by OMB.*

*** *Annual averages derived from seasonally-adjusted quarterly forecasts.*

**** *Office market statistics are based on 1985-2019 data published by Cushman & Wakefield.*

EPIDEMIOLOGY: COVID-19 DYNAMICS

CUMULATIVE COVID-19 CASES BY COUNTRY



Sources: New York City data from New York City Department of Health and Mental Hygiene. "Coronavirus Disease 2019 (COVID-19) Daily Data Summary."
China and United States data from Dong, Ensheng, Hongru Du, Lauren Gardner. "An Interactive Web-Based Dashboard to Track COVID-19 in Real Time". The Lancet Infectious Diseases; last modified April 13, 2020.

The COVID-19 pandemic is a global and asynchronous shock to economic activity, with timing and extent of outbreaks varying by region. As of 4/12,[1] New York City had 104,410 confirmed cases or 19 percent of the United States total. New York City alone has recorded a higher number of infections than China.

A number of factors affect the initiation and progression of an infectious disease, including climate, travel, trade, migration, population density, health vulnerabilities of the resident population, the availability and effectiveness of vaccines and the implementation of public health countermeasures, such as social distancing.[2]

Public health researchers attempt to synthesize the above factors into an effective reproduction number R_e, which estimates the number of new cases created by an infected individual. An R_e above 1 denotes that a virus will spread in a population, while an R_e below 1 generates a decline in the infected population. Determinants of R_e can be divided into four primary factors:[3]

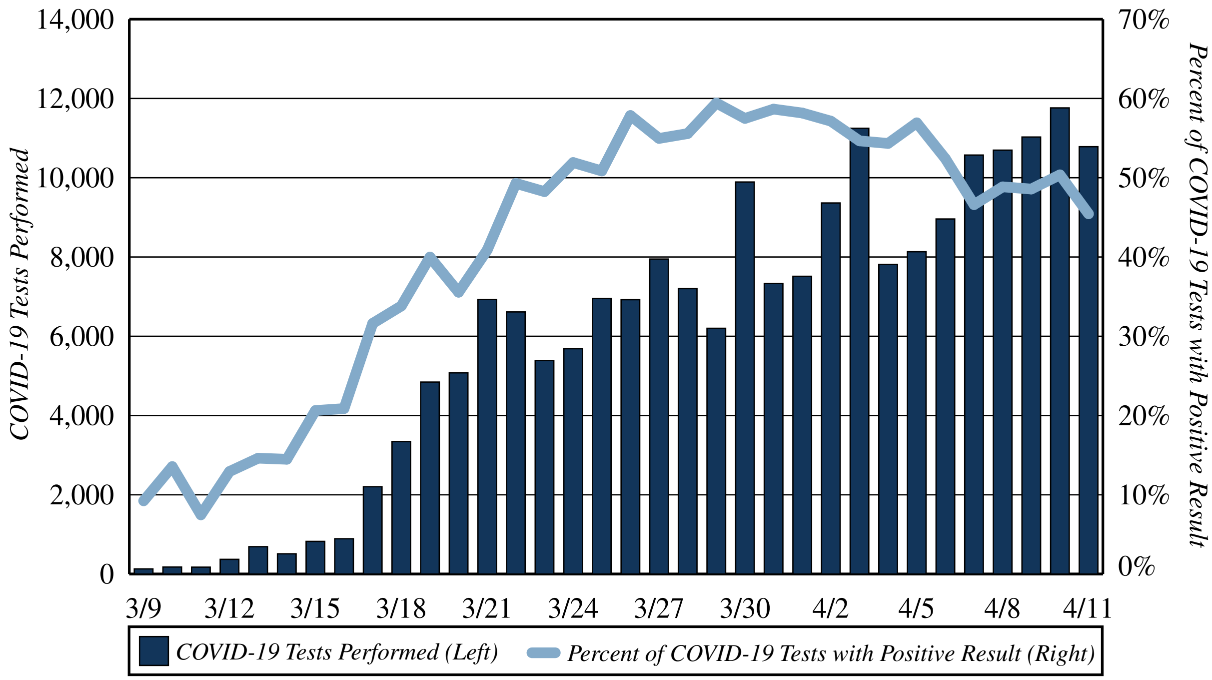
- **Number of Contacts Per Day:** a higher number of contacts per day increases transmission. Social distancing measures can reduce transmission.
- **Probability of Infection on Contact:** personal protective equipment (PPE) and behavioral interventions such as increased handwashing can reduce probability of infection.
- **Infectious Period:** testing and timely isolation of infected individuals can reduce the amount of time an infected person spends in the community.
- **Population Susceptibility:** vaccinations, if available, can reduce an individual's probability of contracting a disease.

1 Data are subject to revision and are based on reporting as of 4/12. New York City Department of Health and Mental Hygiene. "Coronavirus Disease 2019 (COVID-19) Daily Data Summary,"; last modified April 12, 2020. https://www1.nyc.gov/assets/doh/downloads/pdf/imm/covid-19-daily-data-summary-04122020-2.pdf

2 Semenza, Jan, Elisabet Lindgren, Laszlo Balkanyi, Laura Espinosa, My S. Almqvist, Pasi Penttinen, Joacim Rocklov. "Determinants and Drivers of Infectious Disease Threat Events in Europe." Emerging Infectious Diseases. (2016) Volume 22(4): 581-589. https://dx.doi.org/10.3201/eid2204.151073

3 Adapted from Yang, Wan, "The Global Coronavirus Outbreak: Update and Implications" (lecture, Columbia University Mailman School of Public Health, New York, NY February 14, 2020). https://columbia.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=9003f9fb-03fd-44b1-a28e-ab5f00e9e79e

NEW YORK CITY COVID-19 TEST VOLUME AND POSITIVE CASE RATE



Source: New York State Office of Public Heath: Bureau of Surveillance and Data Systems, Division of Epidemiology, Center for Community Health. "New York State Statewide COVID-19 Testing." Last modified April 13, 2020

The first New York City COVID-19 case was confirmed on 3/1. The number of new reported daily cases registered a peak of 7.5 thousand on 4/9. The percentage of positive tests remains around 45-50 percent due to limited testing capacity and restriction of testing to symptomatic cases. The high percentage is a signal of widespread and undetected infections as measurement is constrained. This has two implications: first, the number of cases increases with the number of administered tests and, second, it may imply a longer decay in reported cases and hospitalizations.[4]

New York State and New York City put in place increasingly strict social distancing measures to slow the pace of the infection, as outlined:

- **March 1st:** First confirmed case in New York City.
- **March 7th:** New York State announces State of Emergency.
- **March 10th:** New York State announces containment zone in New Rochelle.
- **March 16th:** New York City closes public schools.
- **March 17th:** New York City closes bars and restaurants, except for takeout and delivery.
- **March 22nd:** New York State implements statewide stay-at-home order NYS PAUSE.

4 Countries with more broadly applied testing policies, such as Iceland, Germany and South Korea, show a positive percentage below ten percent.

The impact of these measures on New Yorkers' lives has been dramatic, as evidenced by the statistics reported below.

Mobility, Transportation and Accommodation Indicators

Indicator	29-Feb	7-Mar	14-Mar	21-Mar	28-Mar	4-Apr
NYC Subway ridership (Weekly)	28,641,053	27,909,644	23,387,423	9,845,366	4,052,009	2,803,258
Traffic speeds: Manhattan Major Highways & Arterials (Miles Per Hour)	24.4	25.1	27.1	32.3	35.6	34.4
NYC Hotel Occupancy Rate	77.10%	72.10%	48.80%	16.80%	15.20%	18.30%
NYC Restaurant Revenue (Year-Over-Year % Change)	7.30%	-0.70%	-38.20%	-84.60%	-89.20%	-88.90%
Broadway Attendance*	244,515	253,453	—	—	—	—

* *Broadway attendance data not reported after the week ending March 7, 2020. New York State mandated closure of theaters on March 12, 2020.*

Sources: Subway data from Metropolitan Transportation Authority. "Turnstile Data." Last modified April 11, 2020. Traffic speed data from City of New York Department of Transportation. "DOT Traffic Speeds." Hotel occupancy from STR. "Press Releases." Last modified April 9, 2020. Restaurant data from Rally for Restaurants. "How COVID-19 is Affecting Restaurants." Last modified April 3, 2020. Broadway Attendance data is from The Broadway League. "Grosses – Broadway in NYC." Last modified March 8, 2020. Values from seasonally-adjusted quarterly estimates. Totals may not add up due to rounding.

The progression of the infection remains uncertain for several reasons:

- The estimated time between infection and symptom onset is 1-14 days.[5] Following symptom onset, severe cases may be hospitalized 1-2 weeks later, with deaths occurring 2-3 weeks after initial symptoms.[6] Therefore, the impact of social distancing can only be observed with a delay.

- Contagion models are characterized by wide confidence intervals due to the non-linear progression of the disease, data measurement issues, and the reliance on short and highly volatile histories.

- The virus seasonality is unknown.

- The relationship between looser social distancing and the likelihood of a resurgence of contagion remains unclear.

5 World Health Organization. "Q&A on coronaviruses (COVID-19)." Last modified April 8, 2020. https://www.who.int/news-room/q-a-detail/q-a-coronaviruses.

6 China CDC. "Vital Surveillances: The Epidemiological Characteristics of an Outbreak of 2019 Novel Coronavirus Diseases (COVID-19)." China CDC Weekly. (2020), Volume 2(8): 113-122 http://weekly.chinacdc.cn:80/en/zcustom/volume/1/2020 and Yang, Wan, Sasi Kandula, Jeffrey Shaman. "Eight-week model projections of COVID-19 in New York City". (2020).

TAX REVENUE[1]

Tax Revenue Summary

New York City's economy expanded at a solid pace through the first half of Fiscal Year 2020. As recently as January's Preliminary Financial Plan, tax revenue was expected to reach $64.4 billion in Fiscal Year 2020, growth of 4.6 percent compared to the prior year. Moderate growth of 2.0 percent was expected in 2021 bringing the City's total tax revenue to $65.6 billion.

The onset of the Coronavirus (COVID-19) pandemic has quickly made the January 2020 Plan forecast obsolete. NYC tax revenue is now expected to be $62.1 billion in 2020, $2.2 billion below the January Plan. Tax revenue in 2021 is expected to total $60.2 billion, over $5 billion below the January Plan forecast.

The impact of public health measures introduced to stem the growth of the pandemic is unprecedented and the economic damage, both in the short and long term, is not yet well understood. In the near term, the impact on the economy and tax revenues depends on how quickly and to what extent social distancing measures can be lifted, and on the risk of a resurgence of the contagion.

The economic and tax revenue forecast in this April's Executive Budget makes the assumption that the national economy and as such, the City's economy, will face a sharp contraction, never before seen, in the second quarter of calendar year 2020. There should be residual weakness in the third quarter, before economic growth returns gradually in the fourth quarter.

The first evidence of the pandemic effects on the New York City economy could be seen in the tourism industry as travel bans were put in place, international arrivals declined, and hotel occupancy started falling. As the pandemic reached the U.S. and the number of cases rose in New York City, occupancy rates fell below 20 percent. In comparison, in the months following 9/11, occupancy rates never fell below 60 percent. *Hotel tax* collections in the most recent quarter came in short of January Plan expectations. With travel limited, and hotels practically empty, hotel tax revenue in the fourth quarter of fiscal year 2020 is expected to be 70 percent below the prior year's, and $149 million below the January Plan estimate. Activity will gradually pick up in 2021, although occupancy rates and room rates remain well below historical averages.

The arts and entertainment sector deteriorated next, followed by food and retail trade, and all non-essential business affected by the NYS PAUSE executive order. By late March, spending at restaurants fell by over 90 percent below the prior year. Consequently, *sales tax* collections are expected to fall by over 40 percent in the fourth quarter of 2020, over $1 billion below the estimate in the January 2020 Plan. Sales tax collections are expected to pick up in 2021. However, employment and income losses are projected to leave collections over $1 billion below the January Plan estimate for the year.

The COVID-19 pandemic also cast financial markets into turmoil. Equity markets collapsed into bear market territory faster than in any prior correction, falling by as much as 30 percent from their peak. Ten-year Treasury bond prices surged as investor sought safety, pushing yields as low as 0.50 percent. Wall Street firms, which posted $28 billion in profits in 2019, are now expected to lose $6.4 billion in 2020.

Personal income tax collections are expected to decline in the last quarter of 2020, and in 2021. Job losses are projected to drag down personal income tax withholding as early as April, with an overall quarterly decline of 4.8 percent compared to the prior year. The decline would have been worse but for the Federal CARES Act which increased the unemployment insurance (UI) for those impacted by COVID-19 by an additional $600 per week through July. As the additional UI benefit ends in July and unemployment remains high, withholding levels fall back further for much of 2021, also driven by a 21.4 percent decline in the private sector bonus pool. Non-wage income, capital gains, business income, dividends, interest and rents are all expected to fall in liability year 2020, resulting in 11.7 percent decline in 2021 estimated payments. In total, personal income taxes fall by 0.7 percent in 2020 and by 11.9 percent in 2021 before rebounding in 2022. Over 2020 and 2021 personal income taxes have been reduced by $2.6 billion compared to the January 2020 Plan estimate.

1 All years referenced in the Tax section are City fiscal years unless otherwise noted.

Corporate income tax collections remained strong through the first three quarters of 2020, up 19 percent year-over-year. Payments are expected to drop in June as both Main and Wall Street businesses face losses. For the year, corporate tax revenue is expected to be up slightly from 2019, and only $44 million below the January Plan estimate. Corporate tax revenues are projected to decline 26 percent in 2021, over $800 million below the January Plan estimate.

While corporate income taxes remained strong over the past few years, *unincorporated business tax collections* weakened. The trend continued for the first three quarters of 2020, with collections down nearly six percent relative to the prior year. Collections are expected to decline further in the last quarter of 2020, bringing annual collections 15.3 percent below 2019 and $274 million below the January Plan estimate. Collections in 2021 are forecast to be $291 million below the January 2020 Plan.

Real Estate markets were already facing challenges earlier in the year, with both high-end residential and multifamily rentals dropping. Transaction activity is expected to stall in the fourth quarter of 2020 into the first quarter of 2021 as the City restricts non-essential activity. The drop in long-term interest rates is expected to boost mortgage activity in the near term. Overall *transaction taxes* fall by 21.6 percent in 2020, $304 million below the January Plan estimate. Even as markets open up activity and pricing levels are expected to lag as the general economic malaise reduces demand. Transaction taxes fall by an additional 12.8 percent in 2021 and remain $420 million below the January Plan estimate.

The *Property Tax* is expected to make up 48 percent of NYC tax revenue in 2020. The structure of the property tax system makes it very stable in times of considerable volatility and the forecast is marginally decreased in both 2020 ($60 million) and 2021 ($181 million). In the remainder of the forecast horizon, revenues are affected by lower market values stemming from the pandemic and ensuing recession.

April's Executive Budget is predicated on a successful control of the COVID-19 pandemic and a gradual return to normal economic conditions. Risks to the forecast are elevated due to the nature of the health shock, and the uncertainty regarding its progression and associated policy measures.

FEDERAL COVID-19 RELATED ACTIONS

In March of 2020, the Federal government approved three separate COVID-19 related bills which sought to provide financial relief to individuals and businesses: The Coronavirus Preparedness and Response Supplemental Appropriations Act of 2020, the Families First Coronavirus Response Act, and the Coronavirus Aid, Relief, and Economic Security (CARES) Act. The first bill primarily allocated funding to federal and state health agencies, improved COVID-19 testing availability, and created small business grants and loans. The second bill provided free COVID-19 testing to the uninsured, mandated two weeks of sick and family leave to certain employees, and enhanced SNAP, Medicaid and UI funding. The third bill permits the deferral of payroll tax payments for employers, provides more grants to small businesses, further sweetens UI payments and provides the recovery rebate for individuals. A fourth fiscal stimulus bill has been discussed but not yet passed at the time of this writing. The following provisions in these bills have direct impacts on NYC tax revenues:

Enhanced Unemployment Insurance (UI)

The CARES Act expanded UI for an additional thirteen weeks in addition to the existing 26 weeks of benefits which NYS already provides. Further, an additional $600 is to be added to weekly UI checks on top of NYS permitted amounts at the expense of the federal government. Lastly, UI benefits have been extended to many who are not typically eligible for them including gig economy workers and those unable to work because they are caring for children or the sick. All of these enhancements of the UI program result in more NYC PIT revenue because these benefits are taxed as income. The Executive Budget assumes that UI income will result in approximately $300 million in PIT revenues split between the last quarter of FY20 and the first quarter of 2021.

Recovery Rebates for Individuals

The CARES Act created a new income tax rebate of $1,200 for individuals and $2,400 for joint filers along with $500 per qualifying child. Phaseouts for these rebates begin at $75,000 for individuals, $112,500 for heads of household, and $150,000 for joint filers. Income thresholds are based on 2019 tax filings (or 2018 if 2019 is not available) and checks will be mailed or deposited directly without the need to request the rebate. While these rebates are not taxable, they will support consumer spending and therefore the sales tax. An estimated 3.5 million NYC filers will receive a total of $6.0 billion from this provision of the CARES Act.

Small Business Paycheck Protection Program (PPP)

The CARES Act created a $350 billion loan fund for businesses affected by the COVID-19 pandemic. Small businesses with 500 or fewer employees – including non-profits, veteran organizations, self employed individuals, sole proprietorships, tribal concerns, and independent contractors are eligible for the loans. The fund will provide businesses with funds to pay up to eight weeks of payroll costs, including benefits. Businesses may take out loans of up to $10 million and can cover payroll for employees making up to $100,000 a year in cash compensation. Loans will be fully forgivable when used to cover payroll costs, interest on mortgages, rent, and utilities. Loan forgiveness is based on the employer maintaining or quickly rehiring employees and maintaining salary levels. If a business keeps all of its employees on payroll after drawing a PPP loan, the entirety of the loan will be forgiven. If it still lays off employees, the forgiveness will be reduced by the percent decrease in the number of employees. If a business' total payroll expense on workers making less $100,000 annually in cash compensation decreases by more than 25 percent, loan forgiveness will be reduced by the same amount. If a business has already laid off employees, the loan can still be forgiven for the full amount of a business' payroll cost if it rehires the employees by June 30, 2020. Loan payments will also be deferred for six months, and no collateral and personal guarantees are required. Government and lenders will not charge any fee on the loans.

Pushing Back the April 15 Filing Deadline to July 15

In March of 2020 the Treasury Secretary shifted the filing deadline of 2019 Personal Income taxes from April 15 to July 15. The directive also pushed to July 15 quarterly payments due April 15. NYS and NYC April filing deadlines and payments are also moved to July 15. This action will impact NYC PIT on a cash plan basis but the July collections will accrue to fiscal year 2020.

NYS ENACTED BUDGET AND NYS COVID-19 RELATED ACTIONS

Decoupling from CARES Act Provisions for Certain Taxes

In addition to the items mentioned above, the CARES Act also repealed Tax Cuts and Jobs Act (TCJA) provisions in order to allow PIT payers to take certain business losses retroactive to 2018, and allow corporate taxpayers to deduct certain interest payments. Both of these provisions would have had the effect of lowering NYC revenues. However, the NYS FY 2021 Enacted Budget (TED Part WWW) decoupled the NYS and NYC tax codes from these provisions, leaving revenue intact.

Part WWW also decoupled State and City tax laws from certain amendments made by the CARES Act for the State and City business taxes. For the State's franchise tax and the City's business corporation tax (BCT), general corporation tax (GCT), and tax on unincorporated businesses (UBT), the increase in interest expense deductions under IRC 163(j) from 30 percent to 50 percent were disallowed.

CARES Act Provisions Affecting City Business Taxes

The NYS FY 2021 Enacted Budget has not de-coupled the UBT and GCT tax from CARES Act amendments to IRC Section 172, which now allows a 5-year carry back period for Net Operating Loss (NOL). The 5-year carryback period is applicable to taxable years 2018 through 2020.

Secondly, the City did not de-couple from the federal amendment on non-corporate excess business loss deductions that fall under the GCT and UBT tax codes.

Thirdly, the City did not de-couple BCT, GCT, or UBT from federal amendment to IRC Section 163(j) which allows for greater interest expense deductions for partners in a partnership starting in tax year 2020.

Lastly, the City did not de-couple from another component of the IRC Section 163(j) which allows BCT, GCT, and UBT taxpayers to use their 2019 taxable income to calculate their interest expense deduction for any taxable years beginning in 2020 rather than income in the current taxable year.

Lack of decoupling from the CARES Act provisions poses a, yet to be determined, downside risk to business tax revenue.

NYC Sales Tax Intercept for the Distressed Provider Assistance Account

The NYS Education, Labor and Family Assistance (ELFA) Budget (S. 7056-B PART ZZ) legislates that NYS will intercept a portion of NYC sales tax collections and redirect them to the New York State Agency Trust Fund, under a Distressed Provider Assistance Account, for the purpose of relief for financially distressed hospitals and nursing home facilities. This is in addition to the monthly MTA sales tax intercept that is placed into the NYS Agency Trust Fund which is already in effect. The Comptroller will withhold a portion of sales tax collections, penalties and fees, in the amounts of $200M in quarterly installments on January 15, April 15, July 15, and October 15. The comptroller will defer withholding the total value of the withholdings that would have occurred on April 15, 2020, July 15, 2020, October 15, 2020 and January 15, 2021 until January 15, 2021. At this time, the full $200M will be withheld and the normal quarterly installments will occur thereafter. The cost to the City revenue will be $250 million in fiscal year 2021 and $150 million in fiscal year 2022, for a total cost of $400 million.

2020 and 2021 Tax Revenue Forecast
($ in Millions)

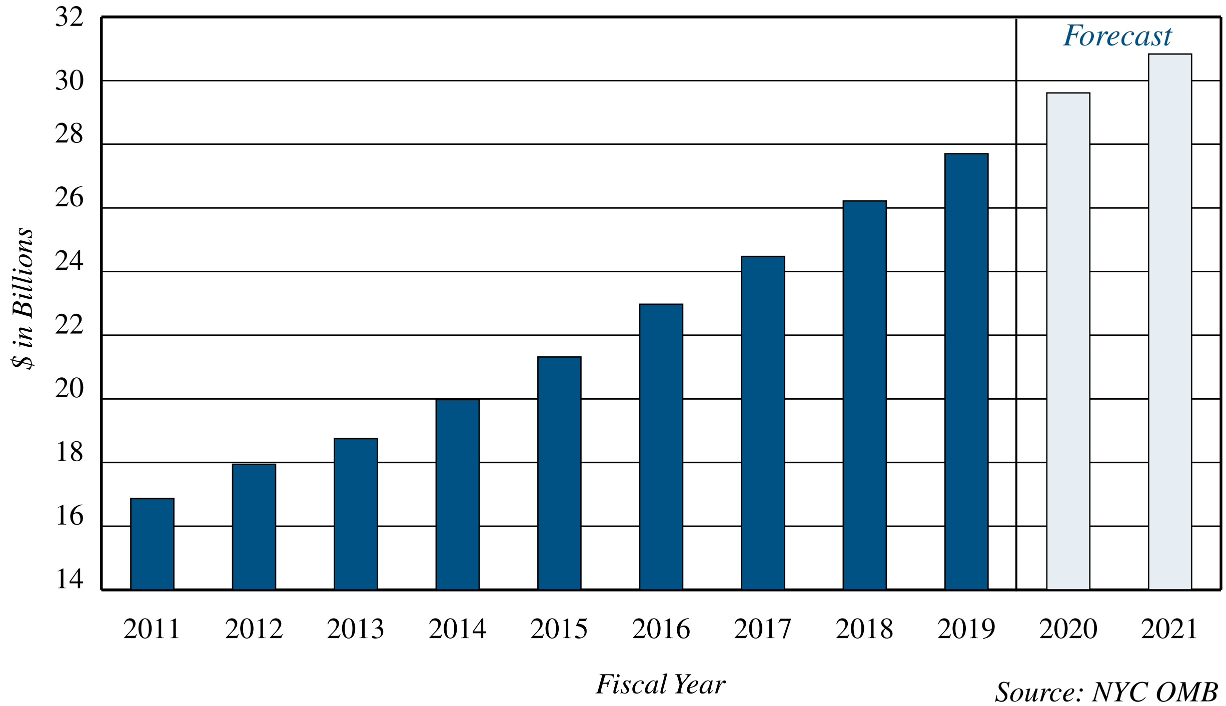
Tax	2020	2021	Increase/(Decrease) From 2020 to 2021 Amount	Increase/(Decrease) From 2020 to 2021 Percent Change
Real Property	$29,612	$30,834	$1,222	4.1%
Personal Income	13,253	11,671	(1,582)	(11.9%)
Business Corporation[1]	4,279	3,161	(1,118)	(26.1%)
Unincorporated Business	1,719	1,782	63	3.7%
Sales and Use	7,213	7,264	51	0.7%
Real Property Transfer	1,131	1,044	(87)	(7.7%)
Mortgage Recording	942	764	(178)	(18.9%)
Commercial Rent	864	838	(26)	(3.0%)
Utility	349	363	14	4.0%
Hotel	489	518	29	5.9%
Cigarette	27	26	(1)	(3.7%)
All Other	1,071	833	(238)	(22.2%)
Subtotal	**$60,949**	**$59,098**	**($1,851)**	**(3.0%)**
STAR Aid	165	167	2	0.9%
Tax Audit Revenue	999	921	(78)	(7.8%)
Total (After Tax Program) †	**$62,113**	**$60,186**	**($1,927)**	**(3.1%)**

1. Business Corporation Tax includes both General Corporation and Banking Corporation tax revenues.

† Totals may not add due to rounding.

