New York City Independent Budget Office

Focus On:
The Preliminary Budget

April 2017

A Slowing Economy Portends Slowing Growth in City Tax Revenue

Economic Outlook

IBO's general outlook for the U.S. economy is little changed from our forecast in December. We expect consumer spending to continue fueling economic growth this year and next as the Federal Reserve (the Fed) gradually transitions to a tighter monetary policy. While much remains uncertain about the Trump Administration's economic and fiscal plans and their fate in Congress, it is likely that their effects will not begin to be felt before the end of calendar year 2017. Barring major shocks to the economy, we expect moderate inflation-adjusted (real) gross domestic product (GDP) growth of 2.4 percent in 2017. (In our discussion of the economic outlook, years refer to calendar years and monthly and quarterly data are seasonally adjusted.) IBO forecasts an uptick in real GDP growth to 2.6 percent in 2018, based in part on our assumption that in the coming year some combination of tax cuts and increased spending will be enacted, providing fiscal stimulus to the economy. But policy uncertainties and potential missteps, such as over-heating the economy through the stimulus or large reductions in trade resulting from renouncing or reworking trade agreements, make the forecast for 2018 more tentative than usual.

Recently revised employment data show that the New York City economy slowed much more sharply last year than the numbers indicated at the time of our December forecast. Measured on a fourth quarter-to-fourth quarter basis (Q4-over-Q4), employment growth fell from 117,100 jobs in 2015 to 57,600 jobs in 2016. IBO forecasts roughly stable employment growth over the next two years (53,700 jobs added in 2017 and 55,000 in 2018) followed by a further decline to 41,300 jobs added by 2021. A robust response to tax cuts and lighter regulation could lift these numbers, but negative policy impacts on flows of visitors, immigrants, and consumers of financial and business services from the rest of the world could further weigh down city economic growth.

U.S. Economy

Though U.S. economic growth in 2016 was the slowest in five years, there is little evidence that the current economic expansion—now in its eighth year—is nearing an end. Economic growth has been fueled by consumer demand, which in turn has been bolstered by rising employment and households' low debt service burdens. IBO expects these conditions will continue to sustain growth. With the unemployment rate projected to remain below 5 percent, real wages are expected to grow more strongly, putting upward pressure on prices. As the rate of inflation approaches the Federal Reserve's 2.0 percent target, we project that the Fed will more aggressively move to tighten monetary policy.

In the near term, these favorable conditions for growth are expected to remain largely unaffected by either tighter monetary policy or the policies of the Trump Administration and the Republican-led Congress. Barring any shocks to the economy, IBO projects 2.4 percent real GDP growth in 2017. Although the Administration's economic and fiscal plans and their fate in Congress are far from certain, it is likely that the effects of any major shifts in policy will not begin to be felt before the end of calendar year 2017. We expect the Trump Administration and Congress to enact some combination of tax cuts and increased spending in some areas of the federal budget, most likely for infrastructure and the military, which will stimulate further economic growth. The Administration's first budget plan calls for spending reductions elsewhere to offset the new

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spending, which could reduce some of the potential stimulus. Yet history shows that many programs and agencies have entrenched support, making it difficult to implement significant cuts. For now IBO forecasts an uptick in real GDP growth to 2.6 percent in 2018, with growth slowing in the following years. But the forecasts for 2018 and beyond are more tentative than usual. There are many potential policy missteps that could minimize or thwart the continuation of the current economic expansion through their impact on inflation, trade, labor force growth, the energy sector, and the stability of financial institutions and markets.

The Economy in 2016. In 2016 real GDP growth slowed to an average of 1.6 percent for the year as a whole, down from 2.6 percent in 2015, with growth in the second half of 2016 more than double the growth in the first half. Employment growth also slowed, to 1.7 percent, compared with 2.1 percent in 2015. Personal consumption spending has been strong throughout 2016. Increases in consumer spending on durable goods (particularly motor vehicles and goods used for recreation), food and beverages, health care, and financial services made the largest contributions to economic growth in recent quarters.

Though slower than in previous years, employment growth in 2016 was sufficient to keep the unemployment rate below 5 percent since last May, even as labor force participation on average edged up compared with 2015. A 5 percent unemployment rate is what many economists believe is full-employment: the threshold under which labor markets are tight enough to spur inflation. A broader government measure of unemployment and underemployment—the U-6 rate that includes people who want to work but are too discouraged to search for jobs and part-time workers who would rather work full time—has continued to fall and is now below 10 percent for the first time since 2008. Despite a tightening market for labor, real wage gains have been modest. The absence of wage gains along with low energy prices has kept inflation subdued, with the consumer price index rising 1.3 percent in 2016 on an average annual basis.

Employment gains and the growth of aggregate personal income, 3.5 percent for 2016, has been the main driver of the current expansion. Total wage and salary income and nonfarm proprietor income each grew faster than average—4.0 percent and 3.8 percent, respectively—while total income from dividends, interest, and rents grew more slowly (1.9 percent). Another factor fueling growth has been the generally strong financial position of households. Since 2013, Q2, households' debt service burden—the share of disposable income required to stay current on debt obligations—fell to the lowest levels since the Federal Reserve began publishing the data in 1980. Mortgage debt service burdens have declined as households have taken advantage of continued low interest rates to refinance their homes. Low energy prices have also helped boost disposable income, and rising home prices plus record highs in stocks have created a positive wealth effect that is sustaining spending for many households.

The balance sheets of financial institutions, particularly depository institutions, are now quite strong, enabling them to provide enough credit to support economic growth. Credit available to households and businesses has expanded at a moderate pace, in line with potential economic growth, but not so fast as to cause sharp spikes in debt and unsustainable increases in asset prices. The market for single-family housing is an exception, as tighter lending standards for mortgages have constrained access to credit and greatly limited demand from first-time homebuyers.

Outlook for 2017. IBO's outlook for the U.S. economy in the coming year is promising. It also is for the most part unaffected by policy changes that the Trump Administration will likely pursue, because we assume that it will take time for changes to be implemented and their impact to be felt. Consumer spending will continue to fuel economic growth and the demand for labor. As labor markets tighten, wage growth should accelerate, reinforcing consumer spending. IBO forecasts the pace of real GDP growth to quicken in 2017, rising 2.4 percent on an average annual basis. With labor markets tightening, we expect only modest further declines in the unemployment rate, from an average of 4.9 percent in 2016 to 4.7 percent for this year. Personal income from both wage and nonwage sources is projected to rise by 4.7 percent, up from an average of 3.5 percent in 2016. With increases in real wages putting upward pressure on prices, IBO expects inflation to reach 2.8 percent for the year.

As the rate of inflation approaches and then exceeds the Federal Reserve's target rate of 2 percent, the Fed will raise rates more aggressively. IBO projects an increase in the federal funds rate—the interest rate the Fed charges on overnight loans between banks—from an average of 0.4 percent in 2016 to 1.0 percent this year. Since the election, financial markets have reacted in a way that could ease the Federal Reserve's task of raising rates to more normal historic levels. Prospects of fiscal stimulus from the spending and tax policies of the new Trump Administration have financial markets anticipating greater inflation and, in turn, boosting long-term interest rates to compensate for increased risk. Yields on 10-year Treasury notes and longer-term bonds jumped in the fourth quarter of 2016 and if financial markets sustain the higher rates, the Federal Reserve will have more leeway to raise short-term rates while maintaining a healthy spread between short- and long-term rates that compensates long-term investors for greater risk. IBO projects that interest rates on 10-year Treasury notes will increase to 2.9 percent in 2017, up from 1.8 percent in 2016.

Uncertainties and Risks Beyond 2017. There is even greater uncertainty than usual about public policy in the coming years: which policies will be implemented and when, their scope and specific features, and the degree to which they will have desired effects, adverse consequences, or both. As a result, economic forecasts for 2018 and beyond are particularly risky.

With tax cuts on the near-term agenda of the President and Republican majority in Congress and increased military and infrastructure spending also a strong possibility, some degree of fiscal stimulus is likely, though the biggest boost to economic activity would likely not come until the first half of 2018 or beyond. Personal income tax cuts will not immediately increase paychecks, and it will take time before there is enough of a boost to consumer spending to have a substantial impact on economic output. Even in the unlikely event that an infrastructure program were to be adopted soon, the experience of implementing stimulus spending early in the Obama Administration suggests it could take longer than expected for even "shovel-ready" projects to get underway.

IBO projects real GDP growth to rise another 0.2 percentage points to reach 2.6 percent in 2018 while the unemployment rate inches down to average 4.5 percent. With little slack in labor markets, real wage growth will accelerate and fuel a rise in inflation, to a projected 2.7 percent. Continued gradual increases in the federal funds rate will push long-term interest rates higher, with the 10-year Treasury note rate reaching 3.7 percent in 2018.

In the final years of the forecast period, growth will be constrained by higher interest rates and by the availability of labor. IBO's expectation that real GDP growth will average 2.0 percent through 2021 is premised on there being no major policy missteps in the coming years. The forecast assumes the Federal Reserve succeeds in constraining inflation, and that any fiscal stimulus neither overheats the economy nor rattles financial markets over increasing budget deficits. It also is premised on there being no shocks to financial or energy markets, and no major downturns in the global economy.

