New York City Independent Budget Office

Fiscal Outlook

December 2015

The Fiscal Year Ahead:

Despite Diminishing Job Growth, Modest Gains in Tax Revenues, City Budget Remains Positive

While some opinion leaders have warned that New York City is slipping back into the difficult times of the 1970s and early 1980s, there is little, if any, evidence to buttress such claims in terms of the city's near-term fiscal outlook. Based on IBO's latest economic forecast and projections of revenues and spending under the framework of the de Blasio Administration's November 2015 Financial Plan, the city will end the current fiscal year with a surplus of $963 million—$828 million more than the Mayor estimated. We project a surplus of $320 million for the upcoming fiscal year, 2017, more than erasing the Mayor's projection of a $1.2 billion shortfall for next year. Although we project modest budget gaps for 2018 ($762 million) and 2019 ($822 million), these amounts are substantially below the estimates presented in the Mayor's November financial plan.

IBO's projection of surpluses and gaps is based on a forecast of modest economic growth—and as a result a modest increase in tax revenues this year and only moderately stronger growth next year—coupled with estimates of similarly modest spending growth. We project the city will add nearly 95,000 jobs this calendar year—good in most years but well below the record of more than 120,000 last year—followed by continued declines in the annual number of new jobs. We expect employment growth to total 77,000 in 2017 and only 46,000 by 2019. On the spending side of the budget, we find that some costs will be higher than budgeted by the Mayor. In addition, some new initiatives have been announced since the plan's release, further increasing planned spending. Still, these additional costs are relatively small compared with the city's total budget.

Total Revenue and Expenditure Projections
Dollars in millions

	2016	2017	2018	2019	Average Change
Total Revenue	**$80,866**	**$82,536**	**$85,011**	**$88,122**	**2.9%**
Total Taxes	52,449	54,596	56,977	59,795	4.5%
Total Expenditures	**80,866**	**82,216**	**85,773**	**88,945**	**3.2%**
IBO Surplus/(Gap) Projections	**$-**	**$320**	**($762)**	**($822)**	
Adjusted for Prepayments and Debt Defeasances:					
Total Expenditures	$83,764	$83,380	$85,971	$88,945	2.0%
City-Funded Expenditures	$60,954	$61,148	$63,737	$66,483	2.9%

NOTES: IBO projects a surplus of $963 million for 2016, $828 million above the de Blasio Administration's forecast. The surplus is used to prepay some 2017 expenditures, leaving 2016 with a balanced budget. Figures may not add due to rounding.
New York City Independent Budget Office

IBO

New York City
Independent Budget Office
Ronnie Lowenstein, Director

110 William St., 14th floor
New York, NY 10038
Tel. (212) 442-0632

Fax (212) 442-0350
iboenews@ibo.nyc.ny.us
www.ibo.nyc.ny.us

This year's fiscal outlook report comes at point when the U.S. economy has experienced 79 consecutive months of expansion, well more than the average for the nation in the post-war era. Although not expected under our baseline forecast, the slowing global economy, declining oil prices, the Federal Reserve's ability to manage an increase in interest rates, and other factors could trigger a U.S. recession, which would have substantial implications for the city. To assess the effects of a recession on our projections for local tax revenues, IBO used an alternative forecast with a hypothetical moderate recession and outlined the results in this report as well.

U.S. and Local Economic Outlook

Economic Overview. The momentum that the U.S. economy attained in 2014 has continued into 2015, with an estimated 2.5 percent increase in real gross domestic output (GDP) and an even stronger increase in consumer spending. (In this economic outlook section, years refer to calendar years rather than fiscal years, and monthly and quarterly data are seasonally adjusted.) IBO expects the current momentum to continue into 2016 and 2017. Barring serious deterioration of the global economy, major missteps in fiscal or monetary policy, and other possible shocks to the economy, real GDP growth is forecast to be somewhat higher in the coming years than in the current year, even as the Federal Reserve pursues a tighter monetary policy and wage gains become stronger.

The New York City economy has added an average of 95,000 jobs in the last six years—an unprecedented pace of employment growth far greater than that for the nation as a whole. The city is expected to continue adding jobs in the coming years but at diminishing rates. Slower employment gains are forecast for sectors that have accounted for a large portion of jobs created in recent years: business and professional services, education and health, retail trade, and leisure and hospitality businesses. The financial industry's disproportionately large share of output and income in the city has become much smaller than before the last recession, constraining average wage growth in the future.

U.S. Economy. The U.S economy has grown steadily this year, albeit by not as much as most forecasters (including IBO and the Mayor's Office of Management and Budget, or OMB) had predicted a year ago. IBO forecasts a 2.5 percent increase of real GDP growth in 2015. Despite the slowdown of growth in output and employment in recent months, consumer spending has been strong, the unemployment rate has continued to drop, and for the first time since the 2008-2009 recession there is evidence of widespread increases in real wages. IBO forecasts real GDP growth of 2.8 percent in 2016 and 2.7 percent in both 2017 and 2018. These growth rates would be the fastest since before the recession, though they fall far short of real GDP growth posted during the two previous expansions.[1]

The momentum that the U.S. economy finally achieved in 2014 after years of uncertain growth has continued into 2015. The growth of real GDP—the basic measure of the nation's total economic output, adjusted for inflation—slowed in the first quarter of 2015, to 0.6 percent, but picked up in the second and third quarters, when real GDP increased by 3.9 percent and 2.1 percent, respectively. IBO projects an uptick in growth in the fourth quarter, generating 2.5 percent real GDP growth for the year. Personal income growth of 4.3 percent in 2015 is fueling consumer spending—especially for durable goods, health care, transportation services, and financial services. For the first three quarters of 2015, real personal consumption spending is 3.2 percent greater than in the comparable 2014 period.

Bolstering personal income and consumer spending is employment growth, which continues to be strong. Payroll employment nationwide has increased by an average of 210,000 a month in 2015, somewhat less than in the previous year when monthly job gains averaged 260,000. Employment growth is widespread, with only a limited number of sectors showing weakness.[2] The unemployment rate has continued to drop and is now 5.0 percent, half of what it was at the height of the recession. A broader measure of unemployment that takes into account persons marginally attached to the labor force and those working part time but who would rather work full time—the "U-6 rate"—has also fallen, to 9.9 percent for November 2015, down from monthly highs of 17.1 percent in 2009 and 2010. Initial claims for unemployment benefits are at their lowest levels since April 2000. With labor markets tightening in many areas, government data show average real wages for full-time workers increasing appreciably for the first time since the recession ended. Average weekly real earnings for full-time wage and salaried employees in the last four quarters are up 1.5 percent over the prior four-quarter average. Payroll wage data compiled by Moody's Analytics tracking the earnings of individuals shows a similar earnings increase.

Pent up demand for consumer goods and housing—much of it from young adults who deferred starting their own households during the recession and the years of sluggish recovery—has helped fuel economic activity. The household sector is more able to spend than in recent years because their debt, especially mortgage debt, has shrunk. The sector's total debt payment obligations as a percentage of its after-tax income has ticked up a bit this past year but it still is as low as it has been since 1981. The four-year appreciation of stocks and other financial assets of the recent bull market greatly increased the resources of affluent households, creating a positive wealth effect on consumer spending. The plummet of the price of oil, gas, and other forms of energy beginning in the second half of 2014 created a widely enjoyed source of additional wealth, though its effect on spending was smaller than most forecasters had predicted.

Monetary policy has been vital to economic growth in the post-recession years. The Federal Reserve has kept the federal funds rate on overnight loans between banks near zero even as its policy of keeping downward pressure on long-term interest rates by purchasing bonds (quantitative easing) ended. In addition to easing household debt in general and lessening the cost of obtaining funds for businesses, low rates have been critical in reviving the housing market, which had been a major drag on growth in the recession's aftermath. With scant evidence of inflation—the consumer price index has increased a minimal 0.2 percent this year, and core inflation, which excludes relatively volatile food and energy prices, has been a very low 1.8 percent—the Fed had maintained near-zero short-term interest rates to help stimulate investment and hiring. The unemployment rate is now at the Fed's target rate of 5.0 percent and this month the Federal Reserve took the first step towards tighter monetary policy by raising the federal funds rate 0.25 percent. This long-anticipated move is not expected to have large immediate effects, but given the unprecedented recent monetary policy, there is some uncertainty as to how markets will react.

Assuming no external shocks, successful implementation of monetary policy, and no disruption from fiscal brinksmanship in Washington, IBO expects a modest acceleration of economic growth in the first half of 2016, and little decline in the rest of the year and 2017 and 2018. We forecast 2.8 percent real GDP growth in 2016, followed by two years of 2.7 percent growth. Economic growth will help nudge the unemployment rate to an average of 4.9 percent in 2016 and 2017, and then a tad lower by 2018 and 2019. Personal income is expected to grow by 5.6 percent in 2016 and then by 6.7 percent and 6.5 percent in 2017 and 2018, respectively. We expect a slowdown of output and income growth in 2019—2.1 percent real GDP growth and 4.9 percent personal income growth.

