March 2019

Tale of the Taxes: Steady, But Slower, Growth Than In Recent Years

Earlier this month IBO released *Overview: An Analysis of the Mayor's Preliminary Budget for 2020 and Financial Plan*, which presented our projections of budget gaps and surpluses in the coming fiscal year and the three following years. Those projections were shaped in large part by IBO's tax revenue forecasts, which in turn were based on an economic forecast that relied on data through January of this year. Since the release of our report, new information and data revisions have been released that are likely to alter our outlook for both the U.S. and the local economies. This new information will be incorporated in our next forecast, scheduled for release in May. Despite the economic changes, much of the detail in our tax revenue forecast contained in the following pages remains relevant.

Economic Forecasts. IBO's projections of revenues from specific taxes were based on forecasts of the national and local economies made almost two months ago, as were those of the Mayor's Office of Management and Budget (OMB). Since then, there have been substantial revisions to data on local employment and the local labor force, a major shift in monetary policy, data showing considerably stronger-than-anticipated Wall Street profits for 2018 of $27.3 billion and other developments, all of which are likely to result in a larger than usual forecast-to-forecast change in our projections when we release our report on the Mayor's Executive Budget in May. (All years in this section refer to calendar years, unless otherwise noted.) IBO will release an analysis of the revised employment data shortly. What follows below are summaries of the national and local economic projections that underlay IBO's current revenue forecast.

After a brief growth spurt brought on by the 2017 federal tax law and additional fiscal stimulus, U.S. economic growth has begun to slow. In our report on the Preliminary Budget, IBO projected real gross domestic product (GDP) growth of 2.7 percent in 2019, down slightly from 2.9 percent last year. Again, these projections are likely to be revised in our next forecast. Although IBO is not forecasting a recession, we are expecting much slower economic growth throughout the remainder of the financial plan period, particularly in 2020, when our forecast was for GDP growth of just 1.6 percent. The possibility of recession—an actual decline in economic activity—cannot be dismissed, however. The expansion that began in 2010 will shortly become the nation's longest and with federal fiscal policy in disarray, potential trade disruptions, and a shrinking labor force as baby boomers reach retirement age, the odds of a recession get stronger.

Consistent with our expectation of slower near-term U.S. economic growth, IBO projected that local economic growth would also decelerate towards the end of this year and—especially—throughout 2020. If our early March forecast that New York City will add just 26,400 new jobs next year is still approximately correct, it would be the smallest increase in local employment in a decade.

The remainder of this report presents IBO's revenue forecast, focusing on revenues from the city's major taxes. Extraordinary circumstances over a year ago swelled personal income tax collections (PIT), boosting overall tax revenue growth in fiscal year 2018 to 8.5 percent. (For the rest of this report, years refer to city fiscal years.) For 2019, IBO forecasts much slower growth of 3.6 percent yielding $61.0 billion in total tax revenue. Slightly faster growth of 4.0 percent is expected in 2020. For the remaining three years of the financial plan we project growth in tax revenues will average 3.6 percent annually, with total tax revenue reaching nearly $70.6 billion in 2023.

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Tax Revenue

Overview. Over the past year there has been an unusually high degree of volatility in the personal income tax. The adoption of the federal Tax Cut and Jobs Act, along with other changes in tax law, generated an extraordinary burst of revenue in 2018. IBO projected that some of the same factors that led to last year's boom in PIT revenue would lead 2019 collections to decline, but the drop was even greater than expected. IBO's personal income tax forecast for 2020 and beyond assumes that much of the policy-driven volatility is now past and that the PIT, the city's second largest tax source, will return to a more stable path.

Over the financial plan period, IBO expects the property tax to be the city's steadiest and strongest tax source, with growth averaging 5.5 percent annually. In dollar terms, the real property tax will account for much of the increase in tax revenue that the city will realize through the plan period. Property tax revenue is expected to total $27.9 billion in 2019, $30.0 billion in 2020, and $34.3 billion in 2023. The general sales tax, the business income taxes, and the real property transfer tax, are all expected to have average annual growth of between 3.0 percent and 3.9 percent, with the city's other taxes lagging further behind.

With IBO's forecast of much slower economic growth for both the U.S. and the local economies, we forecast a corresponding deceleration in tax revenues over the financial plan period. Indeed, IBO's forecast for revenue growth in 2019 through 2023 (3.7 percent annual average) is the lowest for any five-year period since the last recession.

IBO's latest tax revenue forecast differs somewhat from OMB's, with our projections for total tax revenue higher in every year of the financial plan; the difference grows from $531 million (0.9 percent) in 2019 to $740 million (1.2 percent) in 2020 and $1.8 billion (2.7 percent) in 2023. Much of the difference in the current year is due to our higher forecasts for PIT and sales tax revenue, while the property tax accounts for most of the difference in 2020. The gap between the two forecasts steadily widens in 2021 and 2022 with property tax again accounting for much of the difference, followed by differences in the forecasts for PIT and the general corporation tax. The gap between IBO's and OMB's tax forecasts widens further in 2023 with a divergence of $1.8 billion (2.7 percent); nearly two-thirds of the difference is attributable to the property tax alone.