Few details have yet emerged about the various policies that the Trump Administration and Congress have indicated will be priorities, creating more than the usual amount of risk to the forecast. Uncertainty about potential changes in regulation, trade, health insurance, taxation, and other policies could cause some businesses to delay major investment and hiring decisions until new policies are formulated and implemented. Though policymakers in Washington have turned their attention to overhauling business taxes, there is no consensus on the mix of tax reform and/or tax cuts, making the future impact on businesses in general and on specific industries unknown. How and when personal income tax reform will be taken up remains an open question as most attention is currently focused on corporate tax changes.

The potential combination of deep tax cuts and sharp increases in infrastructure and military spending, even if partially offset by cuts to nonmilitary discretionary spending, could lead to rapid increases in the federal deficit and/or a sharp acceleration of inflation. Either outcome could unnerve financial markets, pushing up long-term interest rates as investors demand larger risk premiums. Because any fiscal stimulus would take effect with the economy approaching what economists consider full employment, the additional output leveraged from the investment will be smaller and its inflationary impact greater than would be true if the economy was still coping with high unemployment. Higher interest rates would dampen business investment and likely cause the dollar to appreciate, reducing U.S. exports. The outlook for U.S. exports and imports will also be affected by likely changes in trade policy. The fate of existing trade agreements is uncertain under the new Administration, as is the extent to which the U.S. will impose tariffs and/or take other trade actions against individual countries—actions that could slow the pace of global economic growth.

The new Administration has stepped-up efforts to deport undocumented workers from the U.S. and has reworked its plan to limit immigration from certain countries and the influx of refugees. The degree to which these efforts are sustained and have their intended effect is uncertain, though it also is likely to be large enough to slow economic growth by reducing the number of workers and consumers.

Energy policy is another area of uncertainty. IBO's forecast incorporates a gradual rise in oil prices starting in 2017.

If the new Administration's easing of environmental and other regulations succeeds in increasing production, it is not clear to what extent it might reduce energy prices. Consumers have enjoyed lower prices at the gas pump and in heating their homes, but low prices also have made it unprofitable for many producers to continue production. Further declines in energy prices could hasten the contraction of the energy sector's employment and production, particularly in the coal industry.

Finally, changes in the regulation of financial markets and institutions create their own set of uncertainties and risks for the nation's economy as well as for the financial industry. The Administration has begun to scale back the Dodd-Frank financial reform package enacted in 2010, but it is not clear how much of Dodd-Frank will be dismantled. Reducing capital requirements and instituting less stringent stress testing of banks has the potential to increase profitability of financial institutions, but it could also undermine or even reverse the trend toward stronger bank balance sheets that has occurred since 2010.

New York City Economy

New York City's economy slowed markedly last year, and IBO forecasts further slowing over the plan period. Several recent developments suggest upside potential to this forecast, including a strengthening global economy and the prospects of lower federal taxes and a lighter regulatory hand on the financial sector. But there are downside risks as well, including the possibility of further dollar appreciation cutting into services exports and tourism and the disruptions that might attend a curtailment (or reversal) of the flow of immigrants into the city's labor force.

Employment. The latest Bureau of Labor Statistics benchmark revisions to the employment data show that after the three strongest years of New York City employment growth on record, growth (measured on a fourth quarter-over-fourth quarter or Q4-over-Q4 basis) slowed sharply last year, sliding from 117,100 in 2015 to 57,600 in 2016.[1,2]

In 2015 retail employment fell by 5,100 but the rest of the city economy continued to power ahead. In 2016 the

New York City Employment Growth
Q4 over Q4 change in thousands, seasonally adjusted by IBO

	2013	2014	2015	2016
Total Nonfarm	119.3	136.6	117.1	57.6
Total Private	121.5	133.1	113.4	56.0
Mining, Logging, and Construction	6.2	8.9	11.7	1.9
Manufacturing	1.0	0.1	0.8	(3.1)
Wholesale Trade	2.1	2.3	1.2	(3.1)
Retail Trade	13.6	10.4	(5.1)	(0.9)
Utilities	(0.1)	0.4	0.3	0.1
Transportation and Warehousing	1.1	3.4	5.5	0.7
Information	6.6	4.1	5.3	2.4
Finance and Insurance	0.8	7.8	8.2	(3.2)
Securities, Financial Investments, and Related Activities	(0.6)	3.5	5.3	(1.2)
Real Estate and Rental and Leasing	2.5	3.3	3.0	2.2
Professional, Scientific, and Technical Services	13.8	16.1	17.8	12.3
Management of Companies and Enterprises	1.9	3.0	(1.3)	(0.2)
Administrative and Support and Waste Management Services	4.9	9.9	13.1	10.4
Educational Services	13.6	13.3	9.5	2.0
Health Care and Social Assistance	23.5	23.2	21.3	30.0
Arts, Entertainment, and Recreation	6.3	2.3	3.9	1.3
Accommodation and Food Services	19.3	18.0	14.8	1.6
Food Services and Drinking Places	17.9	15.9	14.2	1.4
Other Services	4.2	6.5	3.2	1.5
Government	(2.2)	3.5	3.7	1.6

SOURCE: Bureau of Labor Statistics, March 2016 benchmark

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IBO versus Mayor's Office of Management and Budget Economic Forecasts						
	2016	**2017**	**2018**	**2019**	**2020**	**2021**
National Economy						
Real GDP Growth						
IBO	1.6	2.4	2.6	2.3	1.9	1.7
OMB	1.6	2.3	2.6	2.4	2.1	2.2
Inflation Rate						
IBO	1.3	2.8	2.7	3.1	2.8	2.2
OMB	1.3	2.5	2.4	2.5	2.7	2.6
Personal Income Growth						
IBO	3.5	4.7	5.4	5.3	4.7	3.7
OMB	3.6	4.8	5.2	5.3	4.9	4.7
Unemployment Rate						
IBO	4.9	4.7	4.5	4.3	4.6	5.1
OMB	4.9	4.6	4.3	4.1	4.2	4.3
10-Year Treasury Note Rate						
IBO	1.8	2.9	3.7	4.3	4.3	4.1
OMB	1.8	2.8	3.4	3.9	4.1	4.1
Federal Funds Rate						
IBO	0.4	1.0	1.9	3.4	3.7	3.3
OMB	0.4	0.9	1.7	2.6	3.0	3.0
New York City Economy						
Nonfarm New Jobs (thousands)						
IBO (cumulative)	70.1	61.1	55.0	49.3	45.9	41.3
IBO (annual average)	91.9	54.5	55.5	52.6	44.3	44.0
OMB (annual average)	88.8	55.5	37.5	34.1	32.4	29.6
Nonfarm Employment Growth						
IBO (cumulative)	1.6	1.4	1.3	1.1	1.0	1.0
IBO (annual average)	2.2	1.3	1.3	1.2	1.0	1.0
OMB (annual average)	2.1	1.3	0.9	0.8	0.7	0.7
Inflation Rate (CPI-U-NY)						
IBO	1.1	2.7	2.9	3.2	3.0	2.5
OMB	1.1	2.5	2.4	2.5	2.7	2.6
Personal Income ($ billions)						
IBO	557.8	583.2	605.8	629.0	654.0	680.2
OMB	556.9	578.6	601.4	625.8	650.9	675.7
Personal Income Growth						
IBO	3.2	4.5	3.9	3.8	4.0	4.0
OMB	3.1	3.9	3.9	4.1	4.0	3.8
Manhattan Office Rents ($/sq.ft)						
IBO	78.2	80.7	81.5	82.3	83.1	83.9
OMB	79.6	80.5	79.5	79.8	80.0	80.0

SOURCE: Mayor's Office of Management and Budget
NOTES: Rates reflect year-over-year percentage changes except for unemployment, 10-Year Treasury Note Rate, Federal Funds Rate, and Manhattan Office Rents. The local price indexfor urban consumers (CPI-U-NY) covers the New York/Northern New Jersey region. Personal income is nominal. IBO's job forecasts were done before the release of the benchmark revisions to the Current Employment Statistics from the federal labor department. The employment forecast for our May 2017 report on the executive budget will incorporate the new benchmark.

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weakness spread more broadly throughout the economy, with especially marked slowdowns in construction, finance, education, and food services. Just three sectors—professional and technical services, administrative and support services, and health care and social assistance—accounted for more than 90 percent of the job gains in the city, with more than half of the 2016 gains accruing to health care and social assistance alone.

Barring a significant upside shock, IBO's local employment forecast—which was based on pre-benchmark data—projects steady, moderate employment growth during 2017 (53,700) and 2018 (55,000) followed by a gradual further slowdown to 41,300 by 2021.[3]

Labor Force. In January the Bureau of Labor Statistics revised its local area labor force statistics going back to April 2010. These revisions lowered previous estimates of New York City's population and employment and erased what had appeared to be rising and record levels of labor force participation through 2015. But the most extensive changes were in the 2016 numbers. These no longer show large gyrations in both employment and unemployment or a steep plunge in labor force participation (see chart on page 7). The fourth quarter average unemployment rate was revised down from 5.6 percent to 5.0 percent.

