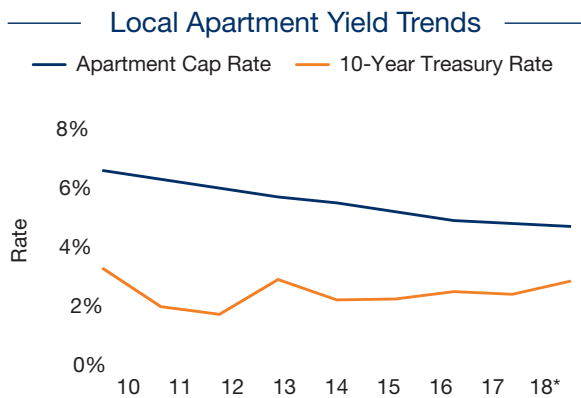


Waning Supply Growth Supports Rising Rents; Investment Spreads Beyond Core

Persistent job growth, broad employment base support robust apartment demand. Fueled by the largest population base in the country, the New York City economy remains on solid footing. A host of industries, including a vibrant startup scene, have generated consistent job growth, boosting demand for apartments. As supply increases reached a cycle high in 2017, rent growth slowed as developers utilized incentives to fill new properties, particularly along the East River in Brooklyn and Queens. The pace of construction has since slowed, allowing for a recovery in rent growth, which should continue into 2019 as supply remains below household formation. As a result, rent appreciation will reach the mid-3 percent range, well above the sub-1.5 percent growth registered the previous three years. The most desirable neighborhoods in Manhattan, as well as rapidly stabilizing locations in Brooklyn and Queens, will record increases well above the metro average.

Non-core locations top development list; construction follows subway lines east. As higher real estate prices permeate throughout the city, builders have advanced to more speculative locations. In Brooklyn, developers have pushed inward toward Bed-Stuy and Bushwick, where completions will top 1,000 units for the second straight year. Meanwhile, offerings in Queens remain focused on Long Island City, Astoria and Hunter's Point, where easy access to transportation arteries raises tenant interest in new developments. Construction in Manhattan is primarily concentrated in Lower Manhattan and Midtown West.



* Cap rate trailing 12-month average through 3Q; Treasury rate as of Sept. 28. Sources: CoStar Group, Inc.; Real Capital Analytics

Multifamily 2018 Forecast

Metro	Vacancy	Y-O-Y Basis Point Change	Effective Rent	Y-O-Y Change
Bronx	1.0%	-20	\$1,435	2.2%
Brooklyn	1.7%	-60	\$2,285	3.8%
Manhattan	2.1%	-30	\$3,660	4.6%
Queens	2.2%	30	\$2,200	5.6%
Staten Island	3.3%	-130	\$1,550	2.1%
Westchester County	3.2%	-130	\$2,015	4.3%

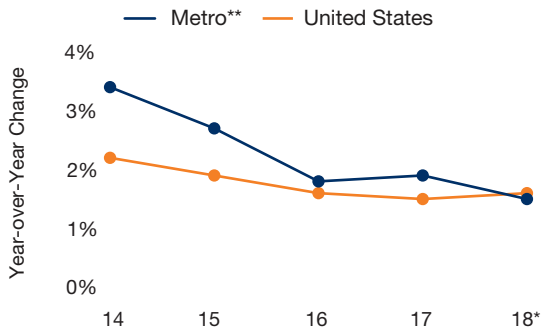
Investment Trends

- Transaction volume and flow have remained consistent over the past year, with prices per unit edging up across the metro. Manhattan assets have undergone the sharpest acceleration over the past year, led by deals in Lower Manhattan.
- Brooklyn investors have spread beyond the core neighborhoods along the East River, reaching toward locations in Prospect Park and Bushwick. Lower valuations in these areas, along with an expanding development pipeline, are allowing for higher returns, particularly as the demographic profile of the locations continues to improve dramatically.
- While transaction velocity slowed considerably in Manhattan, an emphasis on high-quality assets in Chelsea, West Village and Tribeca pushed the average price per unit to a new cycle high.
- As supply growth along the East River in Queens and Brooklyn draws nearby residents, emerging neighborhoods slightly farther inland should see investor interest perk up, with many containing room for value creation through modernization.