REAL PROPERTY TAX

REAL PROPERTY TAX 2011 - 2021



Distribution of Property Parcels by Class

	Parcels*	Percentage Share
Class 1	699,063	65.02%
Class 2	277,688	25.83%
Class 3	397	0.04%
Class 4	97,994	9.11%
Citywide	1,075,142	100.00%

* *FY 2020 final roll*

Real property tax revenue is projected to account for 51.2 percent of total tax revenue in 2021, or $30.834 billion.

2020 Forecast: Property tax revenue is forecast at $29.612 billion, growth of 6.9 percent over the prior year, $60 million below January 2020 Plan.

In 2020, collections through March have come in $49 million below the January 2020 Plan. For the year, a total shortfall of $60 million below January 2020 Plan is expected as a result of higher reserves and lower lien sale proceeds as the Department of Finance delayed the annual tax lien sale into the following year in response to the COVID-19 emergency. Around 94 percent of property tax revenue had already been collected through February, prior to the first reported case of COVID-19 in New York City on March 1st.

2021 Forecast: Property tax revenue is forecast at $30.834 billion, growth of 4.1 percent over the current year, $181 million below January 2020 Plan. The changes reflect an increase in delinquencies by $180 million due to the economic contraction resulting from the COVID-19 pandemic and an increase in the reserve for other uncollectible taxes by $33 million, offset by an increase in lien sale proceeds of $32 million from the delayed lien sale.

In 2021, the levy is expected to increase $1.8 billion to $33.4 billion, growth of 5.6 percent over the current year.

The property tax levy forecast is based on the 2021 tentative roll released in January wherein citywide total billable assessed value increased by $17.2 billion to $273.8 billion, growth of 6.7 percent. In January 2020 Plan, the tentative roll was expected to be reduced by $3.7 billion as a result of tax commission actions, Department of Finance change-by-notice, and completion of exemption processing. However, in response to the ongoing pandemic, the tax commission has delayed its spring hearings. This change is expected to lower the tentative-to-final roll reductions to $2.8 billion in billable assessed value, resulting in a $101 million addition to the levy forecast from January 2020 Plan. This increase in levy is expected to subsequently be offset by an increase in the cancellations of a similar amount as the tax commission resumes its hearings in the fall. Citywide, total billable assessed value on the 2021 final roll is forecast to increase $14.3 billion over 2020 to $271.8 billion, growth of 5.6 percent.

On the 2021 tentative roll, Class 1 billable assessed value increased 5.4 percent over the prior year. With an estimated tentative-to-final roll reduction of $149 million, billable assessed value on the final roll is expected to grow 5.0 percent, higher than last year's growth of 4.0 percent.

Class 2 billable assessed value on the tentative roll grew 7.3 percent. With an estimated tentative-to-final roll reduction of $1.3 billion, billable assessed value growth on the final roll is expected to be 6.0 percent, lower than last year's growth of 8.8 percent.

On the tentative roll, Class 3 (utilities) properties saw billable assessed value growth of one percent. After the assessments for Class 3 special franchise properties are completed by the New York State Office of Real Property Tax Services, Class 3 billable assessed value growth on the final roll is expected to be 2.7 percent.

Class 4 billable assessed value on the tentative roll grew 7.2 percent. With an estimated tentative-to-final roll reduction of $1.7 billion, billable assessed value growth on the final roll is expected to be 5.7 percent, similar to the prior year's growth.

2022 through 2024 Forecast: Class 1 billable assessed value is forecast to grow at 4.9 percent in 2022 and average an annual growth of 4.8 percent from 2023 through 2024.

Within Class 2, large Class 2 properties are expected to see a slowdown in market value due to the impact of the pandemic on rent rolls – with the overall market value growth dropping to zero percent in 2022 and remaining flat in 2023 before returning to a slow growth of one percent in 2024.

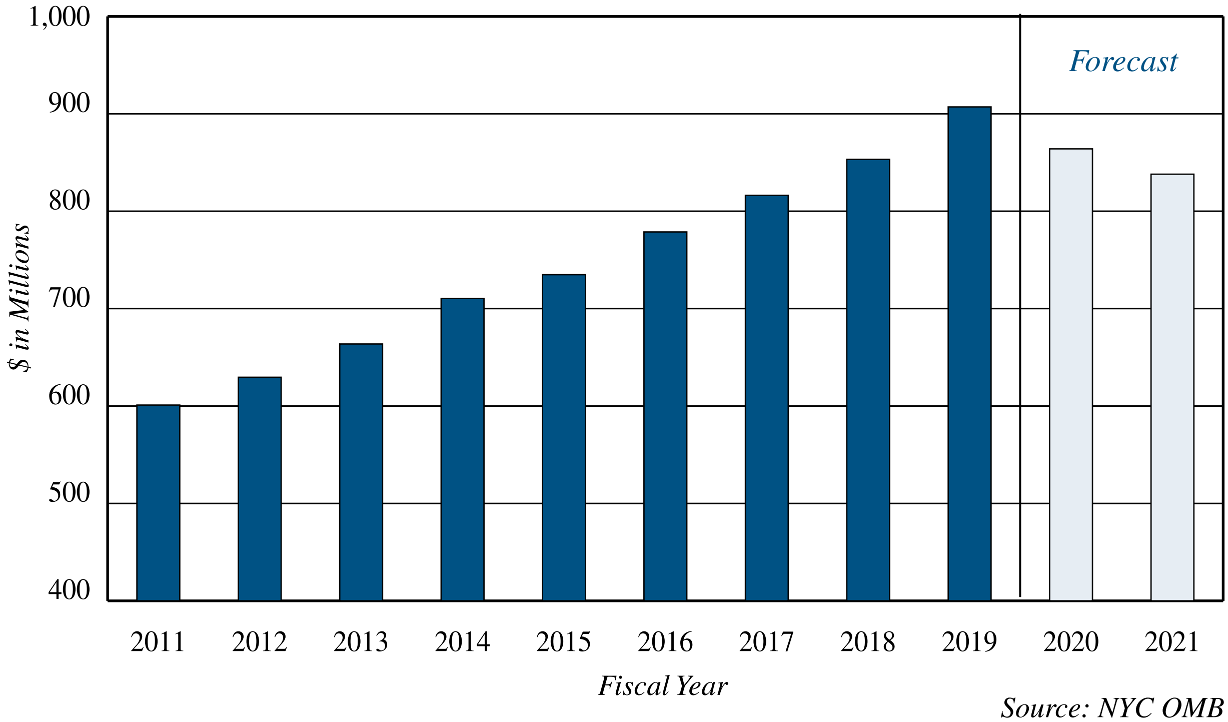
Class 3 billable assessed value growth is forecast at an annual average of one percent from 2022 through 2024.

Within Class 4, the market value for hotels, stores, theaters, and cultural and recreation is expected to fall, resulting in an overall Class 4 market value drop of five percent in 2022. Market value remains flat in 2023 before returning to slow growth at one percent in 2024.

Slower market value growth in the out-years partially offsets the existing 'pipeline' of deferred assessment increases yet to be phased in, resulting in lower levy growth. Levy growth is expected to average 2.3 percent from 2022 through 2024. In addition, the economic impact from COVID-19 is expected to increase the reserve for uncollectible taxes. Delinquencies in 2022 are expected to increase by $210 million over January 2020 Plan. Revenue growth is forecast to average 2.6 percent from 2022 through 2024. As a result, property tax revenues are forecast to be below the January 2020 Plan by $365 million, $420 million and $698 million in 2022, 2023 and 2024, respectively.

COMMERCIAL RENT TAX

COMMERCIAL RENT TAX 2011 - 2021



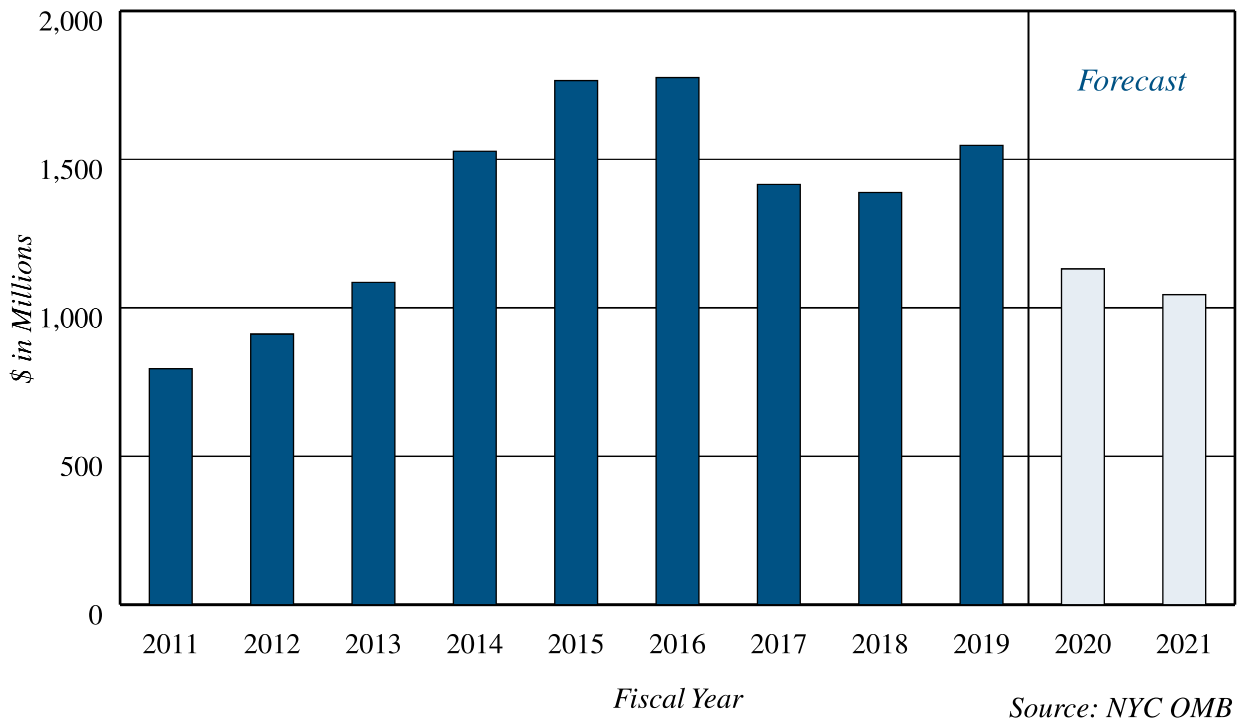
The commercial rent tax is projected to account for 1.4 percent of total tax revenue in 2021, or $838 million.

2020 Forecast: Commercial rent tax revenue is forecast at $864 million, a decrease of 4.7 percent over the prior year and a reduction of $16 million compared to the January Plan. Year-to-date collections through March are in line with the January plan, but down 3.0 percent over the prior year. Collections are expected to drop significantly in the fourth quarter by 10.0 percent compared to the prior year, reflecting the impact from the COVID-19 shut-down. Projections for reduced office using employment and lower demand (reflected in lower midtown and downtown commercial asking rents) should bring new leasing activity to a halt for the remainder of the year. In addition, commercial properties in deeply affected industries, such as entertainment and retail, risk breaking leases or missing tax payments. However, many commercial rent leases span multiple years, so it unlikely there will be a dramatic reduction in revenue beyond the anticipated drop for the coming months where stay-at-home orders have temporarily stalled economic activity.

2021 Forecast: Commercial rent tax revenue in 2021 is forecast at $838 million, a decrease of 3.0 percent from 2020 and a reduction of $59 million from the January plan. This reduction is based on expected decreases for midtown and downtown asking rents and office using employment in 2021, with a drop primarily in the first quarter while economic activity for affected industries will likely remain more or less stalled. Rents and office using employment should begin to increase again after 2021, allowing commercial rent revenue to slowly recover. Yet, the amount of revenue forecast for these subsequent years is lower than originally anticipated as there will likely be a smaller base of properties with leases from the prior years. Ultimately, commercial rent tax revenue is estimated to grow again at an average annual rate of 4.5 percent in 2022 through 2024.

REAL PROPERTY TRANSFER TAX

REAL PROPERTY TRANSFER TAX 2011 - 2021



The real property transfer tax (RPTT) is projected to account for 1.7 percent of total tax revenue in 2021, or $1.044 billion.

2020 Forecast: Real property transfer tax revenue is forecast at $1.131 billion, a decrease of 26.9 percent from the prior year, and $205 million below the January 2020 Plan estimate.

Revenue from residential transactions is forecast to decline 19.3 percent in FY20. The current forecast reflects a significant drop off in the volume of transactions across all residential property types due to the severe COVID-19 related public health restrictions that limited real estate brokers from showing homes. In addition, prospective buyers and sellers are holding off until the economic damage becomes clearer.

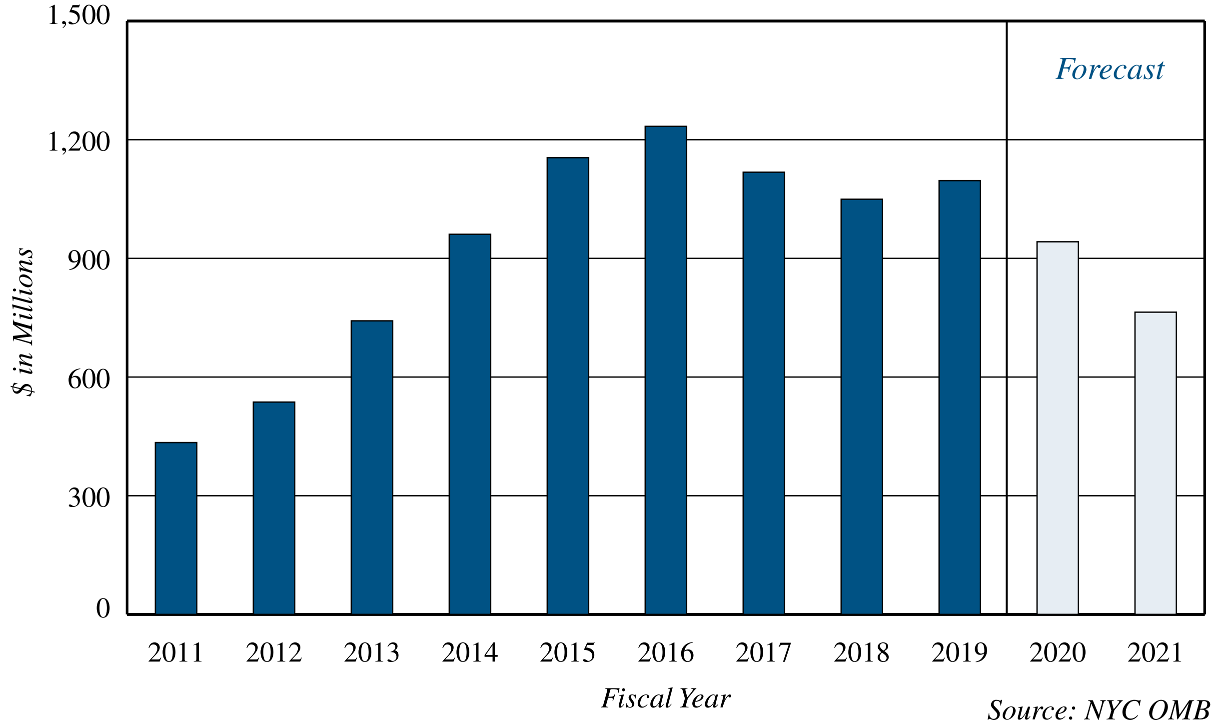
Even before the onset of this pandemic, there was weakness in the residential market from a glut of luxury condos and economic uncertainty over global trade. Collections are expected to weaken significantly in the fourth quarter by 69.2 percent compared to the prior year, reflecting the impact from the COVID-19 shut-down.

Revenue from commercial transactions is forecast to decline 33.8 percent in FY20, representing a dearth of new contract closings due to uncertainty surrounding current economic conditions. Year-to-date collections through March was already weak, down 25.2 percent over the prior year, specifically due to a decline in multi-family rental buildings. Collections are expected to fall significantly in the fourth quarter by 61.4 percent compared to the prior year, reflecting the impact from the COVID-19 shut-down and the concurrent economic contraction that is resulting in significant job losses.

2021 and beyond: Real property transfer tax is forecast at $1.044 billion, a decrease of 7.7 percent from the current year, $252 million below the January 2020 Plan estimate. That decrease is due to a 24.9 percent contraction in residential RPTT revenue. This accounts for the weakness in the residential market spilling from the last quarter of 2020 into the first two quarters of 2021. As the COVID-19 crisis is mitigated over the next few months, normalcy is expected to return and the pent-up demand for residential real estate is expected to result in a bounce-back in volume. Residential revenue is expected to increase 41.9 percent in 2022, the largest Y/Y growth in residential RPTT revenue since 2004. Growth is forecast to average 4.0 percent in 2023 and 2024. Commercial RPTT revenue is expected to rebound and stabilize sooner with a growth of 11.1 percent in 2021, and average 2.2 percent growth from 2022 to 2024.

MORTGAGE RECORDING TAX

MORTGAGE RECORDING TAX 2011 - 2021



The mortgage recording tax (MRT) is projected to account for 1.3 percent of total tax revenue in 2021, or $764 million.

2020 Forecast: Mortgage recording tax revenue is forecast at $942 million, a decline of 14.1 percent from the prior year and $99 million below the January 2020 Plan estimate. Much of the decline mirrors the weakness seen in the residential and commercial RPTT. This slump is partially offset by a projected expansion of refinancing activity.

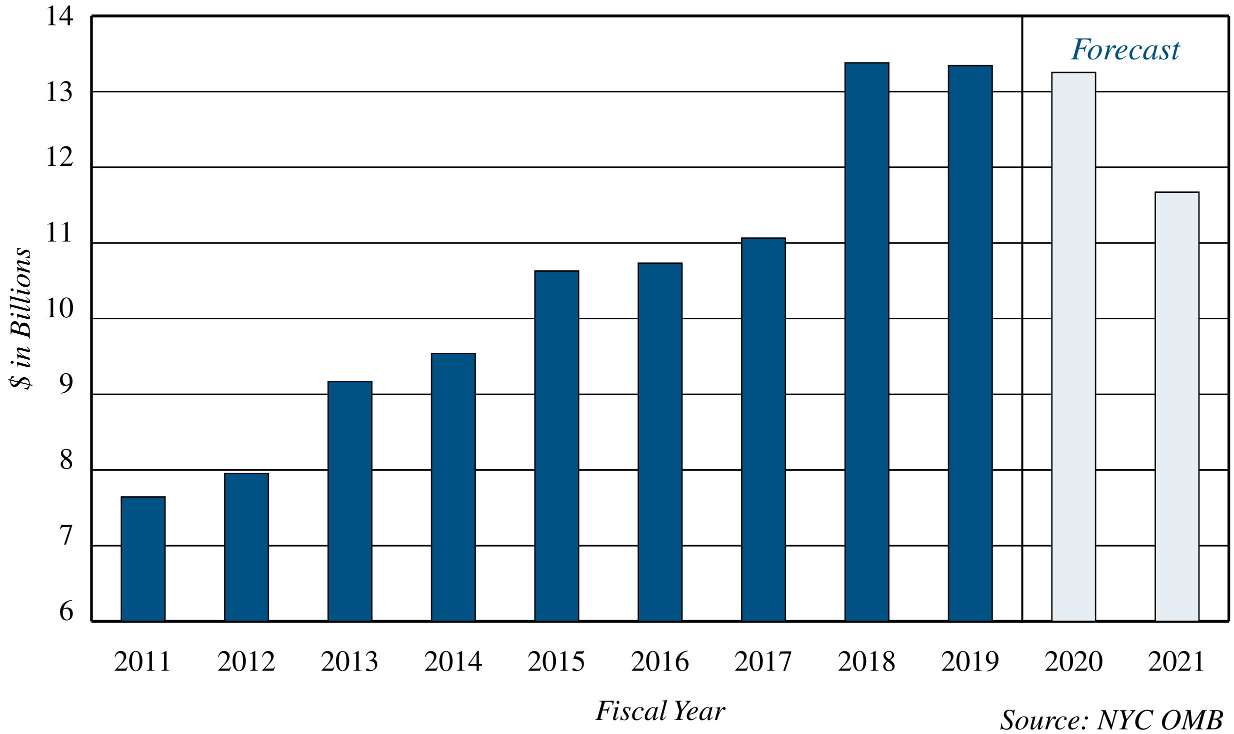
Revenue from residential transactions is forecast to decline 11 percent in 2020. Year-to-date collections through March is up 10.7 percent over the prior year reflecting the increase in refinancing activity. However, collections are expected to plunge significantly in the fourth quarter by 76 percent compared to the prior year, mirroring residential RPTT that reflects the impact from the COVID-19 shut-down.

Revenue from commercial transactions is forecast to decline 16 percent in FY20. Year-to-date collections through March was already weak, down 6.4 percent over the prior year. Collections are expected to drop in the fourth quarter by 44.7 percent compared to the prior year, mirroring commercial RPTT.

2021 and beyond: Mortgage recording tax is forecast at $764 million, a decline of 18.9 percent from the current year, $168 million below the January 2020 Plan estimate. Revenue from residential mortgage recordings is forecast to fall 23.4 percent and revenue from commercial mortgage recordings is forecast to decline 16.0 percent. Both of these forecasts represent the flow through of extreme weakness in transaction volume. Similar to RPTT, residential MRT revenue is expected to increase 41.9 percent in 2022 and average 4.1 percent growth in 2023 and 2024. Commercial MRT revenue is forecasted to decrease 16.0 percent in 2021 and remain flat from 2022 thru 2024, as the refinancing activity slows-down from the prior levels.

PERSONAL INCOME TAX

PERSONAL INCOME TAX 2011 - 2021



The personal income tax (PIT) is projected to account for 19.4 percent of tax revenue in 2021, or $11.671 billion.

2020 Forecast: PIT revenue is forecast at $13.253 billion, a drop of 0.7 percent, and $481 million below the January 2020 Plan estimate. Strong collections in the first three quarters of the year are making up for what is projected to be a significant drop in withholding and estimated payments.