The new labor force series register very sharp increases in employment and decreases in unemployment over January and February 2017—so sharp that the city's February unemployment rate clocked in at 4.3 percent, which would be the lowest reported level since November 2006 when it stood at 4.6 percent. But it remains to be seen whether measurement anomalies are cropping up anew in these numbers.

Prior to the revisions, IBO projected a decline in the unemployment rate from the aforementioned 5.6 percent in the last quarter of 2016 to 5.0 percent by the middle of 2019, with little change thereafter. Based on the new history, our employment growth forecast combined with an aging population could hold the city's unemployment rate below 5.0 percent over the forecast period.

None of this, however, factors in potential impacts of changes in immigration policy. Some analysts foresee negligible effects, while others model not just slower growth but substantial reductions in the overall working age population stemming both directly and indirectly from more aggressive enforcement of residence status. Should a contraction of the labor force come to pass it could impose significant constraints on economic growth in New York City as well as nationally. As of 2015, 45.4 percent of New York City's labor force was foreign-born, and both the labor force participation rate and employment-population ratio were higher in the foreign than in the native-born population.[4]

Wages and Personal Income. Much like four of the last five years, 2016 was another year of declining average real wages in New York City. Preliminary data indicate that once again the financial investments (securities) sector weathered the steepest declines, while average wages were on balance flat across the rest of the city economy.

Our forecast calls for a return to modest real wage growth in 2017 and throughout the forecast period. This would be attributable to tighter labor markets associated with the long expansion, but our confidence in a turnaround is tempered by

Average Real Wages in New York City
In 2016 dollars

Year	All Jobs		Financial Investments		All Other	
2007	$93,324		$474,081		$73,662	
2008	91,979	-1.4%	455,354	-4.0%	73,503	-0.2%
2009	84,774	-7.8%	362,322	-20.4%	71,735	-2.4%
2010	88,564	4.5%	413,321	14.1%	73,655	2.7%
2011	89,648	1.2%	409,492	-0.9%	74,727	1.5%
2012	87,980	-1.9%	396,789	-3.1%	74,177	-0.7%
2013	85,717	-2.6%	379,361	-4.4%	73,177	-1.3%
2014	87,798	2.4%	420,708	10.9%	73,853	0.9%
2015	86,695	-1.3%	392,382	-6.7%	73,923	0.1%
2016	86,224	-0.5%	374,250	-4.6%	74,175	0.3%
2007-2010	(4,760)	-5.1%	(60,760)	-12.8%	(7)	0.0%
2010-2016	(2,340)	-2.6%	(39,070)	-9.5%	520	0.7%
2007-2016	(7,099)	-7.6%	(99,831)	-21.1%	512	0.7%

NOTES: Based on IBO re-estimates of Bureau of Economic Analysis definition of industry employment and wages, 2016 is preliminary.
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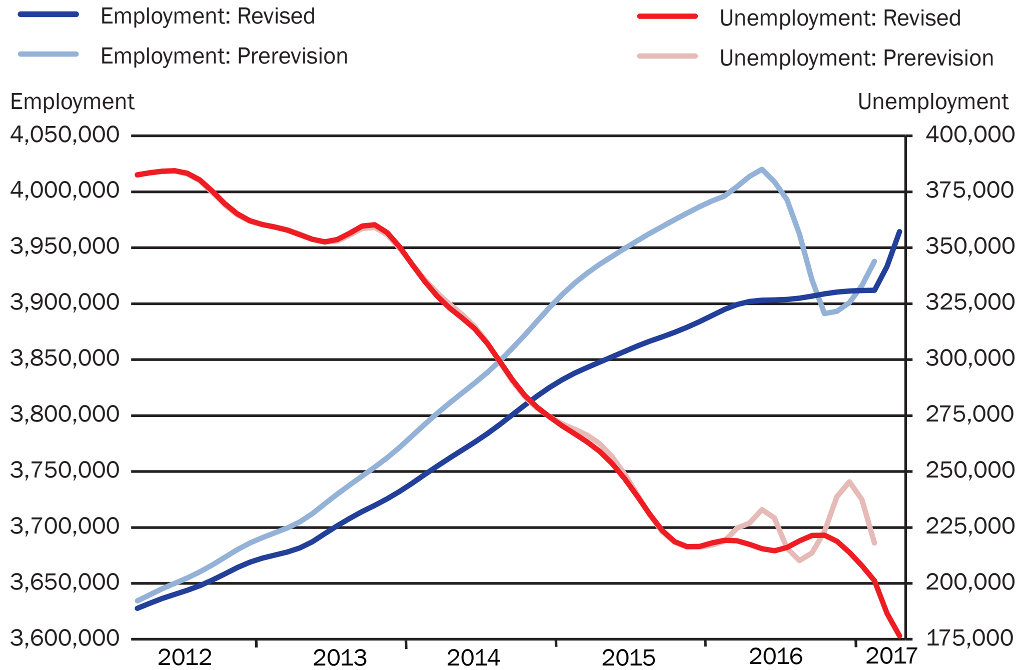
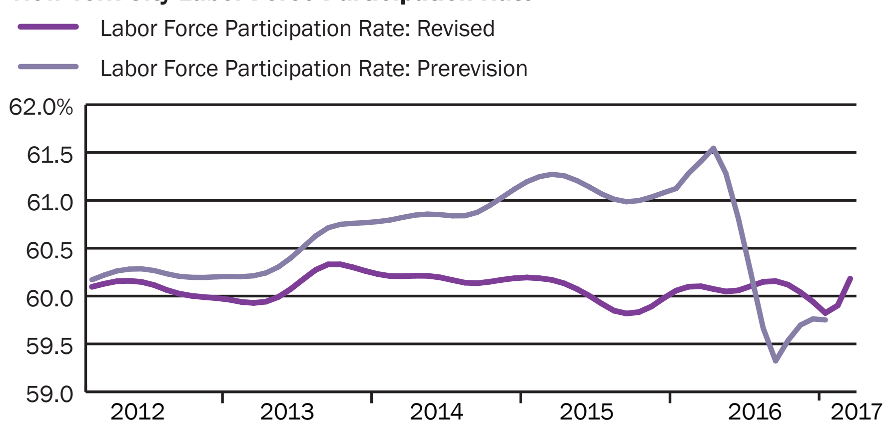
New York City Resident Employment and Unemployment



New York City Labor Force Participation Rate



SOURCE: Bureau of Labor Statistics
NOTE: Based on monthly statistics through February 2017.

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the fact that weak wage growth has persisted so long in the face of what has already been years of strong labor demand.

After accounting for commuter flows and netting out contributions for social insurance, employee wages and benefits make up about half of resident personal income in the city (49.9 percent in 2015), with asset income (22.2 percent), proprietors' income (10.5 percent), and transfers (17.4 percent) making up the rest. Growth in aggregate personal income slipped from 5.5 percent in 2014 (2.7 percent after adjusting for inflation) to 4.0 percent in 2015 and an estimated 3.2 percent in 2016 (1.3 percent after adjusting for inflation).

IBO expects personal income growth to tick up to 4.5 percent (2.6 percent after inflation) in 2017 and then average 3.0 percent (1.5 percent after inflation) over the rest of the financial plan period.

Wall Street. New York Stock Exchange member-firm broker-dealer profits weakened in the fourth quarter of 2016 but still finished the year at $17.3 billion, the highest they have been since 2012. While net operating revenues jumped to $29.0 billion, a 45 percent increase over 2015, net interest expenses doubled—from what had been a 30-year low—to $12.3 billion. Even so, both revenues and costs are still a fraction of the precrisis norms, as the chart below shows. This is true as well of broker-dealer financial conditions: member-firm assets fell to $3.2 trillion in the fourth quarter, which was not only 54 percent below the precrisis real-dollar peak hit in the second quarter of 2007, but also 34 percent below the post-crisis peak reached in the second quarter of 2011.

In IBO's forecast Wall Street profits slip back to $15.7 billion in 2017 and then rise gradually to $19.3 billion by 2021. But a sharp rally in financial sector stocks since the November election and the prospect of looser federal regulation may be harbingers of stronger operating revenue growth. At the same time, net interest costs may also increase faster than we have forecast, so it remains to be seen to what extent higher revenues translate into higher profits.

Exports and Tourism. New York City is deeply intertwined with the global economy as a major exporter of financial and other services, as an international (as well as domestic) travel destination, as a lodestone for immigrants bringing infusions of human capital from the rest of the world, and as a haven for investments of foreign savings. These have all been important sources of strength in the city economy during the current expansion.

Sales of transportation, leisure, and hospitality services to foreign visitors (travel and tourism) generate nearly a third of the dollar value of New York City exports, second only to the share accounted for by finance and insurance.[5] But a strong dollar and weak global economy slowed travel and tourism and pushed overall exports lower in 2015.