CURRENT TRENDS

3Q18 – 12-MONTH PERIOD

Employment Trends

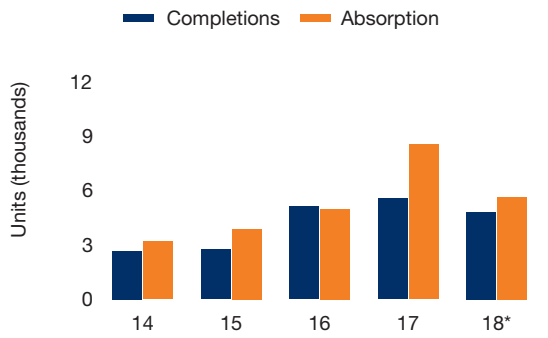


EMPLOYMENT:

1.3% increase in total employment Y-O-Y

- Over the past 12 months, New York City employers created 59,000 jobs, led by the education and healthcare sector, where 39,000 positions were added. The leisure and hospitality sector contributed nearly 10,000 jobs.
- Roughly 4,800 office-using positions were added; professional and business services growth was offset by government declines.

Completions and Absorption

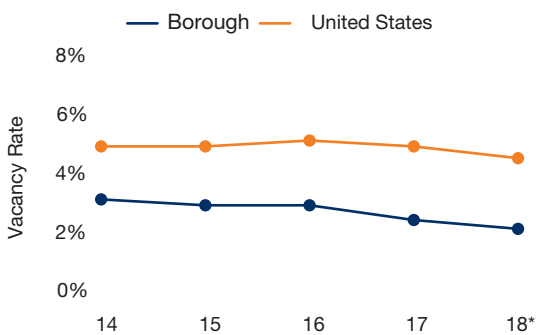


CONSTRUCTION:

4,490 units completed Y-O-Y

- Development declined moderately over the past year as roughly 750 fewer units were brought online than the same period in the previous year. Nearly half the rentals were completed in Lower Manhattan.
- The pace of construction remains on a downward trajectory, with supply growth in 2019 set to slow even further despite extremely tight conditions.

Vacancy Rate Trends

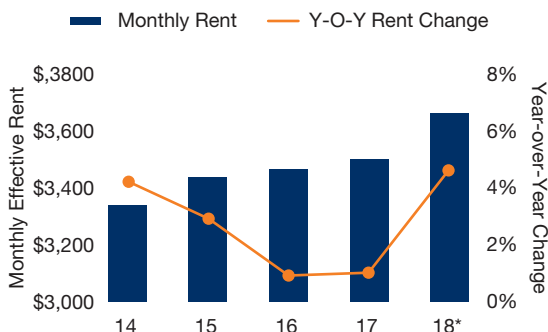


VACANCY:

30 basis point decrease in vacancy Y-O-Y

- A slower pace of construction and net absorption of more than 6,270 units led vacancy in the borough to fall 30 basis points to 2.2 percent over the past year.
- Midtown Manhattan was the only submarket where vacancy increased, rising 50 basis points to 3.5 percent. Despite receiving considerable new supply, Lower Manhattan recorded the lowest level at 1.9 percent.

Rent Trends



RENTS:

3.2% increase in effective rents Y-O-Y

- The average effective rent advanced 3.2 percent during the past year, reaching \$3,635 per month. Rent growth was led by Midtown South, which advanced 4.5 percent to \$4,178 per month.
- Midtown slightly surpassed Lower Manhattan for the highest rents in the borough at \$4,301 per month, a 2.9 percent rise.