As was the case a year ago, there continues to be considerable uncertainty regarding the tax revenue forecast. This results not only from IBO's expectation of weaker local employment growth in calendar year 2019 and 2020, but also uncertainty regarding the continuation of what is now the longest lasting economic expansion in U.S. history. Ongoing policy debates in Washington regarding trade policy, regulation in the financial services sector, the size and nature of infrastructure initiatives, and immigration policy all are likely to directly affect the local economy, making revenue forecasts even more uncertain than usual.

Real Property Tax. IBO's forecast of real property tax (RPT) revenue for this year is $27.9 billion, $1.7 billion (6.5 percent) more than 2018 revenue. Based on the Department of Finance's tentative 2020 assessment roll released in January 2019, IBO anticipates even stronger property tax revenue growth in 2020 than previously projected. A $2.0 billion (7.3 percent) increase in RPT collections is now expected, and IBO forecasts $30.0 billion in RPT revenue. Much of the growth in our forecast is attributable to increases in assessed value of multifamily residences. For example, the citywide taxable assessed value of rental properties with 11 or more units increased by 11.9 percent, with Brooklyn rental properties increasing by 20.1 percent. After 2020, IBO forecasts moderate revenue growth at an average annual rate of 4.6 percent yielding $34.3 billion in 2023.

Background. The amount of tax owed on real property in New York City depends on the type of property, its value for tax purposes, and the applicable tax rate. Under New York State's 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 properties. Each class's share of the levy is determined under state law that allows only small year-to-year shifts in the share of the overall property tax borne by each class. The apportioned citywide levy is then divided by the taxable assessed value of property for each class, resulting in a class-specific tax rate that determines how much a taxpayer in a particular class owes per $100 of their property's taxable value.

The assessed value of a property for tax purposes (taxable assessed value) is established by the Department of Finance. The department estimates each property's fair market value and then applies an assessment rate, or percentage, that 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

IBO Revenue Projections
Dollars in millions

	Actuals	Projection					Average Change
	2018	2019	2020	2021	2022	2023	2018 -2023
Tax Revenue							
Property	$26,219	$27,926	$29,952	$31,356	$32,846	$34,280	5.5%
Personal Income	13,380	12,730	13,046	13,591	13,936	14,319	1.4%
General Sales	7,443	7,926	8,204	8,427	8,714	8,994	3.9%
General Corporation	3,437	3,861	3,744	3,929	4,012	4,055	3.4%
Unincorporated Business	2,182	2,098	2,296	2,440	2,540	2,630	3.8%
Real Property Transfer	1,388	1,535	1,493	1,503	1,548	1,607	3.0%
Mortgage Recording	1,049	1,152	1,025	1,038	1,049	1,110	1.1%
Utility	371	391	410	413	422	426	2.8%
Hotel Occupancy	597	621	637	648	660	675	2.5%
Commercial Rent	853	873	866	893	916	933	1.8%
Cigarette	36	36	34	33	32	31	-2.9%
Other Taxes and Audits	1,960	1,883	1,767	1,490	1,490	1,490	-5.3%
Total Taxes	**58,915**	**$61,031**	**$63,474**	**$65,761**	**$68,164**	**$70,550**	**3.7%**

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

45.0 percent of fair market value is taxable in Classes 2, 3, and 4. The assessment rates for each class are set by the Finance Commissioner. 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 the levy borne by each class is not proportional to its share of market value. One critical difference in assessment practices affects taxable assessed values for coops and condos in Class 2. Under state law, the city is required to value coops and condos as if they were income-producing properties rather than based on sales values as they are for Class 1 properties. IBO estimates that valuing coops and condos based on income results in market values for tax purposes that are discounted by 78 percent compared with sales-based estimates.

Tentative Assessment Roll for 2020. On the Department of Finance's tentative assessment roll for 2020, total market value for tax purposes increased 5.8 percent from 2019 to total $1.3 trillion. Class 1 and Class 2 saw the biggest increases at 6.2 percent and 6.6 percent, respectively, while Class 4 grew 4.6 percent. Class 2 assessed value for tax purposes increased by 10.7 percent compared with Class 1, which saw an increase of 4.3 percent in its taxable assessed value. For Class 4, taxable assessed value increased by 8.1 percent.

After a period for appeals and review, a final roll for 2020 will be released in May 2019. Based on historical trends, IBO anticipates the final roll will show $257.8 billion in total taxable value. Class 4 properties would account for 47.8 percent of the total taxable value and Class 2 properties would account for 37.6 percent. Class 1 properties, despite being nearly half of the city's total market value, are anticipated to only account for 8.4 percent of total taxable value.