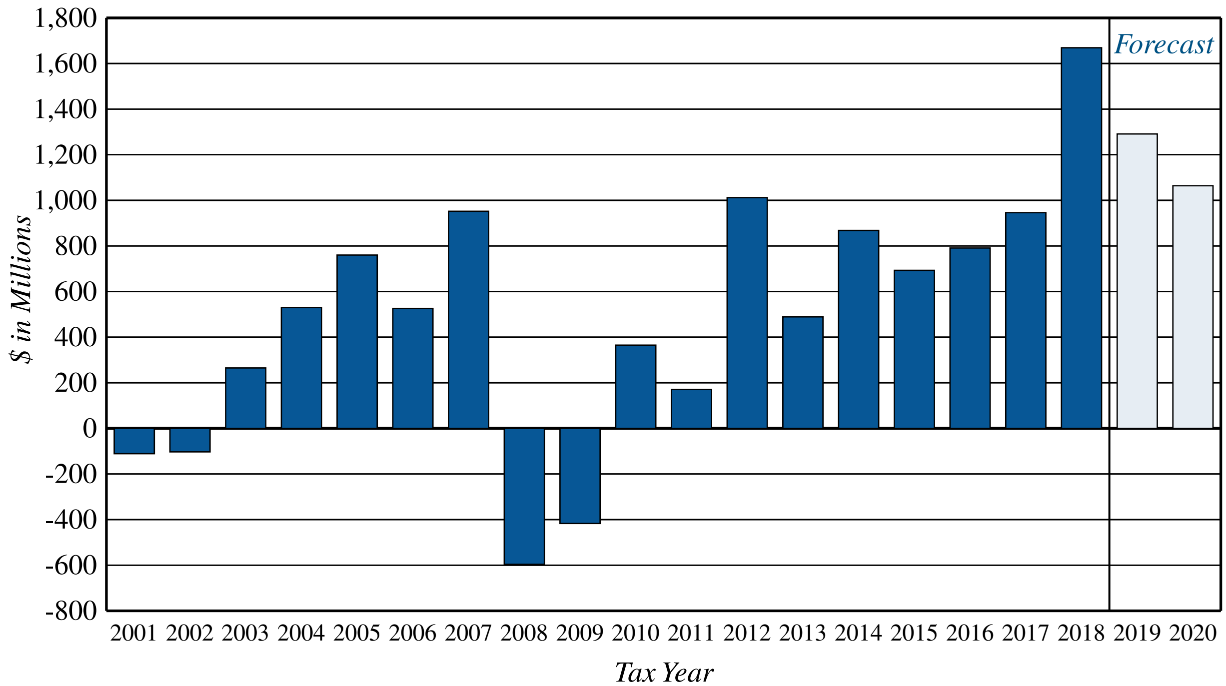
Withholding in 2020 is forecast to increase 4.0 percent over the prior year. In the first three quarters of the year withholding collections had increased 6.6 percent from a year ago. Total wage earnings are expected to drop 11.5 percent in the fourth quarter due to steep job losses, but this drop is blunted by UI supplemental income in the CARES Act. As a result, withholding is projected to fall 4.8 percent in the fourth quarter relative to a year ago.

The bonus portion of withholding, which wrapped up before businesses were ordered to close in NYC showed solid growth and maintained a high overall level. Total bonus withholding increased by 3.3 percent over the prior year to $1.3 billion in revenue. This level is only beat by the historically high 2018 bonus season which was buoyed by one-time payments related to the repatriation of non-qualified deferred compensation.

Estimated payments in 2020 were always expected to decrease from the prior year but the expected decline deepens to 12.9 percent in the Executive Budget. The decline is partially attributable to lower than expected collections in January but can mostly be accounted for by a downward revision in installment payments triggered by fewer real estate transactions, stock market volatility, and overall reduction in non-wage income. Payments usually due in April have been delayed to July 15 but will accrue to 2020.

Settlement Payments which include extensions, finals, offsets, and refunds are projected to decrease $392 million in 2020. Extension payments are expected to drop 23.8 percent from 2019 levels due to weakness in the real estate market. Refunds are projected to increase by 1 percent while offset payments are set to decrease by 3.4 percent.

SETTLEMENT PAYMENTS



Note: Adjusted for the City/State final return reconciliation. *Source: NYC OMB*

2021 Forecast: Personal income tax revenue is forecast at $11.671 billion, a decrease of 11.9 percent over the current year, and $2.1 billion below the January 2020 Plan estimate. This contraction reflects a reduction in both withholding and estimated payments.

Withholding in 2021 is forecast to decrease 12.0 percent over the prior year; a year over year drop larger than in either of the past two recessions. Overall withholding levels are not expected to return to the 2020 watermark until 2023. For the July-November base withholding calculation period, collections are forecast to decrease 11.2 percent. In the December-March period, bonus withholding is forecast to decrease 21.4 percent.

Estimated payments in 2021 are expected to decrease 11.7 percent as all non-wage income components including capital gains, business income, dividends, interest, and rents are expected to decline in liability year 2020. The contraction of much of the economy contributes to these losses but the steep drop in equities markets and in real estate are the main drivers, along with the business closures required by social distancing.

Extension payments are forecast to decrease 4.3 percent in 2021. Total settlements are expected to decrease 7.8 percent, dragged down by a decrease in offsets and finals.

Personal income tax revenue is forecast to average growth of 7.0 percent from 2022 through 2024 after an 11.2 percent bounce back in 2022. Total revenues do not return to their 2020 levels until 2023.

Personal Income Tax Collections By Component
($ in Millions)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 f	2021 f
Withholding	$6,096	$6,157	$6,542	$6,976	$7,513	$7,753	$8,169	$9,360	$9,641	$10,030	$8,827
Estimated Payments[1]	2,110	2,109	2,893	2,680	3,167	3,021	2,633	3,717	3,129	2,725	2,406
Final Returns	317	327	382	380	429	439	408	423	541	511	427
Other[2]	302	527	576	810	837	896	1,038	1,133	1,332	1,299	1,170
Gross Collections	$8,825	$9,119	$10,393	$10,846	$11,946	$12,109	$12,248	$14,633	$14,643	$14,565	$12,833
Refunds	(1,181)	(1,166)	(1,225)	(1,307)	(1,317)	(1,376)	(1,183)	(1,253)	(1,299)	(1,312)	(1,162)
Net Collections	$7,644	$7,953	$9,168	$9,539	$10,629	$10,733	$11,064	$13,380	$13,344	$13,253	$11,671
Less TFA Retention											
Total	$7,644	$7,953	$9,168	$9,539	$10,629	$10,733	$11,064	$13,380	$13,344	$13,253	$11,671

1 Includes extension payments.

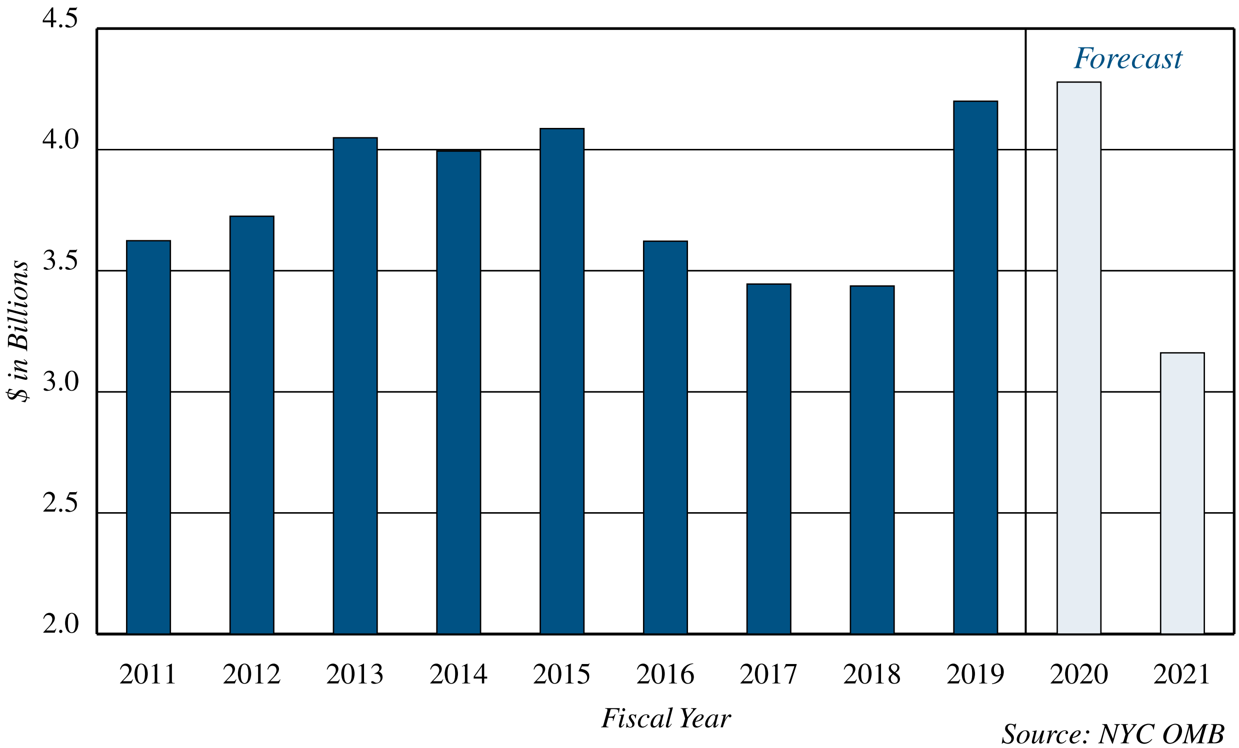
2 Offsets, charges, assessments less City audits.

f = Forecast.

Totals may not add due to rounding.

BUSINESS CORPORATION TAX

BUSINESS CORPORATION TAX 2011 - 2021



Source: NYC OMB

The business corporation tax is forecast to account for 5.3 percent of the total tax revenue in 2021, or $3.161 billion.[1]

2020 Forecast: Business corporation tax revenues are forecast to grow 1.9 percent to $4.279 billion, a smaller growth in collections given the rebound witnessed in 2019, and a decline of $44 million from the January 2020 Plan.

In 2020, business corporation tax gross collections year-to-date through March increased 14 percent over the prior year. Corporate tax collections during the first three quarters of fiscal year 2020 continued at a similar pace witnessed during fiscal year 2019. The increase in corporate collections is attributable to a healthy economic growth in New York City's economy during tax year 2019 along with changes in behavior following the passage of the Federal Tax Cuts & Jobs Act (TCJA). Prior to fiscal year 2019, the City's corporate revenues declined for three consecutive years.

Tax collections in the finance sector this fiscal year-to-date through March reflect a strong Wall Street performance in calendar year 2019. NYSE member firms maintained high levels of profitability in calendar year 2019 with pre-tax profits at $28.1 billion, while non-finance tax collections also kept pace with growth in corporate profits. It is possible that the passage of TCJA generated new business investment, incentivized unincorporated firms to incorporate and boosted economic activity, which helped the City's corporate tax revenues as well. The City's corporate tax revenues may have also benefited from the Global Intangible Low Taxed Income (GILTI). Corporate tax collections are forecast to decline approximately 32 percent in the final quarter of the fiscal year from the same prior year period, dampening the growth seen in collections for the first three quarters of the fiscal year. The primary factor in the lower forecast for the fourth quarter is the impact of COVID-19 on corporate collections. In June, businesses are expected to make their current calendar year 2020 estimated payments, which are expected to decline markedly.

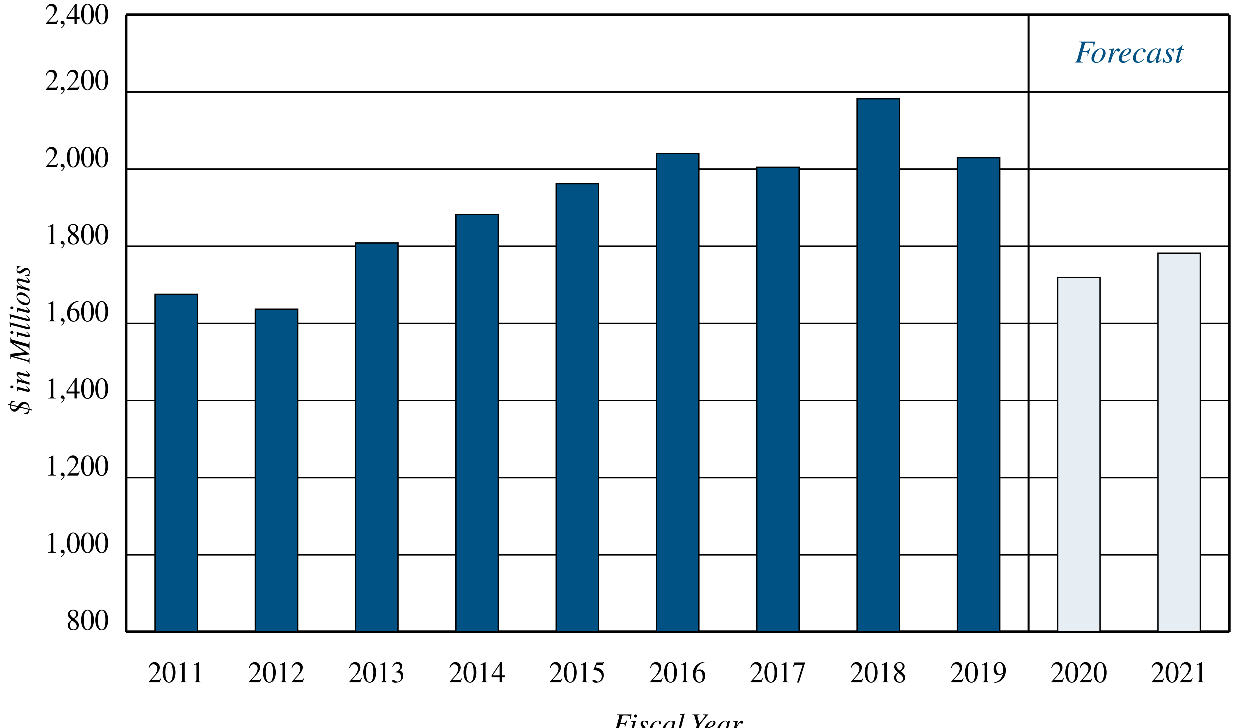
1 Business corporation tax collections for reporting purposes include S-corporations under the general corporation tax.

2021 Forecast: Corporate tax collections are forecast to decline 26.1 percent, to $3.161 billion in 2021, a decline of $837 million from the January 2020 Plan. The significant decline in corporate collections is attributed to a worsening economic situation in the City due to the COVID-19 pandemic and the resulting lockdown, which is expected to take a toll on the City's tax revenues during fiscal year 2021. Finance collections are forecast to decline by 24.5 percent in fiscal year 2021 as Wall Street firms lose $6.4 billion. Similarly, corporate profitability is also expected to drop in calendar year 2020 by 19.9 percent. Therefore, non-finance collections are forecast to decline by 18.4 percent in fiscal year 2021.

Corporate collections are forecast to rebound in 2022 with growth of 21.8 percent as the impact of COVID-19 wanes. Overall, fiscal 2022 through 2024 corporate collections are forecast to grow by an average of 8.3 percent on an annual basis.

UNINCORPORATED BUSINESS TAX

UNINCORPORATED BUSINESS TAX 2011 - 2021



Source: NYC OMB

Unincorporated business tax is projected to account for 3.0 percent of tax revenue in 2021, or $1.782 billion.

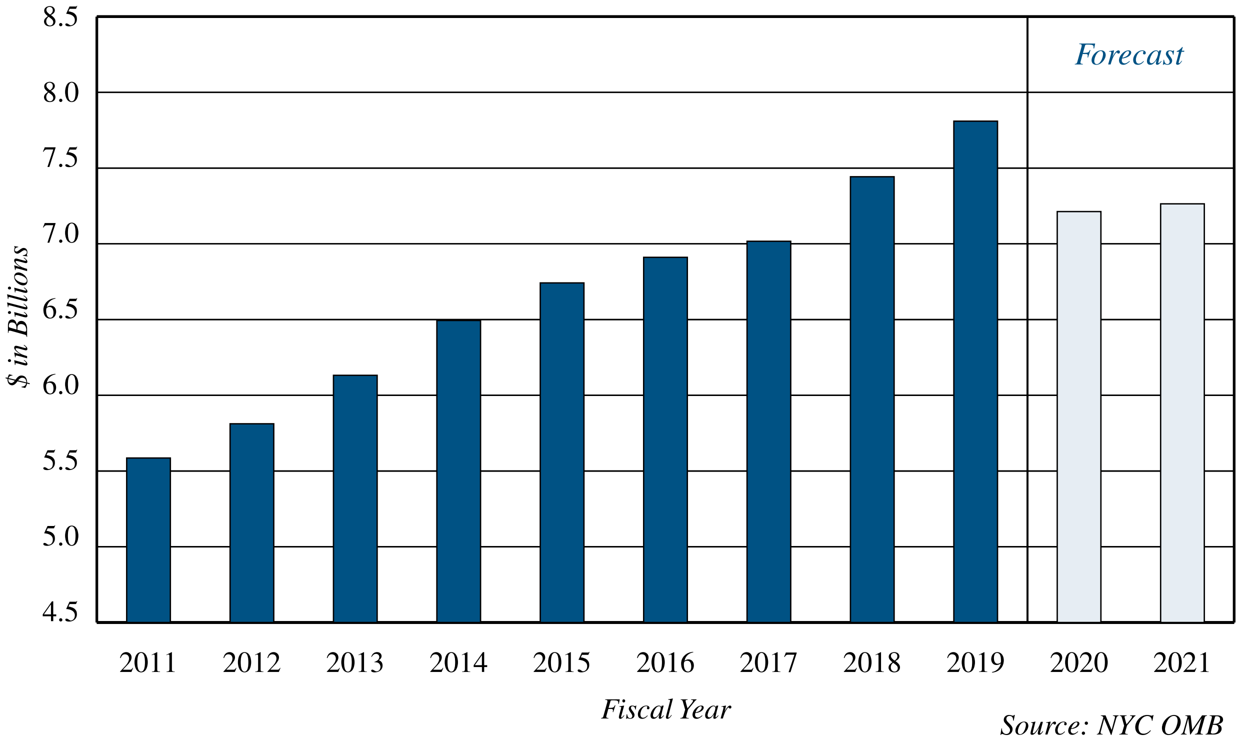
2020 Forecast: Unincorporated business tax revenue is forecast at $1.719 billion, a decline of 15.3 percent from the prior year, and a $274 million downward revision from the January 2020 Plan. Gross collections year-to-date through March declined 7.4 percent, a $113 million drop from the prior year. Lower tax payments in 2020 are the consequence of two main factors. First, collections are running on a lower base, the result of the prior year taxpayers' behavior change in response to the Tax Cut and Jobs Act (TCJA). A number of unincorporated businesses likely switched to corporations leading to the consistent decline in collections seen through March and likely to continue through the remainder of the fiscal year. Second, the impact of the COVID-19 outbreak is expected to result in additional declines of payments from March through the remainder of the fiscal year. It is projected that finance, real estate and service sectors (professional, accommodation and performing arts) are the major areas to suffer significant losses. The total COVID-19 outbreak is forecast to be responsible for about approximately the half of the total revenue decline from the January 2020 Plan that is occurring in the final quarter of the fiscal year.

Preliminary reports indicate that unincorporated business tax payments from partnerships (approximately ninety percent of total tax payments) have dropped significantly in the first three months of calendar year 2020. Finance, real estate and service sectors struggled with a 14.4 percent decline in the first three months of calendar year 2020 and over a 29 percent drop for the month of March alone. The March decline in payments may include downward pressure from the COVID-19 outbreak. Finance sector payments are expected to face challenges in the final quarter of fiscal year 2020 leading to a total decline of 19 percent for the fiscal year 2020, reflecting a large decline of Assets Under Management and weaker Wall Street returns. Non-finance sector tax payments are also forecast to have a double-digit decline in 2020. This is the result of many non-finance sectors nearly shutting down all activities, such as the hospitality industry, entertainment, food and beverage, and general retail.

2021 Forecast: Unincorporated business tax revenue is forecast at $1.782 billion, a growth of 3.7 percent over the prior year, a $291 million decline from the January Plan. This reflects moderate growth over the prior year's steep decline. Finance sector payments are forecast to have positive growth over the prior year. Non-finance sector payment growth is expected to be flat, reflecting the pace of the economic recovery. In 2022 through 2024, unincorporated business tax revenue is forecast to have annualized average growth of 5.7 percent.

SALES AND USE TAX

SALES TAX 2011 - 2021



Source: NYC OMB

The sales and use tax is projected to account for 12.1 percent of tax revenue in 2021, or $7.264 billion.

2020 Forecast: Sales tax revenue is forecast at $7.213 billion, a decline of 7.6 percent from the prior year including the STAR C reduction and the MTA State Intercept.[1] Sales tax collections year-to-date through March increased 4.8 percent over the same period the previous year. March collections declined 12.2 percent from last year. This is the result of COVID-19 impacting March sales activity, as individuals slashed discretionary spending.

While collections for the year were off to a strong start, supported by a healthy labor market and continued high levels of consumer confidence, the COVID-19 pandemic will have a significant effect on collections for the remainder of the fiscal year. In response to the outbreak, Governor Cuomo and Mayor de Blasio restricted large gatherings of more than 500 people on March 12, then lowered the restriction further to 50 people on March 16, closing museums, Broadway, and all music and sporting events. By the next week all non-essential businesses were ordered closed. This had far-reaching effects on NYC consumption, as many businesses gradually became either significantly limited or forced to shut down completely, curbing individuals' ability and willingness to spend on goods and services. Further dampening demand is the collapse of the tourism industry as domestic and international travel restrictions and social distancing drastically reduced activity.

1 The 2016-17 NYS Enacted Budget legislation enabled New York State to reduce 2019 collections by $150 million in order to recoup the savings New York City achieved through refinancing Sales Tax Assets Receivable Corporation (STARC) bonds. In 2016, 2017 and 2018 collections were reduced $50 million, $200 million and $200 million respectively, due to the repayments of the STAR C bonds. The 2019-20 NYS Enacted Budget legislation appropriates a portion of sales tax revenue generated from legislation that requires remote sellers making $500,000 in sales or 100 transactions (as NYS aligns with the SCOUTS Wayfair v. South Dakota decision), as well as online marketplaces such as Amazon (Part G of the 2019-20 NYS Enacted Budget), to collect and remit sales tax on sales to NYS residents for the purposes of the MTA, retroactive June 21, 2018. The amounts to be intercepted by the State are $127.5 million in SFY20, $170 million in SFY21 and increase 1 percent annually from SFY22 onward, and is taken in monthly installments. Without the STAR C payments and MTA State intercept, sales tax in fiscal year 2020 is expected to decline 7.4 percent.

Initial claims for unemployment insurance have skyrocketed in recent weeks and consumer confidence slumped in March to the lowest reading since July 2017. Consumer spending will most likely be heavily constrained through the end of fiscal year 2020 and into fiscal year 2021, as mandated social distancing practices and economic uncertainty will influence individuals to save and spend mainly on essentials including groceries, pharmaceutical items, and rent which are largely tax exempt. The Federal stimulus package should aid distressed individuals and help boost consumption to a degree, though the effect will probably be minor compared to the projected economic declines.

In order to estimate the impact of the outbreak on sales tax, industries were grouped based on the possible impact social distancing practices could have on them. Using industry taxable sales data from the 2019, a level of risk was applied to each industry's sales to determine the potential declines. As social distancing practices begin to subside, risk is gradually reduced. The forecast projects a drop of $1.141 billion from the estimate in the January Plan.

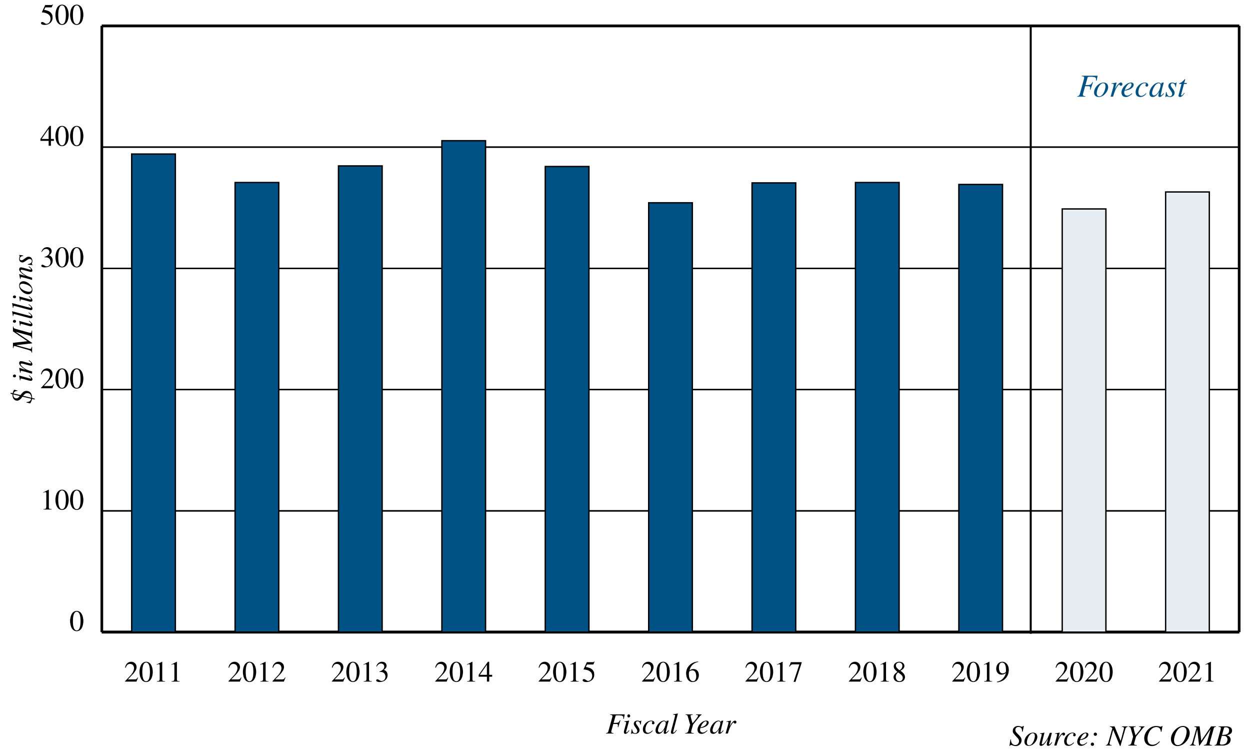
2021 Forecast: Sales tax revenue is forecast at $7.264 billion, growth of 0.7 percent over the current year including the MTA State intercept and the Distressed Provider Assistance Account intercept.[2] The forecast assumes that the COVID-19 pandemic is under control by the second quarter of fiscal year 2021 and social distancing and workforce limitations loosen leading to an uptick in consumer spending due to pent-up demand. Tourism is also expected to recover, though the global effects and duration of the pandemic may continue to hinder growth. In addition, growth may be subdued as the economy struggles to recuperate from substantial store closings, extensive unemployment, and wage declines. For these reasons, the 2021 forecast is projected to decline $1.356 billion ($1.106 billion prior the State MTA and Distressed Provider Assistance Account intercepts) from the previous plan.

