

## New York City Economy Slows in Last Quarter

## But average hourly earnings still increasing

**Overview:** The City's economy slowed towards the end of 2016, mirroring a similar trend in the nation as a whole. Growth of 1.8 percent and 1.9 percent for the fourth quarter, respectively, for the City and the nation belied a more optimistic third quarter where the City and nation registered a relatively robust 2.8 percent and 3.5 percent, respectively. Commercial leasing activity declined for the fifth time in the past six quarters and venture capital investment posted its third consecutive quarter of year-over-year decline, in line with the nationwide contraction in investment. The unemployment rate increased slightly as a result of discouraged workers rejoining the labor force. Average hourly earnings growth failed to keep up with inflation in the NY metro region.

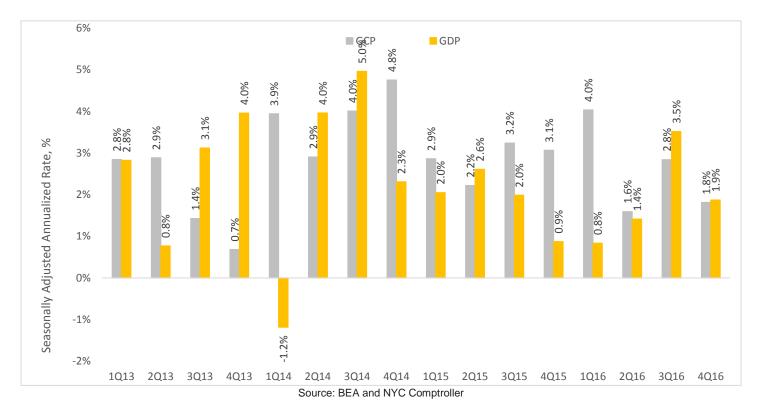
# Table 1: Fourth Quarter of 2016 Key Economic IndicatorsNYC Compared with U.S. for 3Q16 and 4Q15

		4Q16	3Q16	4Q15
GCP/GDP Growth, SAAR	NYC	1.8	2.8	3.1
	U.S.	1.9	3.5	0.9
Payroll-Jobs Growth, SAAR	NYC	-1.2	2.7	0.0
	U.S.	1.4	2.0	2.0
PIT Withheld, Growth, NSA	NYC	4.6	2.2	1.8
	U.S.	1.7	1.9	1.8
Inflation Rate, NSA	NYC	1.6	1.0	0.6
	U.S.	1.8	1.1	0.5
Unemployment Rate, SA	NYC	5.6	5.5	5.2
	U.S.	4.7	4.9	5.0

SAAR=Seasonally adjusted annual rate. SA=Seasonally adjusted. NSA=Not seasonally adjusted.

Details on the fourth quarter performance of NYC's economy follow.

Overall economic growth weakens	page 2
Private-sector job creation that wasn't	page 3
Labor force participation expands	page 7
Personal income tax collections and average hourly earnings rise	page 8
Venture capital investment declines	page 9
Commercial leasing activity decreases	page 10



## Chart 1. Percent Change in Real Gross City Product (GCP) and National Real Gross Domestic Product (GDP), 1Q13 to 4Q16

Real gross city product (GCP) grew at an estimated annual rate of 1.8 percent in 4Q16, a full percentage point below the 2.8 percent recorded in 3Q16. The national economy outpaced the city economy for the second consecutive quarter, growing (advance estimate) 1.9 percent in 4Q16 (Chart 1).

For the full year 2016, the economy grew 2.9 percent in the City and 1.6 percent in the U.S., both of which were lower than their respective growth rates of 3.3 percent and 2.6 percent in 2015, indicating that while the expansion is continuing there are signs of softness.

## Private-sector hourly earnings increased 1.5 percent in 4Q16, and the city's unemployment rate rose from 5.5 percent to 5.6 percent.

Average hourly earnings of private-sector employees in the city increased by 1.5 percent which led to an increase in withholding taxes. While some of the gains in withholding were offset by a decline in estimated tax

payments, personal income tax collections nonetheless increased slightly in 4Q16 over 4Q15.

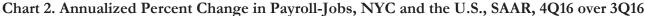
Commercial leasing in Manhattan decreased in 4Q16 for the fifth time in the past six quarters as a result of softening commercial activity.. Employers are putting more people in less space. The residential market was mixed however. In Manhattan, prices increased, but the number of sales dropped in 4Q16 while in Brooklyn and Queens both prices and the number of sales increased. Finally, venture capital investment experienced its third consecutive quarter of year-over-year decline.