With modest economic growth, IBO forecasts only moderate inflation: 2.0 percent in 2016, rising to 3.0 percent in 2018. With higher inflation and tighter monetary policy, the federal funds interest rate and long-term interest rates are expected to rise steadily—the former to 0.7 percent in 2016 to 2.1 percent in 2017, and over 3.7 percent afterwards. IBO projects a 10-year Treasury bond rate of 3.0 percent in 2016 and rates of 4.0 percent and higher starting in 2017.

Compared with IBO's macroeconomic forecast, OMB projects slower real GDP growth in 2016 but slightly higher in subsequent years. With less growth projected for 2016, OMB expects higher unemployment and lower personal income growth. OMB forecasts increasing inflation through 2018, as does IBO, but at lower rates throughout the forecast period. Similarly, OMB expects interest rates to rise during the forecast period, but to remain lower than IBO's outlook.

Risks to the U.S. Forecast. Job growth and the beginnings of wage gains in many industries combined with households' pent-up demand and improved financial position continue to bode well for economic growth, which IBO projects will peak in the middle of 2016. There are a number of risks that could derail this outlook. A worsening of economic and monetary problems outside of the U.S.—particularly in the U.S.'s largest trading partners—could harm both the nation's economy and have a major impact on New York City's economy, given the city's role as a global financial center. Of particular concern is the slowdown of the Chinese economy—the world's second largest. Another concern is the low price of oil, related energy products, and other natural resources. Additional price declines could further shrink domestic production and reduce demand for U.S. exports to countries whose economies dependent on natural resource production. Another risk is that U.S. financial assets are still overvalued, even after this past summer's break in the bull market. Substantial declines in financial markets beyond the recent correction could generate a negative wealth effect on consumption. Finally, there are domestic policy risks, particularly the challenge faced by the Federal Reserve and the possibility that Congressional brinksmanship will continue to disrupt fiscal policy.

New York City Economy. New York City's current economic expansion, now entering its seventh year, is unprecedented in terms of both length and strength. To date the city has added 587,000 jobs since November 2009 (which marked the bottom of the 2008-2009 recession), including 240,000 new jobs in 2013 and 2014 alone. The city's unemployment rate has now fallen nearly back to its prerecession low. IBO's baseline forecast assumes that the expansion continues at least through 2019 although the pace of growth is expected to slow over the forecast period. IBO projects that the city will add another 76,800 jobs in 2016, and then an average of about 55,000 per year in the subsequent three years.

The city's economy today differs in significant ways from the city's prerecession economy. The securities industry is smaller, and Wall Street's contribution to overall employment and (especially) wage growth in New York City is greatly diminished. Neither employment nor wages on Wall Street have returned to their prerecession levels and IBO's forecast does not anticipate their doing so through 2019. Revenues of New York Stock Exchange member firms (our proxy for Wall Street firms overall) are much lower, and the industry is still profitable only by virtue of record low interest costs.

Overall wage growth is slower than it was during the five years before 2008. Most of this is due to the reduced footprint of the financial sector, but slower wage growth is found in many industries. Still, average wages in the city have outpaced the growth at the national level, beginning in 2010.

Labor force participation is higher than prerecession, though there has been some slippage since mid-year. Here the city has bucked the national trend of declining labor force participation. Conversely, average hours worked is lower. Private-sector hours worked fell in the recession and continued to slip afterwards, possibly stabilizing this year.

The table on this page highlights these contrasts between characteristics of the city economy in the current expansion and the economy in the previous expansion.

All of these features of the city economy's "new normal"—except the pace of employment growth—are expected to persist through the forecast period. Securities industry employment is expected to reach 183,500 by the end of 2019, still below the 2007 peak. Securities will generate 27.0 percent of aggregate real wage growth over the four years from 2016 through 2019, only half of the outsized prerecession share. Real average wages overall are expected to grow 2.0 percent per year, better than in recent years but still well below historical standards. The contours of New York Stock Exchange member firm income and expenses will remain similar to what they are now, with both net operating revenues and noninterest expenses trending up a bit but profits still dependent on low net interest expenses. (Though federal funds rate increases will nudge stock exchange firm net interest expenses higher over the next four years, they will remain extremely low by historical standards.) New York City labor force participation is projected to remain stable over the forecast period, while U.S. labor force participation continues to shrink. Little change in average hours worked is anticipated.

But other features of the current expansion are not expected to be quite as permanent. Because of the strong dollar and weak patches in the global economy (notably Canada, China, and Brazil) tourism and business travel will not provide as strong a boost to the city economy as it has in recent years. This will be reflected in weaker growth in leisure and hospitality employment and is one of the factors (along with slower population growth) that are expected to dampen retail trade job growth.

The Changed City Economy: Some Indicators

	2004-2008	2010-2015
Average Annual Employment Growth (thousands)	**57.5[1]**	**96.3[2]**
Peak Securities Industry	191.0[3]	174.1[4]
Securities Share of Real Aggregate City Wage Growth	52.6%	23.1%
City Real Average Wage Growth (per year)	4.1%[5]	0.8%
New York Stock Exchange Operating (noninterest) Revenues, in billions	60.3[6]	31.4[7]
New York Stock Exchange Net Interest Expenses	33.8[6]	2.3[7]
New York Stock Exchange Other Expenses	26.4[6]	25.3[7]
New York City Labor Force Participation Rate	59.6	60.3%
+/- Rest of U.S. Labor Force Participation Rate	-6.6%	-3.3%
New York City Private Sector Average Hours Worked	35.5[8]	34.3[9]

NOTES: [1]August 2003-Septemenr 2008, annualized; [2]November 2009-October 2015, annualized; [3]2007Q4; [4]2015Q3; [5]2003-2007 (recession started reducing wages late in 2008); [6]Annual average through 2008Q3, in 2015 dollars; [7]Annual average through 2015Q3, in 2015 dollars; [8]2008 92015 (through October)

New York City Indpendent Budget Office

IBO versus Mayor's Office of Management and Budget Economic Forecasts	2015	2016	2017	2018	2019
National Economy					
Real GDP Growth					
IBO	2.5	2.8	2.7	2.7	2.1
OMB	2.5	2.6	2.8	2.8	2.8
Inflation Rate					
IBO	0.2	2.0	2.8	3.0	2.8
OMB	0.2	1.7	2.2	2.6	2.5
Personal Income Growth					
IBO	4.3	5.6	6.7	6.5	4.9
OMB	4.2	4.6	5.0	5.1	5.1
Unemployment Rate					
IBO	5.3	4.9	4.9	4.8	4.7
OMB	5.4	5.3	5.3	5.2	5.0
10-Year Treasury Bond Rate					
IBO	2.2	3.0	4.0	4.2	4.1
OMB	2.2	2.8	3.0	3.4	3.6
Federal Funds Rate					
IBO	0.1	0.7	2.1	3.7	3.7
OMB	0.2	0.9	1.9	2.9	3.3
New York City Economy					
Nonfarm New Jobs (thousands)					
IBO	94.9	76.8	63.5	55.0	46.2
OMB	92.0	61.0	55.0	59.0	54.0
Nonfarm Employment Growth					
IBO	2.3	1.8	1.5	1.3	1.1
OMB	2.2	1.5	1.3	1.4	1.2
Inflation Rate (CPI-U-NY)					
IBO	0.3	2.1	3.0	3.3	3.0
OMB	0.4	1.9	2.4	2.7	2.6
Personal Income ($ billions)					
IBO	527.6	560.1	593.0	624.5	648.1
OMB	529.1	549.8	575.9	604.1	632.5
Personal Income Growth					
IBO	5.2	6.2	5.9	5.3	3.8
OMB	3.9	3.9	4.7	4.9	4.7
Manhattan Office Rents ($/sq.ft)					
IBO	77.1	79.6	81.1	82.5	83.7
OMB	76.8	80.5	81.0	80.7	80.4

SOURCE: Mayor's Office of Management and Budget
NOTES: Rates reflect year-over-year percentage changes except for unemployment, 10-year Treasury bond rate, federal funds rate, and Manhattan office rents. The local price index for urban consumers (CPI-U-NY) covers the New York/Northern New Jersey region. Personal income is nominal.

New York City Independent Budget Office

Professional and business services have very robust employment growth in the current expansion, evidence that the sector has become less tied to Wall Street than it formerly was and is now more strongly tied to the national and global economies. IBO forecasts slower growth for the sector during the forecast period, in part because a strong U.S. dollar is making these services less affordable to clients in other countries.

Education and health care services have been a steady source of strong employment gains for decades, but never more so than in the current expansion, which saw nearly 100,000 new jobs added over the last three years alone. Growth is expected to slow over the forecast period (though it will still be substantial), partly as a result of slower city population growth (including a decline in the school-aged population). The unsettled state of health insurance markets adds a layer of uncertainty in forecasting the health care services sector.