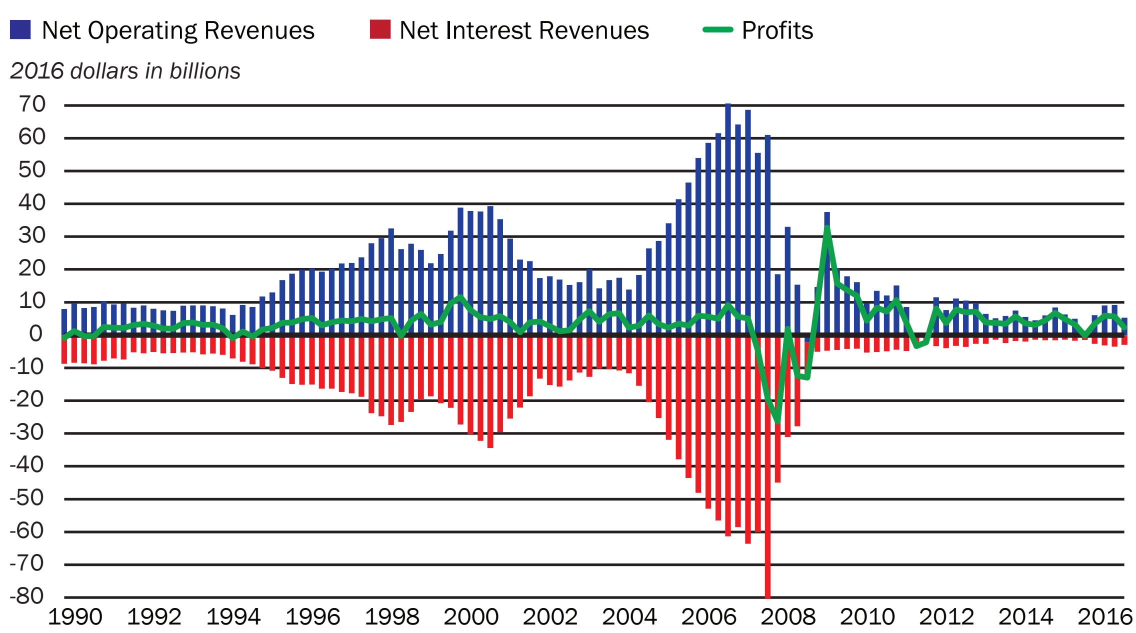
The slowing growth of international (but not domestic) visits to the city over 2015 and 2016 likely also reflects ongoing exchange rate headwinds. Growth in the number of international visitors slipped from an average of 6.8 percent per year from 2004 through 2014 (more than double the 2.8 percent average growth rate for domestic visitors) to 2.7 percent per year over the past two years (below the 3.4 percent rate for domestic visitors).

A strong U.S. dollar may continue to push international tourism lower in the mix as well as weigh down overall export value added growth over the next few years. Beyond that, uncertainty about the reach of federal travel bans and immigration policy has already depressed travel bookings to the United States and has led NYC & Company to forecast a 2.4 percent drop in foreign visitors to the city in 2017.

International travelers spend more here on average than domestic travelers ($1,654 versus $480 per visit in 2014 according to NYC & Co.), so ramped up domestic tourism may not fully offset any drag on the city economy from tamped down international tourism.

Real Estate. Taxable residential real estate sales were $51.3 billion in 2016. In nominal dollars this was 6.1 percent above the previous year's total and was the highest level of residential sales on record, but adjusted for inflation this was still shy of the peak sales volumes of 2005-2007 (see chart on right). IBO expects residential

Quarterly Net Operating Revenues, Net Interest Expenses, And Profits of New York Stock Exchange Member Firms



SOURCE: Intercontinental Exchange

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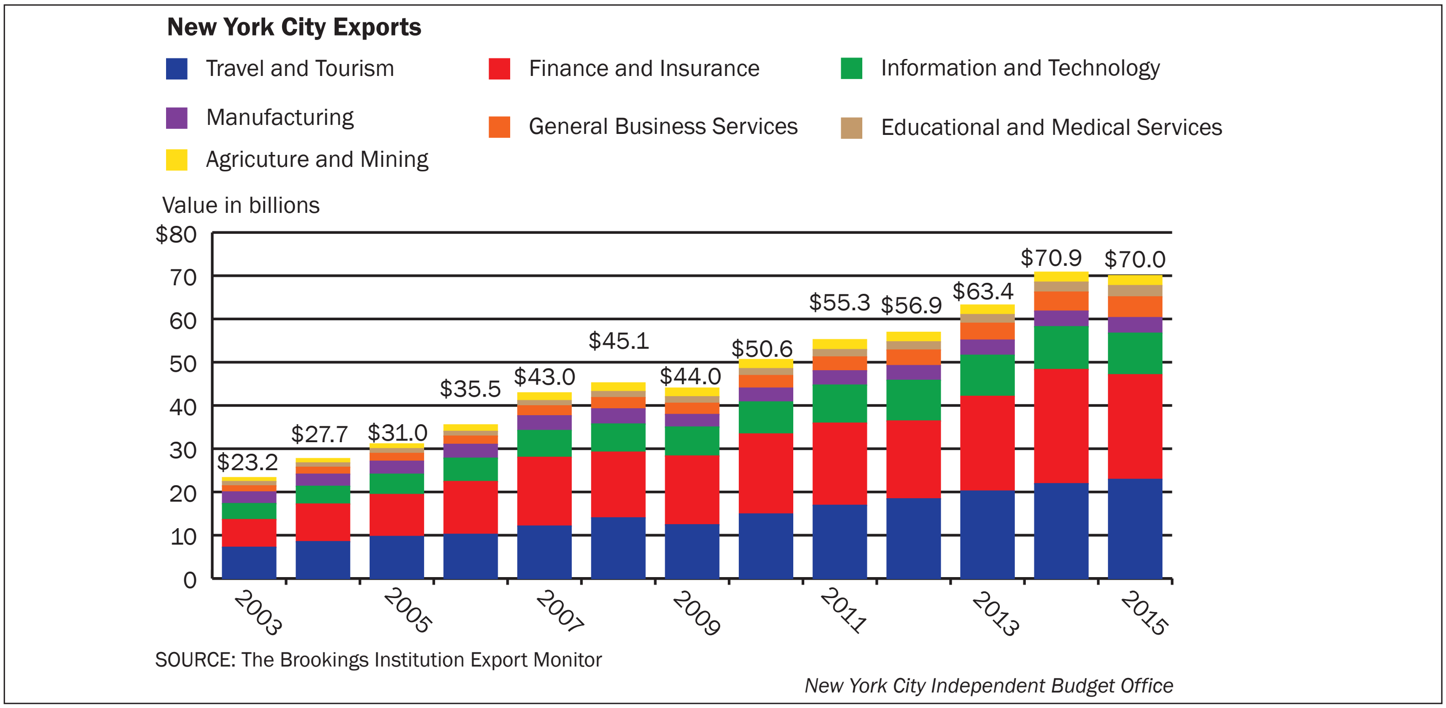
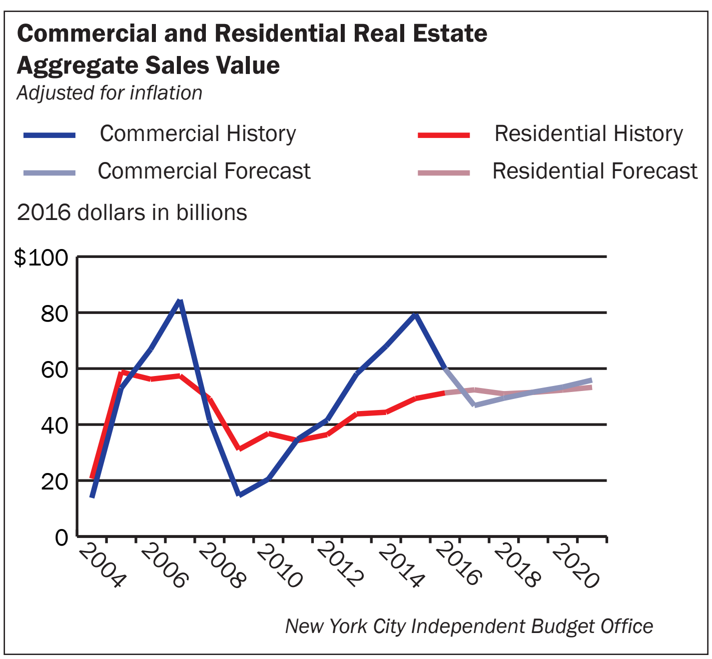


sales to edge up slightly in 2017 and to barely keep pace with inflation over the rest of the financial plan period. Growth is being held back by a lack of activity in the Manhattan residential market.

Commercial real estate sales have been much more volatile than residential sales over the past 12 years. After almost reclaiming their real dollar peak in 2015, commercial sales value fell sharply in 2016, and IBO forecasts another sharp drop in commercial sales value in 2017, followed by tepid growth over the rest of the forecast period. The decline coincides with lower growth in office employment as well



as significant amounts of new office space (including the World Trade Center and Hudson Yards) becoming available.

The coming surfeit of office space will also be reflected in weak growth of Manhattan commercial rents. IBO expects commercial rents to rise to $80.70 per square foot in 2017 (from $78.22 in 2016), but then only to $83.90 by 2021—well below the pace needed to keep up with inflation.