* Forecast

** Data presented is for New York City

DEMOGRAPHIC HIGHLIGHTS



3Q18 MEDIAN HOUSEHOLD INCOME

Metro **\$80,463**

U.S. Median \$61,789



3Q18 AFFORDABILITY GAP

Renting is **\$7,430** Per Month Lower

Average Effective Rent vs. Mortgage Payment*



MULTIFAMILY (5+ Units) PERMITS****

34,010 1H 2018

↘ **27.3%** Compared with 1H 2014-2017



3Q18 MEDIAN HOME PRICE

Metro **\$1,610,000**

U.S. Median \$260,016



FIVE-YEAR HOUSEHOLD GROWTH**

26,400 or **0.7%** Annual Growth

U.S. 1.2% Annual Growth



SINGLE-FAMILY PERMITS****

6,330 1H 2018

↘ **9.8%** Compared with 1H 2014-2017

*Mortgage payments based on quarterly median home price with a 30-year fixed-rate conventional mortgage, 90% LTV, taxes, insurance and PMI. **2017-2022 ❖Annualized Rate
 ***NEW YORK-NEWARK-JERSEY CITY,NY-NJ-PA METROPOLITAN STATISTICAL AREA

Lowest Vacancy Rates 3Q18

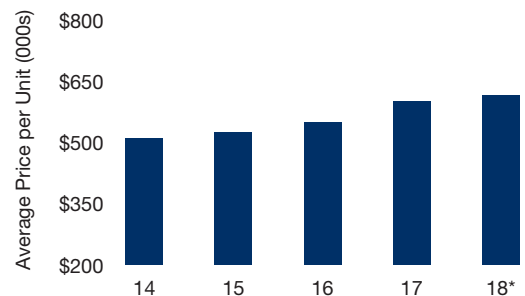
Submarket	Vacancy Rate	Y-O-Y Basis Point Change	Effective Rents	Y-O-Y % Change
Harlem	1.7%	-30	\$2,217	2.9%
Lower Manhattan	1.9%	-30	\$4,300	3.2%
Midtown South	2.3%	-100	\$4,178	4.5%
Upper Manhattan	2.4%	-50	\$4,192	1.9%
Midtown	3.5%	50	\$4,301	2.9%
Manhattan	2.2%	-30	\$3,635	3.2%

Transactions Tick Lower Amid Soaring Prices For Well-Located Rentals

- The average price per unit soared above \$550,000 during the most recent 12-month period as prices in the Midtown East, Chelsea and the Lower West Side areas exchanged ownership at or above \$800,000 per door.
- Cap rates remain in the high-3 percent to low-4 percent range, with smaller properties in transitioning neighborhoods reaching the mid-4 percent band.

Outlook: Buyers have deployed a considerable amount of capital into Harlem, seeking to acquire assets near the sites of new mixed-use developments.

Pricing Trends



* Trailing 12 months through 3Q18
 Pricing trend sources: CoStar Group, Inc.; Real Capital Analytics

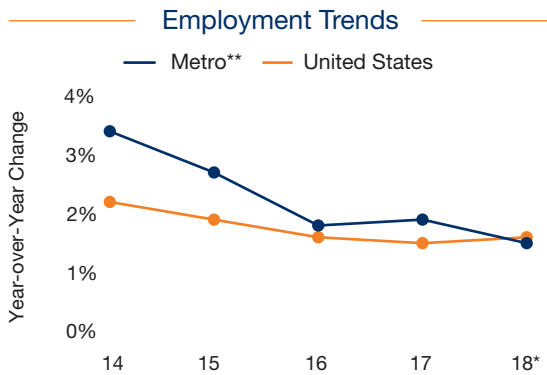
SUBMARKET TRENDS

SALES TRENDS

CURRENT TRENDS

3Q18 – 12-MONTH PERIOD

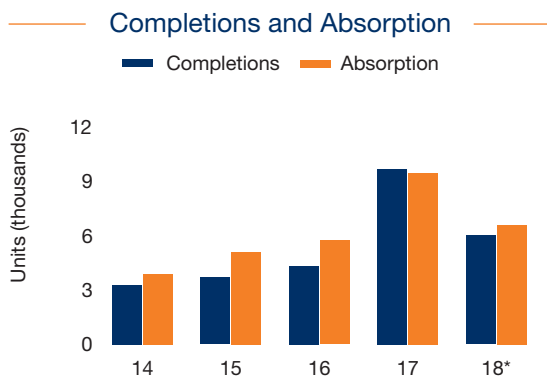
EMPLOYMENT:



1.3% increase in total employment Y-O-Y

- Over the past 12 months, New York City employers created 59,00 jobs, led by the education and healthcare sector, where 39,000 positions were added. The leisure and hospitality sector contributed nearly 10,000 jobs.
- Roughly 4,800 office-using positions were added, where professional and business services growth was offset by government.