From 2022 through 2024, sales tax revenue is forecast to average growth of 7.3 percent, including growth of 13.1 percent in 2022 as the recovery takes hold.

2 The NYS Education, Labor and Family Assistance (ELFA) Budget (S. 7056-B PART ZZ) legislates that NYS will intercept a portion of NYC sales tax collections and redirect them to the New York State Agency Trust Fund, under a Distressed Provider Assistance Account, for the purpose of relief for financially distressed hospitals and nursing home facilities. This is in addition to the monthly MTA sales tax intercept that is placed into the NYS Agency Trust Fund which is already in effect. The Comptroller will withhold a portion of sales tax collections, penalties and fees, in the amounts of $200M in quarterly installments on January 15, April 15, July 15, and October 15. The comptroller will defer withholding the total value of the withholdings that would have occurred on April 15, 2020, July 15, 2020, October 15, 2020 and January 15, 2021 until January 15, 2021. At which time, the full $200M will be withheld and the normal quarterly installments will occur thereafter. The cost to City revenue will be $250 million in 2021 and $150 million in 2022, for a total cost of $400 million. This act shall end two years after the effective date. Without the MTA and the Distressed Provider Assistance Account intercepts, sales tax collection growth is 4.1 percent

UTILITY TAX

UTILITY TAX 2011 - 2021



The utility tax is projected to account for 0.6 percent of total tax revenue in 2021, or $363 million.

2020 Forecast: Utility tax revenue is forecast at $349 million, a decline of 5.5 percent from the prior year, a decline of $30 million from January 2020 Plan. Year-to-date collections through March decreased 5.0 percent from the prior year, mostly attributable to decreases in natural gas and electric prices.

Fourth quarter utility tax revenue is forecast to be considerably lower than last year; this is due to the major slowdown in economic activity associated with COVID-19. With the mandated shutdown of non-essential businesses there is a decrease in major energy demand thus negatively impacting collections. In addition, there is a slowdown in energy demand due to one of the warmest winters experienced in recent years.[1]

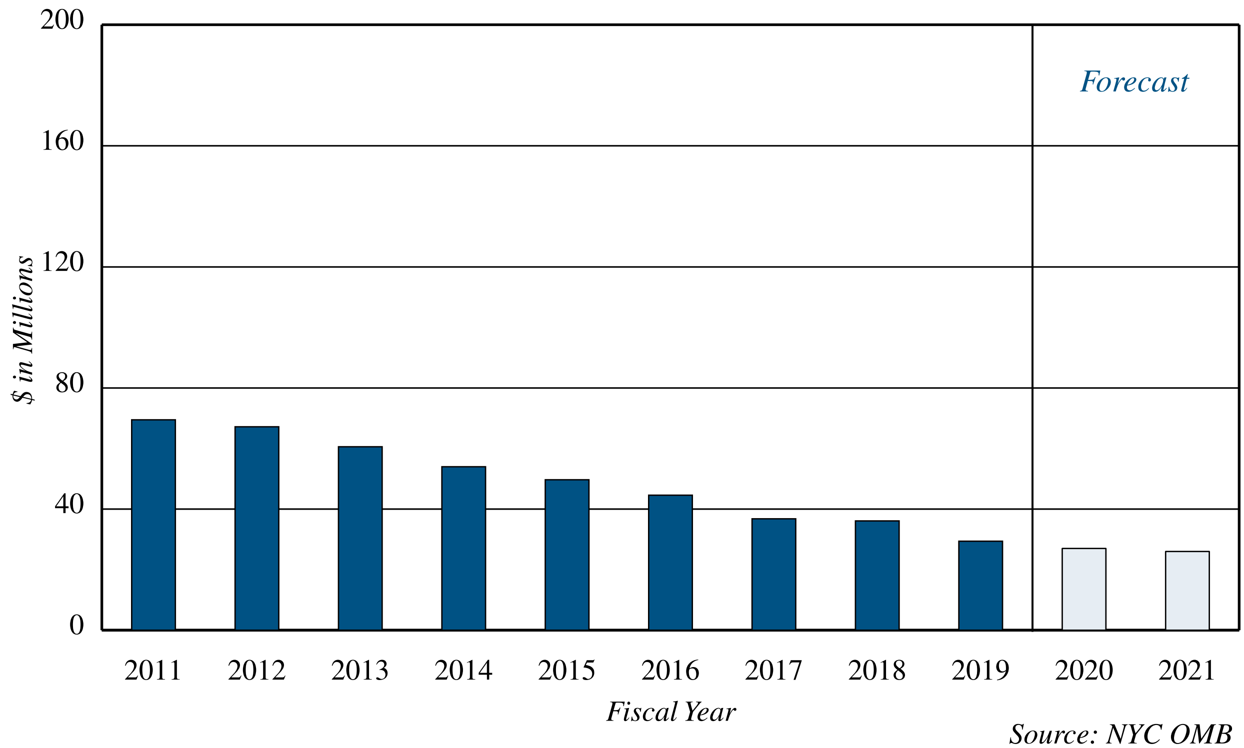
2021 Forecast: Utility tax revenue is forecast at $363 million, growth of 4.0 percent over the current year, a $37 million reduction from January 2020 Plan. With COVID-19 impacts expected to decrease and businesses begin to resume, an increase in energy demand is anticipated. Additionally, the New York Public Service Commission approved Consolidated Edison rate increases beginning calendar year 2020. Under the approved rate plan, electric rates will increase 4.2% in calendar year 2020, followed by a 4.7% increase starting January 2021 and another 4.0% jump for January 2022. Con Edison gas customers will see a rate hike of 7.5% in calendar year 2020, followed by an 8.8% increase in 2021 and a 7.2% spike in 2022. The growth in fiscal year 2021 reflects elevated electricity and natural gas prices, with normal temperatures expected to return.

Utility tax collections in 2022 are expected to rebound 10.2 percent, as the economy recovers from the COVID-19 pandemic. Collections for 2023 through 2024 are forecast to average 2.0 percent growth.

1 April through June collections reflect February through April energy prices and degree days.

CIGARETTE TAX

CIGARETTE TAX 2011 - 2021



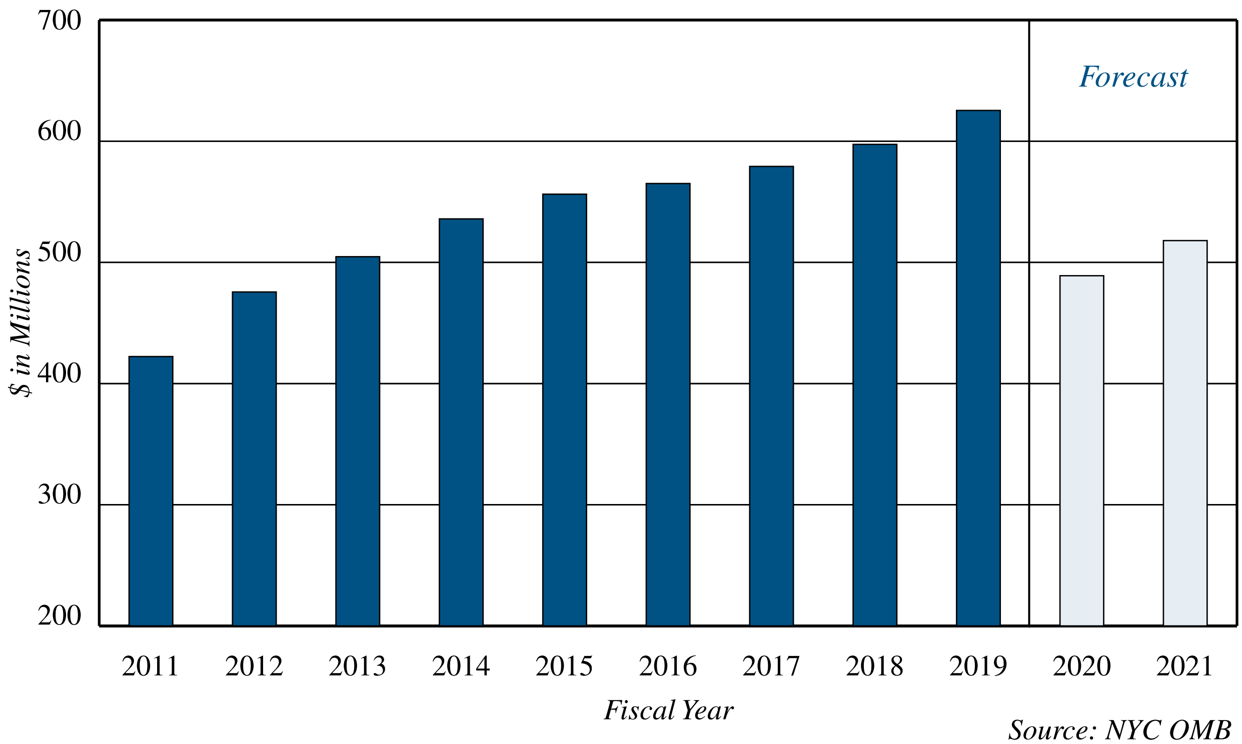
Cigarette tax is forecast to account for 0.04 percent of total revenue in 2021, or $26 million.

2020 Forecast: Cigarette tax revenue is forecast at $27 million in 2020, a decline of 8.3 percent from 2019.

2021 Forecast: Cigarette tax is forecast at $26 million in 2021. This will represent a decline of 3.7 percent from the previous year. With a combined City and State tax on a pack of cigarettes at $5.85, New York relinquishes its position as the highest City/State cigarette tax levied in the country, coming second to Chicago. The high rate of cigarette taxes has led to a noticeable further decline in the amount of packs of cigarettes sold within New York City. The tax rate has either diverted purchases to jurisdictions outside the City with lower tax rates or a change to alternatives.

HOTEL TAX

HOTEL TAX 2011 - 2021



The hotel room occupancy tax is projected to account for 0.9 percent of tax revenue in 2021, or $518 million.

2020 Forecast: Hotel tax revenue is forecast at $489 million, a 21.8 percent decline from the prior year. Collections year-to-date through March declined 6.6 percent from last year, mainly due to a sharp drop in March collections (December through February activity). The hotel industry is one of the most markedly affected businesses due to the COVID-19 outbreak, and its massive effects are already reaching collections. Prior to March, collections year-to-date were essentially flat, which emphasizes how quickly the hotel industry was affected by the pandemic.

In calendar year 2019, NYC experienced another record-breaking year for the number of tourists with an estimated 66.9 million visitors. The slowdown in tourism in calendar year 2020 due to COVID-19 is expected to be severe. Currently, the airline industry is struggling, slashing flights both domestically and internationally, as international travel restrictions were put in place and domestic individuals refrain from travelling to the nations' COVID-19 epicenter. The PAUSE order effective March 22nd from Governor Cuomo requires all non-essential businesses to remain closed, including many sightseeing and other attractions that usually draw individuals to NYC. All non-essential gatherings of any size for any reason are banned as well, which means Broadway, sports games, museums and all other forms of group tourist entertainment have also been halted or been completely shut down, cratering the tourism industry. Daily occupancy rates in NYC have fallen dramatically and to date remain below 20 percent, while room rates continue to tumble due to lack of demand, and hotels begin to remove inventory from the market.

These trends are expected to continue for the next several weeks, with a recovery potentially not in sight until the first quarter of fiscal year 2021. These concerns over COVID-19 are reflected in the 2020 forecast, which assumes a decline of $149 million from the January Plan.

2021 Forecast: Hotel tax revenue is forecast at $518 million, a 5.9 percent increase over the current year. Tourism is anticipated to recover from the previous year's severe plummet. Collections are supported by an increase in occupancy rate, though growth may be subdued as the effects of the pandemic linger on. For these reasons, the 2021 forecast is projected to be $125 million below the previous plan.

From 2022 through 2024, hotel tax revenue is forecast to average growth of 9.3 percent, including a sharp rebound in growth in 2022 of 20.7 percent reflecting pent-up demand and economic recovery and bringing collections to pre-COVID-19 levels, then moderate growth afterwards.

OTHER TAXES

All other taxes are projected to account for 1.4 percent of New York City's total tax revenue in 2021, or $833 million.

2020–2021 Other Taxes Forecast Excluding Tax Audit Revenue ($000s)

Tax	2020	2021	Increase/(Decrease) From 2020 to 2021 Amount	Percent Change
Auto Related Taxes				
Auto Use	$30,000	$30,000	—	0.0%
Commercial Motor Vehicle	75,071	75,071	—	0.0%
Taxi Medallion Transfer	800	800	—	0.0%
Excise Taxes				
Beer and Liquor	25,000	25,000	—	0.0%
Liquor License Surcharge	6,000	6,000	—	0.0%
Horse Race Admissions	50	50	—	0.0%
Medical Marijuana Excise Tax	300	300	—	0.0%
Off-Track Betting Surtax	760	760	—	0.0%
Miscellaneous				
Other Refunds	(50,000)	(50,000)	—	0.0%
Payment in Lieu of Taxes (PILOTs)	739,000	501,000	(238,000)	(32.2%)
Section 1127 (Waiver)	180,000	180,000	—	0.0%
Penalty and Interest Real Estate (Current Year)	30,000	30,000	—	0.0%
Penalty and Interest Real Estate (Prior Year)	42,000	42,000	—	0.0%
Penalty and Interest - Other Refunds	(8,000)	(8,000)	—	0.0%
Total	**$1,070,981**	**$832,981**	**($238,000)**	**(22.2%)**

AUTO RELATED TAXES

Auto Use Tax: This tax is imposed by the City on privately-owned vehicles at an annual rate of $15 per vehicle. The tax is administered by the State Department of Motor Vehicles, with an administrative charge levied on the City for this service. The Auto Use tax is expected to generate $30 million in both 2020 and 2021.

Commercial Motor Vehicle Tax: This tax is levied on vehicles used for transportation of passengers (medallion taxi cabs, omnibuses and other for-hire passenger vehicles) and all other commercial trucks and vehicles. The tax is administered the State Department of Motor Vehicles and is charged at different rates depending on the purpose for which the vehicles are used. The annual rate for other commercial vehicles (weighing less than 10,000 pounds) is $40, with rates increasing progressively for heavier vehicles. Trucks weighing 15,000 pounds pay the highest rate of $300 per year. Medallion taxicabs pay twice a year (December and June), while owners of other types of commercial vehicles pay annually (June). This tax is forecast to generate $75.1 million in 2020 and 2021.

Taxi Medallion Transfer Tax: This tax is imposed at a rate of 0.5 percent on consideration paid for the transfer of taxicab licenses (medallions). The rate was reduced from 5.0 percent to 0.5 percent in 2017. The tax is administered by the NYC Taxi and Limousine Commission. This tax is forecast to generate $800 thousand in 2020 and 2021.

EXCISE TAXES

Beer and Liquor Excise Tax: This tax is imposed on licensed distributors and non-commercial importers on the sale of beer and liquor within New York City. The current tax rate is 12 cents per gallon of beer and 26.4 cents per liter of liquor with alcohol content greater than 24 percent. The City does not impose a tax on wine. This tax is administered by New York State and is forecast to generate $25 million in both 2020 and 2021.

Horse Race Admission Tax: This is a 3.0 percent tax imposed on the price of all paid admissions to horse races on grounds or enclosures located wholly or partially within New York City. This tax is forecast to generate $50 thousand in 2020 and 2021.

Liquor License Surcharge: This tax is imposed on distributors and non-commercial importers of beer and liquor at the rate of 25 percent of license fees payable under the New York State Alcoholic Beverage Control Law. This tax is forecast to generate $6 million in 2020 and 2021.

Medical Marijuana Excise Tax: The City of New York has received payments from the New York State medical marijuana trust fund since July 2016. This represents 22.5 percent of the New York State medical marijuana excise tax revenue collected in New York City. This tax is forecast to generate $300 thousand in both 2020 and 2021.

Off-Track Betting Surtax: This is a surcharge levied on most bets placed at New York City Off-Track Betting offices and on most bets placed statewide on races held within New York City. This tax is forecast to generate $760 thousand in 2020 and 2021.

MISCELLANEOUS

Other Refunds: These are refunds primarily paid out on the commercial rent tax, business taxes and Section 1127 (waiver) and are forecast at $50 million in 2020 and 2021.

Payments in Lieu of Taxes (PILOTs): PILOTs are contractual agreements between public agencies and private property owners. There are three primary sponsor agencies that serve as intermediaries between the City and the PILOT facility owners: New York City Housing Authority, Industrial Development Agency and Battery Park City Authority. The tax is forecast to generate a revenue of $739 million in 2020 and $501 million in 2021.

Section 1127 (Waiver): Under Section 1127 of the New York City Charter, the City may collect payments from non-resident employees of the City or any of its agencies in an amount equal to what their personal income tax liability would be if they were City residents. Revenue for this tax is forecast to generate $180 million in 2020 and 2021.

Prior Year and Current Year Penalty and Interest - Real Estate: Taxpayers who do not pay their real property tax on time are liable for interest charges on outstanding balances. Penalties and interest received against current year delinquencies are forecast to at $30 million for both 2020 and 2021, while penalty and interest collections from prior year delinquencies are expected to be $42 million for 2020 and 2021.

Penalty and Interest – Other Refunds: The City currently pays out interest on refunds claimed for overpayment against business income taxes and on audits of business corporation and unincorporated business taxes already collected by the Department of Finance or overturned in Federal or State rulings. These refunds are forecast at $8 million in both 2020 and 2021.

TAX ENFORCEMENT REVENUE

As part of the City's continuous tax enforcement efforts, the Department of Finance targets delinquent taxpayers through agency audit activities, the selected use of collection agencies, and computer matches. Audit revenue is forecast at $999 million in 2020 and $921 million in 2021.

MISCELLANEOUS RECEIPTS

Forecast of Miscellaneous Receipts

The non-tax revenue portion of City Funds is referred to as miscellaneous revenues. The 2021 Executive Budget includes eleven classes of miscellaneous revenues which are discussed below.

Miscellaneous revenues are estimated at $5,029 million in 2021, a decrease of $345 million from 2020, exclusive of private grants and intra-city revenues. The revenue classes listed above are regrouped and described in the following four areas: Cost-based Charges (Licenses, Permits, and Charges for Services); Water and Sewer Revenues; Fines and Forfeitures; and Other Income (Interest Income, Franchises, Rental Income, and Miscellaneous).

Miscellaneous Revenues
($ in Millions)

	2020 Forecast	2021 Executive Budget	Forecast to Executive Budget Increase (Decrease)
Licenses	$66	$67	1
Permits	289	298	9
Franchises and Privileges	354	326	(28)
Interest Income	123	12	(111)
Tuition and Charges for Services	971	1,039	68
Water and Sewer Revenues	1,708	1,578	(130)
Rental Income	261	247	(14)
Fines and Forfeitures	1,108	1,111	3
Miscellaneous	494	351	(143)
Total Miscellaneous Revenues	$5,374	$5,029	(345)

Cost-based Charges

Cost-based Charges are revenues collected as a result of the City providing a service (copies of official records, or inspections and reviews) and may be related to the government's police or regulatory functions (pistol permits, restaurant permits, building plan examination fees). In the absence of specific State legislative authorization for the City to impose a specific fee, the City may, where otherwise allowed by law, impose a user fee to recover the cost of providing services.

Licenses

The City issues approximately 603,000 licenses. About 56,000 are non-recurring, 110,000 are renewed annually, 204,000 biennially, and 233,000 triennially. The major sources of license revenue are taxi and limousine licenses, pistol licenses, private carter licenses, marriage licenses, and various business licenses under the jurisdiction of the Department of Consumer Affairs.

The 2021 forecast for license revenue is $67 million, $1 million more than 2020. This increase is attributable to a decline in licenses issued in 2020 as a result of the impact of the COVID-19 pandemic, partially offset by the cyclical nature of certain licenses.

Permits

Permits are issued to 1,295,000 individuals or entities for the use of facilities, premises or equipment. Approximately 318,000 permits are renewable on an annual, biennial or triennial basis. Seasonal or single occurrence permits, such as tennis and building permits, account for 977,000 additional permits, all of which are issued and regulated by twelve City agencies.

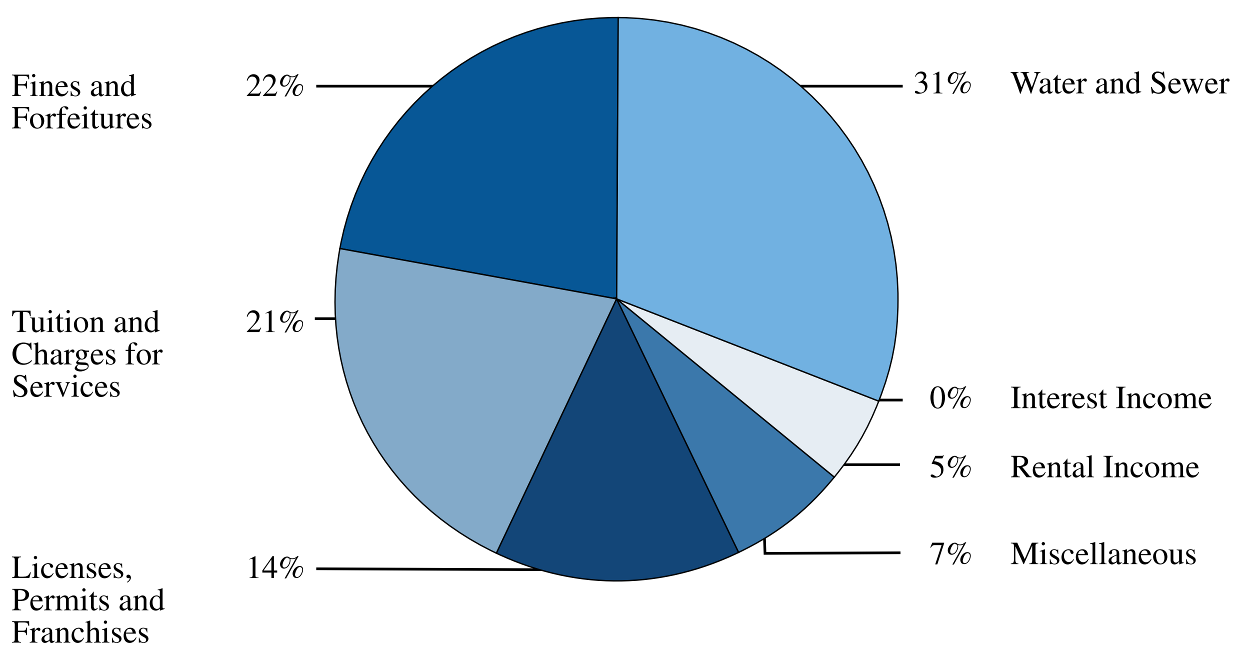
The major sources of revenue are permits for building construction and alterations, street openings, restaurants, hazardous materials, and air pollution control. The 2021 forecast for permit revenue is $298 million, $9 million more than 2020. The increase is due to a decline in receipts in 2020 for construction-related permits issued by the Department of Buildings and the Department of Transportation due to the impact of the COVID-19 pandemic.