Taxes and Other Revenues

IBO's forecast of revenue from taxes and other sources including fines, fees, and state and federal aid totals $85.0 billion for fiscal year 2017, an increase of $5.0 billion (6.2 percent) over 2016. (All years in this section are fiscal years unless otherwise noted.) Much of this increase is due to a 21.0 percent jump in projected federal grants for 2017, with part of that growth resulting from the shift of $374 million in Sandy relief aid that was not spent in 2016 into 2017. Tax revenue growth from 2016 to 2017 is forecast to be a modest 2.8 percent and the city's total own source revenue—excluding state, federal, and other grants—is projected to grow by 1.6 percent.

For 2018, IBO anticipates a small gain of 2.0 percent in total revenue to $85.3 billion, pulled down by a 17.6 percent decline in federal revenue, mostly Sandy-related aid that is not expected to be a major revenue source after 2017.

IBO expects tax revenue growth to outpace total revenue growth between 2017 and 2018 with $56.5 billion in tax revenues projected for 2018, a $2.3 billion (4.1 percent)

IBO Revenue Projections
Dollars in millions

	2017	2018	2019	2020	2021	Average Change
Tax Revenue						
Property	$24,267	$26,108	$27,791	$29,430	$31,046	6.4%
Personal Income	11,184	11,526	11,977	12,541	13,199	4.2%
General Sales	6,945	7,175	7,515	7,955	8,250	4.4%
General Corporation	3,853	3,896	4,022	4,098	4,174	2.0%
Unincorporated Business	2,057	2,127	2,201	2,269	2,377	3.7%
Real Property Transfer	1,505	1,535	1,621	1,717	1,788	4.4%
Mortgage Recording	1,113	1,059	1,130	1,154	1,201	1.9%
Utility	374	385	393	405	413	2.5%
Hotel Occupancy	587	611	634	658	681	3.8%
Commercial Rent	820	851	876	899	939	3.4%
Cigarette	42	40	38	36	35	-4.5%
Other Taxes and Audits	1,696	1,447	1,318	1,318	1,318	-6.1%
Total Taxes	**$54,445**	**$56,761**	**$59,517**	**$62,480**	**$65,420**	**4.7%**
Other Revenue						
STaR Reimbursement	$556	$535	$533	$531	$529	-1.2%
Miscellaneous Revenue	6,835	6,362	6,602	6,804	6,807	-0.1%
Unrestricted Intergovernmental Aid	57	-	-	-	-	n/a
Less: Intra-City Revenue	(2,039)	(1,786)	(1,781)	(1,787)	(1,787)	n/a
Disallowances	200	(15)	(15)	(15)	(15)	n/a
Total Other Revenue	**$5,609**	**$5,096**	**$5,339**	**$5,533**	**$5,534**	**-0.3%**
TOTAL CITY-FUNDED REVENUE	**$60,054**	**$61,857**	**$64,856**	**$68,013**	**$70,954**	**4.3%**
State Categorical Grants	$14,369	$14,518	$14,979	$15,376	$15,690	2.2%
Federal Categorical Grants	8,947	7,371	7,171	7,168	7,140	-5.5%
Other Categorical Aid	999	902	893	884	880	-3.1%
Interfund Revenue	655	658	658	596	594	-2.4%
TOTAL REVENUE	**$85,024**	**$85,306**	**$88,557**	**$92,037**	**$95,258**	**2.9%**

NOTES: Remaining banking corporation tax revenues reported with general corporation tax. Figures may not add due to rounding.
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increase over the forecast for the current year. The city's own nontax revenues (primarily fees, fines, and sales) are projected to fall by 9.1 percent from 2017 to 2018, to $5.1 billion. Noncity revenues in 2018 are expected to be 6.1 percent lower than in 2017 largely the result of an anticipated decrease in federal grants under the Mayor's Ofiice of Management and Budget's (OMB) assumption that much of the remaining Sandy aid is actually spent in 2017.

Following 2018, IBO projects that total revenues will grow in a more typical pattern, increasing to $88.6 billion in 2019 and $95.3 billion by 2021. Annual growth of total revenue will average 3.7 percent in the last three years of the financial plan, driven by city taxes, which are forecast to increase at an average annual rate of 4.8 percent over that period. Growth in noncity revenue sources is projected to average 1.2 percent annually in 2019 through 2021.

Tax Revenue. IBO's tax revenue forecast for 2017 is $54.4 billion, 2.8 percent greater than the total for 2016. Under this forecast, the city will have experienced back-to-back years of slowing growth of tax revenues. Following a 7.5 percent gain in 2015, revenue growth was less than half that pace in 2016 (3.6 percent) and then slowed further this year. While IBO expects revenue growth to pick up beginning in 2018, we now anticipate the pace of growth to be slower than we forecast in December. Tax revenues are expected to grow by 4.3 percent to $56.8 billion in 2018 and reach $65.4 billion in 2021, average annual growth of 4.8 percent over the final three years of the financial plan period.

The weak revenue growth this year largely stems from slowdowns in the city's two real estate transfer taxes, which are highly dependent on interest rates and the state of the local property markets. Following very strong revenue growth in 2015, the two transfer taxes slowed in 2016 and are forecast to actually decline this year. IBO expects the real property transfer tax and the mortgage recording tax to fall by 15.2 percent and 9.8 percent, respectively, this year. Sales tax revenues, which had averaged 4.1 percent growth annually in 2013 through 2016, are another drag on year-over-year revenue growth; they are expected to grow by only 0.5 percent this year

Much of the tax revenue growth for 2018 is expected to come from the property tax and the sales tax, although all of the city's major tax sources are projected to show some gains. IBO expects tax revenue growth to continue in 2019, 2020, and 2021, averaging 4.8 percent annually with tax revenues forecast to reach $65.4 billion by the last year of the financial plan. Property tax, personal income tax, property transfer taxes, and the general sales tax are all expected to experience growth of 4.0 percent or more over the three years.

IBO's forecast does not include double-digit tax revenue growth, something that did occur each of the boom years from 2004 through 2007 prior to the last recession. Nor does IBO's forecast assume growth faster than the average in the recent past. Indeed, the average annual growth we project for 2018 through 2021—4.7 percent—is well below the 6.4 percent average that prevailed during the preceding four years (2013 through 2016).

IBO's latest tax revenue forecast is strikingly similar to OMB's, particularly for the first two years of the financial plan period. For 2017, IBO's forecast is $118 million (0.2 percent) higher than forecast by OMB in the preliminary budget; for 2018 the difference is only slightly larger at $262 million (0.5 percent). The gap between the two forecasts widens somewhat in 2019 and 2020, and grows to a difference of $1.1 billion (1.7 percent) in 2021.

However, there is much greater uncertainty regarding the tax revenue forecast than typically prevails. This results not only from IBO's expectation of slower local employment growth, but also the many unknowns about the direction of fiscal and economic policy under the Trump Administration and the Republican-led Congress. Some initiatives expected to be near-term priorities in Washington such as financial deregulation, business tax reform, and increased infrastructure spending could well have positive effects on the local economy and boost revenue growth. In contrast, risks of higher inflation, disruptions to trade, and the reduced growth that could accompany efforts to deport large numbers of undocumented immigrants and curb immigration, could result in slower growth than we project, likely accompanied by lower tax revenues.

Real Property Tax

IBO projects the city will collect $24.3 billion in real property tax revenue in 2017, an estimate that has not changed since our December report on the city's fiscal outlook. Although OMB's preliminary budget forecast for 2017 was $171 million higher than in the November plan, IBO's forecast still exceeds OMB's for the current year with the difference now $71 million.

Relative to our December forecast, IBO has modestly increased its revenue projections for 2018 and each subsequent year of the forecast period to reflect stronger than anticipated growth in taxable value based on the tentative 2018 assessment roll that was released in January. For 2018, IBO now anticipates collections will be $26.1 billion, $117 million more than our outlook in December. By comparison, OMB predicts revenue in 2018 will be $25.6 billion, $219 million over its previous forecast.

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 calculated by the city's Department of Finance from estimated market value), and the applicable tax rate. Under property tax law, there are four classes of property: 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 first estimates each property's fair market value and then applies an assessment ratio, 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.

Differences Between IBO's and OMB's Property Tax Revenue Forecasts are Largely Due to Differences in Forecasting the Reserve in 2018 but Less so in Subsequent Years
Dollars in millions

	2018	2019	2020	2021
Major Reserve Components: IBO Less OMB				
Prior-Year Collections	$6.6	$34.50	$42.3	$64.0
Refunds	152.4	72.4	15.9	-17.4
Delinquencies	130.0	123.6	118.4	125.0
Cancellations	56.1	43.0	95.9	105.2
Total Major Reserve Components	**$345.0**	**$273.8**	**$272.50**	**$276.8**
Total Forecast Difference: IBO Less OMB	**$479.0**	**$498.5**	**$812.7**	**$1,117.40**
Share of Difference Due to Major Reserve Components	72.0%	54.9%	33.5%	24.8%

NOTE: Values may not add due to rounding.

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Because of differences in assessment ratios, 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 as estimated by the Department of Finance. Class 1 properties account for a much smaller share of total assessed value than their share of market value—8.5 percent of assessed value on the tentative 2018 roll compared with 46.6 percent of the finance department's estimate of total market value in the city. The other classes, especially Classes 3 and 4, bear a disproportionately large share of the property tax burden because their shares of assessed value are much greater than their shares of market value.