Revenue Outlook. IBO anticipates property tax revenue will total $27.9 billion in the current fiscal year and $30.0 billion in 2020—an increase of 7.3 percent. Growth is expected to gradually slow over the remainder of the forecast period, averaging 4.6 percent annually from 2021 through 2023 to reach $34.3 billion.

IBO's property tax forecast for the current year is almost the same as OMB's, just 0.2 percent greater. But the difference between the forecasts is much larger in 2020 and subsequent years. OMB forecasts $29.5 billion in 2020 revenue, $423 million less than IBO. OMB expects revenue growth to slow over the rest of the forecast period, with revenue reaching $33.1 billion in 2023, $1.2 billion below IBO's forecast.

The projected growth rates in taxable assessment values account for some of the differences between the IBO and OMB revenue forecast. For each property class, IBO's forecast of 2023 total taxable assessment is greater than OMB's. Class 4 properties account for almost half of total taxable assessed value in any given year, and for the 2021 through 2023 period IBO forecasts faster Class 4 assessment growth than does OMB—5.1 percent average annual increases compared with 3.9 percent in the OMB forecast. In contrast, over the same years IBO projects slower taxable assessment growth for Class 1 and Class 2 properties than does OMB.

Other elements of the property tax system underlie much of the difference between the two forecasts. 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 for current year tax bills, abatements granted, refunds for disputed assessments, and other property tax debits and credits. Collectively these elements of RPT revenue are known as the property tax reserve. Some reserve components, such as delinquencies, are counted as debits, as they reduce expected tax revenue in the current year. Other components, such as payments made in a given fiscal year for liabilities from prior years, are counted as credits because they increase current-year tax revenue. Because the dollar value of the debits generally exceeds the dollar value of the credits, the net value of the reserve is nearly always negative, which is why anticipated property tax revenue is almost always less than the forecast for the property tax levy.

Much of the difference between IBO's and OMB's property tax revenue projections is attributable to differences in forecasting items included in the reserve. For 2019, since the levy for this year has already been finalized, the entire gap between the two forecasts is due to differences in the projections of four reserve components: prior-year collections, refunds, delinquent accounts, and cancelled taxes. For 2020, less of the difference between the two forecasts (80.3 percent) is due to the reserve because the assessment roll has not yet been finalized and other factors also come into play, such as differences in how much IBO and OMB expect taxable values to change between the tentative and final roll. 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 attributable to the reserve declines over time as differences in the levy forecasts become more substantial. For the 2023 forecasts, when OMB is projecting levy growth of only 3.0 percent in contrast to IBO's 4.3 percent, the four reserve components account for less than a half of the variation.

Real Estate-Related Taxes. The city receives revenue from two taxes related to real estate purchases or financing, and from a tax on commercial leases. The real property transfer tax (RPTT) is levied on the value of real estate sold, while the mortgage recording tax (MRT) is levied on the value of mortgages, including certain refinancing activity. Together these two taxes are referred to as the transfer taxes. A third real estate-related tax, the commercial rent tax (CRT), is levied on the value of certain commercial property leases in parts of Manhattan.

Transfer tax revenue peaked at $3.3 billion in 2007, before the financial crisis strongly depressed the real estate market. Revenue hit bottom at $981 million in 2010, and then began to recover. A new peak of $3.0 billion was reached in 2016, followed by declines in 2017 and 2018. Large increases in both the RPTT and MRT are projected this year, and IBO forecasts $2.7 billion in total transfer tax revenue, $249 million (10.2 percent) more than 2018 receipts. In contrast, we are projecting a decline of $169 million in 2020, followed by modest growth from 2021 through 2023. By 2023, revenue is forecast to reach just over $2.7 billion, still well below the levels of 2015 and 2016 and, especially, the all-time nominal peak of 2007.

We expect CRT revenue to increase 2.3 percent, to $873 million, in 2019, and then inch down to $866 million in 2020. Modest growth is projected to resume in 2021, with revenue reaching $933 million in 2023.

Real Property Transfer Tax. RPTT revenue peaked in 2007, declined over the next three years in the wake of the financial crisis, and began a recovery in 2011. After reaching an all-time peak of $1.8 billion in 2016, RPTT revenue plunged 20.3 percent in 2017, and fell an additional 1.9 percent in 2018, to under $1.4 billion. Revenue has rebounded in the first seven months of the current fiscal year, and IBO projects that final RPTT collections for 2019 will exceed $1.5 billion, a $147 million (10.6 percent) increase over 2018 receipts. We then forecast a slight 2.7 percent drop in 2020, followed by modest increases at an average annual rate of 2.5 percent in 2021 through 2023. By 2023 revenue is projected to reach just over $1.6 billion, still below the 2016 peak.