Tuition and Charges for Services

The City collects tuition from students enrolled at community colleges. In addition, the City collects money from charges to the public and other governmental agencies for services rendered. There are over 100 different service fees in this category, including fees for parking, towing, copies of certificates, processing applications, searches, and performing fire and building inspections. The 2021 forecast for tuition and charges for services is $1.039 billion, $68 million more than 2020. This increase is due to a decline in various fees collected in 2020 as a result of the impact of the COVID-19 pandemic including reduced booting and enforcement, reduced parking meter usage, special event cancellations and the closure of recreation centers and camp activities. These increases are partially offset by anticipated declines in 421a and Affordable NY Housing Program filings in 2021.

COMPONENTS OF MISCELLANEOUS REVENUES

As a Percentage of 2021



Source: NYC OMB

Water and Sewer Revenues

Water and Sewer charges are collected by the New York City Water Board. From these charges the Board currently reimburses the City for the operation and maintenance (O&M) of the water delivery and waste water disposal systems. The O&M reimbursement is equal to the amount spent by the City to supply water and treat and dispose of waste water on behalf of the Board. The City is reimbursed only for its expenditures. The City will receive $1.578 billion for O&M services rendered in the delivery of water and the collection, treatment, and disposal of waste water.

Fines and Forfeitures

The City collects fine revenue through courts and administrative tribunals for violations issued under the New York City Administrative Code, New York State Vehicle and Traffic Law, and other laws. Forfeiture revenue is obtained from the surrender and conversion of bail and cash bonds, and contractors' performance bonds. The 2021 forecast for forfeitures is $1.1 million. The revenue expected from fines in 2020 and 2021 is listed below:

Fine Revenue

Type ($ in 000's)	2020 Forecast	2021 Executive Budget
Parking Violations	$590,566	$554,420
Speed Camera Violations	124,500	151,500
Environmental Control Board Violations	119,000	121,775
Department of Buildings Penalties	84,500	94,000
Department of Health Violations	25,000	26,288
Red Light Camera Violations	17,000	23,000
Traffic Violations	13,950	19,000
Taxi and Limousine Commission Violations	13,700	14,800
Bus Lane Violations	12,000	11,400
State Court Fines	18,305	9,050
Department of Consumer Affairs	8,400	7,200
Department of Finance Penalties	10,300	5,400
Other Sources	69,666	72,089
Total	$1,106,887	$1,109,922

The Parking Violation division of the Department of Finance is forecasted to collect $740.3 million in parking, red light, bus lane, and speed camera fines in 2021, $3.7 million less than in 2020.

The Parking Violation division processes and adjudicates enforcement camera violations. The red light camera program is designed to promote safe, responsible driving by photographing and fining registrants of vehicles "running" red lights. The Department of Transportation currently has 215 red light cameras operating at 150 intersections. Red light camera violations will generate $23 million in 2021. In addition, the Department operates a fixed bus lane camera enforcement program along 21 MTA regular and Select Bus Service routes. The Department also partners with New York City Transit to operate bus-mounted cameras on four Select Bus Service routes. The revenue from these mobile cameras is remitted to New York City Transit. The Department will generate approximately $11.4 million from fixed bus lane cameras in in 2021. Legislation passed in 2019 authorizes the Department to use speed camera enforcement in 750 school zones. Currently, 676 fixed and 40 mobile cameras are operational within the authorized zones. Speed cameras must be placed within a quarter mile radius of a school and can operate on weekdays between 6:00 a.m. and 10:00 p.m. Collections are expected to be $151.5 million in 2021.

The Office of Administrative Trials and Hearings is comprised of several administrative tribunals: Health, Taxi and Limousine Commission, and the Environmental Control Board. The Environmental Control Board adjudicates violations issued by over a dozen City agencies for infractions of the City's Administrative Code related to street cleanliness, waste disposal, street peddling, fire prevention, air, water and noise pollution, building safety and construction, and other quality of life issues. Revenue from these violations is expected to generate $151.3 million in 2021.

The Department of Consumer Affairs enforces the City's consumer protection, licensing, tobacco, municipal workplace, and Truth-in-pricing laws. In 2021, the Department will generate $7.2 million in fine revenue, a decrease of $1.2 million from 2020. The Department of Consumer Affairs will continue its enforcement strategy which includes an expanded emphasis on education and outreach. The Department will also expand the universe of violations that will have cure periods.

The Department of Finance assesses penalties for failure to timely file Real Property Income and Expense statements and Real Property Transfer documents. The Department's enforcement efforts are expected to improve compliance due to increased penalties for non-filers who have not filed for 3 consecutive years. It is anticipated that penalties issued will drop to $5.4 million in 2021.

Revenue is also collected from the adjudication of traffic violations issued in the City of New York, certain fines adjudicated through the State-operated Criminal and Supreme Court system, and fines collected by the City for administrative code violations and building code violations.

Other Income

Other income includes interest earned on the City's cash balances, concession and franchise payments, rental income, and income from other areas in which productivity may have a positive effect on the amount of revenue collected. Each of the sources included in this area has its own unique basis for management and improvement, some of which are directly affected by the City's policy toward such varied items as housing, economic development, and transportation issues.

Interest Income

The City earns interest income by investing funds from four sources: overnight cash balances, debt service accounts, sales tax, and cash bail balances. Overnight cash balances are invested and historically earn interest at approximately the federal funds rate. Property tax receipts are held by the State Comptroller to satisfy City debt service payments, and earnings are forwarded to the City monthly based on bond payment schedules. The determinants of the value of this revenue source are the value of cash balances, tax receipts, available investment instruments, and the interest rate.

The 2021 forecast for interest earnings is $12 million, a decrease of $111 million from 2020. This decrease is attributable to a sharp decline in the projected federal funds rate for 2021.

Franchises and Privileges

This revenue consists of franchise fees for the public use of City property and privilege and concession fees for the private use of City property. These uses include conduits that run under City streets, concessions in public parks and buildings, and payments from utility companies for transformers on City property.

The 2021 forecast for franchise revenue is $326 million, $28 million less than in 2020. The decrease is attributable to closure in the production of landfill gas and changes in cable, mobile telecommunication and LinkNYC franchises. These decreases are partially offset by an increase in concession revenues collected by the Department of Parks and Recreation in 2021 as revenues recover from the impact of the COVID-19 pandemic.

Rental Income

Rental income is derived from both long and short-term agreements for the occupancy of City-owned property, including condemnation sites and *in rem* buildings. Roughly 2,500 properties are rented from the City. Approximately 500 are *in rem* or condemnation sites, 200 are covered by long term agreements, and nearly 1,800 are schools that are rented on a per event basis after school hours.

The 2021 forecast for rental income is $247 million, $14 million less than in 2020. The decrease is a result of declining rental income from Parks and DCAS managed properties, partially offset by an increase in school rental income as schools are reopened and revenues recover from the impact of the COVID-19 pandemic.

Miscellaneous

Miscellaneous revenue is composed of a variety of revenues not otherwise classified in the City's Chart of Accounts. The primary items are the sale of City property, mortgages, cash recoveries from litigation and audits, E-911 telephone surcharges, revenue from Police Department Property Clerk auctions, refunds of prior year expenditures, the sale of the City Record and other publications, and subpoena fees. This source of revenue has, at times, contributed significantly to the miscellaneous receipts.

The 2021 forecast for miscellaneous revenue is $351 million, $143 million less than in 2020. The decrease is related to one-time revenue in 2020 including the central insurance buyout, a UNDC surplus, transfer of Educational Construction Fund surplus to the City, and recoupment of prior year expenditures.

Private Grants

The Executive Budget includes $872 million in private grants in 2021, $200 million less than 2020. Additional private grant funding will be modified into the budget during the course of the year, as additional funding sources are identified, and grants are defined.

Interfund Revenues

Interfund Revenues (IFA's) are reimbursements from the Capital Fund to the General Fund for authorized first-line architectural, engineering, and design costs incurred by the City's own engineering and support staff. These costs also include employee costs for expenses incurred in connection with eligible capital projects for the development of computer software, networks and systems. All IFA costs are assigned to particular capital projects and are valid capital charges under generally accepted accounting principles. In 2021 expected reimbursements will be $675 million.

CAPITAL BUDGET

The Executive Capital Budget and Four-Year Plan, 2021-2024

The 2021 Executive Capital Budget includes new appropriations of $10.4 billion, of which $9.1 billion are to be funded from City sources. These appropriations, together with available balances from prior years, authorize total commitments of $16.7 billion for 2021, of which $15.0 billion will be City-funded. City funds include proceeds from the New York City Municipal Water Finance Authority and the New York City Transitional Finance Authority as well as City general obligation bonds.

Four-Year Plan Highlights

The 2021-2024 Capital Plan totals $67.2 billion for the construction and rehabilitation of the City's infrastructure. This will provide funding targeted to building and improving schools, providing affordable housing, maintaining the drinking water system, improving transportation, and supporting the City's economic development growth. In addition, damages to critical infrastructure throughout New York City caused by Hurricane Sandy are estimated at $3.9 billion in the 2021-2024 Capital Program.

The Capital Plan will provide $14.6 billion for new school construction and expansion, as well as modernization, rehabilitation, and improvements to existing school buildings. The Capital Plan will provide $5.3 billion for the design and construction of new borough based jail facilities. The City will also provide $4.9 billion for the preservation and construction of affordable housing for low to moderate incomes and those with special needs. The City will invest $4.1 billion to reconstruct and rehabilitate bridges to ensure a state of good repair, including the Brooklyn Queens Expressway (BQE) Triple Cantilever bridge structures, Trans-Manhattan Expressway, and 49th Avenue Bridge over Long Island Railroad (LIRR). The City will invest $2.6 billion to maintain the operational integrity and improve the resiliency of its wastewater resource recovery facilities. In addition, the City will also invest $537.9 million for the rehabilitation and reconstruction of City Tunnels and upstate aqueducts, including the excavation of the two remaining shafts for the Brooklyn/Queens section of City Tunnel No. 3, the boring of a tunnel between Kensico Reservoir and the Catskill/Delaware Ultraviolet Disinfection Facility, and comprehensive upgrades at Hillview Reservoir.

FY 2020 - 2024 Commitment Plan
($ in Millions)

	2020		2021		2022		2023		2024	
	City Funds	All Funds	City Funds	All Funds	City Funds	All Funds	City Funds	All Funds	City Funds	All Funds
Environmental Protection										
Equipment	$68	$68	$72	$73	$45	$45	$29	$29	$84	$84
Sewers	596	630	392	397	635	636	597	598	476	476
Water Mains, Sources & Treatment	471	473	405	409	409	409	492	492	498	498
Water Pollution Control	738	749	1,592	1,782	383	383	824	883	864	882
Water Supply	351	351	67	67	404	404	72	72	21	21
Subtotal	**$2,225**	**$2,271**	**$2,529**	**$2,728**	**$1,876**	**$1,878**	**$2,014**	**$2,075**	**$1,943**	**$1,961**
Transportation										
Mass Transit	$704	$723	$750	$750	$40	$40	$40	$40	$40	$40
Bridges	165	242	594	680	683	913	1,025	1,025	1,471	1,516
Highways	839	997	760	850	1,014	1,069	913	1,026	738	758
Subtotal	**$1,709**	**$1,962**	**$2,105**	**$2,280**	**$1,737**	**$2,022**	**$1,978**	**$2,091**	**$2,249**	**$2,314**
Education										
Education	$3,575	$3,873	$2,893	$3,221	$3,809	$4,135	$3,688	$4,014	$2,914	$3,240
Higher Education	87	94	100	100	141	145	85	85	84	84
Subtotal	**$3,661**	**$3,967**	**$2,993**	**$3,321**	**$3,950**	**$4,280**	**$3,773**	**$4,099**	**$2,998**	**$3,324**
Housing & Economic Development										
Economic Development	$581	$703	$811	$947	$658	$732	$470	$473	$370	$382
Housing	872	902	709	741	1,573	1,605	1,326	1,358	1,251	1,283
Subtotal	**$1,453**	**$1,605**	**$1,520**	**$1,688**	**$2,231**	**$2,337**	**$1,796**	**$1,831**	**$1,621**	**$1,665**
Administration of Justice										
Corrections	$549	$586	$348	$348	$1,104	$1,104	$2,250	$2,250	$2,073	$2,073
Courts	18	18	403	406	480	483	193	193	288	292
Police	237	265	411	420	198	208	270	270	21	21
Subtotal	**$804**	**$869**	**$1,163**	**$1,175**	**$1,783**	**$1,795**	**$2,712**	**$2,712**	**$2,381**	**$2,385**
City Operations and Facilities										
Cultural Institutions	$186	$292	$151	$152	$258	$259	$189	$189	$192	$192
Fire	107	133	236	280	234	268	168	176	119	119
Health & Hospitals	590	1,115	722	1,078	379	596	130	195	326	327
Parks	584	688	717	770	887	981	686	784	831	983
Public Buildings	192	192	521	529	439	439	251	251	115	115
Sanitation	262	264	680	690	357	357	589	589	213	213
Resiliency, Technology & Equipment	531	605	608	851	1,560	1,760	1,019	1,019	1,134	1,134
Other	1,980	2,044	1,086	1,191	1,038	1,194	857	919	598	643
Subtotal	**$4,432**	**$5,333**	**$4,720**	**$5,541**	**$5,152**	**$5,853**	**$3,889**	**$4,122**	**$3,527**	**$3,725**
Total Commitments	**$14,284**	**$16,007**	**$15,030**	**$16,733**	**$16,728**	**$18,165**	**$16,162**	**$16,930**	**$14,719**	**$15,375**
Reserve for Unattained Commitments	**($4,221)**	**($4,221)**	**($1,631)**	**($1,631)**	**($2,050)**	**($2,050)**	**($519)**	**($519)**	**$323**	**$323**
Commitment Plan	**$10,063**	**$11,786**	**$13,399**	**$15,102**	**$14,678**	**$16,115**	**$15,643**	**$16,411**	**$15,042**	**$15,698**
Total Expenditures	**$8,835**	**$9,736**	**$9,670**	**$11,083**	**$11,173**	**$12,711**	**$12,792**	**$13,970**	**$13,538**	**$14,537**

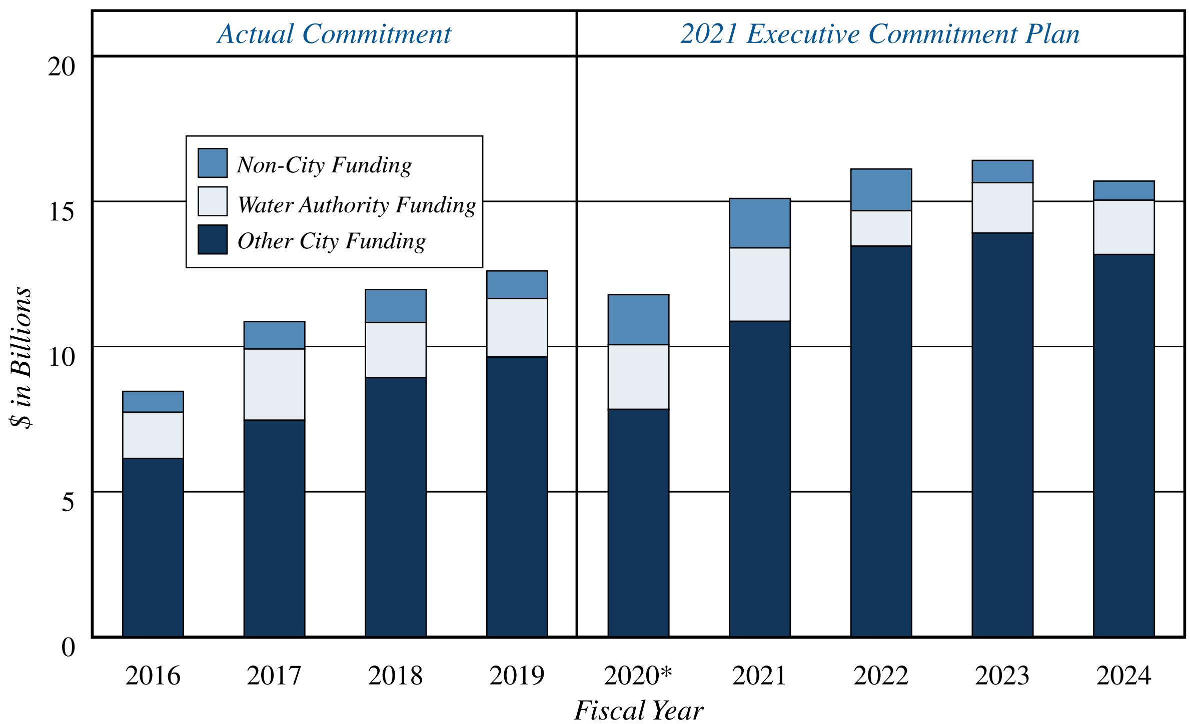
Note: Individual items may not add to totals due to rounding.

Non-City Funding Sources

Non-City capital funding sources include $1.7 billion in the 2021 plan and $4.6 billion over the 2021-2024 four-year plan period. The majority of non-City funding supports Education, Transportation, Hospitals, Resiliency Measures, and Parks.

Education programs anticipate receiving $1.3 billion from the State government over the 2021-2024 period. Transportation programs are projected to receive non-City funding of $878.7 million over the 2021-2024 period, with $664.0 million from the Federal government, $163.1 million from the State, and private funds of $51.6 million. Hospitals programs are projected to receive $632.8 million in Federal funding over the 2021-2024 period. Resiliency Measures anticipate receiving $442.9 million in Federal funding over the 2021-2024 period. Parks programs are projected to receive $397.1 million over the 2021-2024 period, with $340.7 million from the Federal government, $39.1 million from private funds, and $17.3 million from the State.

FY 2016 - 2024 CAPITAL COMMITMENTS BY FUNDING SOURCE



* Projected

Source: NYC OMB

The Capital Program since 2016

The table below illustrates the changes in the size of the City's capital program over the 2016-2019 period.

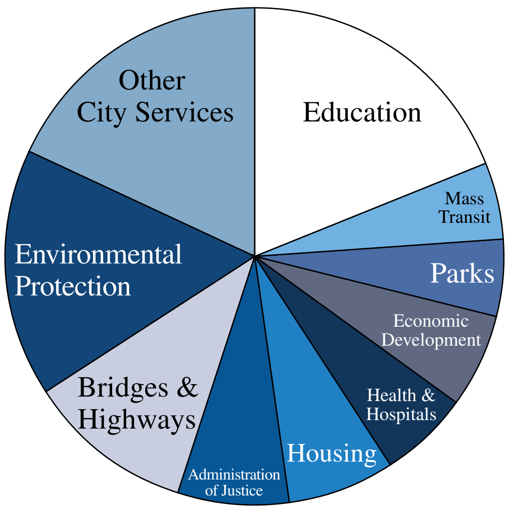
FY 2016-2019 Commitments
($ in Millions)

	2016		2017		2018		2019	
	City Funds	All Funds	City Funds	All Funds	City Funds	All Funds	City Funds	All Funds
Environmental Protection								
Equipment	$93	$93	$86	$86	$53	$53	$113	$113
Sewers	352	353	670	685	637	652	463	471
Water Mains, Sources and Treatment	418	419	867	883	620	624	534	538
Water Pollution Control	709	708	667	675	362	371	843	847
Water Supply	17	17	162	162	225	225	62	62
Subtotal	**$1,590**	**$1,590**	**$2,452**	**$2,491**	**$1,896**	**$1,925**	**$2,015**	**$2,032**
Transportation								
Mass Transit	$229	$237	$76	$80	$169	$169	$432	$433
Bridges	288	436	327	598	988	1,235	382	447
Highways	415	544	505	631	663	776	527	613
Subtotal	**$932**	**$1,217**	**$908**	**$1,310**	**$1,821**	**$2,180**	**$1,342**	**$1,493**
Education								
Education	$2,455	$2,504	$3,073	$3,136	$3,029	$3,546	$3,620	$3,993
Higher Education	40	41	33	33	79	79	77	77
Subtotal	**$2,496**	**$2,545**	**$3,106**	**$3,169**	**$3,108**	**$3,625**	**$3,697**	**$4,071**
Housing & Economic Development								
Economic Development	$168	$185	$325	$342	$301	$320	$378	$397
Housing	647	634	852	880	1,191	1,231	1,484	1,509
Subtotal	**$815**	**$820**	**$1,177**	**$1,222**	**$1,492**	**$1,551**	**$1,863**	**$1,906**
Administration of Justice								
Correction	$79	$81	$58	$61	$29	$34	$30	$58
Courts	36	47	24	26	19	27	28	29
Police	190	191	204	204	327	327	187	194
Subtotal	**$305**	**$320**	**$286**	**$291**	**$376**	**$388**	**$246**	**$282**
City Operations & Facilities								
Cultural Institutions	$105	$114	$65	$148	$70	$75	$215	$217
Fire	144	133	122	123	85	86	97	103
Health & Hospitals	138	228	160	224	237	301	328	526
Parks	201	359	530	586	410	437	479	537
Public Buildings	121	121	72	72	101	101	140	140
Sanitation	177	176	256	258	296	289	287	286
Resiliency, Technology & Equipment	344	340	403	403	253	253	284	284
Other	369	494	380	565	682	751	663	730
Subtotal	**$1,600**	**$1,965**	**$1,988**	**$2,378**	**$2,135**	**$2,294**	**$2,492**	**$2,822**
Total Commitments	**$7,738**	**$8,457**	**$9,916**	**$10,860**	**$10,827**	**$11,963**	**$11,654**	**$12,605**
Total Expenditures	**$6,676**	**$8,080**	**$7,444**	**$8,826**	**$8,887**	**$9,640**	**$9,278**	**$10,848**

Note: Individual items may not add to totals due to rounding.

2021 AUTHORIZED CAPITAL COMMITMENTS, BY PROGRAM

($ in Millions - All Funds)



% of Plan	*Program*	*2021 Plan*
19%	Education	$3,221
16%	Environmental Protection	2,728
11%	Bridges & Highways	1,882
7%	Administration of Justice	1,175
7%	Housing	1,092
6%	Health & Hospitals	1,078
6%	Economic Development	947
5%	Parks	770
5%	Mass Transit	750
18%	Other City Services	3,090
	Total	**$16,733**

Source: NYC OMB

2021 Agency Highlights

Technology

- Information and Communication Systems: 911/ Emergency Communications Transformation Program (ECTP) facilities, software, and equipment to update the City's computer aided dispatch capabilities ($31.0 million); Citywide Datacenter Co-location Build Out ($20.0 million); and the Broadband Initiative including the expansion of wireless access for City residents ($19.5 million).

Environmental Protection and Sanitation

- Wastewater Treatment: conducting essential projects at wastewater resource recovery facilities and related infrastructure to sustain uninterrupted wastewater treatment operation ($1.3 billion); addressing water quality problems attributed to combined sewer overflow discharges into the City's surrounding waterways during wet weather conditions ($325.1 million); working with multiple City agencies to construct, install, and maintain various Green Infrastructure projects for stormwater capture, such as bioswales, tree pits, constructed wetlands, and green roofs ($171.6 million). The total Wastewater Treatment program for 2021 is $1.8 billion.

- Water Mains, Sources and Treatment: on-going in-City water main construction and ancillary work ($266.7 million), including accelerated replacement schedule for aging water mains ($54.4 million), water main rehabilitation in partnership with DOT street reconstruction and Vision Zero projects ($18.7 million), and various state-of-good-repair projects, citywide ($137.5 million); and improvements to infrastructure associated with water supply systems ($141.9 million), including projects related to the Filtration Avoidance Determination ($20.9 million);. The total Water Mains, Sources and Treatment program for 2021 is $408.6 million.

- Sewers: Southeast Queens Infrastructure build out ($134.4 million); replacement of chronically failing components ($122.1 million); and reduction of combined sewer overflows to improve the quality of surrounding waters ($44.7 million). The total Sewers program for 2021 is $396.9 million.

- Equipment: water conservation programs ($25.6 million) and management information systems ($16.7 million). The total Equipment program for 2021 is $72.8 million.

- Water Supply: construction of a bypass tunnel for remediation of the Delaware Aqueduct ($25.6 million); construction of a tunnel connecting the Kensico Reservoir and Catskill/Delaware Ultraviolet Light Disinfection Facility ($15.0 million); and construction of the remaining shafts of the Brooklyn/Queens Leg of City Tunnel No. 3 ($10.0 million). The total Water Supply program for 2021 is $67.4 million.