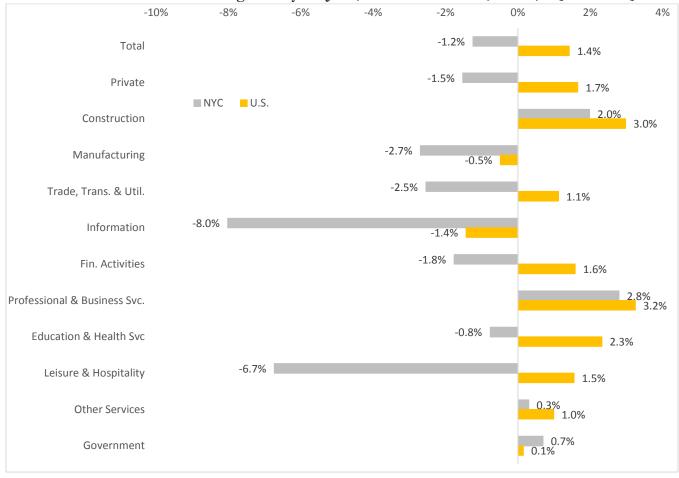
The U.S. economy, as measured by the change in real GDP, grew 1.9 percent (advance estimate) in 4Q16, lower than the 3.5 percent in 3Q16. Consumer spending grew 2.5 percent and contributed 1.70 percentage points to the GDP growth. Within consumer spending, durable goods and household consumption expenditures for

services contributed the most to the GDP growth. It's important to note that the advance GDP estimate is subject to 2 revisions this year so the estimate may change, possibly significantly.

Private investment grew 10.7 percent in 4Q16, the biggest surge since 2Q14 and contributed 1.67 percentage points to the GDP growth. The reason for this growth was private inventories, residential investment, and intellectual property products.

Net exports reduced 1.7 percentage points from GDP growth as exports fell 4.3 percent and imports grew 8.3 percent. A strong dollar contributed to stronger imports and weaker exports. Government expenditures grew 1.2 percent and added 0.21 percentage points to GDP growth, mainly due to a 2.6 percent increase in state and local government spending.





Source: U.S. Bureau of Labor Statistics (BLS) and NYS Department of Labor

Employment in New York City ended the year up with nearly 90,000 new jobs or a 2.1 percent increase despite weakening in the 4<sup>th</sup> quarter. This is lower than job growth in 2015 (2.9 percent) but more robust than the 1.7 percent recorded for the U.S. as a whole.

The New York State Department of Labor reported that the City's private sector lost 14,500 jobs, or 1.5 percent (SAAR) in 4Q16, the first decline since 3Q09. The nation's total private-sector jobs grew 1.7 percent (SAAR) in 4Q16, slightly less than the 1.8 percent increase posted in 3Q16 (Chart 2). These numbers are preliminary estimates subject to revision later this year. Given the strong growth for the year we are not quite ready to infer a declining trend from one quarter's preliminary estimates.

Most of the 14,500 private-sector jobs lost in 4Q16 in the city were in medium-wage industries (-8,500), followed by high-wage industries (-4,100), and low-wage industries (-1,900).

The average annual salary of an employee in a low-wage sector job was about \$42,000, in a medium-wage sector was about \$75,000, and in a high-wage sector was about \$187,000 as of 2015.

The export sector – which depends on the national and global economies and primarily provides goods and services to customers outside of the city – lost more jobs than the local sector, which generally provides support for the export sector and the local population or local consumption. Of the total private-sector job losses, 66 percent, or 9,500 jobs, were in export-sector industries, such as leisure and hospitality, while 34 percent or 5,000 jobs were in local-sector industries, such as education and health services.

Among the industries that lost jobs in 4Q16 over 3Q16, the biggest loss was in leisure and hospitality (-7,800), the first

decline in over seven years (since 2Q09). Most of those jobs (-6,500) were lost by bars and restaurants, which are generally low-wage. Bars and restaurants had the longest uninterrupted growth until 4Q16, with an expansion of 112,400 jobs or 56.6 percent since 1Q09. Accommodations also lost 1,200 jobs in 4Q16.

Next, the information sector lost 4,100 jobs, the biggest drop in over 12 years (since 1Q03). Finance and insurance shed 2,500 jobs in 4Q16, for the fourth consecutive quarters of decline and most of the losses (-1,700) were in securities industry. In 2016, finance and insurance lost 100 jobs, but the securities industry added 1,000 jobs.