RPTT collections vary with both the level and the composition of real estate sales. Commercial properties are taxed at a higher rate than residential properties, and for both commercial and residential sales, the tax rate is higher when the price exceeds $500,000. Currently, virtually all of the commercial sales value, and about 90 percent of residential sales value, is taxed at the above-$500,000 rate.

Typically, commercial sales provide the majority of RPTT revenue, but at the same time the value of commercial sales fluctuates much more from year to year than the value of residential sales. After commercial sales dominated real estate activity in the city from 2012 through 2016, there was a sharp drop and these sales accounted for less than half of RPTT revenue in 2017 and 2018. Although residential sales increased modestly during this period, total RPTT revenue declined.

In 2019, residential sales have continued at levels slightly below the previous year, while commercial sales have risen sharply. IBO projects that for the entire year, residential sales will be about 4 percent below their level in 2018. The borough with the weakest residential performance is Manhattan, where the value of sales is projected to decline around 6 percent in 2019, the second year in a row that sales have dropped. Despite press accounts suggesting weakness at the top end of the market, the total value of Manhattan residences sold for more than $25 million will set a new record this year. The most significant decline in sales value is among residences in the $1 million-$10 million range, which typically comprise around two-thirds of the residential sales value in the borough. IBO projects that the total value of sales in this category will fall almost 15 percent in 2019 compared with the previous year.

Brooklyn and Queens are projected to experience declines in residential sales of around 3.7 percent and 3.5 percent, respectively, in 2019, while sales in Staten Island and the Bronx are projected to increase. But Staten Island and the Bronx together account for only around 10 percent of the city's total residential sales value.

The political and economic uncertainty leading up to and following the 2016 presidential election, including uncertainly regarding tax law changes, were likely key factors that dampened commercial real estate activity in 2017 and 2018. To some extent the flurry of commercial sales thus far in 2019 may reflect sales that were deferred in prior years. In addition, the continued strong economy and interest rates that have generally remained below expected levels have bolstered the commercial real estate sector.

Based on the continued strong performance of real estate markets, in particular the commercial sector, IBO has revised upward its forecast of RPTT revenue for 2019 by $38 million (2.5 percent) compared with the December 2018 forecast. Our forecast for 2020 has increased by $11 million (less than 1 percent). The forecasts for the remainder of the financial plan period have been brought down slightly, but the basic trend of modest year-to-year increases remains the same.

IBO's forecast of RPTT revenue follows the same basic pattern as OMB's, but with higher revenue in each year: $7 million (0.5 percent) more in 2019, and an average of $53 million more each year thereafter.

Mortgage Recording Tax. Based on stronger-than-expected revenue in recent months, strong macroeconomic conditions, and the downward revision to our forecast of mortgage rates, IBO has raised its MRT forecasts for 2019 and 2020 by 17.1 percent and 6.2 percent, respectively, over our December projections. IBO forecasts $1.2 billion in MRT revenue this year, a sharp, $103 million (9.8 percent) increase over 2018 receipts. For 2020, however, we forecast a $127 million (-11.0 percent) decline in revenue to $1.0 billion. After 2020, MRT collections are projected to increase each year to reach $1.1 billion in 2023—an amount that is still $42 million below IBO's forecast for 2019, and far below the all-time nominal peak of $1.6 billion in receipts in 2007.

MRT revenue does not follow the value of real estate sales as closely as does RPTT revenue because not all sales involve a mortgage, and for sales with a mortgage, only the fraction of the purchase price that is financed by the mortgage is taxed. In addition, mortgage refinancing, which may be subject in whole or in part to the MRT, is not connected to a property sale. Finally, loans to purchase coop apartments are not considered mortgages under New York State law, and are thus not subject to the MRT.

The volume of taxable mortgages is influenced by mortgage rates. Overall, rates have risen in the last few years, but the increase has been less than IBO originally forecast. Moreover, rates have actually declined in recent months. Recent comments and actions of the Federal Reserve suggest that interest rates will continue to lag behind earlier predictions, and indeed, IBO's latest forecast projects that the 30-year Treasury rate will remain below 5.0 percent through the end of calendar year 2020.

MRT revenue reached unprecedented levels during the housing bubble of calendar years 2005-2007, and then fell more sharply than RPTT collections in the wake of the financial crisis, when mortgage activity plunged, in large part due the imposition of stricter standards on residential lending. MRT revenue fell from $1.6 billion in 2007 to just $366 million in 2010. Collections increased in each subsequent year to reach $1.2 billion in 2016 before declining in 2017 and 2018 in response to a rise in mortgage rates and a sharp fall in commercial property sales. Despite rising interest rates, residential sales and mortgage activity increased during these two years. The increase in residential sales, however, was not sufficient to offset the commercial decline.