- Sanitation: component rehabilitation and construction of garages, citywide ($428.0 million); replacement of vehicles and equipment ($205.3 million); construction and renovation of transfer stations and other facilities in accordance with the City's Long Term Solid Waste Management Plan ($38.2 million); and information technology and telecommunications projects ($18.4 million).

Transportation

- Bridges: rehabilitation and life extension of bridges, including rehabilitation of 11th Ave viaduct between 33rd St and 35th St ($140.8 million); Boston Road over Hutchinson River Bridge ($74.6 million); and continued reconstruction and rehabilitation for the East River bridges, including Queensboro Bridge ($53.8 million). The total Bridge program for 2021 is $679.5 million.

- Highways: street reconstruction ($310.5 million), including reconstruction of Trinity Place ($36.5 million), and reconstruction of sidewalks and pedestrian ramps ($329.4 million). The total Highways program for 2021 is $850.0 million.

- Traffic: citywide expansion of school zone speed cameras ($80.6 million) and retrofit of parking meters for license plate recognition ($26.5 million). The total Traffic program for 2021 is $239.8 million.

- Ferries: reconstruction of ferry-rack Slip 1 at St. George Terminal ($13.6 million). The total Ferries program for 2021 is $86.4 million.

- Transit: contribution to the MTA's capital program, including bus fleet enhancements, infrastructure improvements such as station accessibility and signal modernization, in-house track rehabilitations, and reconstruction of subway lines for New York City. The Transit program for 2021 is $750.3 million.

Education, Health and Social Services

- Education: construct new schools ($1.1 billion); expand facilities through leases, building additions, athletic fields, and playgrounds ($678.4 million); cover emergency projects, research and development, and prior plan completion costs ($555.0 million); rehabilitate, replace, and upgrade building components ($495.6 million); capital improvements that enhance educational programs ($343.9 million); and address the need for security systems, emergency lighting, and code compliance ($68.4 million). The total Education program for 2021 is $3.2 billion.

- Higher Education: miscellaneous reconstruction ($94.3 million); data processing and other equipment ($5.9 million). The total Higher Education program for 2021 is $100.2 million.

- Health: NYC Health + Hospitals' (H+H) FEMA related projects ($454.8 million); upgrades of revenue cycle management system and electronic medical records system ($56.8 million); expansion of primary care facilities ($45.2 million); purchase of EMS ambulances ($43.7 million); animal care centers and other animal welfare investments ($41.0 million); a new Public Health Laboratory ($24.5 million); and technology and laboratory equipment upgrades for the Office of the Chief Medical Examiner ($9.6 million).

- Aging: computer and network upgrade and equipment purchase ($1.8 million); and rehabilitation of senior centers, with focus on structural and accessibility issues ($1.4 million).

- Administration for Children's Services: renovation and upgrades of the Department's two secure detention facilities ($65.0 million); renovations of ACS facilities ($18.0 million); and telecommunications and data infrastructure upgrades and improvements ($9.2 million).

- Homeless Services: renovation and upgrade of adult shelters ($60.7 million); computer network upgrade and equipment purchases ($20.5 million); and renovation and upgrade of family shelters ($15.2 million).

- Human Resources: data infrastructure upgrades and improvements ($69.4 million); construction and initial outfitting for citywide facilities ($20.5 million); telecommunications upgrades and improvements ($3.0 million); and automotive equipment ($1.0 million).

Housing and Development

- Housing: provision of low-interest loans to finance the acquisition, construction, and rehabilitation of privately-owned housing toward the goal of supporting 300,000 units by 2026 through new construction ($256.6 million); special needs housing ($251.6 million); preservation finance ($168.3 million) and disposition ($62.1 million) programs; and funding for technology, infrastructure, demolition and other ancillary investments ($2.8 million).

- Housing Authority: upgrades to building exteriors and systems, including roof work and mold remediation, boiler replacements, decoupling heat and hot water, heating controls, and other general capital maintenance ($429.6 million).

- Economic Development: infrastructure work for the NYC Ferry System and re-zonings proposed in neighborhood plans, plus development, management and rehabilitation of City-owned waterfronts, citywide ($398.0 million); various development and infrastructure improvements at the Brooklyn Navy Yard ($89.0 million) and at Governors Island ($50.0 million).

Administration of Justice and Public Safety

- Correction: new jail facilities ($196.2 million); improvements to building systems, infrastructure, and support space ($134.4 million); and lifecycle replacement of equipment ($17.9 million).

- Courts: infrastructure and operational improvements of court facilities ($328.0 million); fire/life safety work ($56.6 million); exterior renovations ($18.6 million); HVAC improvements ($2.0 million); electrical upgrades ($1.0 million); and elevator upgrades ($0.2 million).

- Police: construction, rehabilitation and relocation of facilities, citywide ($311.7 million); replacement and upgrade of portable radios, radio equipment, infrastructure, and systems ($33.3 million); replacement and upgrade of critical network infrastructure equipment and data management systems ($29.9 million); replacement and upgrade of general equipment, citywide ($25.0 million); and lifecycle replacement of vehicles ($20.7 million).

- Fire: construction and renovation of firehouse components and firehouse facilities ($96.9 million); lifecycle replacement of front-line fire-fighting apparatus as well as support vehicles and equipment ($79.2 million); replacement of conduit, wiring, and alarm boxes in inundation zones for the Department's outside cable plant that was damaged during Hurricane Sandy ($49.4 million); lifecycle replacement of information technology and communications equipment ($34.8 million); and upgrade of 9-1-1 communications system infrastructure ($19.4 million).

Recreation and Culturals

- Parks: planting of new street trees and park trees and the construction of Greenstreets, citywide ($74.4 million); reconstruction of the Red Hook Ballfields and Recreation Area in Brooklyn ($69.8 million); reconstruction of the Orchard Beach Pavilion in the Bronx ($32.9 million); construction of a new park at Pier 42 in Manhattan ($19.1 million); reconstruction of the Lost Battalion Recreation Center in Queens ($11.9 million); and reconstruction of the Faber Park Basketball Courts in Staten Island ($1.7 million).

- Public Libraries: fitout of the Brooklyn Heights branch ($16.1 million), the DUMBO branch ($5.0 million) and HVAC replacement at the Leonard branch ($2.3 million) in Brooklyn; rehabilitation of the Hamilton Fish branch ($8.1 million) and exterior renovation and installation of a new boiler at Countee Cullen branch ($6.6 million) in Manhattan; partial interior renovation of the Castle Hill branch ($6.9 million) and HVAC replacement at the Pelham Parkway-Van Nest branch ($2.9 million) in the Bronx; renovation and expansion of Bay Terrace branch ($5.6 million) and construction of a second elevator at the Flushing branch ($3.6 million) in Queens; and exterior and interior renovation of the St. George branch ($1.1 million) in Staten Island.

- Cultural Affairs: upgrade of the Con Edison switchgear at the Bronx Zoo ($13.0 million); sitewide upgrades at the Snug Harbor Cultural Center & Botanical Garden ($8.2 million); restoration of Hunterfly Houses at Weeksville Heritage Center ($4.1 million); rehabilitation of the exterior façade at the Museum of the City of New York ($3.9 million); and renovation of the administration facility at the Louis Armstrong House Museum ($2.8 million).

Department of Citywide Administrative Services

- Public Buildings and Real Property: renovation of City-owned facilities ($135.2 million), including space for the Taxi and Limousine Commission at its Woodside, Queens facility ($132.6 million); legal mandates ($101.0 million), including fuel tank replacement and remediation ($66.9 million) and fire/life safety upgrades to meet Local Law 5 compliance ($27.3 million); renovation of leased space ($89.9 million), including renovation of the Department of Finance leased office space in Queens ($16.4 million); rehabilitation of City-owned space ($87.6 million), including projects at 1 Center Street in Manhattan ($20.4 million), 253 Broadway in Manhattan ($18.9 million), 345 Adams Street in Brooklyn ($13.1 million), and 100 Gold Street in Manhattan ($9.9 million); miscellaneous construction in other facilities ($68.1 million); equipment and interagency services ($35.7 million), including the installation of charging infrastructure for electric vehicles ($7.4 million); acquisition of real property ($11.3 million); and reconstruction of waterfront properties and non-waterfront properties ($11.1 million).

- Energy Efficiency and Sustainability: energy efficiency measures and building retrofits ($200.0 million), including retrofits of various buildings ($70.1 million), the Accelerated Conservation and Efficiency (ACE) Program ($52.0 million), solar panels at facilities, citywide ($29.2 million), and Local Law 87 deep energy retrofits ($24.0 million).

- Citywide Agency Facility and Operational Protective Measures: citywide agency resiliency and waterfront rehabilitation ($349.0 million), including other coastal protection and waterfront rehabilitation across the City's portfolio ($190.6 million); and the East Side Coastal Resiliency project ($158.4 million).

Borough Presidents' Allocations

The Charter requires an amount equal to five percent of the proposed new capital appropriations for the ensuing four years to be allocated to the Borough Presidents. This allocation is to be distributed to each borough based upon a formula that equally weighs population and land area. The tables below indicate the amounts added by the Borough Presidents for each programmatic area.

FY 2021-2024 Borough Presidents' Allocations*
(City Funded Appropriations $ in Thousands)

	2021	2022	2023	2024
Bronx Program				
Cultural Affairs	$1,000	—	—	—
Education	9,396	—	—	—
Health	123	—	—	—
Higher Education	1,275	—	—	—
Hospitals	1,854	—	—	—
Housing	3,000	—	—	—
Housing Authority	500	—	—	—
Human Resources	52	—	—	—
Parks	9,600	—	—	—
GRAND TOTAL: BRONX	$26,800	$0	$0	$0
Brooklyn Program				
Brooklyn Public Library	$1,000	—	—	—
Cultural Affairs	1,567	—	—	—
Education	17,704	—	—	—
Health	700	—	—	—
Higher Education	500	—	—	—
Highways	100	—	—	—
Hospitals	950	—	—	—
Housing	6,100	—	—	—
Human Resources	50	—	—	—
Parks	4,000	—	—	—
Public Buildings	450	—	—	—
GRAND TOTAL: BROOKLYN	$33,121	$0	$0	$0

* Appropriations include reallocation of prior amounts recommended by the borough presidents.

**Note: Individual items may not add to totals due to rounding

FY 2021-2024 Borough Presidents' Allocations*
(City Funded Appropriations $ in Thousands)

	2021	2022	2023	2024
Manhattan Program				
Cultural Affairs	$5,652	—	—	—
Education	10,855	—	—	—
Hospitals	421	—	—	—
Housing	500	—	—	—
New York Public Library	220	—	—	—
Parks	1,227	—	—	—
Public Buildings	375	—	—	—
GRAND TOTAL: MANHATTAN	$19,250	$0	$0	$0
Queens Program				
Cultural Affairs	$3,074	—	—	—
Economic Development	3,025	—	—	—
Education	12,250	—	—	—
Fire	1,450	—	—	—
Higher Education	611	—	—	—
Hospitals	5,400	—	—	—
Human Resources	110	—	—	—
Parks	14,950	—	9,590	—
Public Buildings	775	—	—	—
Queens Public Library	12,600	—	—	—
GRAND TOTAL: QUEENS	$54,245	$0	$9,590	$0
Staten Island Program				
Education	$17,753	—	—	—
GRAND TOTAL: STATEN ISLAND	$17,753	$0	$0	$0

* Appropriations include reallocation of prior amounts recommended by the borough presidents.

**Note: Individual items may not add to totals due to rounding

Management Initiatives

Management initiatives continue to be developed and implemented to enhance the administration and advancement of the capital program. These include:

- continued improvements to capital program management.
- updating the charter-mandated capital asset condition assessment.
- application of value engineering to reduce capital and operating costs.

Capital Program Management

The Department of Design and Construction was created in October 1995 by Local Law 77, which authorized it to assume responsibility for construction projects performed by the Departments of Transportation, Environmental Protection and General Services. The Department delivers the City's construction projects in an expeditious, cost-effective manner, while maintaining the highest degree of architectural, engineering and construction quality. The Department performs design and construction functions related to streets and highways; sewers; water mains; correctional and court facilities; cultural buildings; libraries; and other public buildings, facilities and structures.

The consolidation of design and construction into a single agency allows for the elimination of duplicative program units within agencies; the standardization of construction procedures and practices; the implementation of reforms of current practices relating to procurement for construction projects; and the expansion of the use of construction-related technology, including Computer-Aided Drafting and Design (CADD); and a project management information system. The Department also enables the city to coordinate a wide variety of construction projects with utilities, community representatives, and private industry, thus minimizing the disruption to individual neighborhoods caused by water-main projects, sewer construction, and road work, as well as reducing the costs associated with such projects. The Department of Design and Construction serves more than 22 client agencies.

Capital Project Scope Development and Cost Estimation

Some capital projects contain significant risks and uncertainties that can lead to cost escalation. Construction or site complexity, unclear or evolving programmatic requirements, regulatory or legal issues, and conflicting stakeholder objectives are some of the factors which can result in projects exceeding their budgets. In an effort to control cost overruns, capital projects will undergo more intensive scope development and cost estimation prior to being included in the capital plan.

Capital Asset Inventory and Maintenance Program

The Charter requires an annual assessment of the City's major assets including buildings, piers, bulkheads, marinas, bridges, streets and highways, and the preparation of maintenance schedules for these assets. This assessment report (AIMS), based on field surveys by technical professionals, details state-of-good-repair needs and is used by agencies for capital planning purposes. A separate volume, published as a reconciliation, reports on the amounts recommended in the annual condition surveys with amounts funded in budget. To incorporate current technology and standards into the Maintenance Program, the City conducts ongoing reviews of the methodologies used in surveying and estimating the cost of maintaining its fixed assets in a state of good repair.

The AIMS Program was enhanced by an intranet portal that allows for more agency access to asset data. This provides the client agencies with additional information with which to improve management of their facilities.

Value Engineering

Value Engineering (VE) is a systematic analytical methodology directed toward analyzing the functions of projects for the purpose of achieving the best value at the lowest life cycle project cost. From its inception in 1982 OMB's VE program has utilized innovations in value management methodology to evaluate an ever-expanding group of projects, widening the scope and depth of project reviews to include Value Analysis (VA) reviews of the City's operational processes and functions to assist agencies in streamlining their procedures to effect increased efficiency and improvements.

Value Engineering is a collaborative effort between all concerned city agencies with budgetary and operational jurisdiction over a project, and outside consultants with expertise on critical project components. The City has utilized VE effectively in the last 38 years to review complex and costly capital projects to ensure they meet functional requirements and are cost effective and timely. These Value Management reviews enable agency decision makers to reach informed conclusions about a project's scope, cost and schedule. In addition to defining potential cost reductions, the VE process frequently generates project improvements and anticipates project risks early in the design process, and solves functional problems by raising relevant issues which adversely compromise the project's development, cost and schedule. OMB's Value Management Program continues to be successful, both as an operational and capital management tool. The benefits of VE and the overall returns on the reviewed projects have proven to be effective in terms of both significant capital and life cycle cost reductions while protecting each project's required functionality and mission. VA enables improvements to operational processes and more efficient service delivery. Studies scheduled for upcoming VE reviews include environmental projects, dams, bridges, resiliency projects, and operational reviews.

FINANCING PROGRAM

The City financing program projects $55.0 billion of long-term borrowing for the period fiscal years 2020 through 2024 to support the current City capital program, excluding $1.2 billion planned to be issued for education purposes through Building Aid Revenue Bonds (BARB). The portion of the capital program not financed by the New York City Municipal Water Finance Authority (NYW or the Authority) will be split between General Obligation (GO) bonds of the City and Future Tax Secured (FTS) bonds of the New York City Transitional Finance Authority (TFA). Given the TFA is near its statutory limit on BARB debt outstanding, the financing program reflects BARB issuance so as to remain under the limit.

The City and TFA FTS expect to issue $23.4 billion and $23.2 billion, respectively, during the plan period. The City issuance supports 42 percent of the total, and TFA FTS issuance supports another 42 percent of the total. NYW will issue approximately $8.4 billion.

Financing Program
($ in Millions)

	2020	2021	2022	2023	2024	Total
City General Obligation Bonds	$3,780	$3,820	$4,580	$5,420	$5,760	$23,360
TFA Bonds[1]	3,600	3,820	4,580	5,420	5,760	23,180
Water Authority Bonds[2]	2,095	1,571	1,611	1,549	1,617	8,443
Total	**$9,475**	**$9,211**	**$10,771**	**$12,389**	**$13,137**	**$54,983**

1 TFA Bonds do not include BARBs issued for education capital purposes. TFA expects to continue to issue BARBs under the current legislative authorization. For amounts, see the Transitional Finance Authority section below.

2 Includes commercial paper and revenue bonds issued for the water and sewer system's capital program. Figures do not include bonds that defease commercial paper or refunding bonds. Does not include bonds to fund reserves or cost of issuance.

Overview of the Financing Program

The following three tables show statistical information on debt issued and expected to be issued by the financing entities described above.

Debt Outstanding
($ in Millions at Year End)

	2020	2021	2022	2023	2024
City General Obligation Bonds	$38,784	$40,460	$42,734	$45,692	$48,870
TFA Bonds[1]	40,702	42,948	45,863	49,523	53,483
TSASC Bonds	1,023	993	966	938	909
Conduit Debt	1,058	995	929	838	769
Total	**$81,567**	**$85,396**	**$90,492**	**$96,991**	**$104,031**
Water Authority Bonds	$30,871	$32,206	$33,366	$34,442	$35,567

1 Figures above do not include state funded financing for education capital purposes through the TFA BARBs.

Annual Debt Service Costs
($ in Millions, Before Prepayments)

	2020	2021	2022	2023	2024
City General Obligation Bonds	$3,943	$4,008	$4,310	$4,640	$4,966
TFA Bonds[1]	2,890	3,257	3,591	3,945	4,082
TSASC Bonds	82	82	76	76	76
Conduit Debt	105	125	125	148	118
Total Debt Service	**$7,020**	**$7,472**	**$8,102**	**$8,809**	**$9,242**
Water Authority Bonds[2]	$1,677	$1,678	$1,999	$2,093	$2,192

1 Figures above do not include state funded financing for education capital purposes through the TFA BARBs.

2 Includes First Resolution debt service and Second Resolution debt service net of subsidy payments from the NYS Environmental Facilities Corporation.

Debt Burden

	2020	2021	2022	2023	2024
Total Debt Service[1] as % of:					
a. Total Revenue	7.1%	8.3%	8.5%	9.0%	9.3%
b. Total Taxes	11.2%	12.2%	12.4%	13.0%	13.4%
c. Total NYC Personal Income	1.0%	1.1%	1.1%	1.2%	1.2%
Total Debt Outstanding[1] as % of:					
a. Total NYC Personal Income	12.0%	12.6%	12.6%	13.2%	13.7%

1 Total Debt Service and Debt Outstanding include GO, conduit debt and TFA bonds other than BARBs.

Currently the debt service for the City, TFA FTS, and City appropriation debt, or conduit debt, excluding the effect of pre-payments, is 7.1 percent of the City's total budgeted revenues in fiscal year 2020. That ratio is projected to rise to 9.3 percent in fiscal year 2024. As a percentage of tax revenues, the debt service ratio is 11.2 percent in fiscal year 2020 and is projected to increase to 13.4 percent in fiscal year 2024.

All of the issuers financing the City capital program have maintained credit ratings in the AA category or better by Moody's, Standard & Poor's, and Fitch, as indicated in the table below. Following economic uncertainty surrounding COVID-19, the City and its related issuers have been put on negative outlook by Moody's; the outlooks for NYW and EFC remain stable.

Ratings

Issuer	Moody's	Standard and Poor's	Fitch
NYC GO	Aa1	AA	AA
TFA Senior	Aaa	AAA	AAA
TFA Subordinate	Aa1	AAA	AAA
TFA BARBs	Aa2	AA	AA
NYW First Resolution	Aa1	AAA	AA+
NYW Second Resolution	Aa1	AA+	AA+
EFC Senior SRF Bonds	Aaa	AAA	AAA
EFC Subordinated SRF Bonds	Aaa	AAA	AAA

New York City General Obligation Bonds

Since July 1, 2019, the City has issued $3.8 billion in GO bonds for capital purposes and $1.5 billion in GO refunding bonds. The dates and principal amounts are as follows:

NYC GO Issuances
($ in Millions)

Series	New$/ Refunding	Issue Date	Tax Exempt Amount	Taxable Amount	Total Par Amount
2020 A	N	8/13/2019	$800	$600	$1,400
2020 B	N	10/22/2019	950	130	1,080
2020 C	R	2/25/2020	1,081	423	1,504
2020 D	N	3/24/2020	800	500	1,300
Total			**$3,631**	**$1,653**	**$5,284**

The GO refunding transaction the City completed to date in fiscal year 2020 generated approximately $260 million of debt service savings during the financial plan period.

In addition to the total issuance mentioned above, the City took steps to manage its outstanding floating rate debt. The City reoffered seven subseries of floating rate bonds amounting to approximately $395 million. Of those reoffered issues, six subseries of tax-exempt variable rate demand bonds totaling approximately $200 million were converted to fixed rates. The remaining subseries of tax-exempt variable rate demand bonds was converted to an interest rate mode bearing a short-term fixed rate.

The City plans to issue GO bonds for capital purposes of approximately $3.8 billion, $3.8 billion, $4.6 billion, $5.4 billion, and $5.8 billion in fiscal years 2020 through 2024, respectively.

New York City Related Issuers - Variable Rate Debt

The City and other issuers supporting the City capital program have maintained floating rate exposure to minimize interest costs. When reviewing the City's variable rate debt, it is useful to include all sources of financing with the exception of NYW, which is typically considered separately for such purposes. Variable rate demand bonds compose the majority of the City's variable rate portfolio, but also included are direct placements of index floating rate notes. The City and TFA continue to explore various debt instruments that will confer the benefit of floating rates. Currently, the City and its related entities, excluding NYW, have approximately $9.7 billion of floating rate exposure, which typically provides attractive financing costs relative to long term fixed rate debt.

While floating rate debt continues to provide significant savings relative to fixed rate debt, the exposure is of note because certain events can cause unexpected increased costs. Those events would include rising interest rates, reductions in tax rates in the tax code (in the case of tax-exempt debt), and the deterioration of the City's credit. Additionally, the deterioration of a liquidity provider can also have an impact on net interest costs. Most recently, floating rate debt experienced a spike in rates in March due to market disruptions related to COVID-19. Floating rates have since normalized and are expected to continue to provide lower overall rates compared to fixed rate debt.

The following table shows a breakout of the City's and its related issuers' floating rate exposure, excluding NYW. Floating rate exposure is currently at 11.9 percent, and this is even more manageable after taking into account the 10 year average balance of $7.4 billion of short-term assets in the City's General Fund, which are an offset to these floating rate liabilities. Net of these floating rate assets, the floating rate exposure of the City, excluding NYW, is 2.8 percent of its outstanding debt. Moreover, the City uses conservative assumptions in budgeting expenses from floating rate instruments.

NYC Floating-Rate Exposure[1]
($ in Millions)

	GO	TFA	Conduit	TSASC	Total
Floating Rate Bonds	$5,310	$4,169	$30	$0	$9,509
Synthetic Fixed	128	0	31	0	159
Total Floating-Rate	$5,438	$4,169	$61	$0	$9,668
Total Debt Outstanding	$38,784	$40,702	$1,058	$1,023	$81,567

% of Floating-Rate / Total Debt Outstanding	*11.9%*
Total Floating-Rate Less $7.4 Billion Balance in General Fund (Floating-Rate Assets)	2,290
% of Net Floating Rate / Total Debt Outstanding	*2.8%*

1 End of Fiscal Year 2020 Debt Outstanding as of the April 2020 Financial Plan excluding NYW, HYIC, and TFA BARBs

In addition to the floating rate debt instruments previously discussed, the City has utilized synthetic fixed rate debt (issuance of floating rate debt which is then swapped to a fixed rate). In contrast to variable rate demand bonds and other floating rate instruments, synthetic fixed rate debt is largely insensitive to changes in interest rates and changes in the City's credit, though they do provide exposure to decreases in marginal tax rates in the tax code. Given the limited floating rate exposure by these instruments, they are counted at 25 percent of par or notional amount in the table above. The City did not enter into any new interest rate swaps to date in fiscal year 2020. The TFA has no outstanding swaps. The total notional amount of GO swaps outstanding as of March 31, 2020 was $511 million, on which the termination value was negative $80 million. This is the theoretical amount that the City would pay if all of the swaps were terminated under market conditions as of March 31, 2020.