The city's real estate market has recovered strongly since the 2008 crash, though as measured by the inflation-adjusted value of taxable sales it is still well off of its 2007 peak. Growth has been fueled by the overall strength of the city's economic expansion, very low interest rates, and the city's enormous appeal to foreign investors seeking a safe haven from political and economic turmoil. The first two factors will not be as powerful going forward, and IBO expects the real estate market to be less super-charged during the forecast period than it has been in recent years.

Taxes and Other Revenues

IBO's forecast of revenue from taxes and other sources including fines, fees, and state and federal aid totals $80.9 billion for this year—an increase of $2.3 billion (2.9 percent) over 2015. Much of this increase is due to a 21.1 percent increase in projected federal grants for 2016, with much of that growth resulting from the shift of $771 million in Sandy relief aid that was not spent in 2015 into 2016. Tax revenue growth from 2015 to 2016 is forecast to be quite modest at 2.6 percent. For 2017, our forecast of total revenue shows a small gain of 2.5 percent to $82.5 billion, pulled down by a 9.3 percent decline in federal aid.

While total revenue growth is expected to be tepid from this year to next, IBO expects the tax revenue portion of that total to recover somewhat from slow growth this year, rising by $2.1 billion (4.1 percent) to $54.6 billion in 2017. Growth of the city's own nontax revenues (from sources such as fees, fines, and concessions) for 2017 is projected to inch up by 1.8 percent from the current year total of $5.6 billion to $5.7 billion. Revenues from other than city sources in 2017 are expected to be 2.3 percent lower than in 2016 thanks largely to an anticipated drop in federal grants under OMB's assumption that much of the remaining Sandy aid is actually spent in 2016.

Following 2017, IBO projects that total revenues will grow in a more typical pattern, increasing to $85.0 billion in 2018 and $88.1 billion by 2019. Annual revenue growth will average 3.3 percent in these years, driven by city taxes, which are forecast to increase at an average annual rate of 4.7 percent. Growth in noncity revenue sources is projected to average 0.5 percent annually in 2018 and 2019.

The first part of this section presents IBO's tax revenue forecast, followed by a detailed discussion of each of the city's major tax sources. It concludes with a brief overview of the outlook for nontax revenues.

Tax Revenues. IBO's forecast for tax revenues in the current fiscal year is $52.4 billion, a gain of only 2.6 percent from the 2015 amount. Revenue growth this year is much slower than the 7.5 percent growth posted in 2015. The weak revenue growth this year stems from sharp slowdowns in two of the city's major tax sources—the personal income tax (PIT) and the business income taxes—as well as projected year-over-year declines for the real property transfer tax (RPTT) and the mortgage recording tax (MRT). The latter two, which both saw double digit growth in 2015, are forecast to show double-digit declines this year.

For 2017, IBO expects revenue growth to pick up moderately to 4.1 percent, with revenue totaling $54.6 billion. Much of the tax revenue growth for 2017 is expected to come from the property tax and the sales tax, with personal and business income taxes lagging behind. IBO expects tax revenue growth to continue in 2018 and 2019, averaging 4.7 percent annually as tax revenues are forecast to reach $59.8 billion by the latter year. Property tax, personal income tax, and the general sales tax in particular are expected to experience strong growth over those two years.

Continued difficulties in the securities industry, including depressed aggregate earnings, minimal increases in employment, and an expectation of little increase in profits as monetary policy is expected to drive up firms' net interest costs, means that Wall Street is unlikely to account for much new tax revenue for the city. IBO expects growth in the securities sector—along with growth in the sector's contribution to city tax revenues—to remain relatively modest compared with growth during the pre-2008 expansion or even the more recent years of slow recovery.

IBO's forecast does not include double-digit tax revenue growth, something that did occur each of the boom years from 2004 through 2007. Nor does IBO's forecast assume an acceleration of growth over the recent past. Indeed, the average annual growth projected in 2016 through 2019—4.0 percent—is almost 40 percent less than the annual average rate that occurred over the preceding four years (2012 through 2015).

Compared with the city's revenue forecast when the 2016

IBO Revenue Projections
Dollars in millions

	2016	2017	2018	2019	Average Change
Tax Revenue					
Property	$22,642	$23,956	$25,373	$26,807	5.8%
Personal Income	10,838	11,147	11,484	12,076	3.7%
General Sales	7,094	7,426	7,725	8,079	4.4%
General Corporation	4,014	4,154	4,228	4,405	3.1%
Unincorporated Business	2,017	2,151	2,258	2,365	5.4%
Banking Corporation	77	6	-	-	n/a
Real Property Transfer	1,534	1,635	1,689	1,756	4.6%
Mortgage Recording	1,034	1,061	1,092	1,134	3.1%
Utility	398	410	421	431	2.7%
Hotel Occupancy	546	551	578	598	3.1%
Commercial Rent	786	814	845	863	3.2%
Cigarette	47	45	43	40	-5.0%
Other Taxes and Audits	1,422	1,241	1,241	1,241	-4.4%
Total Taxes	**$52,449**	**$54,596**	**$56,977**	**$59,795**	**4.5%**
Other Revenue					
STaR Reimbursement	$811	$796	$800	$804	-0.3%
Miscellaneous Revenue	4,811	4,926	5,015	5,076	1.8%
Unrestricted Intergovernmental Aid	1	-	-	-	n/a
Disallowances	(15)	(15)	(15)	(15)	n/a
Total Other Revenue	**$5,607**	**$5,707**	**$5,800**	**$5,865**	**1.5%**
TOTAL CITY-FUNDED REVENUE	**$58,056**	**$60,303**	**$62,776**	**$65,660**	**4.2%**
State Categorical Grants	$13,110	$13,376	$13,778	$14,106	2.5%
Federal Categorical Grants	8,212	7,450	7,042	6,944	-5.4%
Other Categorical Aid	910	859	864	862	-1.8%
Interfund Revenue	577	548	551	551	-1.6%
TOTAL REVENUE	**$80,866**	**$82,536**	**$85,011**	**$88,122**	**2.9%**

NOTES: Remaining banking corporation tax revenue reported with general corporation tax. Figures may not add due to rounding.
New York City Independent Budget Office

budget was adopted last spring, IBO's new forecast is $1.0 billion (1.9 percent) higher for this year and our outlook for 2017 is $1.2 billion (2.2 percent) above the adopted budget estimate. The strength in current year collections is not entirely surprising—IBO's estimates last spring suggested that the city was underestimating 2016 revenues by almost $700 million. Moreover, the local labor market and real property assessments have proved to be even stronger than expected last spring, prompting an upward revision in our forecast for 2016 tax revenue of $499 million, with the largest changes made to the personal income tax and real property tax forecasts. We made more modest adjustments of between $315 million and $427 million to our projections from last spring for 2017 through 2019.

IBO's latest tax revenue forecast for 2016 is $780 million, or 1.5 percent, higher than the forecast in OMB's November 2015 Financial Plan. The gap between the two forecasts grows each year, from $1.1 billion in 2017 to $3.0 billion in 2019, when IBO's forecast of total tax revenues exceeds OMB's by 5.1 percent.

IBO's forecast of slower, but sustained employment gains in the city and slow but steady growth in tax revenues results in budgets that are essentially in balance through 2019. However, with the expansion now having lasted two and a half years longer than the average length of economic expansions in the post-war era, and with a number of potential economic dark clouds looming on the horizon, IBO has also generated an alternative economic and tax revenue forecast incorporating a moderate recession. The results, discussed in the sidebar on page 14, help to provide a sense of the fiscal pressure the city would face if such a downturn were to occur in the next four years.

Real Property Tax. IBO projects property tax revenue will grow from $22.6 billion in 2016 to $24.0 billion in 2017, a 5.8 percent increase. For the four years of the financial plan period, we expect the property tax revenue to maintain an average annual pace of 5.9 percent growth. By comparison, OMB expects property tax revenue to grow on average 4.7 percent a year through 2019.

Background. The amount of tax owed on real estate in New York City depends on the type of property, its value for tax purposes (as determined by the city's Department of Finance from each property's estimated market value), and the applicable tax rate.[3] Under New York State's real property tax law, there are four classes of property in the city: Class 1 consists of one-, two-, and three-family homes; Class 2 comprises apartment buildings, including cooperatives and condominiums; Class 3 is exclusively real property owned by utility companies; and Class 4 consists of all other commercial and industrial property. Each class's share of the levy is determined under a state law designed to allow only small shifts in the share of the overall property tax borne by each class. The city then divides the apportioned citywide levy by the taxable assessed value of property for each class, resulting in a class-specific tax rate, or how much a taxpayer owes per $100 of their property's taxable value.

The taxable assessed value of a property for tax purposes is established by the Department of Finance. The department estimates each property's fair market value and then applies an assessment percentage, which reduces the amount of the property's value subject to the property tax. For Class 1 property, no more than 6.0 percent of fair market value is taxable while for all other property 45.0 percent is taxable. A property's resulting assessed value is then further reduced by any property tax exemptions in order to reach taxable assessed value.