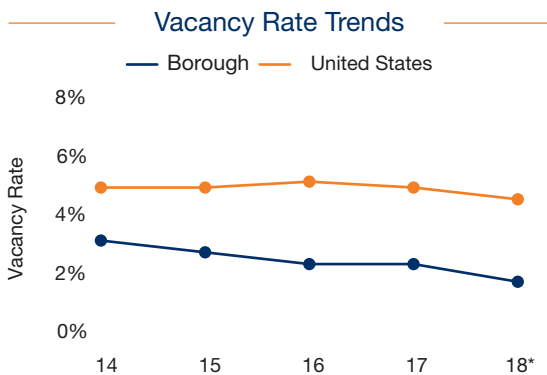
CONSTRUCTION:



4,930 units completed Y-O-Y

- The pace of construction contracted meaningfully over the past year, falling from nearly 9,750 units to under 5,000 apartments. The Bed-Stuy/Ft. Greene/Bushwick submarket received nearly 40 percent of the new supply.
- Development will pick up somewhat in 2019, led by offerings in Williamsburg and Greenpoint, which will make up roughly half of the overall supply growth.

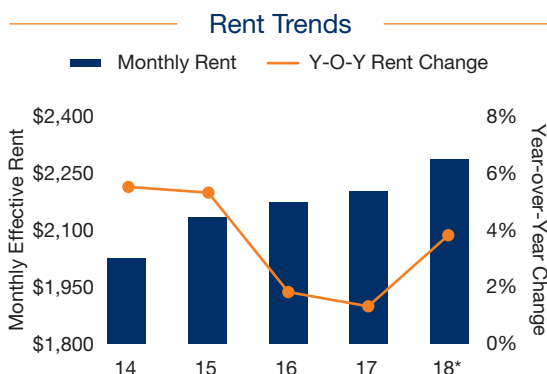
VACANCY:



80 basis point decrease in vacancy Y-O-Y

- The sharp drop in supply and continued robust net absorption pushed vacancy down 80 basis points to 1.8 percent. The decline was driven primarily by a steep 490-basis-point drop in Downtown Brooklyn to 2.9 percent.
- The Park Slope/Prospect Heights submarket also recorded a significant contraction in vacancy, falling 150 basis points to 2 percent as development slowed.

RENTS:



2.9% increase in effective rents Y-O-Y

- As demand for apartments outstripped supply growth by more than 3,000 units, the average effective rent reaccelerated 2.9 percent to \$2,270 per month.
- Strong absorption in Downtown Brooklyn led to 7.1 percent rent growth; the borough's rents averaged \$3,704 per month. The Bed-Stuy/Ft. Greene/Bushwick submarket also outperformed, adding 3.5 percent.

* Forecast

** Data presented is for New York City

DEMOGRAPHIC HIGHLIGHTS



3Q18 MEDIAN HOUSEHOLD INCOME

Metro **\$57,562**

U.S. Median \$61,789



3Q18 AFFORDABILITY GAP

Renting is **\$737** Per Month Lower

Average Effective Rent vs. Mortgage Payment*



MULTIFAMILY (5+ Units) PERMITS****

34,010 1H 2018

↘ **27.3%** Compared with 1H 2014-2017



3Q18 MEDIAN HOME PRICE

Metro **\$608,913**

U.S. Median \$260,016



FIVE-YEAR HOUSEHOLD GROWTH**

40,000 or **0.8%** Annual Growth

U.S. 1.2% Annual Growth



SINGLE-FAMILY PERMITS****

6,330 1H 2018

↘ **9.8%** Compared with 1H 2014-2017

*Mortgage payments based on quarterly median home price with a 30-year fixed-rate conventional mortgage, 90% LTV, taxes, insurance and PMI. **2017-2022 ✦ Annualized Rate ***NEW YORK-NEWARK-JERSEY CITY, NY-NJ-PA METROPOLITAN STATISTICAL AREA