The education sector lost 7,800 jobs, while health care and social assistance added 6,100 jobs. Retail trade lost 1,900 jobs. With the exception of 1Q16, the city has lost jobs in retail trade in every quarter since 1Q15. Wholesale trade lost 500 jobs, and transportation and utilities lost 1,700. Manufacturing lost 500 jobs.

In contrast, professional and business services added 4,900 jobs after two quarters of decline. However, the biggest increase was in administrative (2,500), which is a low-wage industry. Construction added 700 jobs. Government added 1,000 jobs and other services, which includes personal and laundry services, added 100 jobs.

For the year, the city added 84,900 total private sector jobs, after adding 114,700 in 2015. Most of the new jobs (41,000 or 48.5 percent) were in low-wage sector followed by mid-wage (30,000 or 35.2 percent) and high-wage (14,000 or 16.3 percent). Also, local-sector jobs made up for 54 percent of the new total private-sector jobs and export-sector jobs made up for 46 percent.

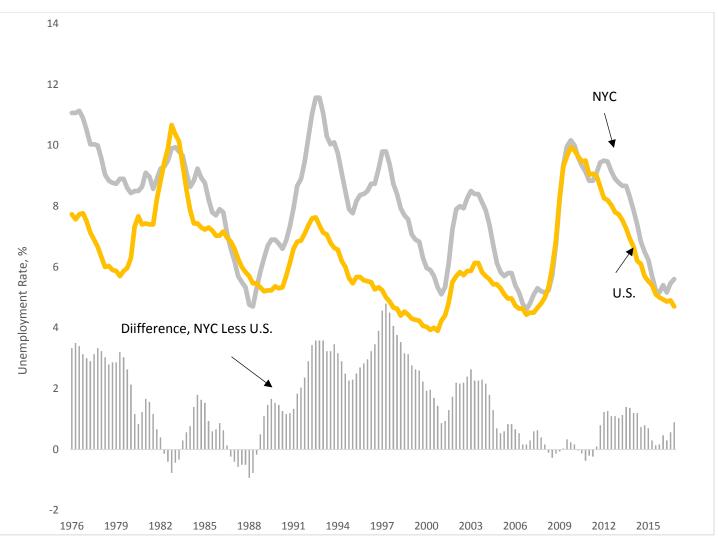


Chart 3. Unemployment Rate, NYC, U.S. and NYC Less U.S., Quarterly (SA), 1Q76-4Q16

Source: U.S. Bureau of Labor Statistics (BLS) and NYS Department of Labor

NYC's unemployment rate, adjusted for seasonality, was 5.6 percent in 4Q16, the highest in about two years (since 1Q15). On the other hand, the U.S. unemployment rate was 4.7 percent, the lowest rate in nine years (since 3Q07) (Chart 3). The increase in the city's rate was due to an increase in the city's labor force, which grew by 24,700 in 4Q16. This implies that some of the discouraged job seekers are joining the city's labor force. The number of unemployed New Yorkers rose by 8,400 in 4Q16 after increasing by 6,800 in 3Q16.

In 2016 the city's unemployment rate was 5.3 percent, lower than 2015's 5.7 percent.

Among the five boroughs: the unemployment rate (not seasonally adjusted) increased to 4.5 percent in 4Q16 from 4.4 percent in 4Q15 in Manhattan; remained unchanged at 5.1 percent in Staten Island; and declined in Queens (to 4.4 percent from 4.5 percent) ;Brooklyn (5.2 percent from 5.3 percent); and the Bronx (7.0 percent from 7.1 percent) in 4Q16 from a year ago.