Because of differences in assessment percentages, exemptions, and assessment practices across property types, the share of taxable assessed value borne by each class is not proportional to its share of market value. Class 1 properties account for a much smaller share of total assessed value than their share of market value—9.1 percent of assessed value on the 2016 roll compared with 45.6 percent of the department's estimate of total market value in the city. The other classes, especially Classes 3 and 4, bear a disproportionately larger share of the property tax burden because their shares of assessed value are much bigger than their shares of market value.

Assessment Roll for 2017. The tentative assessment roll for 2017 is scheduled for release in January 2016. After a period for appeals and review, a final roll will be released in May. IBO projects that aggregate market value on the final roll will be 5.4 percent greater than on last year's roll, while assessed value for tax purposes is forecast to grow by 5.8 percent.

Class 1. The aggregate market value of Class 1 properties is expected to grow 4.5 percent in 2016. This increase reflects modest growth in the sales price of the median single-family home in the outer boroughs, which—as of October—was $454,000. In nominal terms, the median price has eclipsed the $445,000 peak during the housing bubble in 2008, although when adjusted for inflation, the current median is still 9.6 percent below the peak.

IBO's projection of total assessed value for tax purposes in 2017 is 3.2 percent greater than in 2016. In Class 1, the assessed value of a property moves toward a target of 6.0 percent of market value, with assessment increases capped at 6.0 percent a year or 20.0 percent over five years. If a parcel is assessed under the cap, its assessed value will grow each year until it hits the target ratio of 6.0 percent of market value or it reaches the cap—even if the market value stays flat or declines compared with the prior year. In the strong housing market of the mid-2000s, the median ratio of assessed value to market value for one-family homes outside Manhattan declined from 5.4 percent in 2004 to a low of 3.7 percent in 2008, well below the 6.0 percent target percentage. More recently, the median assessment ratio has increased, rising from 4.0 percent in 2009 to 5.2 percent in 2016.

Class 2 and Class 4. IBO projects that on the final roll for 2017, aggregate market value for all properties in Class 2 will total $248.8 billion, a 6.1 percent increase over 2016. Class 4 aggregate market value is expected to reach $278.7 billion, a 6.4 percent increase over 2016, which would be the sixth consecutive year of annual growth greater than 5.0 percent.

Aggregate assessed value for tax purposes for Class 2 is expected to be $70.9 billion, a 4.4 percent increase from the 2016 roll, and $103.2 billion for Class 4, a 7.4 percent change from the previous year. The increase projected for Class 2 is below the average for growth in market value over the past five years (6.0 percent), while the increase forecast for Class 4 is above its five-year average of 6.3 percent.

The continued growth in Class 2 and Class 4 assessments for tax purposes is partly attributable to the city's method for translating changes in market value into assessed value. In most cases changes in parcels' market values are phased in equal installments over five years. The remaining assessed value changes from the preceding four years that have yet to be recognized on the tax roll are called the pipeline. IBO's assessed value projections reflect an improving market over recent years that has allowed the pipeline to increase threefold from $6.3 billion in 2011 to $17.9 billion in 2016. The pipeline's current level eclipses the previous high set last year of $17.1 billion.

Outlook for Market & Assessed Value in 2018 & 2019. Market value growth is expected to maintain stable growth after 2017. IBO forecasts an increase in aggregate market value of 5.5 percent in 2018, with each class projected to realize comparable growth relative to 2017. Market value in 2018 is expected to rise by 4.5 percent in Class 1, 6.5 percent in Class 2, and 6.5 percent in Class 4, with similar increases forecast for 2019.

IBO projects that aggregate assessed value for tax purposes will grow by 6.0 percent in 2018 and by 5.9 percent in 2019. Class 1 assessed value for tax purposes is expected to grow by about 3.2 percent in both years. With the pipeline of assessment increases yet to be phased in at record levels, taxable assessed value in Classes 2 and 4 are each projected to increase at a relatively stable pace through 2019. Class 2 will grow 4.9 percent in 2018 and 5.1 percent in 2019, while we expect the Class 2 pipeline—estimated at $6.3 billion following the 2016 final roll—to reach $8.4 billion in 2019. Meanwhile, Class 4 growth in taxable assessed value will be even stronger, increasing 7.6 percent in 2018 and 7.2 percent in 2019. IBO estimates that the Class 4 pipeline is $11.6 billion in 2016 and will grow to $16.3 billion by 2019.

Revenue Outlook. IBO anticipates property tax revenue will total $22.6 billion for 2016 and $24.0 billion in 2017—an increase of 5.8 percent. Growth is expected to average 5.8 percent annually over the next two years, with revenue reaching $26.8 billion in 2019. In contrast, OMB forecasts 2016 revenues of $22.4 billion and average annual growth of 4.5 percent through 2019, when they project property tax revenue will total $25.6 billion.

Much of the difference between IBO's forecast and OMB's stems from a few elements of the property tax system. The amount of property tax revenue the city collects in any fiscal year is determined not just by the assessment roll, but also by the delinquency rate, abatements granted, refunds for disputed assessments, collections from prior years, and other property tax debits and credits collectively known as the property tax reserve. Most of the difference between IBO's and OMB's property tax revenue projections is attributable to differences in forecasting items included in the reserve. Some reserve components, such as delinquencies, are accounted as debits, thus reducing current year tax revenue. Other components, such as payments made in a given fiscal year for prior year liability, are accounted as credits, thus increasing current year tax revenue. Because the dollar value of such reserve debits generally exceeds the dollar value of the reserve credits, the net value of the reserve is nearly always negative, which is why anticipated revenue is always less than the forecast for the property tax levy.

For 2016, virtually the entire difference between OMB's and IBO's revenue forecast is due to four components in the reserve: prior-year collections, refunds, delinquencies, and canceled taxes. In later years, differences in reserve forecasts continue to account for much of the difference in the overall forecast, but the share of the difference declines over time. For 2016, with the assessment roll and

Differences Between OMB's and IBO's Property Tax Revenue Forecasts Are Generally Attributable to Differences in Forecasting the Reserve
Dollars in millions

	2016	2017	2018	2019
Total Forecast Difference	**$206.1**	**$422.2**	**$840.8**	**$1,224.4**
Reserve Component Forecast Differences				
Prior-Year Collections	($24.6)	($2.9)	$8.8	24.4
Refunds	78.9	152.0	167.3	160.1
Delinquencies	87.5	93.6	133.8	158.6
Cancelations	64.1	122.1	222.4	181.3
Total	**$205.9**	**$364.9**	**$532.4**	**$524.4**
Total Reserve Difference as a Percent of Total Forecast Difference	**99.9%**	**86.4%**	**63.3%**	**42.8%**

New York City Independent Budget Office levy finalized last spring, by definition the only differences between the IBO and OMB revenue forecasts will be due to the reserve. In subsequent years, differences in the levy forecast also come into play. By 2019, differences between IBO's and OMB's reserve forecast for these four components account for less than half of the total forecast difference.

Real Estate Transfer Taxes. Revenues from the city's real property transfer tax and mortgage recording tax—collectively referred to as the transfer taxes—are expected to total $2.6 billion, a decline of 12.0 percent from the 2015 total of $2.9 billion, which was the second-highest total on record after the 2007 total of $3.3 billion. Following the revenue dip in the current year, IBO forecasts a rebound of 5.0 percent in 2017 to $2.7 billion followed by steady but moderate growth in 2018 and 2019.

Real Property Transfer Tax. Because commercial properties are taxed at a higher rate than residential properties, and for both types of properties those valued over $500,000 are taxed at a higher rate than lower-valued ones, RPTT collections vary with both the level and composition of real estate sales. The growth in RPTT revenue in 2015 was due almost entirely to the increase in the aggregate value of commercial sales, 19.3 percent, while residential sales experienced growth of just 1.4 percent. RPTT revenues increased 15.6 percent in 2015 compared with 2014, and set a new record of $1.8 billion. There were 130 transactions valued at over $100 million during the fiscal year, compared with 101 such transactions the previous year. The 2015 high-value transactions included an apartment sold for just over $100 million at One57 (157 West 57th Street)—up to now, the most expensive residential sale ever recorded in New York City. There were four sales of commercial properties valued over $1 billion in 2015 compared with five such sales in 2014. The highest-value sale in 2015 was that of the former New York Telephone building at 1095 Avenue of the Americas, which sold for $2.2 billion.

During July through October of this year, RPTT collections were strong, but the share of taxable real estate sales attributed to commercial properties declined to 57.5 percent of total value compared with 62.9 percent for all of 2015. The pending sale of Stuyvesant Town-Peter Cooper Village (a residential rental property, and therefore classified as commercial for transfer tax purposes) will increase the commercial share. The largest transaction so far this fiscal year has been the $805 million sale of the New York Palace Hotel, now known as the Lotte New York Palace Hotel.

Final RPTT collections for 2015 were above IBO's May 2015 forecast, and collections during the first four months of this fiscal year have been slightly stronger than anticipated. However, IBO believes that real estate sales—in particular commercial sales—will slow in the latter half of 2016, in part as a response to impending higher interest rates. The RPTT forecast for 2016—$1.5 billion—is $231 million (13.1 percent) less than 2015 receipts. IBO projects RPTT growth of 6.6 percent in 2017, 3.3 percent in 2018, and 4.0 percent in 2019. By 2019, RPTT revenues are forecast to be $1.8 billion, the same as 2015 collections in nominal terms, but 12 percent lower when adjusted for expected inflation.