Lowest Vacancy Rates 3Q18

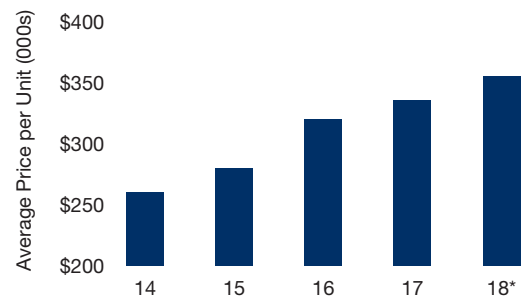
Submarket	Vacancy Rate	Y-O-Y Basis Point Change	Effective Rents	Y-O-Y % Change
Southern Southeast Brooklyn	0.9%	-30	\$1,784	2.9%
Crown Heights/Prospect Lefferts Gardens	1.2%	-30	\$1,775	1.8%
Southwest Brooklyn	1.3%	-30	\$1,676	1.8%
Ditmas Park/Flatbush	1.5%	-40	\$2,018	1.6%
Park Slope/Prospect Heights	2.0%	-150	\$2,649	0.5%
Williamsburg/Greenpoint/ Navy Yard	2.8%	-210	\$3,329	2.2%
Downtown Brooklyn	2.9%	-490	\$3,704	7.1%
Bed-Stuy/Fort Greene/ Bushwick	3.2%	20	\$2,862	3.5%
Brooklyn	1.8%	-80	\$2,270	2.9%

Transactions Increase as Prices Continue Upward; Outlying Submarkets Bid Heavily

- A pickup in transactions was centered around activity in Bushwick, Flatbush and Prospect Park, reflecting greater investor interest beyond the core submarkets along the East River.
- Cap rates remain in the mid- to high-4 percent range, with an extra 50 basis points available the farther away from the East River the property is located.

Outlook: Buyers have extended beyond the core locations along the East River toward neighborhoods farther into the borough in order to achieve higher return targets.

Pricing Trends

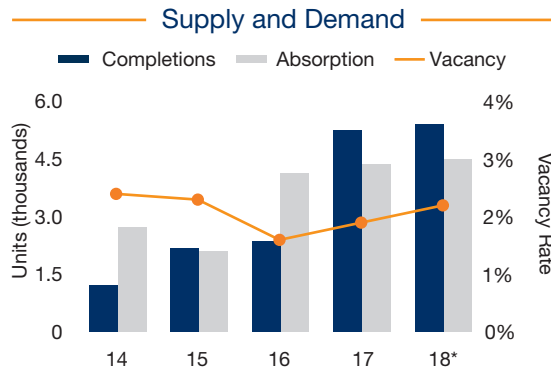


* Trailing 12 months through 3Q18
Pricing trend sources: CoStar Group, Inc.; Real Capital Analytics

SUBMARKET TRENDS

SALES TRENDS

3Q18 – 12-MONTH PERIOD



VACANCY AND RENT:

10 basis point increase in vacancy Y-O-Y

- A significant rise in construction led to a 10-basis-point increase in vacancy to 2.1 percent. Net absorption totaled 5,730 units.

2.7% increase in effective rents Y-O-Y

- The average effective rent advanced 2.7 percent over the past year to \$2,163 per month as relatively higher price points in new buildings lifted overall pricing in the borough.

CONSTRUCTION:

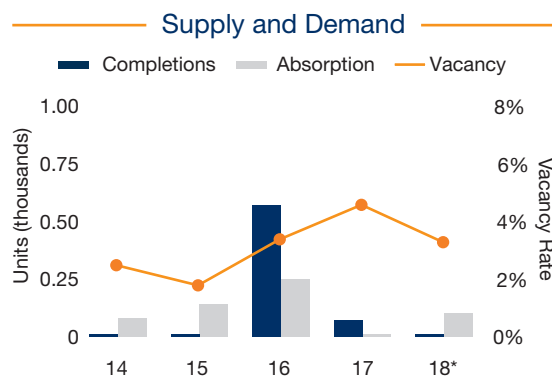
6,120 units completed Y-O-Y

- Developers finished 6,120 units during the past 12 months, up nearly 50 percent from the previous year when 4,270 apartments were completed.
- Construction will fall by nearly half in 2019, led by projects in Long Island City. The largest project is located in Flushing. Known as One Flushing, the project contains 232 affordable apartments with 22,000 square feet of retail.