IBO's forecasts of MRT revenue follow a similar pattern to OMB's: large revenue increases this year, followed by a sharp decline in 2020 and then a gradual resumption of growth through 2023. But IBO's forecasts are consistently higher. Our forecast exceeds OMB's by $55 million (5.0 percent) this year and by as much as $121 million in 2023.

Commercial Rent Tax. IBO expects commercial rent tax revenue to total $873 million in 2019, up $20 million (2.3 percent) from 2018. CRT revenue is projected to drop slightly (-0.8 percent) in 2020, and then grow at an average annual rate of 2.5 percent to reach $933 million in 2023.

The CRT is a tax imposed on tenants who rent space for business, professional, or commercial purposes in certain 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. A bill passed by the City Council in 2017 created a credit that eliminates the tax for tenants paying from $250,000 to $499,999 in annualized rent, provided the total income of the tenant is $5 million or less. Under the new law, which became effective on July 1, 2018, tenants paying rents of $250,000 to $499,999 but with income of $5 million to $10 million are eligible for a partial tax credit, as are tenants paying from $500,000 to $550,000 whose income does not exceed $10 million.

IBO's commercial rent tax projections take into account the reduction in the scope of the tax and an expected softening of average rents due to new rental space coming on line, in Hudson Yards and elsewhere. As a result, we forecast slower CRT revenue growth in 2019–the slowest since 2011—and a slight $7 million decrease in 2020. After 2020, we expect the resumption of CRT revenue growth.

IBO's CRT forecast for the entire 2019-2023 period is $166 million (3.6 percent) below our December 2018 forecast. The year-to-year changes follow the same pattern as forecast in December, but starting from a lower 2019 base. OMB's commercial rent tax forecasts follow a similar pattern to IBO's: a small decline in 2020 followed by annual growth in the following years. The differences between IBO's and OMB's forecasts each year are small, and over the entire 2019-2023 period, IBO's forecast is a total of just $13 million (0.3 percent) above OMB's.

Personal Income Tax. IBO's forecast of personal income tax revenue (net of refunds) in 2019 is $12.7 billion, $650 million (4.9 percent) less than collections last year. The decline in revenue has been expected ever since several nonrecurring factors caused PIT collections to soar in 2018. PIT growth resumes in 2020 and the following years. For 2020, IBO forecasts a $316 million (2.5 percent) increase in PIT collections, to $13.0 billion. After 2020, PIT revenue is expected to increase at an annual average rate of 3.2 percent and reach $14.3 billion by 2023.

This year's projected PIT decline is not the result of major weakness in the city's economy and tax base. As detailed in IBO's December 2018 Fiscal Outlook report, three developments led to an extraordinary 20.9 percent increase in 2018 revenue. First, the state eliminated the one remaining component of STAR-related benefits delivered to city residents through the city's PIT—a roughly 6 percent reduction in marginal tax rates on taxable incomes below $500,000 that had been in effect since 1999. (City residents will now receive their STAR benefit through a credit against their New York State income tax liability.) The elimination effectively increased residents' PIT liabilities and boosted PIT withholding—by far the largest component of PIT receipts—starting in 2018. Second, a federal tax change enacted in 2008 required managers of offshore hedge funds to repatriate and pay taxes on deferred compensation that had been held in offshore accounts by December 31, 2017. A surge of repatriated income at the end of calendar year 2017 became taxable, swelling PIT collections in January 2018.

Third, the Tax Cuts and Jobs Act (TCJA) enacted by Congress in December 2017 generated a surge of estimated payments that were received by the city in late December 2017 and the very beginning of January 2018. (Estimated payments, the second largest component of PIT revenue, are made by taxpayers who are self-employed or who anticipate realizing capital gains from the sale of real property and financial assets.) Effective January 1, 2018, TCJA's $10,000 limit on the amount of state and local tax payments that can be claimed as an itemized deduction motivated taxpayers across the country—including many New Yorkers—to prepay state and local taxes by the end of December.

IBO has been forecasting a decline in PIT revenue in 2019 ever since PIT collections surged to unprecedented levels in the middle of fiscal year 2018. But the decline has been greater than we forecast in December, primarily because revenue from quarterly estimated payments in recent months has been much lower than previously expected. Our projection of quarterly estimated payments has been reduced by $454 million (20.0 percent), and we have shaved $22 million off our forecast of withholding revenue. These reductions, however, have been largely offset by our forecast of a decrease in refunds and increases in revenue from final returns, estimated payments by taxpayers filing for extensions beyond the April 15th deadline, state-conducted audits, and state payments to the city in order to reconcile income tax accounts.