Mortgage Recording Tax. Mortgage recording tax revenues fell more sharply than RPTT collections after the 2007 peak, and have recovered more slowly. MRT revenue reached $1.2 billion in 2015, an increase of 20.2 percent over 2014, but still well below the 2007 peak of almost $1.6 billion.

The MRT does not track the value of real estate sales as closely as does the RPTT because not all sales involve a mortgage. Moreover, for sales with a mortgage, the ratio of the mortgage to the sale price varies widely from one transaction to another. All-cash sales are common in the city's luxury housing market, both among U.S. residents and the foreign buyers who are believed to account for a considerable share of high-end residential purchases. If foreign buyers obtain financing overseas, no mortgage is recorded in New York City, and no MRT liability is incurred. Finally, mortgage refinancing, which may be subject in part or in whole to the MRT, does not involve a sale and an associated RPTT liability.

Historically, high MRT collections have generally corresponded to periods of low interest rates and significant refinancing activity. Mortgage rates have continued at historically low levels through 2015 and the first part of 2016, leading to strong MRT revenue. However, IBO expects rates to rise soon and mortgage activity to decline in the second half of 2016, leading to a year-over-year drop of 10.4 percent in MRT revenue. After falling to $1.0 billion in 2016, MRT revenue is projected to rise at an average annual rate of 3.1 percent, and reach $1.1 billion in 2019—still roughly a third below the 2007 peak.

IBO's forecast for transfer tax revenue in 2016 is above OMB's in 2016—by $65 million (4.4 percent) for the RPTT and $41 million (4.1 percent) for the MRT. For the rest of the forecast period the differences are even smaller, with IBO projecting for the RPTT and MRT together only 0.5 percent more revenue than OMB. As noted previously, collections of both taxes were strong during the first four months of this fiscal year, and both IBO and OMB project softer revenues during the remainder of the year.

Commercial Rent Tax. IBO expects commercial rent tax (CRT) revenue to total $786 million in 2016, up 6.9 percent from 2015. Growth at that rate would almost equal the 7.0 percent gain in 2014, which had been the highest since 2007, before the financial crisis hit. CRT revenue is projected to grow at an average annual rate of 3.2 percent in 2017 through 2019. By 2019, CRT revenue is forecast to reach $863 million, 17.4 percent over the 2015 level.

The CRT is a tax imposed on tenants who rent space for business, professional, or commercial purposes in areas of Manhattan below 96th Street. Not-for-profit entities, subtenants, tenants located in the World Trade Center area, and tenants located in the Commercial Revitalization Program abatement zone are all exempt from the tax. Over time both the tax rate and the geographic area subject to the tax have been reduced. Currently, tenants whose annual gross rents are less than $250,000 are exempt from the tax, and a sliding tax credit is applied to tenants with annual or annualized rents between $250,000 and $300,000. For those tenants who are subject to the tax and whose annual or annualized rent is over $300,000, the effective tax rate is 3.9 percent of gross rent.

Annual CRT collections depend on the tax rate, rent levels, and the amount of rental space subject to the tax. Unlike the transfer taxes, CRT revenues are not subject to significant year-to-year fluctuations. Since the last rate reduction in 1999, CRT receipts have grown each year. IBO projects that CRT revenue will grow at roughly the same pace as average Manhattan office rents through 2019.

IBO's CRT forecast for 2016 is $16 million (2.1 percent) higher than OMB's. But OMB projects faster CRT growth than does IBO in the following years, and by 2019, IBO's forecast is $12 million (1.4 percent) lower than OMB's.

Personal Income Tax. Personal income tax (PIT) revenue net of audits is expected to total $10.8 billion in 2016 and $11.1 billion in 2017. Growth in the current year (2.0 percent) and next year (2.9 percent) is far slower than 11.4 percent growth that occurred in 2015 when the year-over-year increase of $1.1 billion was a near record. The slow growth this year is not attributable to expectations of a decrease in city residents' employment and wages. Instead, it results primarily from projected declines in three secondary components of PIT revenue: 1) payments made by taxpayers filing for extensions; 2) state/city offsets—an accounting adjustment that reconciles cash flows between the state, which administers PIT collections, and the city; and 3) assessments from state-initiated audits. These declines will not recur in 2017, but IBO expects increases in PIT collections to be constrained by slower withholding growth and a decline in capital gains from real estate sales. After 2017, PIT revenue growth is expected to pick up, averaging 4.1 percent annually through 2019, when collections are expected to reach $12.1 billion.

Withholding payments—the single largest component of PIT receipts—are forecast to increase by 6.8 percent this year, solid annual growth though somewhat slower than the 7.7 percent increase the city collected in 2015. The expected slowdown of withholding growth is based on slower employment growth, from 121,000 jobs added to the city's economy in calendar year 2014 to projected increases of 95,000 in 2015 and 77,000 in 2016. IBO expects withholdings from payment of bonus compensation, largely made during December through March, to be comparable to last year's bonus withholdings. In spite of recent quarterly reports of trouble at some major financial firms, IBO forecasts a moderate increase in revenue and profits in the security industry as a whole (we use as a proxy the broker-dealer profits of New York Stock Exchange member firms) for calendar year 2015 compared with the prior year. However, in recent years, bonuses have increasingly been granted in the form of deferred options and as a result withholding payments are only made when the recipients exercise their options. The extent to which options given in previous years are now being exercised is unknown, which increases the uncertainty regarding the withhold payment forecast.

Unlike projected withholding growth this this year, IBO forecasts a 5.2 percent decrease in estimated payments, which will limit PIT growth in 2016. Estimated payments are made by taxpayers who are self-employed or anticipate realizing capital gains from the sale of financial and property assets, along with those filing for extensions to delay the deadline for final returns past April 15th. In 2015, estimated payments receipts swelled by almost $500 million, with a little more than half of the increase coming from payments made from extension filers. Extension payments totaled nearly $1.1 billion in 2015—an amount exceeded only in 2008 and 2013. IBO projects a substantial decline in extension payments to a level closer to collections in other recent years. It also forecasts a decline in estimated payments made by investors realizing capital gain. With the bull stock market, which began in the second half of calendar year 2011, coming to an end this past summer (as measured by the S&P 500 index), we anticipate a decline in capital gains realization from calendar years 2014 to 2015, which will impact 2016 and 2017 revenue collections.

IBO forecasts that personal income tax revenues in 2017 will reach $11.1 billion—2.9 percent higher than we project for 2016. Lower employment growth in calendar years 2016 and 2017 (annual average gain of 70,100 jobs) is expected to slow withholding growth to 5.7 percent in 2017. Estimated payments are expected to remain flat as the anticipated increase in interest rates dampens the real estate market and in turn reduces capital gains realizations from housing. We also anticipate an increase in refunds. With IBO expecting personal income growth to peak in the beginning of calendar year 2016 and to start falling steadily from the middle of 2017 through the end of the forecast period, we project PIT growth will slow to an annual average rate of 4.1 percent in 2018 and 2019. PIT revenue is forecast to reach $12.1 billion in by 2019, almost 40 percent higher than the previous revenue peak in 2008.

IBO projects faster city income and employment growth than OMB during the forecast period, particularly in calendar year 2016. As a result, IBO's personal income tax forecast exceeds OMB's each year through 2019—by $87 million (0.8 percent) in the current year and $360 million (3.3 percent) in 2017. The differences between the two forecasts grow to $370 million in 2018 and $609 million (5.3 percent) in 2019.

Business Income Taxes. In 2015, revenue from city's business incomes taxes grew 2.9 percent to exceed $6.0 billion for the first time since 2007. (In inflation-adjusted terms, 2015 revenues were 12.3 percent below their 2007 peak.) For 2016, IBO forecasts revenue growth at a relatively slower rate of 1.0 percent, generating $58 million in additional revenue. Revenue growth is expected to accelerate to 3.3 percent in 2017, and then continue at an average annual rate of 3.6 percent in the subsequent years.

The city business tax reforms enacted in Albany earlier this year merged the current banking corporation tax (BCT) into the general corporation tax (GCT), effective January 1, 2015, which means that banks' tax payments for liability (calendar) year 2015 and beyond will be reported as GCT revenue. For the current fiscal year, IBO expects that most of the $1.2 billion revenue from banking corporations will be from liability years beginning on or after the effective date for business tax reform, and therefore would be included in the GCT; only a small fraction is expected to accrue as BCT revenue as banks settle pre-reform liabilities for calendar years 2014 and earlier.