Following the end of calendar year 2021, the quotes to set the London Inter-bank Offered Rate (LIBOR) are likely to be discontinued. LIBOR is a taxable index to which a percentage is applied to approximate a tax-exempt rate, so the discontinuation of this rate will impact floating rate instruments indexed to it. Because the tax-exempt index SIFMA has been the City's preferred index, the City TFA, and NYW have no floating rate debt instruments linked to LIBOR. For all outstanding GO and NYW swaps, the payments received are based on a percentage of LIBOR; some of these swaps are scheduled to still be in effect after 2021. Relative to their total debt portfolios, the City and its related issuers have very limited exposure to LIBOR. The City is monitoring all developments related to the LIBOR discontinuation and transition to an alternative index, which is currently expected to be the Secured Overnight Financing Rate (SOFR) developed by the Federal Reserve.

The New York City Municipal Water Finance Authority

The New York City Municipal Water Finance Authority (NYW) was created in 1985 to finance capital improvements to the City's water and sewer system. Since its first bond sale in November 1985, the Authority has sold $72.1 billion of bonds. These bond issuances included a combination of general (first) resolution, second general resolution and subordinated special resolution crossover refunding water and sewer system revenue bonds.

Of the aggregate bond par amount sold, $31.3 billion is outstanding, $28.9 billion, including $665 million of special resolution crossover bonds, was refinanced, $5.6 billion was defeased with Authority funds prior to maturity, and $6.3 billion was retired with revenues as it matured. In addition to this long-term debt, NYW uses bond anticipation notes (BANs) issued to the New York State Environmental Facilities Corporation (EFC) and a commercial paper program as a source of flexible short-term financing. On April 8, 2020, NYW paid off $286.3 million of BAN draws, and currently has no BANs outstanding. The Authority is authorized to draw up to $600 million of commercial paper notes, including up to $400 million of the Extendable Municipal Commercial Paper. Currently, the Authority has no commercial paper outstanding, and does not expect to issue commercial paper for the remainder of the current fiscal year.

NYW's outstanding debt also includes floating rate bonds, which have been a reliable source of cost effective financing. NYW has $5.0 billion of floating rate bonds or approximately 16 percent of its outstanding debt, including $401 million, which was swapped to a fixed rate. NYW's floating rate exposure primarily consists of tax-exempt floating rate debt supported by liquidity facilities. NYW's exposure also includes $500 million of privately placed tax-exempt index rate bonds, which pay interest based on a specified index. Index rate bonds do not require liquidity facilities, however, they provide for an increased rate of interest commencing on an identified step up date if the bonds are not converted or refunded. Through the step up date, the bonds have an all-in cost similar to floating rate bonds supported by liquidity facilities.

NYW is a party to two interest rate exchange agreements (swaps) with a total notional amount of $401 million. Under these agreements, the Authority pays a fixed interest rate of 3.439% in exchange for a floating rate based on 67% of one-month LIBOR. As of March 31, 2020, the combined mark-to-market value of the swaps was negative $165.1 million. This is the theoretical amount, which NYW would pay if both swaps were terminated as of March 31, 2020.

NYW participates in the State Revolving Fund (SRF) program administered by the EFC. The SRF provides a source of long-term below-market interest rate borrowing, subsidized by federal capitalization grants, state matching funds, and other funds held by EFC.

Summarized in the following table are the issuances that have closed to date in fiscal year 2020. The proceeds of the bonds were applied to pay the cost of improvements to the system or paid principal and interest on certain of the Authority's outstanding debt and paid the costs of issuance.

NYW Issuance
($ in Millions)

Series	(N)ew Money /(R)ef.	Issue Date	Par Amount	True Interest Cost (TIC)	Longest Maturity
2020 AA	R	7/2/2019	$460	2.94%	2040
2020 BB	N	7/17/2019	450	3.37%	2049
2020 Series 2, 3 and 4[1]	N/R	10/8/2019	442	1.35%[2]	2049
2020 CC	N/R	12/12/2019	638	2.91%	2049
2020 DD	N/R	2/13/2020	528	2.85%	2050
2020 EE	R	3/18/2020	399	2.11%	2042
2020 Series 5, 6, and 7[1]	N/R	4/8/2020	334	1.25%[2]	2049
			$3,251		

1 Bonds issued to EFC
2 Includes the benefit from the EFC subsidy and accounts for cost of annual fees for administration

NYW is projected to issue $207 million of additional new money bonds over the remainder of fiscal year 2020. During the period from 2021 to 2024, NYW expects to sell an average of approximately $1.6 billion of new money bonds per year. Of this amount, NYW plans to issue $300 million bonds annually to EFC, taking advantage of the interest rate subsidy available for qualifying projects, and minimizing the overall costs of its financing program. After fiscal year 2020, NYW expects to issue approximately 90 percent of its new debt per year as fixed rate debt with the remainder issued as floating rate debt, subject to market conditions.

The New York City Transitional Finance Authority

The TFA is a public authority of New York State created by the New York Transitional Finance Authority Act in 1997. The TFA was created to issue debt, primarily secured with the City's personal income tax, to fund a portion of the capital program of the City. The TFA was originally authorized to issue up to $7.5 billion of bonds and notes. On September 13, 2001, the TFA was given statutory authority to borrow $2.5 billion to finance costs related to the September 11th terrorist attack on the City. Currently, TFA is permitted to have $13.5 billion of debt outstanding and any amounts over and above that level are subject to the City's remaining debt incurring power under the State constitutional debt limit.

Since July 1, 2019, the TFA has issued approximately $2.5 billion in bonds for capital purposes. The dates and principal amounts are as follows:

NYC TFA Issuances
($ in Millions)

Series	New$/ Refunding	Issue Date	Tax Exempt Amount	Taxable Amount	Total Par Amount
2020 A	N	8/15/2019	$850	$500	$1,350
2020 B	N	12/19/2019	850	300	1,150
Total			$1,700	$800	$2,500

Additionally, the TFA took steps to manage outstanding floating rate bonds by converting approximately $140 million of floating rate bonds to a fixed rate mode.

The TFA plans to issue TFA FTS bonds for capital purposes of approximately $3.6 billion, $3.8 billion, $4.6 billion, $5.4 billion, and $5.8 billion in years 2020 through 2024, respectively.

In April 2006, the State enacted legislation authorizing issuance by the TFA of an additional $9.4 billion of bonds to be used to fund capital costs for the Department of Education. This legislation also provided for the assignment to TFA of State building aid that had previously been paid directly to the City. The TFA currently has approximately $8.3 billion of BARBs outstanding which fund the capital program of the Department of Education. The financing program reflects BARB issuance projections to remain under the statutory cap. The TFA plans to issue BARBs of approximately $250 million, $394 million, $178 million, $155 million, and $201 million in fiscal years 2020 through 2024, respectively, totaling $1.2 billion over the plan period.

Since July 1, 2019, TFA has issued $250 million in BARBs for capital purposes.

NYC TFA BARB Issuances
($ in Millions)

Series	New$/ Refunding	Issue Date	Tax Exempt Amount	Taxable Amount	Total Par Amount
2020 S-1	N	10/30/2019	$250	$0	$250
Total			$250	$0	$250

Hudson Yards Infrastructure Corporation

Hudson Yards Infrastructure Corporation (HYIC), a not-for-profit local development corporation, was established to provide financing for infrastructure improvements to facilitate economic development on Manhattan's far west side. Improvements include the extension of the No. 7 subway line west and south, construction of a park, as well as the acquisition of development rights over the MTA rail yards.

In December 2006, HYIC issued its first series of bonds in the principal amount of $2 billion. HYIC completed its second issuance of $1 billion of bonds in October 2011. Principal on the HYIC bonds is being repaid from revenues generated by this new development, notably payments-in-lieu-of-property taxes (PILOT) on the commercial development and various developer payments. To the extent these revenues are not sufficient to cover interest payments, the City has agreed to make interest support payments (ISP) to HYIC subject to appropriation.

In May 2017, HYIC issued approximately $2.1 billion of refunding bonds which refinanced all of its initial $2 billion bond issue and a portion of its second bond issue under a new legal structure. This refinancing allowed HYIC to remit approximately $110 million of accumulated revenues for City benefit in 2017. Moreover, the refunding enabled HYIC to transfer to the City any excess revenues over and above amounts needed for HYIC debt service.

Given the ongoing development in the Manhattan's far west side, revenues received by HYIC have accelerated. Collections of PILOT revenue and tax equivalency payments continue to increase. Additionally, since the beginning of fiscal year 2020, HYIC received approximately $180 million from payments in lieu of mortgage recording tax and district improvement bonus.

The No. 7 Subway extension was constructed by the MTA and began service in September 2015. The secondary entrance to this station located at W. 35th Street and Hudson Boulevard East opened in September 2018. Phase I of the Hudson Park and Boulevard opened to the public in August 2015 and is managed by the Hudson Yards Hell's Kitchen Alliance Business Improvement District.

Appendix

EXHIBIT 1
EXPENDITURE ASSUMPTIONS

Personal Services

The estimates for Personal Services over the five-year period of the plan are as follows:

	($ in Millions)				
	2020	**2021**	**2022**	**2023**	**2024**
Salaries and Wages	$28,886	$28,419	$29,067	$29,510	$29,604
Pensions	9,819	9,927	10,502	10,434	10,106
Other Fringe Benefits	11,255	11,615	12,504	13,311	14,119
Retiree Health Benefits Trust	(1,000)	(1,600)	-	-	-
Reserve for Collective Bargaining	864	1,936	1,303	1,745	2,196
Total	**$49,824**	**$50,297**	**$53,376**	**$55,000**	**$56,025**

Salaries and Wages

The projections for salaries and wages reflect personnel costs associated with current and projected headcount levels and also includes recognized needs and any wage adjustments from rounds of collective bargaining that have been implemented.

Pensions and Other Fringe Benefits

Pension expenses reflect recent actuarial estimates of the City's five major retirement systems prepared by the Office of the Actuary. In addition to these estimates, pension expenses include the impact of asset performance in fiscal year 2019.

Pension expense estimates in the financial plan reflect the new set of actuarial assumptions and methods recommended by the Chief Actuary and adopted by the boards of trustees of the City's Retirement Systems (NYCRS) in fiscal year 2019 referred to as the "2019 A&M". Bolton Partners, the independent actuarial consultant, completed their final reports in June 2019. As the result of this study, the Actuary recommended changes to several of the assumptions for each of the NYCRS. These recommendations, which were primarily changes to the demographic assumptions, began in fiscal year 2019. The Chief Actuary updated mortality assumptions based on studies of mortality improvement published by the Society of Actuaries in 2018. At the same time, an asset corridor was implemented to keep the Actuarial Value of Assets (AAV) within 80% - 120% of the Market Value of Assets (MVA). Usually, the unexpected investment return, or difference between the assumed investment return (currently 7% of MVA) and the actual investment return on the MVA, is phased into the AAV over six years. With the asset corridor, the unexpected return will be phased in immediately if AAV falls under 80% or above 120% of the MVA.

The financial plan reflects the estimated impact of fiscal year 2019 investment returns of 7.24% (net of investment fees). The investment returns – higher than the assumed actuarial rate of seven percent – reduced the City's required pension contributions by $18 million, $36 million, $54 million, and $72 million in fiscal years 2021 through 2024, respectively.

The financial plan reflects a reserve of $200 million starting in fiscal 2022 rising to approximately $275 million beginning in fiscal 2023 to fund potential changes from future actuarial audit recommendations. Additionally, the financial plan reflects the cost associated with the impact of changes that are being proposed to keep the systems in compliance with the Older Workers Benefit Protection Act and the savings from the changes in methodology for funding the Tax Deferred Annuity Fixed Fund of the Teachers' Retirement System and the Board of Education Retirement System calculated by the Office of the Actuary.

Other adjustments stemming from changes in the number of active members, wage growth assumptions, increases in collective bargaining, legislation, and administrative expenses of the retirement systems have also been reflected in the financial plan.

Total pension expenses for the financial plan are shown below:

Total Pension Expenses
($ in Millions)

	2020	2021	2022	2023	2024
City Actuarial Systems	$9,723	$9,818	$10,388	$10,318	$9,986
Non-City Systems	95	108	114	116	120
Non-Actuarial*	—	—	—	—	—
Total**	**$9,819**	**$9,927**	**$10,502**	**$10,434**	**$10,106**

** Non-Actuarial expense are $350,000 rounded to zero.*
*** Numbers may not add due to rounding.*

Other fringe benefits include primarily Social Security, Unemployment Insurance, Workers' Compensation and Health Insurance. Expenditures on fringe benefits include adjustments for the expected changes in the City's planned headcount levels. The Social Security expense estimates reflect the tax rates and earnings caps issued by the Social Security Administration. In Calendar 2020, the combined tax rate is 7.65%. The OASDI tax portion of 6.20% is capped at $137,700 in earnings; the Medicare tax portion of 1.45% is applied to all earnings. Unemployment Insurance expense estimates are consistent with the statutory weekly benefit levels and planned payroll levels. Workers' Compensation expense estimates are consistent with the compensation rate schedules mandated by State law and the projected growth in medical costs. Health insurance expense estimates reflect current levels of City enrollee coverage based on the health insurance contract counts and premium data available from the City's health insurance providers. These estimates reflect the health care savings agreed to as a result of both the May 2014 and June 2018 agreements between the City and the Municipal Labor Committee. Recurring annual savings of $1.3 billion associated with the May 2014 Agreement are reflected in all years of the financial plan. The savings from the June 2018 Agreement are valued at $200 million, $300 million, and $600 million in FY 2019 through FY 2021 respectively, with $600 million in savings recurring annually thereafter. In addition, the financial plan also reflects a drawdown of $2.6 billion from the Retiree Health Benefits Trust: $1.0 billion in 2020 and $1.6 billion in 2021.

Reserve for Collective Bargaining

In calendar year 2018, the City reached contract settlements with District Council 37 of AFSCME ("DC 37") and the United Federation of Teachers ("UFT") for the 2017 to 2021 round of collective bargaining. The pattern framework provides for 2% wage increases on the first day of the contract, a 2.25% wage increase as of the 13th month, and a 3% wage increase as of the 26th month. The pattern also provides funding equivalent to two 0.25% of wages to be used to fund benefit items. The DC 37 Settlement covers the period from September 26, 2017 through May 25, 2021. The UFT Settlement covers the period from February 14, 2019 through September 13, 2022.

In December 2019, the City reached a contract settlement with eight members of the Uniformed Officers Coalition ("UOC"). The settlement set the pattern for uniformed force employees in the 2017-2021 round of collective bargaining over a 36-month period, with increases of 2.25% effective the first day, 2.5% as of the 13th month, and 3% as of the 25th month. The cost of the uniformed pattern above the already-budgeted civilian pattern through FY 2024 is approximately $410 million and such cost is reflected in the Reserve for Collective Bargaining in the Preliminary Budget.

All contract settlements also include health insurance savings as part of a new Municipal Labor Committee ("MLC") agreement, in addition to those previously agreed upon, which are contractually enforceable through arbitration.

The Reserve also contains funding for the restructured payments for those unions that were covered by the UFT nine-year pattern. The City has now reached settlements with approximately 82% of the workforce for the 2017-21 round of collective bargaining. The reserve also contains City funds for a 1% wage increase for employees in the years beyond the current (2017-21) round of bargaining.

Other Than Personal Services

The following items are included in this category:

	($ in Millions)				
	2020	**2021**	**2022**	**2023**	**2024**
Administrative OTPS	$29,099	$24,670	$25,071	$25,241	$25,393
Public Assistance	1,601	1,651	1,651	1,650	1,650
Medical Assistance	5,987	5,399	5,915	5,915	5,915
Health + Hospitals*	1,402	1,145	1,238	1,255	1,264
Covered Agency Support & Other Subsidies	4,811	4,683	4,728	4,757	4,837
City Debt Service*	6,938	7,390	8,027	8,732	9,166
Prepayment Adjustments	(66)	(4,155)	—	—	—
Capital Stabilization Reserve	—	—	250	250	250
General Reserve	20	100	1,000	1,000	1,000
Total	**$49,792**	**$40,883**	**$47,880**	**$48,800**	**$49,475**

** Numbers adjusted for prepayments.*

Administrative OTPS

The estimates in this category include new needs and savings in the baseline. For 2022 through 2024, most expenditures have been increased to reflect the effect of inflation. The inflation adjustment, which is shown in a citywide account, represents an estimated annual 2.5 percent increase in 2022 through 2024. Baseline costs for energy and lease requirements are shown in the appropriate operating agency, while out-year inflationary cost are primarily shown in citywide accounts as noted in the following two sections.

Energy

The financial plan includes a Citywide appropriation to provide for the changing cost of energy for 2022 through 2024. Energy costs in each agency, with the exception of HPD, are held constant for 2021 through 2024. Price and usage changes for HPD's In-Rem/DAMP Programs are budgeted in HPD's four-year plan.

Energy costs are expected to increase by $142 million from 2021 to 2024 due to weather normalization and fluctuating commodity prices. Gasoline and fuel oil costs are expected to increase by an additional $95 million from 2021 to 2024. Heat, light and power costs are also expected to increase by $47 million between 2021 and 2024.

Energy Costs
($ in Millions)

	2020	2021	2022	2023	2024
Gasoline	$71	$73	$95	$111	$121
Fuel Oil	53	72	95	109	119
HPD-In Rem / DAMP	10	10	10	11	11
HPD-Emergency Repairs	4	4	3	3	3
Heat, Light and Power	709	725	737	755	772
Total	**$847**	**$884**	**$940**	**$989**	**$1,026**

Leases

In each agency, the cost of leases is budgeted at a constant level from 2021 through 2024. A citywide adjustment for 2022 through 2024 provides for the increasing cost of leases based on a three percent annual inflator as well as known future leases, where applicable.

In total, the four-year plan includes $1.305 billion for leases in 2021, $1.344 billion in 2022, $1.385 billion in 2023 and $1.426 billion in 2024. Of these amounts, the citywide adjustment is $39 million, $80 million, and $121 million respectively in 2022 through 2024.

Public Assistance

The four-year financial plan supports the current monthly average caseload of 330,000 persons on Public Assistance.

Medical Assistance

The financial plan for Medical Assistance assumes baselined funds consistent with the New York State enacted budget effective April 1, 2020, in which the State continues to take over Medicaid growth from localities. The financial plan also assumes enhanced Federal Medicaid funding to localities from COVID-19 stimulus funds recently appropriated by Congress. In addition, the financial plan includes the City share of Disproportionate Share and Upper Payment Limit payments to Health + Hospitals which fall outside of the Medicaid cap.

Health + Hospitals

Revenue and expenditure projections for 2020 through 2024 include assumptions related to actual collections experience, the impact of rates by third party payers, and collections performance through a variety of revenue enhancement efforts. Included in the System's baseline revenue assumption are the continued receipt of the Disproportionate Share and Upper Payment Limit transactions, as well as a shift from Medicaid Fee for Service to Medicaid Managed Care. Expenditure increases are driven by growth in health insurance costs and wage increases.

Covered Agency Support and Other Subsidies

Included in this category are the contributions made by the City to the Transit Authority, Housing Authority, Libraries and various Cultural Institutions. Also included in this category are the estimated projections for the cost of Judgments and Claims.

General Reserve

The General Reserve is projected at $20 million for 2020, $100 million for 2021 and $1 billion for 2022 through 2024 to provide for uncontrollable increases in expenditures as well as shortfalls in revenue. The General Reserve for 2022 through 2024 has been increased above the required amount as per the City Charter to allow for any further uncertainties that may occur in the future.

Capital Stabilization Reserve

The financial plan includes a capital stabilization reserve of $250 million in fiscal years 2022 through 2024 for a total of $750 million.

Debt Service

Debt Service projections cover payments of debt service on currently outstanding City, TFA, and Conduit debt as well as future issuances in accordance with the 2020 through 2024 financing program (See Financing Program). Actual debt service payments in these years will be affected by the timing of bond sales and by market conditions. Estimates of City and TFA debt service costs on debt to be issued are based on estimates of the periods of probable usefulness of the capital assets for which the debt will be issued.

A Budget Stabilization Account has been established for the prepayment of future years' debt service costs. Funding of $4.155 billion in 2020 has been provided for this purpose.

Below are the detailed estimates for debt service for 2020 through 2024 after prepayments:

($ in Millions)

	Long Term	Short Term	Lease Purchase	Budget Stabilization*	Total City and Lease	TFA	Prepayment Adjustment	Total City, Lease and TFA
2020	$2,241	$—	$105	$4,155	$6,501	$571	$(134)	$6,938
2021	2,418	—	125	—	$2,543	692	4,155	$7,390
2022	4,311	—	125	—	$4,436	3,591	—	$8,027
2023	4,639	—	148	—	$4,787	3,945	—	$8,732
2024	4,966	—	118	—	$5,084	4,082	—	$9,166

** Amounts in the Budget Stabilization Account are used to prepay the succeeding year's debt service.*

EXHIBIT 2

FISCAL YEAR 2021 EXECUTIVE BUDGET AND PROJECTIONS, FISCAL YEAR 2022 THROUGH FISCAL YEAR 2024

($ in thousands)

Dept. No.	Agency	FY 2019 Actual Expenditures	Fiscal Year 2020 Executive Budget	Fiscal Year 2020 8 Month Actuals July - Feb.	Fiscal Year 2020 Forecast	FY 2021 Executive Budget	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate
002	Mayoralty	$146,580	$160,832	$112,421	$173,487	$160,057	$160,121	$156,863	$156,863
003	Board of Elections	172,927	246,029	143,010	223,519	135,629	135,781	135,370	135,370
004	Campaign Finance Board	25,395	28,075	16,038	24,575	42,051	14,420	14,420	14,420
008	Office of the Actuary	6,564	7,337	4,589	7,141	7,498	7,498	7,498	7,498
010	President,Borough of Manhattan	5,032	5,285	3,228	5,291	5,369	4,894	4,894	4,894
011	President,Borough of the Bronx	4,987	6,283	3,522	5,900	6,581	5,753	5,753	5,753
012	President,Borough of Brooklyn	6,424	6,885	4,722	7,757	7,446	6,418	6,418	6,418
013	President,Borough of Queens	5,716	5,821	3,728	6,446	6,042	5,048	5,048	5,048
014	President,Borough of S.I.	4,343	4,738	2,405	4,758	4,789	4,481	4,481	4,481
015	Office of the Comptroller	102,794	112,753	72,229	113,044	113,757	113,789	113,805	113,805
017	Dept. of Emergency Management	58,965	38,567	37,635	472,757	28,759	28,961	28,961	28,961
021	Office of Admin. Tax Appeals	5,052	5,608	3,622	5,829	6,051	6,057	6,057	6,057
025	Law Department	254,075	251,256	178,723	279,690	253,479	253,058	253,791	253,791
030	Department of City Planning	40,073	47,768	37,576	50,810	44,584	42,711	41,851	41,851
032	Department of Investigation	49,120	49,904	31,370	61,411	58,944	58,403	58,082	57,777
035	NY Public Library - Research	28,458	28,716	29,643	30,874	29,877	29,894	29,894	29,894
037	New York Public Library	146,016	141,369	152,582	156,883	150,143	150,368	150,374	150,374
038	Brooklyn Public Library	111,706	105,934	77,789	118,989	113,389	113,454	113,454	113,454
039	Queens Borough Public Library	115,809	111,111	110,568	123,340	117,789	118,136	118,137	118,137
040	Department of Education	27,066,850	27,111,258	17,693,743	28,384,057	27,540,087	28,680,451	29,504,803	29,901,386
042	City University	1,252,098	1,173,066	502,458	1,319,961	1,199,074	1,245,817	1,279,456	1,299,648
054	Civilian Complaint Review Bd.	18,459	18,344	12,369	19,357	19,471	20,567	20,317	20,317
056	Police Department	5,976,816	5,596,752	4,031,842	5,921,203	5,644,654	5,669,977	5,670,259	5,670,285
057	Fire Department	2,114,027	2,089,945	1,435,423	2,154,172	2,079,074	2,075,907	2,070,447	2,070,447
063	Dept. of Veterans' Services	4,142	5,284	3,788	5,927	6,490	6,576	6,240	6,240
068	Admin. for Children Services	3,149,237	2,655,143	1,853,776	2,726,825	2,653,467	2,645,609	2,645,579	2,645,548
069	Department of Social Services	10,243,108	10,212,184	7,447,756	10,259,802	9,634,393	10,070,079	10,069,304	10,069,303
071	Dept. of Homeless Services	2,184,140	2,117,598	1,745,849	2,148,778	2,074,343	2,071,056	2,071,418	2,071,418
072	Department of Correction	1,374,538	1,361,313	869,351	1,319,084	1,194,531	1,171,231	1,171,202	1,171,190
073	Board of Correction	2,595	3,158	1,732	2,813	3,024	3,024	3,024	3,024
095	Citywide Pension Contributions	9,940,880	9,951,273	6,638,727	9,818,566	9,926,953	10,502,418	10,434,170	10,105,829
098	Miscellaneous	9,927,454	12,374,883	4,959,098	10,155,816	10,986,388	12,789,616	13,753,329	14,787,918
099	Debt Service	6,373,133	3,721,769	1,806,471	7,071,817	3,235,354	8,026,564	8,732,280	9,165,865
101	Public Advocate	3,022	3,819	2,592	4,391	4,606	4,498	4,498	4,498
102	City Council	78,451	87,635	59,266	85,035	87,635	56,441	56,441	56,441
103	City Clerk	5,577	5,833	3,769	5,758	6,016	6,019	6,019	6,019
125	Department for the Aging	388,223	363,081	317,936	431,378	386,070	385,829	385,680	385,679
126	Department of Cultural Affairs	205,086	144,777	143,984	214,700	137,515	149,065	148,973	148,973
127	Financial Info. Serv. Agency	111,256	114,732	90,291	112,037	111,744	111,765	111,765	111,765
131	Office of Payroll Admin.	16,097	16,578	10,710	16,095	15,323	15,461	15,461	15,461
132	Independent Budget Office	4,353	5,713	3,251	6,091	5,791	5,823	5,806	5,806
133	Equal Employment Practices Com.	1,147	1,220	762	1,190	1,268	1,268	1,268	1,268
134	Civil Service Commission	1,030	1,194	612	1,081	1,219	1,219	1,219	1,219
136	Landmarks Preservation Comm.	6,222	6,835	4,315	6,700	6,963	6,973	7,033	7,033