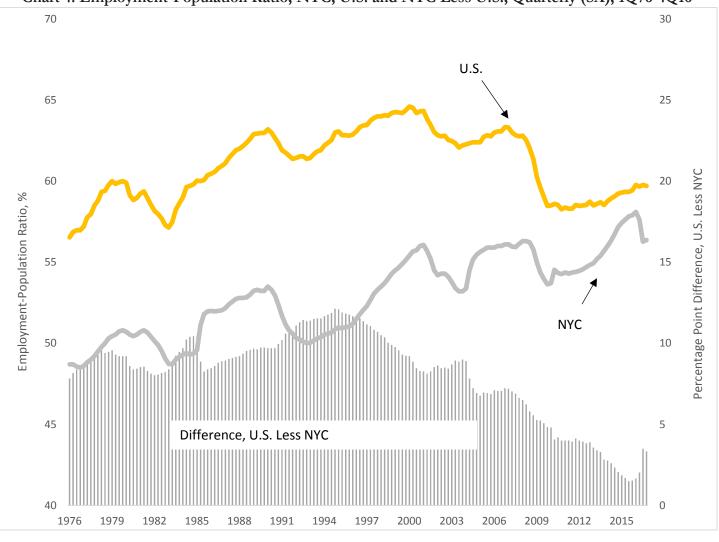


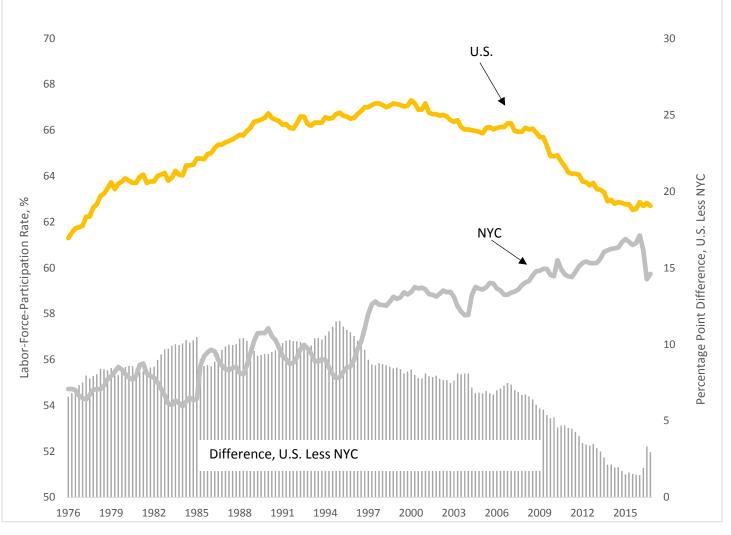
Chart 4. Employment-Population Ratio, NYC, U.S. and NYC Less U.S., Quarterly (SA), 1Q76-4Q16

Source: U.S. Bureau of Labor Statistics (BLS) and NYS Department of Labor

The number of employed city residents increased by 16,300 to over 3.9 million in 4Q16, after a decline in 3Q16. As a result, the city's employment-to-population ratio rose to 56.4 percent in 4Q16 from 56.3 percent in 3Q16.

The national employment-to-population ratio fell to 59.7 percent in 4Q16 from 59.8 percent in 3Q16. As a result, the

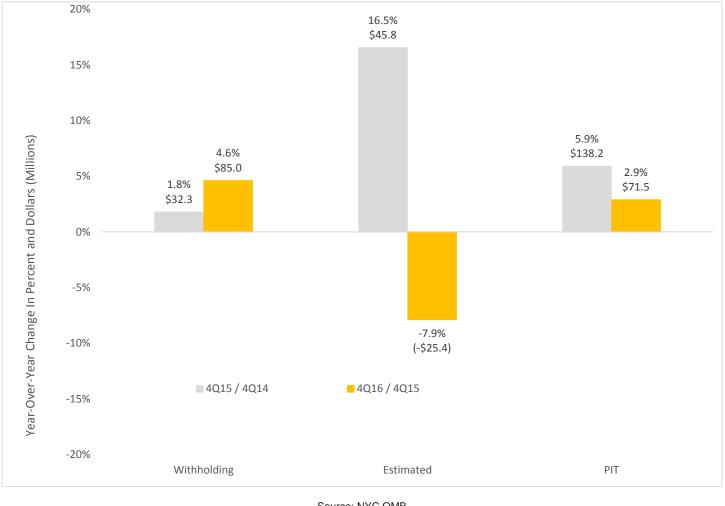
spread between the two narrowed to 3.3 percentage points (Chart 4). For 2016 as a whole, residential employment fell 0.2 percent in the city, but rose 1.7 percent in the U.S. As a result, the city's employment-to-population ratio for the year fell to 57.0 percent, lower than 57.7 percent in 2015, but the second highest rate since 1976. The U.S. employment-to-population ratio rose to 59.7 percent in 2016 from 59.3 percent in 2015.

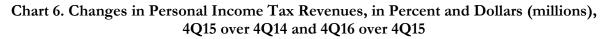


#### Chart 5. Labor-Force Participation Rate, NYC, U.S. and NYC Less U.S., Quarterly (SA), 1Q76-4Q16

Source: U.S. Bureau of Labor Statistics (BLS) and NYS Department of Labor

The city's labor force, which is the sum of all city residents who are employed or looking for a job, increased by 24,700 in 4Q16, after two consecutive quarters of decline. As a result, the city's labor-force-participation rate (LFPR), which is the ratio of the total labor force to the total non-institutional population (16 years old and over), rose to 59.7 percent in 4Q16 from 59.5 percent in 3Q16 (Chart 5).