BCT and GCT receipts together were $4.1 billion in 2015, and IBO forecasts virtually the same amount of collections for 2016, almost all of which is GCT revenue. The essentially flat revenue reflects the slower pace of earnings and employment growth in 2015 across most business sectors compared with the more impressive growth rates experienced in 2014. One of the major contributors to the city's GCT revenue, the financial activities sector, experienced only moderate growth of 3.0 percent in earnings in 2015 compared with 10.0 percent earnings growth in 2014. Earnings in information and retail trade, two other major contributors to city's GCT revenue, have contracted by an estimated 2.9 percent and 1.4 percent, respectively, in calendar year 2015, after expanding in 2014 at rates of 7.7 percent and 3.9 percent, respectively. IBO expects growth in earnings to resume in all three sectors—finance, information, and retail—starting in calendar year 2016 and continuing into 2018. For 2017, IBO projects GCT collections plus residual BCT receipts will grow at 1.7 percent, reflecting the expected rise in interest rates, which will increase the cost of obtaining funds for corporations and, in turn, constrain profits. After 2017, IBO expects annual growth to average 2.9 percent through 2019.

Unicorporated Business Tax. In the last five years, unincorporated business tax (UBT) revenue grew at an annual average rate of 4.8 percent. While an increase in the number of partnerships and proprietorships fueled UBT collections in the immediate post-recession years, more recent revenue growth is largely attributable to an increase in incomes received by these unincorporated businesses. In 2016, IBO expects UBT revenue to grow by $55 million (2.8 percent) to reach an all-time peak of $2.0 billion. After 2016, IBO projects faster UBT growth, fueled largely by the expected addition of 45,000 information sector and professional and business service jobs over calendar years 2017 and 2018. IBO forecasts 6.6 percent UBT growth in 2017 (a gain of $134 million) and annual growth averaging 4.9 percent in 2018 and 2019.

IBO's revenue forecast for combined business income tax revenue is $130 million (2.2 percent) higher than OMB's in the current year—GCT accounts for $120 million of the difference. For 2017 and 2018, IBO's forecast is $79 million and $57 million above OMB's, respectively, with a higher forecast of UBT explaining most of this difference.

The difference between the two forecasts grows to $168 million in 2019, reflecting IBO's forecast of stronger growth in employment and earnings.

General Sales Tax. After growth slipped in 2015, sales tax collections have been brisk through the first five months of the current fiscal year. IBO forecasts 5.2 percent growth for 2016 overall—well above the overall pace of other city taxes, yielding $7.1 billion in revenue for the year. For 2017, sales tax revenue is expected to grow by 4.7 percent—again exceeding projected overall tax revenue growth—reaching $7.4 billion. Sales tax revenue is expected to grow 4.3 percent per year over the last two years of the forecast.

Sales tax bases nationwide have been diminished by the increasing share of services in the mix of personal consumption expenditures and the increasing share of e-commerce in the mix of retail sales. But there is little evidence of tax base erosion in New York City. Indeed, since the current expansion began in 2009 the average growth rates of both taxable New York City sales as reported by the state (6.3 percent per year) and collections adjusted for policy changes as estimated by OMB (5.1 percent per year) have more than kept pace with city personal income (4.2 percent annual growth) and city gross domestic product (4.7 percent growth).

Over the somewhat longer run, since 1997 the city's sales tax collections (after adjusting for policy changes in the intervening years) have also held up well, growing at an annual average rate of 4.5 percent—nearly identical to the annual rates for personal income (4.4 percent) and city GDP (4.6 percent).

Two factors are responsible for this. First, putting aside the earlier impacts of clothing tax cuts, retail sales have actually not been a significant drag on sales tax revenue growth. On the contrary, in the current expansion taxable retail sales have actually grown faster (7.1 percent per year) than nonretail. (The major exceptions have been electronics and appliances, books and music, and—a function of falling energy prices—motor fuel sales.) This is consistent with the fact that since the recession spending on goods—and especially on nondurables—has actually been a rising share of total personal consumption expenditures in New York. Retail sales still comprise nearly a third of taxable sales in New York City.

Second, on the services side, growth of taxable sales has been particularly rapid (9.1 percent per year since 2009) in the tourism-driven leisure and hospitality sectors (arts, entertainment, accommodations, and food services). These sectors now account for more than a fifth of overall taxable sales in the city. Taxable business services (9.4 percent) and repair and maintenance (12.3 percent) have grown even more rapidly. Together these two services generate about half as much taxable sales as leisure and hospitality.

Falling energy prices have diminished taxable utility sales growth. Information and (perhaps surprisingly) personal services have also been slow-growth components of the sales tax base.

There are signs that tourism is being weighed down somewhat by the strong dollar and stresses in the Chinese economy. These developments have not perceptibly weakened sales tax collection growth this year but are among the factors expected to dampen growth over the remainder of the forecast period. The downward pressures on energy prices imposed by the global oil glut will also hold down sales tax revenue growth, and indeed are a significant risk factor—perhaps upside as well as downside—in our sales tax forecast.

Hotel Occupancy Tax. Hotel occupancy taxes are expected to total $546 million in 2016, a decline of 1.9 percent from last year, as the strong value of the dollar, further additions to the supply of hotel rooms and competition from Airbnb contribute to lower occupancy rates and downward pressure on room rates. After virtually no growth in 2017, hotel tax revenue is expected to resume growth in the last two years of the forecast, reaching $578 million in 2018 and $598 million in 2019, although at rates lower than those observed from 2010 through 2014.

Other Revenues. The city's nontax revenues combine a variety of fees, fines, charges, asset sales, interest income, and other miscellaneous revenue, which are expected to total $4.8 billion this year, a drop of $1.3 billion from 2015. The primary explanation for the drop is that the 2015 total includes a one-time $1.0 billion transfer from the Health Insurance Stabilization fund, which was a product of the agreement between the city and the municipal labor committee on ways to help fund the current round of collective bargaining agreements. For 2017, the Mayor's November financial plan anticipates that these revenue sources will increase by about $100 million to $5.7 billion.

State, federal, and other categorical aid and interfund revenue are the remaining sources among nontax revenues. They are expected to total $22.8 billion this year, which includes $908 billion in anticipated Hurricane Sandy assistance from the federal government. The bulk of that money has been allocated through the federal

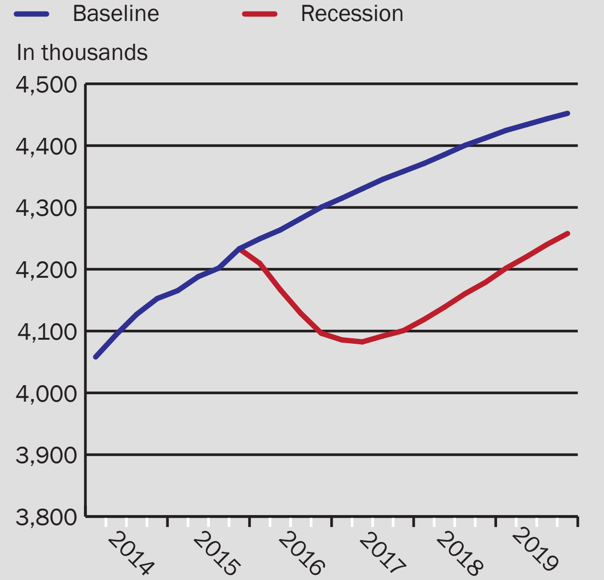
Tax Revenues Under a Recession Scenario

As described in this report, IBO's baseline economic forecast is premised on steady, but hardly spectacular, growth in employment, personal income, and earnings at both the U.S. and local levels, with no projected downturn or recession through the end of the forecast period. But all expansions eventually end and the current one officially began 79 months ago in July 2009. By comparison, the average length in the post-war era is 58 months. The onset of a recession is more typically brought on by an outside "shock" to the system rather than an expansion running out of steam. IBO and other forecasters have noted a growing number of potential shocks that could trigger a recession. These include a slowing global economy, declining prices for oil and other commodities, concern over the Federal Reserve's ability to manage the return to a tighter monetary policy, and lingering concerns over federal fiscal policymaking. To test the sensitivity of our tax revenue forecasts in the face of a recession, IBO used one of Moody's Analytics alternative economic scenarios to generate an alternative revenue forecast. The results are discussed below.

Alternative Economic Scenario. Under the alternative scenario, a national recession begins in the first quarter of calendar year 2016, with declines in real GDP extending through the third quarter of 2017. Locally, job losses extend from the first quarter of 2016 through the second quarter of 2017, with cumulative peak to trough job losses of 150,600. Employment growth would slowly resume beginning in the third quarter of 2017. For the year, average employment in calendar year 2017 would be 247,100 lower (5.7 percent) than the estimate in IBO's current baseline employment forecast. The declines in aggregate wages (earnings) and personal income would be focused in calendar year 2016 with growth slowly resuming in early 2017. On an annual basis, in 2017 the percentage difference between the IBO baseline forecast and the alternative scenario would be -14.2 percent for wages and -13.9 percent for personal income.