EXHIBIT 2

FISCAL YEAR 2021 EXECUTIVE BUDGET AND PROJECTIONS, FISCAL YEAR 2022 THROUGH FISCAL YEAR 2024

($ in thousands)

Dept. No.	Agency	FY 2019 Actual Expenditures	Fiscal Year 2020 Executive Budget	Fiscal Year 2020 8 Month Actuals July - Feb.	Fiscal Year 2020 Forecast	FY 2021 Executive Budget	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate
156	Taxi & Limousine Commission	$47,896	$51,652	$36,803	$54,150	$55,701	$55,919	$56,019	$56,019
226	Commission on Human Rights	13,257	14,068	8,602	13,856	14,034	13,781	13,781	13,781
260	Youth & Community Development	872,005	779,217	729,944	970,369	598,297	763,282	763,385	763,385
312	Conflicts of Interest Board	2,679	2,703	1,704	2,583	2,656	2,756	2,756	2,756
313	Office of Collective Barg.	2,301	2,434	1,552	2,386	2,454	2,455	2,455	2,455
499	Community Boards (All)	18,836	18,822	12,674	21,786	18,722	19,236	19,236	19,236
781	Department of Probation	114,159	117,616	79,402	124,682	121,688	123,780	123,780	123,780
801	Dept. Small Business Services	244,550	188,951	138,324	397,425	160,835	145,100	138,432	137,932
806	Housing Preservation & Dev.	1,090,448	987,112	764,737	1,312,995	1,015,507	1,033,396	1,014,561	1,014,525
810	Department of Buildings	173,246	199,534	130,322	193,135	189,754	195,605	190,701	190,701
816	Dept Health & Mental Hygiene	1,782,770	1,688,483	1,455,793	1,896,793	1,692,231	1,696,864	1,696,173	1,696,181
819	Health and Hospitals Corp.	1,034,600	1,001,013	456,615	1,201,607	1,144,698	1,237,728	1,254,807	1,263,871
820	Office Admin Trials & Hearings	47,114	51,261	33,111	50,529	51,601	51,663	51,663	51,663
826	Dept of Environmental Prot.	1,433,007	1,366,137	1,018,766	1,463,143	1,397,468	1,386,655	1,377,387	1,377,387
827	Department of Sanitation	1,762,371	1,759,696	1,297,266	1,835,036	1,745,297	1,718,967	1,704,375	1,703,948
829	Business Integrity Commission	8,771	9,719	6,461	9,082	9,672	9,682	9,749	9,749
836	Department of Finance	300,242	314,160	223,655	328,169	324,215	323,838	323,855	323,855
841	Department of Transportation	1,040,372	1,086,935	854,325	1,133,810	1,095,684	1,132,229	1,133,477	1,134,700
846	Dept of Parks and Recreation	563,628	540,253	401,589	592,955	509,210	549,831	549,736	549,826
850	Dept. of Design & Construction	286,806	188,559	222,170	324,042	168,958	166,262	165,711	165,711
856	Dept of Citywide Admin Srvces	1,280,023	1,252,058	1,044,269	2,742,802	1,279,451	1,304,704	1,294,525	1,294,530
858	D.O.I.T.T.	675,511	684,010	560,585	732,296	708,220	698,750	698,535	698,042
860	Dept of Records & Info Serv.	9,786	12,593	6,821	12,286	15,510	17,081	16,680	16,680
866	Department of Consumer Affairs	42,275	43,091	29,602	42,004	44,103	44,852	44,349	44,349
901	District Attorney - N.Y.	119,111	112,699	98,041	144,956	123,488	126,103	126,105	126,105
902	District Attorney - Bronx	83,444	84,321	55,676	86,996	91,945	91,952	91,952	91,952
903	District Attorney - Kings	110,501	110,389	81,506	120,336	119,334	119,352	119,352	119,352
904	District Attorney - Queens	70,017	69,263	48,910	73,237	76,897	76,912	76,912	76,912
905	District Attorney - Richmond	16,937	15,761	11,501	19,012	18,521	18,501	18,496	18,491
906	Off. of Prosec. & Spec. Narc.	23,292	24,007	14,930	24,250	25,698	25,495	25,495	25,495
941	Public Administrator - N.Y.	2,601	1,299	901	1,405	1,240	1,250	1,254	1,254
942	Public Administrator - Bronx	684	735	446	728	754	754	754	754
943	Public Administrator- Brooklyn	889	909	580	889	916	916	916	916
944	Public Administrator - Queens	578	659	392	609	674	674	674	674
945	Public Administrator -Richmond	621	565	382	570	572	572	572	572
	Prior Payable Adjustment	(346,279)	—	—	(400,000)	—	—	—	—
	General Reserve	—	1,000,000	—	20,000	100,000	1,000,000	1,000,000	1,000,000
	Citywide Savings Initiatives	—	(1,414)	—	—	—	(35,317)	(34,815)	(34,815)
	Energy Adjustment	—	—	—	—	—	57,322	105,407	142,317
	Lease Adjustment	—	—	—	—	—	39,164	79,502	121,051
	OTPS Inflation Adjustment	—	—	—	—	—	55,519	111,038	166,557
	LESS: INTRA-CITY EXPENDITURES	2,235,937	1,818,581	666,499	2,177,629	1,847,999	1,834,092	1,831,333	1,831,322
	NET TOTAL EXPENDITURES	$92,431,089	$92,468,347	$59,827,129	$97,438,415	$89,331,693	$99,421,991	$101,969,551	$103,668,753

EXHIBIT 3

ACTUAL REVENUE
($ in Millions)

	Fiscal Year 2016	Fiscal Year 2017	Fiscal Year 2018	Fiscal Year 2019
Taxes:				
Real Property	$23,181	$24,679	$26,408	$27,885
Personal Income	11,340	11,230	13,372	13,344
General Corporation	3,354	3,528	3,454	4,269
Banking Corporation	268	(82)	(17)	(70)
Unincorporated Business	2,040	2,005	2,182	2,029
Sales and Use	6,911	7,017	7,443	7,810
Commercial Rent	779	816	853	907
Real Property Transfer	1,775	1,415	1,388	1,547
Mortgage Recording	1,234	1,118	1,050	1,097
Utility	354	371	371	369
Cigarette	45	37	36	30
Hotel	565	579	597	625
All Other	614	653	630	834
Tax Audit Revenue	1,161	1,296	1,337	818
Total Taxes	53,621	54,662	59,104	61,494
Miscellaneous Revenues:				
Licenses, Franchises, Etc.	729	770	776	802
Interest Income	79	73	125	226
Charges for Services	1,001	1,033	1,027	1,030
Water and Sewer Charges	1,297	1,385	1,390	1,470
Rental Income	279	253	261	273
Fines and Forfeitures	995	985	1,027	1,109
Miscellaneous	724	565	413	1,087
Intra-City Revenue	1,922	2,053	2,197	2,236
Total Miscellaneous	7,026	7,117	7,216	8,233
Unrestricted Intergovernmental Aid:				
Other Federal and State Aid	6	59	—	151
Total Unrestricted Intergovernmental Aid	6	59	—	151
Provision for Disallowance of Categorical Grants	(1)	558	139	113
Less Intra-City Revenue	(1,922)	(2,053)	(2,197)	(2,236)
Sub Total City Funds	58,730	60,343	64,262	67,755
Other Categorical Grants	861	1,208	1,255	1,340
Transfers from Capital Fund:				
Inter Fund Agreements	557	633	637	652
Total City Funds & Inter-Fund & Other Categorical Revenues	60,148	62,184	66,154	69,747
Federal Grants and Contracts Categorical:				
Community Development	780	1,108	1,081	506
Social Services	3,225	3,454	3,362	3,553
Education	1,698	1,709	1,786	1,876
Other	1,691	1,656	1,737	1,784
Total Federal Grants and Contracts Categorical	7,394	7,927	7,966	7,719
State Grants and Contracts Categorical:				
Social Services	1,490	1,709	1,611	1,698
Education	9,612	10,250	10,710	11,185
Higher Education	239	248	255	263
Department of Health and Mental Hygiene	535	573	535	523
Other	1,126	1,210	1,342	1,301
Total State Grants and Contracts Categorical	13,002	13,990	14,453	14,970
Total Revenues	$ $80,544	$84,101	$88,573	$92,436

EXHIBIT 4
REVENUE ESTIMATES
($ in Millions)

	Fiscal Year 2020 8 Months Actuals	Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024
Taxes:						
Real Property	$27,805	$29,612	$30,834	$31,906	$32,831	$33,260
Personal Income	8,671	13,253	11,671	12,975	13,729	14,270
General Corporation	2,444	4,310	3,161	3,850	4,069	3,960
Banking Corporation	(35)	(31)	—	—	—	—
Unincorporated Business	1,026	1,719	1,782	1,878	2,014	2,105
Sale and Use	5,394	7,213	7,264	8,216	8,705	8,954
Commercial Rent	444	864	838	893	923	955
Real Property Transfer	862	1,131	1,044	1,270	1,305	1,322
Mortgage Recording	743	942	764	877	899	910
Utility	208	349	363	400	401	416
Cigarette	16	27	26	25	24	23
Hotel	340	489	518	625	658	670
All Other	343	1,071	833	833	833	833
Tax Audit Revenue	358	999	921	721	721	721
State Tax Relief Program - STAR	164	165	167	165	163	161
Total Taxes	48,783	62,113	60,186	64,634	67,275	68,560
Miscellaneous Revenue:						
Licenses, Franchises, Etc.	526	709	691	695	695	697
Interest Income	95	123	12	13	13	13
Charges for Services	595	971	1,039	1,034	1,034	1,034
Water and Sewer Charges	1,489	1,708	1,578	1,565	1,559	1,559
Rental Income	195	261	247	243	243	243
Fines and Forfeitures	846	1,108	1,111	1,103	1,098	1,099
Miscellaneous	263	494	351	343	342	341
Intra-City Revenue	666	2,178	1,848	1,834	1,831	1,831
Total Miscellaneous	4,675	7,552	6,877	6,830	6,815	6,817
Unrestricted Intergovernmental Aid:						
Other Federal & State Aid	11	1,411	—	—	—	—
Total Unrestricted Intergovernmental Aid	11	1,411	—	—	—	—
Reserve for Disallowance of Categorical Grants	—	(15)	(15)	(15)	(15)	(15)
Less: Intra-City Revenue	(666)	(2,178)	(1,848)	(1,834)	(1,831)	(1,831)
Sub Total City Funds	52,803	68,883	65,200	69,615	72,244	73,531
Other Categorical Grants	286	1,072	872	861	860	857
Inter Fund Agreements	265	672	675	675	675	675
Total City Funds & Inter-Fund & Other Categorical Revenues	$53,354	$70,627	$66,747	$71,151	$73,779	$75,063

EXHIBIT 4
REVENUE ESTIMATES
($ in Millions)

	Fiscal Year 2020 8 Months Actuals	Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024
Federal Grants and Contracts Categorical:						
Community Development	$212	$956	$322	$288	$261	$261
Social Services	1,217	3,373	3,294	3,281	3,281	3,281
Education	422	2,123	2,125	2,087	2,087	2,087
Other	771	4,380	1,396	1,308	1,293	1,288
Total Federal Grants and Contracts Categorical	2,622	10,832	7,137	6,964	6,922	6,917
State Grants and Contracts Categorical:						
Social Services	500	1,981	1,833	1,820	1,819	1,820
Education	2,859	11,577	11,449	12,262	12,715	12,715
Higher Education	—	287	283	283	282	282
Department of Health and Mental Hygiene	234	618	508	508	508	508
Other	132	1,516	1,375	1,410	1,414	1,463
Total State Grants and Contracts Categorical	3,725	15,979	15,448	16,283	16,738	16,788
TOTAL REVENUE	$59,701	$97,438	$89,332	$94,398	$97,439	$98,768

EXHIBIT 5
FULL-TIME and PART-TIME POSITIONS (FTEs)

	6/30/2021 Total	6/30/2021 City	6/30/2022 Total	6/30/2022 City	6/30/2023 Total	6/30/2023 City	6/30/2024 Total	6/30/2024 City
MAYORAL AGENCIES AND ELECTED OFFICIALS:								
Uniformed Forces:								
Police -Uniform	36,178	36,178	36,201	36,201	36,201	36,201	36,201	36,201
-Civilian	17,468	17,448	17,684	17,664	17,684	17,664	17,684	17,664
Fire -Uniform	10,943	10,935	10,950	10,942	10,950	10,942	10,950	10,942
-Civilian	6,430	6,399	6,660	6,629	6,660	6,629	6,660	6,629
Correction -Uniform	7,219	7,219	7,060	7,060	7,060	7,060	7,060	7,060
-Civilian	1,996	1,988	2,029	2,021	2,029	2,021	2,029	2,021
Sanitation -Uniform	7,425	7,425	7,620	7,620	7,620	7,620	7,620	7,620
-Civilian	2,602	2,544	2,602	2,544	2,601	2,543	2,601	2,543
Subtotal	*90,261*	*90,136*	*90,806*	*90,681*	*90,805*	*90,680*	*90,805*	*90,680*
Health and Welfare:								
Admin. for Children's Services	7,484	7,317	7,484	7,317	7,484	7,317	7,484	7,317
Social Services	14,388	10,980	14,452	11,044	14,452	11,044	14,452	11,044
Homeless Services	2,212	2,209	2,113	2,110	2,113	2,110	2,113	2,110
Health & Mental Hygiene	6,925	5,494	6,918	5,499	6,911	5,492	6,911	5,492
Subtotal	*31,009*	*26,000*	*30,967*	*25,970*	*30,960*	*25,963*	*30,960*	*25,963*
Other Agencies:								
Housing Preservation and Development	2,568	827	2,564	823	2,558	820	2,558	820
Environmental Protection	6,427	260	6,404	266	6,388	266	6,388	266
Finance	2,212	2,200	2,212	2,200	2,212	2,200	2,212	2,200
Transportation	5,838	2,640	5,891	2,665	5,892	2,668	5,894	2,670
Parks	7,106	6,396	7,577	6,873	7,576	6,872	7,576	6,872
Citywide Administrative Services	2,800	2,090	2,790	2,080	2,790	2,080	2,790	2,080
All Other	23,482	20,139	23,152	19,827	23,113	19,822	23,113	19,822
Subtotal	*50,433*	*34,552*	*50,590*	*34,734*	*50,529*	*34,728*	*50,531*	*34,730*
Education:								
Dept. of Education-Pedagogical	124,825	94,676	127,567	94,725	127,567	94,725	127,567	94,725
-Civilian	25,697	22,649	25,973	22,649	25,973	22,649	25,973	22,649
City University -Pedagogical	6,533	6,533	6,533	6,533	6,533	6,533	6,533	6,533
-Civilian	3,753	3,753	3,753	3,753	3,753	3,753	3,753	3,753
Subtotal	*160,808*	*127,611*	*163,826*	*127,660*	*163,826*	*127,660*	*163,826*	*127,660*
Total - Mayoral Agencies and Elected Officials	332,511	278,299	336,189	279,045	336,120	279,031	336,122	279,033
COVERED ORGANIZATIONS[1]:								
Health + Hospitals	37,272	37,272	37,272	37,272	37,272	37,272	37,272	37,272
Housing Authority	11,029	-	10,825	-	10,632	-	10,419	-
Libraries	4,291	4,291	4,291	4,291	4,291	4,291	4,291	4,291
Cultural Institutions[2]	1,392	1,392	1,392	1,392	1,392	1,392	1,392	1,392
School Construction Authority	969	969	969	969	969	969	969	969
New York City Employees Retirement System	485	485	485	485	485	485	485	485
Economic Development Corporation	548	548	548	548	548	548	548	548
Teachers Retirement System	357	357	397	397	397	397	397	397
Police Pension Fund	153	153	153	153	153	153	153	153
Fire Pension Fund	50	50	50	50	50	50	50	50
All Other[3]	277	273	278	274	279	275	280	276
Total - Covered Organizations	56,823	45,790	56,660	45,831	56,468	45,832	56,256	45,833
Grand Total	389,334	324,089	392,849	324,876	392,588	324,863	392,378	324,866

1. Includes non-city employees substantially paid by city subsidies.
2. Includes only those employees of the Cultural Institutions Group paid by city fund subsidies.
3. Includes Housing Development Corporation, Education Construction Fund, City University Construction Fund, Rent Guidelines Board and Water Finance Authority.

EXHIBIT 6
FY 2021 EXECUTIVE BUDGET
CITYWIDE SAVINGS PROGRAM - 5 YEAR VALUE
(City $ in 000's)

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Uniformed Forces:					
Police	$60,923	$23,831	$3,285	$3,285	$3,285
Fire	22,686	48,441	10,106	6,195	6,075
Correction	39,875	197,925	218,995	218,995	218,995
Sanitation	98,212	45,192	28,503	28,891	29,758
Health and Welfare:					
Admin. for Children's Services	109,726	53,724	43,724	43,724	43,724
Social Services	255,992	50,166	15,902	15,902	15,902
Homeless Services	5,409	60,000	60,000	60,000	60,000
Aging	7,224	2,000	2,000	2,000	2,000
Youth and Community Dev.	21,400	180,354	3,000	3,000	3,000
Health and Mental Hygiene	76,969	12,529	7,280	7,280	7,280
Other Agencies:					
Housing Preservation and Dev.	13,675	7,043	371	371	371
Finance	7,897	—	—	—	—
Transportation	32,891	36,939	11,179	10,922	10,760
Parks and Recreation	34,836	43,427	2,493	2,493	2,493
Citywide Administrative Services	21,898	14,019	73	73	73
All Other Agencies	317,527	90,667	26,487	26,187	26,187
Education:					
Education	185,201	641,837	437,970	437,970	437,970
City University	21,675	31,550	6,000	6,000	6,000
Other:					
Citywide Savings Initiatives	63,457	56,051	18,253	3,944	6,516
Miscellaneous	159,834	203,451	80,310	83,517	87,078
Debt Service	285,586	152,917	161,465	200,128	264,126
Procurement Savings	—	55,519	55,519	55,519	55,519
Total Citywide Savings Program	**$1,842,893**	**$2,007,582**	**$1,192,915**	**$1,216,396**	**$1,287,112**

Note: Includes initiatives from the April 16, 2020 Executive Budget, the January 16, 2020 Preliminary Budget and the November 22, 2019 Financial Plan.

EXHIBIT 6
FY 2021 EXECUTIVE BUDGET
CITYWIDE SAVINGS PROGRAM - 5 YEAR VALUE
(City $ in 000's)

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Other Agencies:					
Mayoralty	$134,402	$1,376	$726	$726	$726
Board of Elections	31,000	—	—	—	—
Campaign Finance Board	3,500	—	—	—	—
Actuary	200	—	—	—	—
Emergency Management	1,262	206	—	—	—
Administrative Tax Appeals	365	75	—	—	—
Law	28,743	2,284	2,200	2,200	2,200
City Planning	3,175	1,359	—	—	—
Investigation	1,500	1,500	810	810	810
Civilian Complaint Review Board	250	1,094	—	—	—
Veterans' Services	193	193	193	193	193
Board of Correction	500	178	178	178	178
City Clerk	100	—	—	—	—
Cultural Affairs	1,817	12,083	483	483	483
Financial Info. Services Agency	3,081	468	468	468	468
Payroll Admin.	1,001	504	384	384	384
Equal Employment Practices	30	—	—	—	—
Civil Service	130	—	—	—	—
Landmarks Preservation	920	230	230	230	230
Taxi and Limousine	—	63	63	63	63
Human Rights	500	300	554	554	554
Conflicts of Interest Board	191	154	—	—	—
Collective Bargaining	50	—	—	—	—
Community Boards (All)	236	514	—	—	—
Probation	4,840	3,452	1,438	1,438	1,438
Small Business Services	3,962	7,244	3,100	3,100	3,100
Buildings	23,603	30,290	11,145	11,145	11,145
Administrative Trials and Hearings	1,100	400	76	76	76
Environmental Protection	17,781	7,018	475	475	475
Business Integrity	476	222	222	222	222
Design and Construction	1,230	1,016	166	166	166
DOITT	21,495	13,601	2,789	2,489	2,489
Records and Info. Services	750	71	71	71	71
Consumer Affairs	2,100	1,466	716	716	716
PA - Manhattan	50	—	—	—	—
PA - Bronx	10	—	—	—	—
PA - Brooklyn	20	—	—	—	—
PA - Queens	50	—	—	—	—
Subtotal	290,613	87,361	26,487	26,187	26,187
Elected Officials:					
BP - Manhattan	—	162	—	—	—
BP - Bronx	400	—	—	—	—
BP - Brooklyn	—	221	—	—	—
BP - Queens	—	178	—	—	—
BP - Staten Island	—	145	—	—	—
Comptroller	2,600	—	—	—	—
Public Advocate	138	—	—	—	—
City Council	2,600	—	—	—	—
DA - Manhattan	1,000	2,600	—	—	—
DA - Bronx	6,161	—	—	—	—
DA - Brooklyn	5,100	—	—	—	—
DA - Queens	6,344	—	—	—	—
DA - Staten Island	1,223	—	—	—	—
Special Narcotics Prosecutor	1,348	—	—	—	—
Subtotal	26,914	3,306	—	—	—
Total All Other Agencies	**$317,527**	**$90,667**	**$26,487**	**$26,187**	**$26,187**

EXHIBIT 6A
FY 2021 EXECUTIVE BUDGET
CITYWIDE SAVINGS PROGRAM - BY EXPENSE AND REVENUE
(City $ in 000's)

	Expense	Revenue	Total
Uniformed Forces:			
Police	$26,331	$(2,500)	$23,831
Fire	47,105	1,336	48,441
Correction	197,925	—	197,925
Sanitation	45,553	(361)	45,192
Health and Welfare:			
Admin. for Children's Services	53,724	—	53,724
Social Services	50,166	—	50,166
Homeless Services	60,000	—	60,000
Aging	2,000	—	2,000
Youth and Community Dev.	180,354	—	180,354
Health and Mental Hygiene	12,529	—	12,529
Other Agencies:			
Housing Preservation and Dev.	6,972	71	7,043
Finance	—	—	—
Transportation	36,057	882	36,939
Parks and Recreation	43,427	—	43,427
Citywide Administrative Services	9,995	4,024	14,019
All Other Agencies	66,928	23,739	90,667
Education:			
Education	641,837	—	641,837
City University	31,550	—	31,550
Other:			
Citywide Savings Initiatives	55,245	806	56,051
Miscellaneous	203,451	—	203,451
Debt Service	152,917	—	152,917
Procurement Savings	55,519	—	55,519
Total Citywide Savings Program	**$1,979,585**	**$27,997**	**$2,007,582**

Note: Includes initiatives from the April 16, 2020 Executive Budget, the January 16, 2020 Preliminary Budget and the November 22, 2019 Financial Plan.