NYC personal income tax (PIT) revenues, a proxy for personal income, rose 2.9 percent on a year-over-year basis to about \$2.6 billion in 4Q16. Two main components of the PIT revenues are withholding taxes and estimated tax payments. On a year-over-year basis, personal income taxes withheld from paychecks rose 4.6 percent to over \$1.9 billion in 4Q16. Estimated tax payments, which reflect trends in taxpayers' non-wage income, including interest earned, rental income, and capital gains, fell to \$297 million in 4Q16, 7.9 percent lower than the \$323 million in 4Q15 (Chart 6).

For the year, PIT revenues fell one percent as withholding grew 2.7 percent, but estimated declined 10.0 percent.

Average hourly earnings (AHE) of total private NYC employees, another proxy for personal income, rose 1.5 percent on a year-over-year basis to \$34.28 in 4Q16. Although the fourth quarter growth was better than 1.2 percent in 3Q16, it was below the 1.6 percent inflation rate in the NY metro area. The city's AHE grew only 0.7 percent in 2016, the lowest growth since 2009.

U.S. average hourly earnings grew 2.7 percent to \$25.95 in 4Q16 from 4Q15, better than 2.4 percent in 3Q16, on a yearover-year basis. The U.S. inflation rate was 1.8 percent in 4Q16. U.S. average hourly earnings grew 2.5 percent in 2016, the biggest growth since 2009.

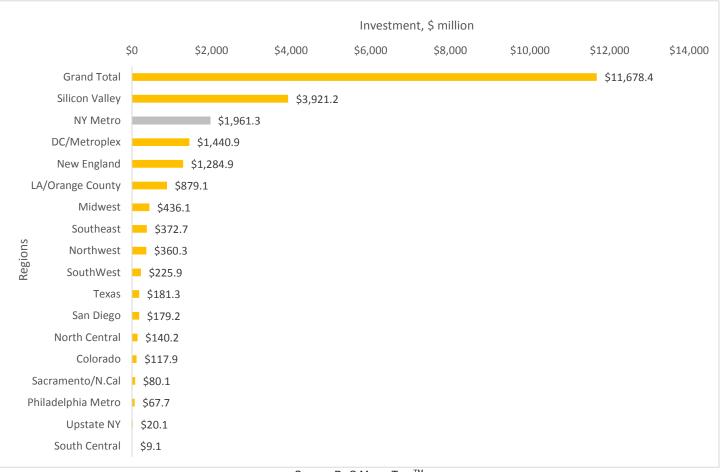


Chart 7. Venture Capital Investment by Regions, 4Q16

Source: PwC MoneyTree<sup>™</sup>

Venture capital (VC) investment declined in the New York metro area for the third consecutive quarter and nationally for the fifth consecutive quarter.

VC investment fell 10.2 percent in the metro area, to about \$2 billion in 4Q16 (Chart 7). As a result, total VC in NY metro fell 9.6 percent to \$7.9 billion in 2016, the first decline since 20.6 percent in 2012.

The NY metro area has nonetheless fared better than the nation. Total venture capital investment in the U.S. fell 19.1 percent to \$11.6 billion in 4Q16 from 4Q15 and to \$58.6 billion in 2016, 20.1 percent lower than in 2015.

Total investment in Silicon Valley, which has the biggest concentration of VC investment, fell 49.2 percent to \$3.9 billion in 4Q16 and 27.0 percent to \$24.9 billion in 2016.

The number of VC deals in the U.S., New York metro area, and Silicon Valley followed the same trend as the amount of investment. The number of deals in the New York metro area fell to 129 in 4Q16 from 173 in 4Q15. The number of deals in the U.S. fell to 982 and in Silicon Valley to 310 in 4Q16 from 1,204 and 382, respectively, in 4Q15.

Despite the decline in growth, the NY metro area's share of VC investment rose to 16.8 percent in 4Q16 from 15.1 percent in 4Q15. However, the share of deals fell to 13.1 percent in 4Q16 from 14.4 percent in 4Q15. Silicon Valley's share of VC investment fell to 33.6 percent in 4Q16 from 39.7 percent in 4Q15 and its share of deals fell to 31.6 percent in 4Q16 from 31.7 percent in 4Q15.

The biggest increases in investment were in Sacramento and DC/Metroplex. VC investment in Sacramento rose to \$80 million in 4Q16 from \$35 million in 4Q15 and in DC/Metroplex rose to over \$1.4 billion in 4Q16 from \$767 million in 4Q15.