Under the alternative scenario, employment losses and declines in aggregate wages would be large in key sectors of the local economy including financial services, professional and business services, information, and leisure and hospitality. On an annual basis, financial services would lose 6,300 jobs in calendar year 2016 and another 3,100 in 2017, professional and business services would drop 13,400 jobs in 2016 and 12,700 in 2017. In the information sector the loss would 6,800 and 5,000 in 2016 and 2017, respectively, while in leisure and hospitality there would be drops of 14,200 followed by 15,800. Given the high average wages in the financial services sector, it accounts for the largest drop in earnings. Profits of Wall Street firms would fall from IBO's forecast of $17.6 billion in calendar year 2015 to $5.0 billion in 2016. But Wall Street bounces back fairly quickly under this scenario, with profits growing to $11.2 billion in 2017.

New York City Employment: Baseline and Recession Scenarios



New York City Independent Budget Office

In the alternative scenario, employment and output begin to recover in mid-2017. The rebound generates growth in calendar years 2018 and 2019 that exceeds the pace in IBO's baseline forecast, although employment and income measures remain below where they would be under the baseline well into the 2020s. (For a comparison of our economic indicators between our baseline and alternative forecasts, click here.)

Tax Revenue Impact. Under the alternative scenario the recession begins in the middle of fiscal year 2016, so the immediate tax revenue effect is fairly moderate—a drop of $511 million (-1.0 percent) from IBO's baseline forecast. However, the impact quickly grows to $3.1 billion in 2017 (-5.6 percent), $4.4 billion in 2018 (-7.8 percent), and $4.3 billion in 2019 (-7.2 percent). With the exception of the real property tax, all of the city's major tax sources would see major declines from IBO's baseline—by 2018, forecasts for the business income taxes, the PIT, the sales tax, and the property transfer

Differences Between Tax Revenue Forecasts Under IBO's Recession Scenario and Baseline Tax Revenue Projections
Dollars in millions

	2016	2017	2018	2019
Taxes				
Property	$0	($43)	($154)	($292)
Personal Income	(231)	(879)	(1,514)	(1,498)
General Sales	(110)	(661)	(799)	(728)
General Corporation	35	(577)	(905)	(814)
Unincorporated Business	(162)	(282)	(304)	(281)
Real Property Transfer	(5)	(343)	(388)	(334)
Mortgage Recording	(11)	(127)	(178)	(128)
Utility	(6)	(26)	(33)	(27)
Hotel Occupancy	(15)	(84)	(98)	(82)
Commercial Rent	(3)	(24)	(42)	(34)
Cigarette	(1)	(4)	(4)	(4)
Other Taxes and Audits	(3)	(12)	(18)	(102)
Total Taxes	**($511)**	**($3,063)**	**($4,437)**	**($4,324)**

NOTES: Remaining banking corporation tax revenues reported with general corporation tax. Figures may not add due to rounding.
New York City Independent Budget Office

taxes under the alternative scenario would be more than 10.0 percent lower than under IBO's baseline forecast.

After a small impact in 2016, the combined revenue from the three business income taxes under the alternative economic scenario would be $859 million lower than the baseline forecast for 2017, with the difference growing to $1.2 billion in 2018, and $1.1 billion in 2019. Under the alternative scenario, overall corporate profits, as well as Wall Street profits in particular, take significant hits in calendar years 2016 and 2017, which accounts for much of the deviation between the forecasts for GCT/BCT revenues. The large earnings drops in industries such as professional and business services and information under the alternative scenario drive the large difference in projected UBT revenues.

Personal income tax receipts under the alternative would be $231 million lower (-2.1 percent) than the baseline forecast for 2016 but the differences would then grow quickly to $879 million in 2017 (-7.9 percent), $1.5 billion in 2018 (-13.2 percent), and $1.5 billion in 2019 (-12.4 percent). Under the recession scenario, as employment and earnings begin to fall, withholding, final return, and estimated payments under the PIT also drop off quickly, accounting for much of the overall difference between the two forecasts. Lower capital gains realizations driven by a decline in the equities markets in the alternative scenario also contribute to the difference in estimated payments forecasts.

The impact of the recession on sales tax revenue would also be minor in 2016, but would then grow to $661 million (-8.9 percent) in 2017 and $799 million in 2018 (-10.3 percent) as the projected decline in personal income and tourism lead to lower consumer spending than in IBO's baseline economic forecast. With lower employment, particularly in office-using industries dampening the demand for office buildings and less income available for residential property sales, real property transfer tax and mortgage recording tax revenues under the recession scenario would be $470 million (-17.4 percent) below the baseline forecast in 2017. The difference for these two taxes would grow to $566 million (-20.4 percent) in 2018.

The city's largest tax source, the real property tax, is also its most stable thanks to various lags built into the system. Thus, the recession scenario has only a limited effect on the revenue forecast, with property tax revenue falling short of the baseline by only -0.2 percent in 2017, -0.6 percent in 2018, and -1.1 percent in 2019. Longer term, to the extent that the recession would result in lower property values, those adjustments would eventually have an impact on property tax revenue, but not until 2020 or later.

If a recession began to slow and then reduce city revenues, the losses would need to be made up by increasing tax rates, cutting spending, or both. In the interim, the city also has significant reserves, including a $1.0 billion general reserve in each year of the financial plan, a $500 million capital budget reserve for 2016, and $2.0 billion or more in the Retiree Health Benefit Trust fund, all of which could be tapped while other fiscal responses are implemented. This exercise found that a scenario of roughly the same magnitude of the last two local recessions would result in tax revenue shortfalls of approximately $3.6 billion in the first 18 months, roughly equal to the city's current budgetary reserves. This suggests that the reserves would be sufficient to give the city the time needed to develop responses to the fiscal challenge.

government's Community Development Block Grant process to help in the recovery and is scheduled to be spent this year, which largely accounts for the decline in this revenue category to $22.2 billion in 2017. After 2017, state, federal, other categorical and interfund revenues are expected to resume growing, but at a very slow pace; annual growth is expected to average 0.5 percent in 2018 and 2019. By the last year of the financial plan, these grants are expected to total $22.5 billion.

Spending

While IBO's projections for tax revenues are substantially higher than those presented by the de Blasio Administration—$780 million this year and more than $1 billion in each of 2017 and 2018—the differences between our estimates for spending are comparatively modest. We expect that spending this year will be $50 million *less* than the Mayor anticipates. For 2017 and 2018, our re-estimates of spending are roughly $330 million a year above the amounts in the Mayor's financial plan.

IBO estimates that total city spending, including state and federal aid and after adjusting for the use of this year's surplus to prepay some of next year's expenses as well as money previously set aside for this purpose, will decline slightly from $83.8 billion this year to $83.4 billion in 2017. Some of this decline can be attributed to the ongoing fiscal effects of Hurricane Sandy. The 2016 budget contains nearly $1.2 billion in expenditures covered by federal Sandy-related aid. The amount drops precipitously over the ensuing years to $551 million in 2017 and just $29 million by 2019. While Sandy-related expenditures dissipate, other spending grows and we expect total city expenses will reach nearly $89 billion in 2019.

Looking just at city-funded spending, and again adjusting for use of prior surpluses, we project the average annual growth in tax revenues will outpace expense growth under the terms of the Mayor's financial plan. We project that city-funded spending will be just under $61 billion this year, rise to $61.1 billion in 2017, and reach $66.5 billion in 2019—an average growth rate of 2.9 percent. This growth rate is 1.6 percentage points *below* IBO's projection for tax revenues over the same period.

Newly Budgeted for 2016. The November financial plan adds just over $300 million in additional city-funded spending to the budget for 2016. The single largest new allocation is $88 million for the Department of Homeless Services' shelters. The additional funding includes nearly $59 million for shelters for single adults and about $29 million for family shelters. Together with additional state and federal funds, the financial plan adds $137 million for homeless services' shelters, which now have a total budget of just over $1 billion for 2016.

The other largest addition of city funds in the November plan for 2016 is $24 million for the Department of Correction. Of this amount, $15 million is for overtime for correction officers and $6.7 million for consultants to help implement the Mayor's anti-violence plan in the jails. The balance of the additional city funding is for improved management systems, one of which, for case management,

IBO Expenditure Projections
Dollars in millions

	2016	2017	2018	2019	Average Change
Agency Expenditures	**$55,861**	**$55,389**	**$55,960**	**$56,597**	**0.4%**
Fringe Benefits	9,281	9,774	10,256	10,922	5.6%
Labor Reserve	1,101	665	1,433	2,452	n/a
Total Agency Expenditures	**$66,243**	**$65,828**	**$67,649**	**$69,971**	**1.8%**
Other Expenditures					
Debt Service	$3,654	$5,688	$7,121	$7,630	5.2%*
Pensions	8,774	8,818	8,945	9,120	1.3%
Judgments and Claims	695	746	782	817	5.5%
General Reserve	1,000	1,000	1,000	1,000	n/a
Capital Stabilization Reserve	500	-	-	-	n/a
Expenditure Adjustments	-	137	277	406	n/a
TOTAL EXPENDITURES	**$80,866**	**$82,216**	**$85,773**	**$88,945**	**3.2%**

NOTES: *Represents the annual average change after adjusting for prepayments and debt defeasances.
Expenditure adjustments include energy, lease, and nonlabor inflation adjustments. Figures may not add due to rounding.