IBO forecasts $9.6 billion in withholding revenue in 2019, $243 million (2.6 percent) more than withholding in 2018. In the first four months of this fiscal year (July through November 2018), withholding receipts—by far the largest component of PIT receipts—were 4.3 percent greater than collected during the same period a year ago. But in December through February, when many companies award annual bonuses, withholding revenue was 3.1 percent lower than a year ago, suggesting a drop in aggregate bonus payments. IBO expects that withholding collections during bonus season will be lower than last year given a projected decline in the securities industry's bonus compensation and the one-time nature of withholding payments from the exceptional amount of repatriated income in December 2017.

IBO now forecasts quarterly estimated payments to decline by $1.2 billion (39.4 percent) from their total in 2018 to $1.8 billion in 2019. Through November 2018, quarterly installment payments against expected calendar year 2018 liability were 17.9 percent greater than collections over the same period the year before. But estimated payments in December and January plunged from $1.9 million a year ago to $712 million, prompting IBO to lower its estimated payments forecast.

The collapse of estimated payments in December and January—a period when most fourth (and final) quarterly installments against estimated 2018 liabilities were to be made—suggests that the first three quarterly payments of many taxpayers were largely sufficient to meet calendar year 2018 liabilities. Moreover, the unexpected 19 percent decline in the stock market (as measured by the New York Stock Exchange composite index from its high in September 2018 to the end of the year) reduced the amount of capital gains that investors could realize in 2018, and likely motivated some to take strategic capital losses in order to partly offset some of their capital gains. In either case, IBO now expects the decline in estimated payments to reduce the amount of refunds the city will have to make to taxpayers who have over-paid their 2018 liabilities, leading us to reduce our forecast of refunds by $103 million.

Estimated payments made by taxpayers filing for extension beyond the April 15th deadline are tallied separately from quarterly estimated payments. IBO projects that PIT collections in 2019 will include $1.05 billion in extension payments, a 44 percent increase over 2018. The many changes to federal income taxes that took effect on January 1, 2018, and their interaction with state and local taxes, have complicated tax returns for many taxpayers, making it more likely that they (and their accountants) will need more time to complete their calendar year 2018 returns. Until we have collections information for this coming April—the month when about 98 percent of extension payments in any given year are made—our estimate of extension payments is a major risk in the PIT forecast. In the last dozen years extension payments have ranged from a low of $457 million to a high of $1.4 billion.

PIT revenue growth is expected to resume after 2019, although at moderate rates. For 2020, IBO forecasts $13.0 billion in PIT revenue, 2.5 percent ($316 million) above projected 2019 collections. The increase in PIT revenue is expected to come from a 5.3 percent increase in withholding coupled with a 5.9 percent rise in quarterly estimated payments, offset by a projected increase in refunds and forecasts of decreased revenue from final returns and extension payments. After 2020, slower growth in both the local and national economies will moderate the growth of withholding and estimated payments. Through 2023, IBO projects annual increases averaging 3.2 percent, with collections reaching $14.3 billion.

IBO's personal income tax forecast exceeds OMB's by $285 million (2.3 percent) for 2019 and by smaller amounts in subsequent years. The difference between the two forecasts falls to $53 million in 2020, largely because IBO projects an increase in refunds while OMB expects refunds to decline. After 2020, IBO projects somewhat slower withholding growth but somewhat faster increases in estimated payments than does OMB. For 2023, IBO's PIT forecast exceeds OMB's by $110 million.

Business Income Taxes. Totaling $5.6 billion, revenue (net of refunds) from the city's business income taxes increased by $169 million (3.1 percent) in 2018, following two years of decline. IBO expects even more robust growth for 2019, projecting net revenue to increase by $339 million (6.0 percent) to reach $6.0 billion. Growth is expected to slow after that, falling to a rate of 1.4 percent in 2020, picking back up to 5.4 percent in 2021, and then averaging 2.4 percent in 2022 and 2023. Compared with our December projections, for each year of the financial plan period we forecast more corporate tax revenue than before but less unincorporated business tax revenue. On balance, the total amount of business tax revenue is relatively unchanged from our December forecast for 2019 and 2020, and an average of $88 million a year above our previous forecast for 2021 through 2023.

Corporate Taxes. Since 2015, the city's corporate tax collections comprise revenue from C-corps under the business corporation tax and revenue from S-corps (companies that pass income through to a limited number of shareholders) under the general corporation tax or the banking corporation tax. Corporate tax collections yielded $3.4 billion in 2018, the third consecutive year of declining revenue. However, a recovery in collections that began in the latter half of 2018 has continued into 2019. Corporate tax revenue collected through January are at a record high for this point in the fiscal year, surpassing the equivalent amount collected even during peak years such as 2007 and 2015. Because of this, IBO projects a very strong recovery in corporate collections for 2019 and has raised its corporate tax forecast by $143 million, to $3.9 billion, an increase of $424 million (12.3 percent) over last year.