Tentative Assessment Roll for 2018. On the Department of Finance's tentative assessment roll for 2018, market value for tax purposes increased 8.7 percent from 2017 to $1.2 trillion. Class 2 saw the greatest increase at 10.4 percent while Class 1 and Class 4 grew similarly at 8.6 percent. Tentative taxable assessments generally kept pace with these rates except for Class 1, which only increased 4.1 percent. In comparison, Class 2 and Class 4 taxable assessments grew 10.5 percent and 8.9 percent. Class 1's relatively smaller increase is due to state law limiting the growth of Class 1 taxable values to no more than 6.0 percent a year.

After a period for appeals and review, a final roll for 2018 will be released in May. Based on historical trends, IBO anticipates the final roll to show $223.0 billion in total taxable value with Class 4 property making up nearly half of the city's property tax base and Class 2 composing another one-third. Class 1 properties, despite being nearly half of the city's market value as measured by the finance department, are anticipated to only account for 8.5 percent of the valuation used for calculating taxes. Said differently, 96.5 percent of Class 1 properties' market value is left out of the tax base compared with 71.2 percent and 63.3 percent for Class 2 and Class 4, respectively.

Revenue Outlook. IBO anticipates property tax revenue will total $24.3 billion in the current year and $26.1 billion in 2018—an increase of 7.6 percent. Growth is expected to average 6.4 percent over the forecast period with revenue reaching $31.0 billion in 2021. In contrast, OMB forecasts 2017 revenues of $24.2 billion and average annual growth of 5.5 percent through 2021 when they project property tax revenue will total $29.9 billion.

Although IBO's and OMB's property tax revenue forecasts differ somewhat on projected growth in market values and assessments, much of the difference between the two forecasts stems from other 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, and other property tax debits and credits collectively known as the property tax reserve. Some reserve components, such as delinquencies, are counted as debits, as they reduce expected current year tax revenue. Other components, such as payments made in a given fiscal year for prior year liability, 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 revenue is almost always less than the forecast for the property tax levy.

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. For 2018, 72.0 percent of the difference is due to four reserve components—prior year collections, refunds, delinquent accounts, and cancelled taxes. Because the 2018 assessment roll has not yet been finalized, other factors, such as differences in how IBO and OMB expect taxable values to change between the tentative and final roll, come into play. After the tax roll is finalized and assessments are set, all of the difference in the two forecasts for the current year is due to items in the reserve. In later years, differences in reserve forecasts continue to account for much of the difference in the overall forecast, but differences in the levy forecast increasingly come into play. For 2021, the four reserve components account for only a quarter of the variation, indicating that most of the considerably greater difference between the IBO and OMB forecasts is attributable to differences in their forecasts of assessment growth.

Property Transfer Taxes

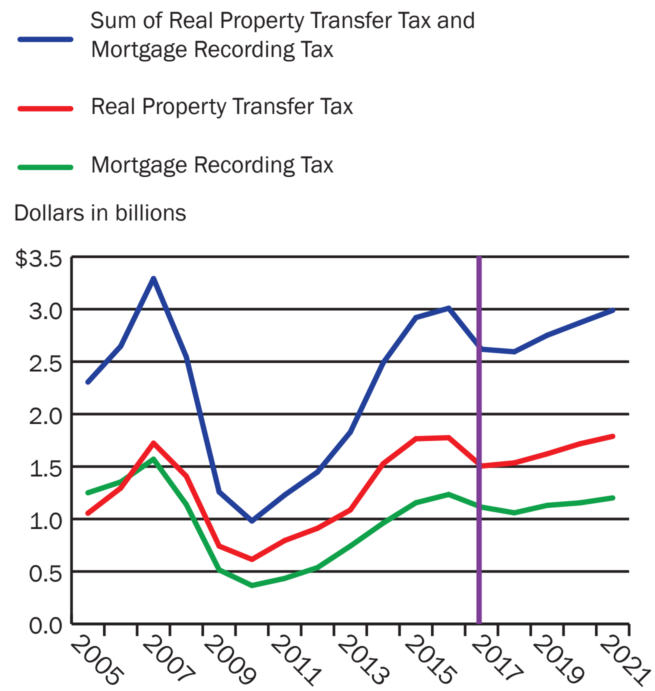
IBO's current year forecasts of revenues from the real property transfer tax (RPTT) and the mortgage recording tax (MRT)—collectively referred to as the transfer taxes—have been revised downward in response to collections being slightly lower than expected in December 2016 and January 2017, as well as mortgage rates rising at a faster pace than we anticipated last fall. The projected sum of the two taxes for 2017, $2.6 billion, is about 13.0 percent below 2016 collections of $3.0 billion. IBO projects a slight further decline in 2018, followed by average annual growth of around 4.8 percent from 2019 through 2021. In 2021 the sum of the two taxes is projected to return to $3.0 billion, still well below the 2007 peak of $3.3 billion in nominal terms, and 32.0 percent lower in inflation-adjusted dollars.

Real Property Transfer Tax. RPTT collections reached almost $1.8 billion in 2016, a new record in nominal terms, but 11.2 percent below the 2007 peak when adjusted for inflation.

Based on actual collections through January and an upward revision to our forecast of mortgage rates, IBO has lowered its projection of RPTT revenues compared with the forecast in our report on the city fiscal outlook in December, while the underlying trends remain unchanged. The forecast for 2017 has been brought down by just 0.3 percent ($4 million), while the forecasts for 2018 and 2019 have been reduced by 4.4 percent ($71 million) and 4.1 percent ($70 million), respectively. The adjustments for the last two years of the plan are smaller: -2.3 percent in 2020 and -1.9 percent in 2021.

IBO now expects RPTT collections to drop 15.2 percent in 2017 compared with the prior year, falling to just over $1.5 billion. Modest growth is expected to resume in 2018. By

Combined Transfer Tax Revenue Project to Grow But Remain Below 2007 Record High



SOURCE: IBO analysis of Department of Finance data
NOTE: Values through 2016 are actuals. Values for 2017 through 2021 are IBO's projections.

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2021, RPTT revenue is projected to reach just under $1.8 billion, essentially tied with the 2016 peak. In inflation-adjusted terms, however, 2021 collections are projected to be 12.5 percent below 2016, and 22.3 percent below 2007, the year before the financial crisis hit.

The trends in RPTT revenue during the past decade and a half have been driven largely by commercial property markets, which have experienced much greater fluctuation in sales than residential properties. In addition, commercial buildings are subject to higher RPTT rates than residential properties, and thus have an outsized influence on the overall level of RPTT revenue. Commercial sales fell much more sharply than residential sales in the wake of the financial crisis of calendar years 2007-2008, and rose more quickly as the real estate market began to recover in 2010. In every fiscal year from 2012 through 2016, the value of commercial sales exceeded the value of residential sales. However, in the first seven months of 2017 (July 2016-January 2017), residential sales outpaced commercial sales and IBO expects this trend to continue through 2019.

There were 54 taxable commercial sales valued at over $100 million during the first seven months of this fiscal year, compared with 68 such sales during the same period of

2016. The downward trend is consistent with IBO's forecast of a decline in commercial sales. Rising interest rates and the availability of new office and retail space at the World Trade Center, Hudson Yards, and other sites will put a damper on the value of sales and therefore RPTT revenue.

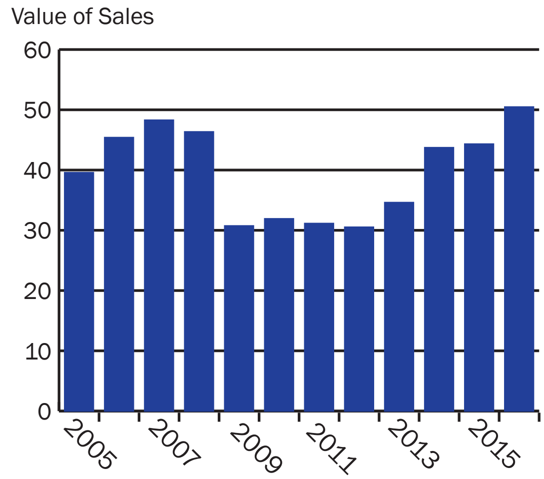
IBO forecasts that the value of residential sales will grow at a modest pace from 2017 through 2020. As has been the case since the financial crisis, growth will come primarily through an increase in the value per transaction, rather than an increase in the number of residential transactions. The number of taxable residential sales in New York City was almost 54,000 in 2016. This is the most sales since 2008, but it is far below the almost 78,000 sales reported in 2006. The (nominal) median price of residential properties sold in 2016 was almost $550,000, just 3.8 percent above the median when prices peaked in 2008. However, the mean price of residential properties sold exceeded $940,000 in 2016, 18.2 percent higher than the previous (2008) peak. This increase in mean sales price reflects strong demand for housing overall, but also the influence of the high-end market, in particular new luxury construction. In 2016 there were 276 residential sales over $10 million, the most on record.

With the increases in the demand for housing expected to outpace increases in supply, IBO projects that upward pressure on prices will continue, even as mortgage rates increase. This appreciation extends beyond the Manhattan luxury market: IBO projects that the average price of one-family houses outside Manhattan will increase at an average annual rate of 4.7 percent from 2017 through 2021.