VC investment in New York State (including NYC?) increased 12.5 percent in 4Q16 from a year ago, to about \$1.7 billion. However, the number of deals in New York State fell 22.5 percent to 124 in 4Q16 from 160 in 4Q15. In 2016, VC investment in New York State fell 1.7

percent to \$7.5 billion and the number of deals fell 14.3 percent to 601.

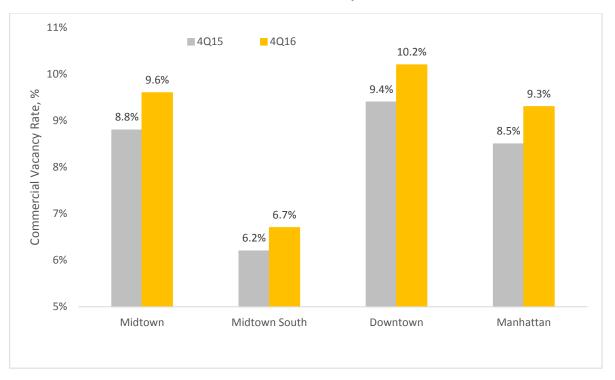
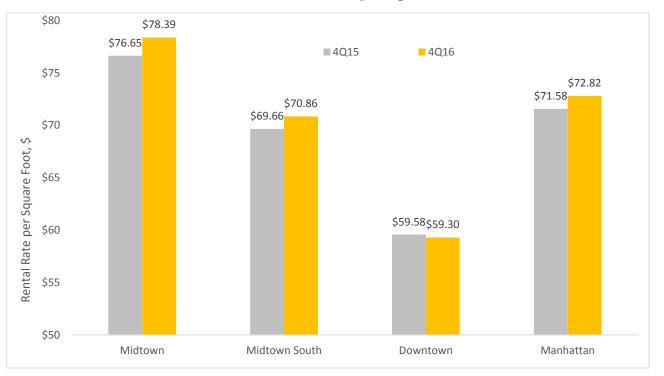


Chart 8. Overall Commercial Vacancy Rates, 4Q16 and 4Q15

Source: Cushman & Wakefield

Chart 9. Overall Commercial Rental Rate per Square Foot, 4Q16 and 4Q15



Source: Cushman & Wakefield

New commercial leasing activity in Manhattan totaled 5.8 million square feet (msf) in 4Q16, 8.6 percent lower

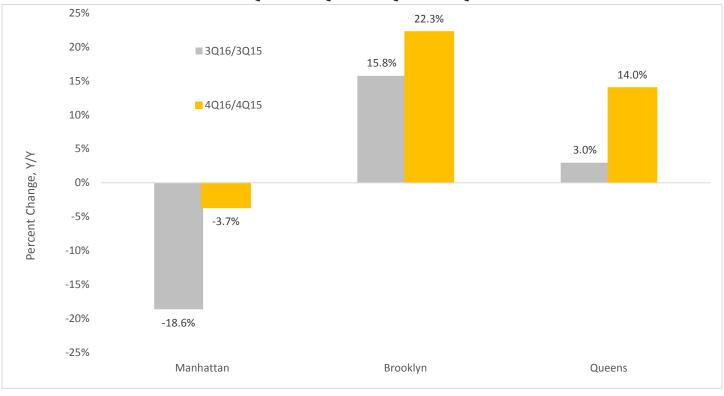
than in 4Q15, according to Cushman and Wakefield. As a result, total leasing activity fell 6.7 percent in 2016 over 2015.

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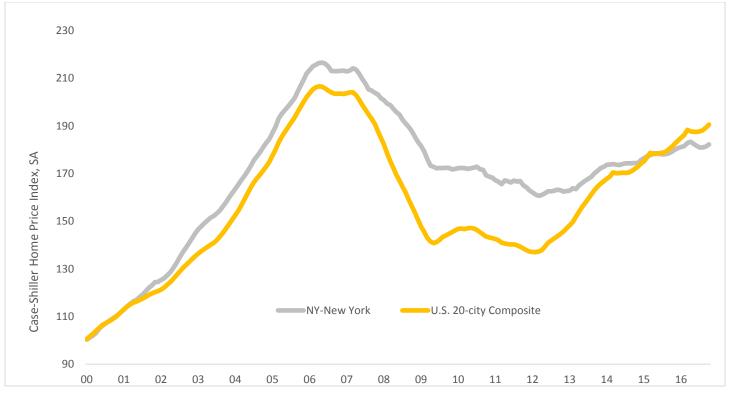
The 4Q16 decline is the fifth decline in the last six quarters. Most of the new leasing in 4Q16 took place in Midtown (4.2 msf) followed by Midtown South (about 1.0 msf) and Downtown (about 568,000 sf). However, on a year-over-year basis, new leasing increased only in Midtown.