New York City Independent Budget Office

Pricing Differences Between IBO and the de Blasio Administration
Items that Affect the Gap
Dollars in millions

	2016	2017	2018	2019
Gaps as Estimated by the Mayor	**$-**	**($1,239)**	**($1,923)**	**($2,908)**
Revenue				
Taxes				
Property	$206	$422	$841	$1,224
Personal Income	87	360	370	609
General Sales	100	153	169	259
General Corporation	120	-	(38)	60
Unincorporated Business	10	79	94	109
Real Property Transfer	65	24	24	(4)
Mortgage Recording	41	4	6	(2)
Utility	8	16	14	15
Hotel Occupancy	7	(1)	13	27
Commercial Rent	16	9	5	(12)
Cigarette	(1)	(2)	(3)	(5)
Other Taxes and Audits	120	-	-	-
Total Taxes	**$780**	**$1,064**	**$1,495**	**$2,281**
STaR Reimbursement	(1)	(1)	-	-
TOTAL REVENUE	**$778**	**$1,063**	**$1,494**	**$2,281**
Expenditures				
Debt Service	$191	$75	$75	$75
Fringe Benefits:				
Health Insurance-Education	10	(25)	(28)	50
Health Insurance-City University	18	19	19	21
Health Insurance-All Other Agencies	10	(10)	81	129
Education	(146)	(204)	(236)	(281)
Homeless Services	-	(51)	(51)	(51)
Police	(25)	(50)	(50)	(50)
Fire	-	(25)	(25)	(25)
Corrections	-	(15)	(15)	(15)
Board of Elections	-	(25)	(40)	(25)
Public Assistance	(8)	(23)	(23)	(23)
Campaign Finance Board	-	-	(40)	-
TOTAL EXPENDITURES	**$50**	**($334)**	**($333)**	**($195)**
TOTAL IBO PRICING DIFFERENCES	**$828**	**$729**	**$1,161**	**$2,086**
IBO Prepayment Adjustment 2016/2017	(828)	828	-	-
IBO SURPLUS/(GAP) PROJECTIONS	**$-**	**$320**	**($762)**	**($822)**

NOTES: Negative pricing differences (in parentheses) widen the gaps, while positive pricing differences narrow the gaps. Remaining banking corporation tax revenue reported with general corporation tax. Figures may not add due to rounding.

New York City Independent Budget Office

is mandated by a court settlement.

Factors Propelling Spending Growth. Looking beyond the current year, two areas of the budget are largely propelling growth in city spending: health insurance and other fringe benefits for city employees and debt service on capital projects. Spending on fringe benefits is projected to grow by $1.6 billion over the financial plan period, rising from nearly $9.3 billion this year to $10.9 billion in 2019—an average annual growth rate of 5.6 percent. This substantial increase in spending occurs despite the assumption of $3.0 billion in savings on health and related benefits—$700 million this year, $1.0 billion in 2017, and $1.3 billion in

2018—as a result of the recent settlements with the city's labor unions.

Debt service on the money the city borrows for its capital projects, ranging from the construction of schools and housing to the purchase of fire trucks and other major equipment, is also growing at a pace similar to fringe benefit costs. Spending on debt service is projected to increase by $1.1 billion over the financial plan period, when adjusted for the use of this year's expected surplus to prepay some of next year's debt service as well as other funds previously set aside for future years' payments. Annual debt service costs are expected to rise from nearly $6.6 billion this year to $7.6 billion in 2019, an average annual growth rate of 5.2 percent.

Spending on debt service would be somewhat higher if not for our expectation that payments will be $191 million less than budgeted by the de Blasio Administration for this year because it continues to assume that interest rates will be substantially higher than they have actually been. We also expect the city to save roughly $75 million annually in 2017 through 2019 in funds budgeted for short-term borrowing—the city has not done any short-term borrowing in more than a decade.

More Costly Than Planned. IBO also expects some expenses will be modestly above the amounts anticipated by the de Blasio Administration. Among the largest differences are our estimates for the budgets of education; and for police, fire, and correction officers. IBO expects education spending will be $146 million more than budgeted for this year by the de Blasio Administration and $281 million more by 2019.

There are two components to our estimates of higher education expenses: charter schools and Medicaid reimbursements. As we have noted in past years, the city does not fully acknowledge expected charter school costs at this point in the budget cycle due to underestimates of enrollment. As a result, we project that charter school expenditures will be about $77 million more than budgeted for this year, nearly $135 million next year, and just over $211 million by 2019. We also expect that ongoing problems with the city's information system for claiming Medicaid reimbursements for some special education services will cause the city to receive less revenue than budgeted. Without the anticipated Medicaid revenues, the de Blasio Administration will have to pay for the services with city funds at a cost of about $70 million a year in 2016 through 2019.

IBO also estimates that overtime will run a combined $90 million annually above the amounts budgeted in 2017 through 2019 for police, fire, and correction officers. This higher-than-budgeted spending by the de Blasio Administration comes even as each of the three agencies has been adding staff. As IBO has previously shown specifically for the police department, staff size does not necessarily correlate with overtime costs.

IBO also anticipates higher spending than budgeted for homeless shelters and for public assistance. So far, the effort to provide individuals and families in the city's homeless shelters with subsidies to help them afford to rent a permanent apartment has had little effect on the shelter census. A considerable obstacle has been the reluctance of landlords to participate in the subsidy programs known collectively as LINC. As a result, IBO expects city-funded spending on shelters to be about $50 million above the amount budgeted annually for shelters in 2017 through 2019. Our estimate of higher expenses for public assistance is also driven by caseload projections. Using more recent caseload data than the Mayor's budget office, IBO estimates that public assistance spending will be $8 million higher this year and $23 million annually above the amounts budgeted by the de Blasio Administration for each of the next four years.

Spending Planned, Not Yet Budgeted. In addition to our estimates that several areas of the budget will be more costly than planned, in the weeks following the release of the November financial plan a number of new initiatives have been announced by the Mayor—none of which are included in the November plan. The largest addition is a set of 23 new initiatives that along with 31 initiatives announced earlier make-up the new ThriveNYC: Mental Health Roadmap to improve mental health services for all in the city. The roadmap programs are budgeted at $369 million for four years, $345 million of that amount is city funds. With the additional plans, the de Blasio Administration is now expecting to spend more than $850 million over four years on its mental health initiatives. In 2017, the Mayor's office expects to spend $84 million for the new roadmap programs.

Following the release of the financial plan the Mayor also announced a plan to create 15,000 units of supportive housing for the homeless. Much of the expected cost to the city for developing the units over 15 years was already in the capital plan. Annual operating costs for the city as the new units are completed are expected to rise from about $9 million in 2017 to $55 million in 2019, according to statements by the Mayor's budget director. Other new expenses added since the release of the latest financial plan include $20 million for security guards at private and parochial schools and a $6.6 million commitment from the City Council for expanded HIV/AIDS prevention.

A Warning Sign on the Road Ahead? New York City has experienced an extraordinary period of growth since the 2008-2009 recession, one driven without substantial increases in employment and wages on Wall Street. Although city spending has increased in recent years, the Mayor and City Council have also accumulated sizable budget reserves. These reserves provide the city with a cushion if the national economy, which has also experienced an unusually long period of expansion, were to go into recession and drag the local economy down with it.

There are local factors that could weaken the city's fiscal outlook as well. Next year, for example, the city is still counting on $100 million in revenue from the sale of taxi medallions, a source of funds that seems increasingly unlikely with the growing popularity of Uber, Lyft, and other for-hire car apps. Continued fiscal difficulties in the city's public housing and public hospitals could spur advocacy for additional city funds.

Pressure to fulfill key de Blasio Administration initiatives could also lead to increased spending. For example, one of the major concerns that surfaced during the ongoing debate over the Mayor's affordable housing plan has been whether it produces a sufficient number of apartments for some of the lowest income New Yorkers. To make apartments more affordable will likely take increased city subsidies. And to satisfy community concerns over the rezoning plans that are part of the housing initiative may take additional commitments of funding for local services.

There is no shortage of other issues that can also drive additional spending (or for that matter calls for tax reductions). As IBO just recently noted thousands of summertime after-school program slots remain unfunded for the coming years. While the city's fiscal outlook based on the November plan appears relatively strong at the moment, there are warning signs for the fiscal years ahead.

ENDNOTES

[1] Real GDP growth peaked at 3.8 percent in 2004 and at 4.7 percent in 1999.

[2] With energy prices remaining low, about 85,000 jobs have been lost in coal mining, oil and gas extraction, and associated support services in this year. Hiring in trade and some manufacturing industries has been diminished by weak economies outside of the U.S.

[3] For additional information about the city's real property tax, see Twenty-Five Years After S7000A: How Property Tax Burdens Have Shifted in New York City, Independent Budget Office for New York City, December 2006. When IBO refers to market values and assessments, the reference includes only taxable property. The assessed value for tax purposes (also referred to as billable taxable value) reflects the required phase-in of assessment changes for apartment, commercial, and industrial buildings. In this report the billable taxable values are shown before applying the STAR exemptions.