Mortgage Recording Tax. Mortgage recording tax revenue reached unprecedented levels during the housing bubble years of 2005-2007, and then fell more sharply than RPTT collections in the wake of the financial crisis. From a high of almost $1.6 billion in 2007, MRT revenue plunged to just $366 million in 2010. MRT revenue of over $1.2 billion in 2016 was the highest since 2007, but still 21.4 percent below 2007 in nominal terms, and 32.3 percent lower in real terms.

MRT revenue does not follow the value of real estate sales as closely as revenue from the RPTT, because not all sales are financed using a mortgage, and not all mortgage activity involves a sale. Loans to purchase coop apartments are not considered mortgages under current New York State law because technically the buyer is purchasing shares in a corporation. Sales of luxury residences can involve a large cash component and/or financing from overseas, meaning that most, or all, of the

The Value of Residential Sales Has Recovered Since the Financial Crisis
Dollars in billions



SOURCE: IBO analysis of Department of Finance data
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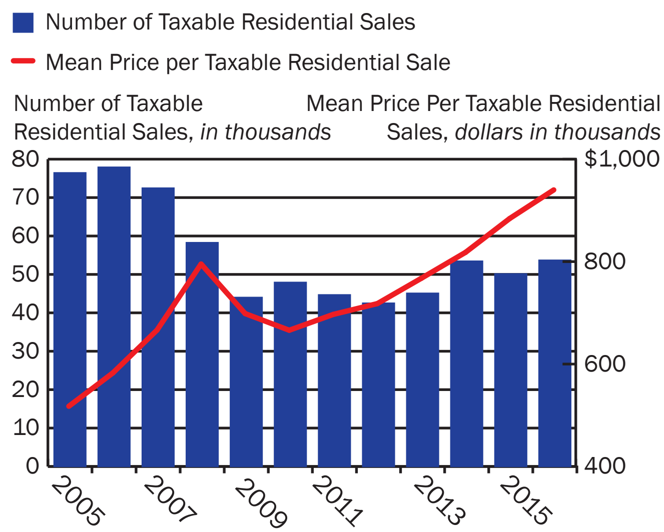
The Increase in the Value of Residential Sales Has Been Driven Primarily by a Rise in the Average Price per Transaction



SOURCE: IBO analysis of Department of Finance data
New York City Independent Budget Office

sales price will not be subject to the mortgage tax. Finally, refinanced mortgages, which do not involve the purchase of property, may or may not be subject to the MRT.

The Federal Reserve's monetary policy kept interest rates low for much longer than most economic forecasters ever anticipated. This provided an incentive for borrowing to finance real estate purchases, as well as for refinancing of existing mortgages. On the other hand, stricter lending standards in the wake of the financial crisis put a damper on mortgage activity. While credit availability has improved in recent years, rising interest rates will constrain borrowing for real estate purchases, and particularly for mortgage refinancing. IBO has revised its projections of mortgage rates upward compared with our December 2016 forecast, and we now expect the benchmark 30-year rate to exceed 5.0 percent by the end of 2018.

As is the case with RPTT, IBO's projections of MRT revenue have been revised downward since our December forecast, primarily due to our forecast of higher mortgage rates. IBO has lowered its MRT forecast by $36 million (-3.1 percent) in 2017, $99 million (-8.5 percent) in 2018, and $37 million (-3.2 percent) in 2019. Revisions to our forecasts for 2020 and 2021 are smaller, $17 million and $6 million, respectively. Whereas our December forecast had MRT bottoming out in 2017 and then increasing at a very slow rate through 2021, IBO now projects that revenue will drop 4.9 percent in 2018 compared with 2017. A slow recovery will begin in 2019 and continue through 2021. By 2021, IBO expects MRT revenue to be just over $1.2 billion, still below 2016 collections, and far below the 2007 peak of $1.6 billion. In inflation-adjusted terms, our 2021 MRT forecast is 42.7 percent below 2007.

IBO's projections for both RPTT and MRT are above OMB's in each year of the financial plan. The largest differences are for the MRT in 2018 (IBO's forecast is 6.5 percent higher) and 2019 (6.3 percent higher).

Commercial Rent Tax

IBO's forecast for 2017 commercial rent tax (CRT) revenue is $820 million, 5.3 percent higher than the total collected in 2016. The intense sales activity in the commercial real estate market in recent years reflected a strong underlying demand for retail and especially office space that led to higher rents. As growth in office-using employment and average rents slows during the next few years, IBO projects that growth in CRT revenue will also slow: 3.8 percent in 2018, 2.9 percent in 2019, and 2.6 percent in 2020. IBO projects more rapid growth of 4.4 percent in 2021, when revenue is forecast to reach $939 million, 20.6 percent above the level of 2016.

The CRT is a tax imposed on tenants renting space for business, professional, or commercial purposes in much of Manhattan below 96th Street. Not-for-profit organizations, 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, as are most retail tenants south of Chambers Street. Over time both the tax rate and the geographic area subject to the tax have been reduced. Currently, tenants with annual gross rents of less than $250,000 are exempt, and a sliding scale 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 pay annual or annualized rent of 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 revenue has not experienced significant year-to-year fluctuations. Since the last rate reduction in 1999, CRT revenue has risen continuously, increasing slightly even in the aftermath of the financial crisis. The projected slowdown in CRT growth coincides with IBO's expectation of more modest increases in rents, due to a combination of slower growth in office-using employment as well as considerable amounts of new office space becoming available. Much of this new space is in areas of Manhattan such as the World Trade Center site that are exempt from the tax. In addition, by expanding the overall supply of office space, these new developments will exert downward pressure on rents in areas that are subject to the CRT.

IBO's CRT forecast for 2017 is $4 million higher than OMB's, a difference of just 0.5 percent. IBO's 2018 forecast is 0.4 percent above OMB's, while our forecasts for 2019 through 2021 are slightly lower.

Personal Income Tax

IBO forecasts $11.2 billion in personal income tax (PIT) revenue this fiscal year (4.2 percent growth) and $11.5 billion in 2018, growth of 3.1 percent. After 2018, PIT revenue growth is expected to pick up each year, growing at an average rate of 4.6 percent annually through 2021 when PIT revenue reaches $13.2 billion. IBO's current forecast for each year is lower than we projected in December—by $83 million in 2017, $154 million in 2018, rising to $219 million in 2020. The downward revisions result from slightly lower forecasts of city employment and income growth during the forecast period and weaker-than-expected collections so far in the current year.

PIT receipts in 2017 have not been entirely weak. Given projections made a few months ago of yet another year of reduced Wall Street bonus compensation, withholding receipts have been unexpectedly strong during the current bonus season, particularly since January. One potential explanation for the strength of withholding is that some bonus payments may have been shifted from November and December of 2016 into calendar year 2017 in anticipation of cuts in federal income taxes. With bonus compensation greater than previously projected, IBO now forecasts withholding growth of 5.7 percent and 5.5 percent in 2017 and 2018, respectively. However, the upside to the PIT forecast from unexpected withholding receipts ($50 million in 2017 and $35 million in 2018) is more than offset by the downside of weaker-than expected revenue from quarterly estimated payments in the current fiscal year.

Estimated payments are made by taxpayers who are self-employed or anticipate realizing capital gains from the sale of financial and property assets, as well as payments made when taxpayers file for an extension passed the April 15 deadline. IBO's current forecasts of estimated payments in 2017 and 2018 are, respectively, $211 million and $237 million less than we forecast in December. Excluding payments made with extension filings, estimated payments have been weak since April 2016, when taxpayers made the first of their quarterly payments against expected tax (calendar) year 2016 liabilities. In the aftermath of the November election, expectations that federal tax rates may be lowered and preferential treatment of investment income deepened, likely accounting for further slowing of estimated payments as many taxpayers deferred realizing capital gains until calendar year 2017 and beyond. Barring a surge in revenue from extension filings in the next few months, IBO forecasts a 5.2 percent decline in receipts from estimated payments in 2017. Estimated payments are projected to rebound in 2018 but will still fall short of the level projected back in December.

Because IBO projects somewhat slower growth in city employment and income than it did in December, it has reduced its forecast of withholding increases for years after 2018, in turn reducing PIT growth in comparison with our previous forecast. IBO projects faster city employment growth than OMB during the forecast period, however, particularly in calendar year 2018, and faster income growth this calendar year. As a result, IBO's personal income tax forecast exceeds OMB's each year. But in each year except 2021, the differences between the two forecasts are quite small. IBO's projections exceed OMB's by $29 million (0.3 percent) in 2017, $33 million (0.3 percent) in 2018, and by an average of $108 million (0.9 percent) from 2019 through 2021.

Business Income Taxes

In 2016 total revenue from the city's business income taxes fell by $386 million (6.4 percent) compared with 2015, when combined revenue had exceeded $6 billion for the first time since 2007. For 2017, IBO forecasts revenue growth will resume at a rate of 4.4 percent, generating an additional $248 million and once again bringing total business tax revenue close to $6 billion. Revenue is expected to increase at a relatively slower pace (1.9 percent) in 2018, accelerate to 3.3 percent growth in 2019 and then continue to rise at an average annual rate of 2.6 percent in 2020 and 2021.