The strength of monthly collections this year has been driven by robust corporate and securities industry profits, as well as strong earnings in finance, trade, information, and other key sectors. Some of this boost can also be attributed to the continued rollout of provisions under the federal Tax Cuts and Jobs Act. While federal corporate tax rates have been substantially reduced, the tax base was also broadened in ways that flow through to the city's tax definitions, including a limit on deductions for interest expenses and the inclusion of global intangible low-tax income.

Following the substantial growth of 2019, IBO projects corporate tax revenue will contract modestly in 2020, by $116 million (3.0 percent). This weaker revenue growth is partly attributable to IBO's forecast that the economy will slow beginning in the latter half of calendar year 2019, but it also reflects our expectation that the particular strength of fiscal year 2019 is not going to become the new norm. With slower growth projected for both the U.S. and the local economies, corporate tax revenue will return to a more standard long-term growth path. Following 2020, IBO expects growth to resume but at a declining pace for the remainder of the forecast window, growing by $185 million (4.9 percent), $82 million (2.1 percent), and $44 million (1.1 percent) in 2021, 2022, and 2023, respectively. Corporate collections are projected to reach $4.1 billion in 2023, a level that has been seen just once since the last recession.

Compared with OMB, IBO projects higher corporate revenue throughout the forecast period. This difference is somewhat limited in the short term, as OMB also predicts strong growth in 2019 followed by a modest contraction in 2020. IBO's corporate tax forecast exceeds OMB's by $62 million (1.6 percent) in 2019 and $93 million (2.6 percent) in 2020. The forecasts diverge further after this, as IBO projects a moderate return to growth in 2021, whereas OMB's forecast remains relatively flat in 2021 and growth only slowly picks up in 2022 and 2023. By the end of the forecast period, IBO's projected corporate revenue is $281 million (7.4 percent) higher than OMB's.

Unincorporated Business Tax. In contrast with the marked strength of corporate collections this year, IBO projects that revenue from the unincorporated business tax (UBT) will decline by $85 million (3.9 percent) in 2019, to $2.1 billion. This comes in response to notably weak UBT collections so far this fiscal year, particularly in comparison with 2018, when UBT revenue reached a record high of $2.2 billion. Collections through January are more in line with the years prior to the 2018 surge, similar to both 2016 and 2017, which yielded $2.0 billion in final net revenue. A just-released downward revision in the short-term outlook for key predictors of UBT revenue—including employment and earnings in key industries and income earned by proprietorships—provide some explanation for slowing revenue growth. In particular, the professional, technical, and scientific services sector, which is a major contributor to UBT revenue, has experienced recent weakness, including reduced employment within the city, according to the Bureau of Labor Statistics 2018 benchmark adjustments.

Following this unexpectedly weak year, IBO projects a return to growth in 2020, with revenue rebounding by $198 billion (9.4 percent) to reach $2.3 billion. Unlike the corporate taxes, which are expected to contract in 2020 after the impressive growth of 2019, the pattern is reversed for the UBT, with an expected recovery following the losses of 2019. While corporate taxes tend to respond more immediately to changes in the broader economy, UBT revenue tends to respond more slowly. Thus, the rate of revenue growth in the years after 2020, although remaining positive, continues to fall in response to the economic slowdown expected to stretch into the beginning of calendar year 2021. IBO projects that UBT revenue will grow by $144 million (6.3 percent) in 2021, $100 million (4.1 percent) in 2022, and $90 million (3.5 percent) in 2023. By the end of the forecast period UBT revenue is expected to reach $2.6 billion.

In response to this year's weak collections, IBO reduced its short-term outlook for UBT revenue, by $157 million (7.0 percent) in 2019 and $76 million (3.2 percent) in 2020, compared with our December forecast. OMB also reduced its UBT forecast, but by smaller amounts. As a result, IBO's unincorporated business tax forecasts for 2019 and 2020 are lower than OMB's, by $57 million and $34 million, respectively. After 2020, IBO's forecasts become higher than OMB's, reflecting slightly higher economic growth projected for the out-years of the financial plan period, reaching a difference of $105 million (4.2 percent) in 2023.

Sales Tax. The growth of revenue from the city's general sales tax was strong last year, and collections growth this year has been even more robust. IBO forecasts $7.9 billion in sales tax revenue in 2019, $482 million (6.5 percent) more than 2018 receipts. For the remainder of the forecast period, however, we project sales tax revenue to grow more slowly: 2020 revenue will increase by $278 million (3.5 percent) and reach $8.2 billion. Thereafter, we estimate that growth will average 3.1 percent each year, leading to nearly $9 billion in sales tax revenue in 2023. IBO's forecast of more modest revenue growth after 2019 results from the projected deceleration of both national and local economic growth in the coming years, as well as competitive and cost pressures on retail establishments in New York City.