INVESTMENT HIGHLIGHTS:

- Deal flow contracted moderately, while the average price per unit rose to just above \$260,000 per door. Trades were focused on locations in Long Island City, Flushing and Astoria.
- Cap rates remain in the mid-4 percent band while extending into the mid-5 percent range for assets farther away from the East River.

STATEN ISLAND



VACANCY AND RENT:

70 basis point increase in vacancy Y-O-Y

- Moderate tenant outflows lifted vacancy 70 basis points to 3.2 percent despite a lack of completions during the past 12 months.

2.2% increase in effective rents Y-O-Y

- The average effective rent advanced 2.2 percent to \$1,553 per month as local properties converge with higher-priced options in the other boroughs.

CONSTRUCTION:

0 units completed Y-O-Y

- Developers completed no projects over the last year.
- The future pipeline remains limited. The only planned completion for 2019 is located at 5 Bay Street. The project will contain 116 units.

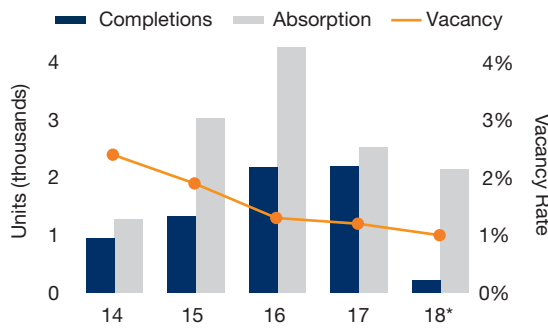
INVESTMENT HIGHLIGHTS:

- Transaction volume has moderated slightly over the past year as buyers focus primarily on Class C properties. The average deal size was roughly \$1.1 million and contained 20 units or less.
- The average price per unit was roughly \$200,000 while carrying cap rates in the low-5 percent range. Properties to the north of I-278 made up the majority of deal flow.

* Forecast

3Q18 – 12-MONTH PERIOD

Supply and Demand



VACANCY AND RENT:

20 basis point decrease in vacancy Y-O-Y

- Demand outstripped supply growth over the past year by nearly 700 units, trimming vacancy by 20 basis points to 1.0 percent.

2.1% increase in effective rents Y-O-Y

- The average effective rent ticked up 2.1 percent to \$1,429 per month, limited by the amount of affordable housing in the borough.

CONSTRUCTION:

2,050 units completed Y-O-Y

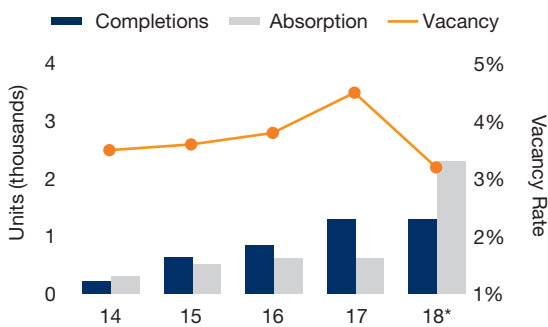
- Development slipped slightly from 2,70 units in the previous year to 2,050 in the most recent 12-month period. The pace of construction remains elevated relative to historical trends.
- Roughly 3,000 units are expected to be brought to market in 2019, which would represent the highest completions total of the current business cycle.

INVESTMENT HIGHLIGHTS:

- Transactions increased considerably over the past year as buyers pursued assets in the West and South Bronx. The average price per unit was in the low-\$190,000s.
- Cap rates remain in the mid-5 percent range as buyers bid for higher-yielding opportunities throughout the borough. Cap rates are lowest in Fordham and Norwood.

WESTCHESTER COUNTY

Supply and Demand



VACANCY AND RENT:

70 basis point decrease in vacancy Y-O-Y

- Vacancy fell 70 basis points over the past year to 3.1 percent as net absorption picked up considerably, overshadowing a rise in inventory.

2.9% increase in effective rents Y-O-Y

- The average effective rent rose 2.9 percent to \$1,996 per month, boosted by an influx of Class A units at relatively higher price points than the county average.