The Manhattan office vacancy rate, including sublease space, was 9.3 percent in 4Q16, higher than 8.5 percent in 4Q15. On a year-over-year basis, the vacancy rate increased 0.8 percentage points in Downtown and Midtown and 0.5 percentage points in Midtown South. Overall asking rents increased in all the submarkets except Downtown, which fell to \$59.30 in 4Q16 from \$59.58 in 4Q15 (Chart 8 and 9).

Chart 10. Percent Change in the Number of Apartment Sales, Manhattan, Brooklyn, Queens, 3Q16 over 3Q15 and 4Q16 over 4Q15



Source: Douglas Elliman



#### Chart 11. Case-Shiller Home Price Index, Monthly SA, January 2000 to November 2016

Source: Standard and Poor's

The housing market in Manhattan slowed down in 4Q16—average sales prices increased, but the number of Manhattan sales decreased on a year-over-year basis. According to a report from Douglas Elliman, on a year-over-year basis, the average sales price in Manhattan rose 7.7 percent for the seventh consecutive quarter to about \$2.1 million. Similarly, the average price per square foot rose 7.0 percent to \$1,760 in 4Q16 over 4Q15.

However, the number of sales fell 3.7 percent to 2,864 for the second consecutive quarter causing the listing inventory to increase 6.9 percent to 5,393 in 4Q16 from the prior year.

The listing inventory grew faster than the number of sales leading to an increase in the absorption rate. The absorption rate, defined as the number of months to sell all inventory at the current rate of sales, rose to 5.6 months in 4Q16 from 5.1 months in 4Q15. Also, days on the market from last list date rose 14.6 percent to 94 days.

Housing market conditions tightened in both Brooklyn and Queens as prices increased, sales expanded and inventories declined. In Brooklyn, the average sales price rose 17.3 percent to \$947,553 in 4Q16, compared to 4Q15. On a yearover-year basis, the number of sales rose 22.3 percent to 2,582, the listing inventory fell 31.0 percent to 2,232 and the absorption rate fell to 2.6 months in 4Q16. On the other hand, the days on market rose to 94 in 4Q16 from 64 in 4Q15.

In Queens, the average sales price rose 9.8 percent to \$573,455 in 4Q16 over 4Q15. The number of sales rose 14.0 percent to 3,917 and the listing inventory fell 22.0 percent to 3,668 in 4Q16 compared with the same period last year. Days on the market was 75 days in 4Q16, 31.6 percent more than 57 days in 4Q15, and the absorption rate fell 31.7 percent to 2.8 months in 4Q16 from 4Q15 (Chart 10).

Douglas Elliman reports that the number of 1- to 3-family homes sold in Brooklyn rose 1.4 percent and in Queens rose 8.6 percent in 4Q16, compared to the previous year. The average sales price per square foot rose 8.3 percent in Brooklyn, and 12.9 percent in Queens in 4Q16 compared to 4Q15.

According to the Case-Shiller index, which tracks singlefamily home prices, the not-seasonally-adjusted New York metro area home price index increased 2.1 percent in October-November 2016 over October-November 2015. During the same period, the New York metro area's inflation rate was 1.4 percent, indicating a modest increase in real home prices.



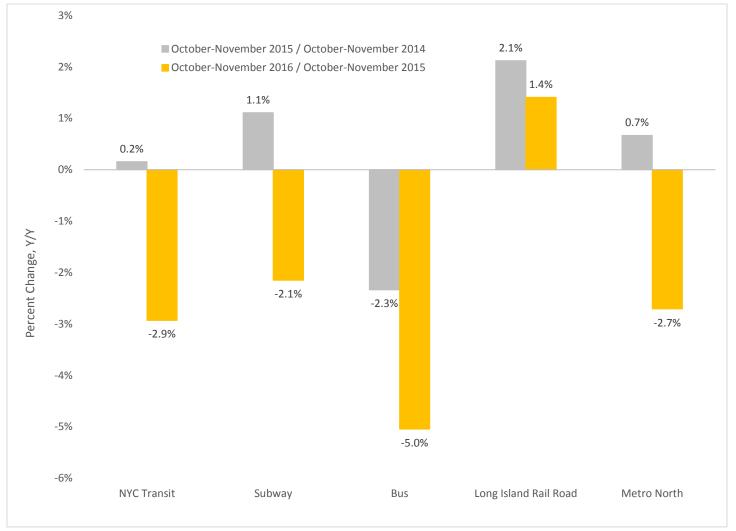
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In October-November 2016, the U.S. 20-city composite index rose 5.2 percent from a year ago. The U.S. inflation rate was 1.7 percent in October-November on a year-over-year basis.