The economic slowdown that is expected to begin in late 2019 will be accompanied by a deceleration of growth in disposable personal income (income after taxes) into 2020 and 2021, decreasing consumer spending by city residents, commuters, and visitors alike. Changes in the federal income tax code, particularly the $10,000 cap on state and local tax deductions and stricter limits on the mortgage interest deduction, have reduced after-tax incomes for many residents and commuters in the New York metropolitan area. Moreover, the expectation that the total value of refunds against calendar year 2018 federal income tax liability will be smaller than in previous years could also constrain consumer spending in the coming months.

Apart from its effect on disposable income, slower economic growth can be expected to lower consumer confidence. In addition, the large swings in the stock market since last September have made many households less certain of their wealth, weakening their willingness to spend.

Another set of factors that constrain sales tax revenue are related to the challenges facing the retail industry. Competition from e-commerce has pressured retail establishments all over the country, including in New York City, where many well-known brick and mortar stores have closed in recent years. Businesses in the city also face escalating costs of operation, particularly wages, which have risen with increases in the minimum wage.

A potential hedge against the loss of sales tax revenue due to online competition developed last June with the United States Supreme Court's *South Dakota v. Wayfair* decision. The ruling permitted states to require out-of-state sellers to collect sales taxes on goods sold to in-state customers, even if the seller has no physical in-state presence. New York State had taken no action to implement the collection of sales taxes from out-of-state vendors until January 15, 2019, when the Department of Taxation and Finance issued a memo asserting that the *Wayfair* decision allows the state to put into effect already existing provisions in state tax law requiring vendors of tangible goods with no physical presence in the state to collect and remit state and local taxes to New York; vendors with both annual sales greater than $300,000 and more than 100 sales to New York customers will be subject to the tax. Notably, the pre-existing provision cited by the state does not cover taxes on services, which have become a significant part of Internet commerce. New York's decision to rely on pre-existing law dating from 1989 rather than passing new legislation crafted specifically to the parameters of the *Wayfair* decision differs from the actions of most other states and may invite legal challenges.

Increased spending by tourists is likely to partly compensate for the slowdown in spending by residents over the next two years. The anticipated depreciation of the U.S. dollar will boost the purchasing power of foreign visitors, who on average stay far longer and spend more than domestic tourists.

IBO projects more rapid growth in sales tax revenue this year than does OMB, and our 2019 sales tax forecast exceeds OMB's by $117 million (1.5 percent). For the following years, both IBO and OMB expect slower revenue growth, and differences between the two forecasts are small—less than $35 million in any one year.

Hotel Occupancy Tax. Collections of the hotel occupancy tax to date in 2019 have been stronger than previously expected, and IBO forecasts revenue to continue growing strongly through the end of the year. IBO has raised its forecast of 2019 hotel tax revenue to $621 million—$24 million (4.0 percent) greater than 2018 collections. But for the rest of the forecast period IBO projects a deceleration of hotel tax revenue growth. Revenue is expected to grow by 2.5 percent in 2020 to yield $637 million but average annual growth is then projected to slow to just 1.9 percent for the remainder of the forecast period. Hotel tax revenue is expected to reach $675 million by 2023.

The leisure and hospitality industry has been one of the fastest growing sectors in New York City in the last few decades, and its employment growth has outpaced the city's, even in the current business cycle when the city experienced extraordinary employment growth. We expect this trajectory to continue in the near term, leading to increases in hotel occupancy rates, as well as revenue per room. Increases in occupancy rates will be constrained, however, by the rising number of hotel rooms and competition from other types of accommodations. A large number of new hotels have recently opened and many more are now under construction, limiting the ability of hotels to raise room rates in the short run. Moreover, Airbnb and other short-term rental platforms have also added to the supply of accommodations, providing less costly options to visitors not only in Manhattan and other boroughs, but also locations within short commuting distance to the city, such as New Jersey and Westchester.

Economic conditions in the U.S. and in other countries have been favorable in recent years, leading to continual increases in the number of domestic and international visitors and keeping hotel occupancy rates high even while the supply of rooms has expanded. But the slower U.S. economic growth forecast for 2019 and 2020, will constrain the growth of domestic tourism. IBO expects disposable income, an important determinant of domestic leisure visits, to grow much more sluggishly during the slowdown. On the other hand, we expect international tourism to remain strong, offsetting the weakness in domestic travel to New York. The exchange value of the U.S. dollar relative to other currencies is projected to decrease, adding to the spending power of foreign visitors in the near term. But uncertainties about border issues and visa processing remain a threat, and could potentially act as a hurdle to the growth of the hotel industry and revenue from the hotel tax in New York.

IBO's forecast of hotel occupancy tax revenue in 2019 and 2020, combined, differs from OMB's by less than $1 million. Over the last three years of the forecast period, IBO projects a stronger and steadier growth in hotel tax revenue, at an average annual rate of 1.9 percent in 2021 through 2023, compared with an average of 0.8 percent per year in OMB's forecast.