CONSTRUCTION:

1,280 units completed Y-O-Y

- The pace of construction increased during the past four quarters, rising from 1,200 units in the latest 12 months.
- More than 2,000 apartments are underway in the county, with slightly less than half of development in Downtown Yonkers. Construction is also elevated in Downtown New Rochelle and White Plains.

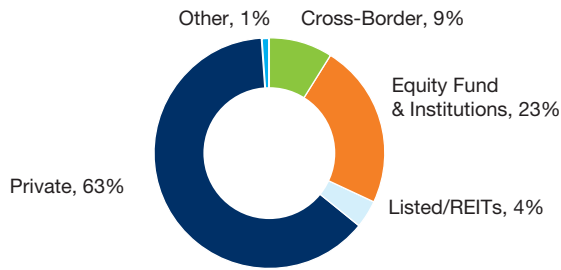
INVESTMENT HIGHLIGHTS:

- A focus on value-add Class C deals in Yonkers and Mt. Vernon drove a 20 percent increase in transactions, with first-year returns beginning in the low-6 percent range.
- The average price per unit ranged from the low-\$110,000s to mid-\$320,000s, reflecting a diverse stock of listings. Locations between Highway 9 and I-87 fueled the majority of the transactions.

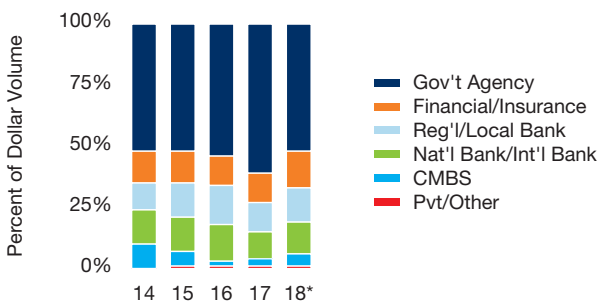
* Forecast

Sources: CoStar Group, Inc.; Real Capital Analytics

3Q18 Apartment Acquisitions By Buyer Type



Apartment Mortgage Originations By Lender



* Through 2Q
 Include sales \$2.5 million and greater
 Sources: CoStar Group, Inc.; Real Capital Analytics

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By DAVID G. SHILLINGTON, President,
 Marcus & Millichap Capital Corporation

CAPITAL MARKETS

- Fed pushes overnight lending rate higher, cites economic strength in case for additional increases.** The Federal Reserve increased the federal funds rate by 25 basis points in late September, lifting the Fed funds rate to 2 percent. Remarks from the Fed highlight a robust economy, spurred by accommodative fiscal stimulus, while inflation remains broadly in line with expectations. Provided the economy continues to perform as expected, the Fed is likely to increase rates in December, as well as up to three times next year.
- Benchmark interest rates, lending costs push higher post-Fed meeting.** After the Federal Reserve lifted overnight rates and maintained a positive economic outlook, long-term interest rates have pushed higher. The 10-Year Treasury yield has quickly traded toward the 3.25 percent range, which is prompting lenders to pass on the increased cost to borrowers. However, fierce competition for loans is also leading to some cost absorption among lenders. While greater borrowing costs may prompt buyers to seek higher cap rates, strong economic performance should enable rent growth above inflation. As a result, sellers remain committed to higher asking prices, which is widening an expectation gap as property performance and demand trends remain positive.
- The capital markets environment continues to be highly competitive.** Government agencies remain the largest source of funds, commanding slightly over 50 percent market share. National and regional banks control approximately a quarter of the market. Pricing resides in the high-4 percent realm with maximum leverage of 75 percent. Portfolio lenders will typically require loan-to-value ratios closer to 70 percent with interest rates in the low-5 percent range. The passage of tax reform and rising fiscal stimulus will keep the U.S. economy growing, underpinning strong rental demand and supporting a national apartment vacancy rate of 4.6 percent at the end of 2018.

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Sources: Marcus & Millichap Research Services; Bureau of Labor Statistics; CoStar Group, Inc.; Experian; National Association of Realtors; Moody's Analytics; Real Capital Analytics; RealPage, Inc.; TWR/Dodge Pipeline; U.S. Census Bureau