In a major change to the city's business income taxes, the previously separate banking corporation tax (BCT) and general corporation tax (GCT) were overhauled and combined in a single tax, effective January 1, 2015. This means tax payments made by former BCT and GCT payers for liability (calendar) year 2015 and beyond are now reported as corporate tax revenue. (In order to compare revenues over time, we also combine the pre-2015 liability years into a single revenue source.)

Corporate tax revenue was $3.6 billion in 2016, about $465 million less than collections in 2015. This decline in collections reflects a slowdown in the pace of earnings and employment growth from calendar year 2015 to 2016 across most business sectors. For 2017, IBO expects corporate tax revenue to grow to $3.9 billion—an increase of $231 million—as expectations of cuts in federal corporate tax rates and lighter regulation fuel business expansion. IBO projects that earnings in the financial services sector, historically a major contributor to the city's GCT revenue, will increase 5.7 percent in calendar 2017, after two consecutive years of lackluster growth. Earnings in information and retail trade, two other major contributors to the city's corporate tax, are also expected to expand by 6.3 percent and 2.9 percent, respectively, in calendar year 2017.

For 2018, IBO forecasts corporate tax revenue to grow by only $42 million, or 1.1 percent. As the Federal Reserve raises interest rates, corporate profits, business investments, and aggregate earnings are expected to grow at a relatively slower pace in calendar year 2018.

In 2019, IBO expects an additional $126 million, an increase of 3.2 percent, in corporate tax revenue, bringing net collections over the $4 billion mark, a level not reached since 2015. For each of the final two years of the financial plan, we forecast that revenues will rise 1.9 percent a year.

Unincorporated Business Tax. While corporate tax revenue contracted in fiscal year 2016, unincorporated business tax (UBT) revenue grew by 4.0 percent and net collections exceeded $2 billion for the first time. For 2017, IBO forecasts net UBT collections to essentially remain flat—increasing by only $17 million—as refunds continue to be higher than trend, reflecting adjustments by businesses to reduce overpayments that have built up. In addition, slower corporate profits and business investments of calendar year 2016, constituted a drag on UBT revenue, which was countered to some extent by the strong earnings accruing to the unincorporated entities. Starting in 2018 and extending to the rest of the forecast period, UBT revenue is expected to grow at an annual average rate of 3.7 percent. Most of this increase would be driven by earnings in proprietorships and partnerships, which are expected to grow at 3.8 percent annually, and earnings in the professional and business services sector, anticipated to grow at 4.1 percent annually from 2018 through 2021.

IBO's forecast for combined business tax collections are consistently below OMB's for the forecast period, although the differences are less than 1 percent each year. While IBO generally projects somewhat higher corporate tax revenue each year, our forecast for UBT collections is uniformly lower than OMB's throughout the financial plan period. IBO's revenue forecast for combined business income tax revenue is $28 million (0.5 percent) lower than OMB's in the current fiscal year and $22 million (0.4 percent) below OMB's in 2018. The difference reaches $45 million in 2021.

General Sales Tax

IBO's forecast of sales tax revenue in 2017 has changed little since our report on the city's fiscal outlook and remains at $6.9 billion. Apart from an exceptional December, when receipts were 8.8 percent higher than in the previous December, sales tax collections this fiscal year have been only slightly higher than in 2016. From July 2016 through January 2017, sales tax revenues were just 0.4 percent higher than during the same period a year ago. We forecast sluggish growth in sales tax revenues to continue for the remainder of 2017, with total collections for the year only 0.5 percent greater than collections in 2016.

A provision adopted as part of New York State's 2016-2017 budget accounts for at least some of the weakness in sales tax collections for 2017. Starting in May 2016, the state began to retain nearly $17 million per month of the city's sales tax revenue in order to recapture benefits from the refinancing of sales tax revenue bonds that had been issued by the city's Sales Tax Asset Recovery Corporation (STARC). The Cuomo Administration took the position that the savings from the refinancing should have accrued to New York State rather than the city because the state was paying the debt service on the bonds. The state's retention of city sales tax collections reduced city sales tax revenue by $50 million in 2016 and will reduce 2017 revenue by $200 million. Without these reductions, which under current law will continue through April of 2019, IBO projects that sales tax revenue would have risen 2.6 percent in 2017.

After 2017, IBO anticipates somewhat stronger increases in sales tax revenue, roughly in line with revenue growth from 2011 through 2016. We project that faster rates of economic and personal income growth in calendar years 2017 and 2018 for both the city's and the nation's economies, plus more rapid increases in prices, will fuel sales tax growth averaging 4.0 percent annually in fiscal years 2018 and 2019. Expectations that foreign tourists will become a smaller share of all visitors to the city will, however, limit revenue growth because foreign tourists spend more money per visit than domestic tourists. IBO forecasts sales tax revenue of $7.2 billion in 2018 and $7.5 billion in 2019, a bit lower than our December outlook. After 2019, when the state will no longer retain any of the city's sales tax receipts, we project faster sales tax growth, with revenue just shy of $8.3 billion by 2021.

For all years of the forecast period, IBO's sales tax forecast is less than OMB's: by $99 million for the current year and by much larger amounts, ranging from $334 million to $395 million annually, from 2018 through 2021. About half of the differences in 2018 and 2019 result from OMB's forecasts not accounting for the state's retention of city sales tax receipts. Aside from the STARC-related retention, IBO forecasts a somewhat more moderate rate of sales tax revenue growth, averaging 4.4 percent annually from 2018 through 2021, than does OMB (5.1 percent annual average growth over the same period).

Hotel Occupancy Tax. After sluggish collections at the beginning of the current fiscal year, hotel occupancy tax revenue picked up and receipts through January are 3.1 percent greater than during the same period a year ago. Based on our forecast of stronger U.S. GDP and personal income growth in calendar years 2017 and 2018, IBO expects hotel tax revenue to rise more rapidly for the remainder of fiscal year 2017 and into 2018. IBO forecasts $587 million in hotel tax revenue in 2017, 3.9 percent greater than 2016, and $611 million in 2018, growth of 4.1 percent over 2017. These forecasts are virtually unchanged from our fiscal outlook report in December.

Revenue growth is expected to moderate after 2018, with hotel tax collections reaching $681 million in 2021. Growth will be sustained by projected increases in the number of domestic visitors staying in New York City hotels. Such visitors currently comprise two-thirds of city tourists and this share is projected to increase as further dollar appreciation and widespread unease about America's welcome to foreign visitors is expected to limit the increase in the number of tourists from abroad. In recent years the city's hotel industry has greatly increased the inventory of hotel rooms, putting downward pressure on room rates. Despite these price pressures and the projected change in the mix of tourists, IBO still expects hotel tax revenue to rise, driven by continued increases in the number of visitors to the city.

Other Revenues

The city's nontax revenues—which include a variety of fees, fines, charges, asset sales, interest income, and other miscellaneous revenue—are expected to total $5.6 billion this year, little changed from last year's total. The preliminary budget anticipates a decline of $513 million in combined revenue from these sources for 2018, as estimates for a number of miscellaneous revenue streams were increased for 2017 but not for 2018 and subsequent years. Other city revenues are projected to resume growing in 2019 and reach $5.5 billion by 2021.

State, federal, and other categorical aid, as well as interfund revenue are the remaining sources among nontax revenues. They are expected to total $25.0 billion this year, which includes $1.4 billion in anticipated Hurricane Sandy assistance from the federal government. The bulk of that money has been allocated through the federal government's Community Development Block Grant process to help in the recovery and is scheduled to be spent this year, with only $157 million scheduled for 2018 and even smaller amounts thereafter. The decline in Sandy-related revenue largely accounts for the decrease in this revenue category to $23.4 billion in 2018. After 2018, these revenues are expected to resume growing, but at a very slow pace; annual growth is expected to average 1.2 percent in 2019 through 2021. By the last year of the financial plan, these grants are expected to total $24.3 billion. Note that these figures do not reflect any potential cuts to federal aid that may result from budget negotiations in Washington.

Endnotes

[1]Because it focuses more closely on a single year, the change in employment from Q4 of one year to Q4 in the next (Q4-over-Q4) is a better measure for capturing speedups or slowdowns than changes in annual average employment. Note that the Q4-over-Q4 measure is equivalent to the sum of the changes in quarterly average employment over course of a year.
[2]These numbers reflect the latest benchmark revisions to the Current Employment Statistics by the Bureau of Labor Statistics. According to the bureau, however, seasonally adjusted city employment grew by 77,600 in 2016 on a Q4-over-Q4 basis. But the apparent fourth quarter surge in employment in the bureau's series appears to have been an artifact of extremely small seasonal adjustments. IBO expects these figures to be revised, at which point the bureau's total city employment series will likely track what IBO obtains using its own industry level seasonal adjustments.
[3]IBO's forecasts were done before the release of the benchmark revisions to the Current Employment Statistics from the federal labor department. The employment forecast for our May 2017 report on the executive budget will incorporate the new benchmark.
[4]American Community Survey data.
[5]Finance export value is probably underestimated, as the Brookings Export Monitor estimate does not capture local differences in the proportion of financial industry value-added stemming from services to international rather than domestic clients.

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