Among the Case-Shiller's 20 metro areas, the New York metro area saw the smallest growth (2.1 percent) while Seattle metro area saw the largest jump in home prices (10.5 percent) in October-November 2016, compared to the prior year.

According to the Case-Shiller report, U.S. home prices had a sharper decline and a faster rebound than the New York metro. As of November 2016, the U.S. 20-city composite index was 40.3 percent higher than its trough in 2012 and 7.0 percent below its peak in 2006. In comparison, the New York metro area home price index was 14.8 percent higher than at its trough in March of 2012, but was still 14.9 percent below the peak reached in May 2006 (Chart 11).

### Chart 12. Percent Change in MTA Average Weekday Ridership, October-November 2015 over October-November 2014 and October-November 2016 over October-November 2015



Source: Metropolitan Transportation Authority

Average weekday ridership on MTA NYC Transit fell 2.9 percent in the first two months of fourth-quarter 2016 from a year ago. Average weekday ridership on the system's subways fell 2.1 percent and bus ridership fell 5.0 percent. During the same period, ridership on the Long Island Rail Road (LIRR) rose 1.4 percent, but ridership on Metro North fell 2.7 percent. (Chart 12).

Ridership, especially on the LIRR and Metro North, usually reflects the city's economic activity and employment. However, a rise in income and more taxi rides, including the use of Uber and similar services, or increased bike riders, could make the NYC Transit data less indicative of economic activity. **Broadway show ticket sales improved slightly, but attendance dropped in 4Q16.** According to the Broadway League, total gross weekly Broadway ticket sales were over \$364 million in 4Q16, 0.1 percent higher than in 4Q15. Total attendance was 3.3 million in 4Q16, 3.6 percent lower than in 4Q15. However, for the year, both ticket sales and total attendance were up 1.2 percent and 2.1 percent, respectively.

The city's hospitality market also improved slightly in the first month of 4Q16 over the same period in 2015. According to CBRE Hotels, the hotel occupancy rate in Manhattan averaged 90.1 percent in October 2016, higher than 87.3 percent a year ago. However, the average daily room rate fell on a year-over-year basis to \$329 in October 2016, from \$357 in the previous year.

Visitors to the City grew 3.1 percent in 2016, according to NYC & Company. 60.3 million visitors are estimated to have toured the city last year. A strong dollar could lower the number of international visitors in 2017.



## Table 2: Fourth Quarter 2016 Economic Indicators Compared to 3Q16 and 4Q15

		4Q16	3Q16	4Q15
County Unemployment Rate, NSA (Source: NYS DOL)	Bronx	7.0	7.8	7.1
	Kings	5.2	5.9	5.3
	New York	4.5	4.9	4.4
	Queens	4.4	5.0	4.5
	Richmond	5.1	5.9	5.1
	Midtown	9.6%	9.5%	8.8%
Commercial Vacancy Rate (Source: Cushman & Wakefield)	Midtown South	6.7%	6.7%	6.2%
	Downtown	10.2%	9.9%	9.4%
	Manhattan Total	9.3%	9.1%	8.5%
Commercial Rental Rate (per sq ft) (Source: Cushman & Wakefield)	Midtown	\$78.39	\$79.91	\$76.65
	Midtown South	\$70.86	\$70.29	\$69.66
	Downtown	\$59.30	\$59.13	\$59.58
	Manhattan Total	\$72.82	\$73.71	\$71.58
Number of Apartment Sales (Source: Douglas Elliman)	Manhattan	2,864	2,974	2,973
	Brooklyn	2,582	2,741	2,112
	Queens	3,917	3,750	3,436
Case-Shiller Home Price Index, NSA (Source: S&P) 100=2000	NY Metro Area	184.47*	184.16	180.72*
	US 20-City Composite	191.96*	191.27	182.50*
Hotel Industry (Source: CBRE Hotels)	Average Daily Occupancy Rate	90.1**	89.9	87.3**
	Average Daily Room Rate	\$328.84**	\$288.54	\$357.47**
MTA Average Weekday Ridership (Source: MTA)	NYC Transit	7,811,727*	7,482,162	8,047,456*
	Subway	5,752,028*	5,512,884	5,878,401*
	Bus	2,059,699*	1,969,277	2,169,055*
	Long Island Rail Road	319,320*	315,976	314,888*
	Metro North	291,994*	300,115	298,122*

\*Data includes October and November, excludes December

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