



CBRE

Econometric Advisors

U.S. APARTMENT OVERVIEW AND OUTLOOK

REMAINING IMPACT OF FISCAL BOOST TO KEEP 2019 OUTLOOK STRONG

JOB GAINS TO MODERATE AND WAGES TO GAIN AS LABOR MARKET TIGHTENS

STRONG CONSUMER AND GOVERNMENT SPENDING DROVE GDP GROWTH IN Q3; OCTOBER JOB GAINS BEAT EXPECTATIONS WHILE WAGE GAINS SURPASSED 3%

- *Consumer spending continues to be the primary driver of the current economic expansion. A spurt of government spending also fueled growth during the quarter. However, Q3 also bore the negative imprint of President Trump's trade wars, with exports dropping sharply as imports surged despite higher tariffs. Also, corporate investment's contribution has waned over the course of 2018, the tax reform notwithstanding.*
- *The October jobs report showed solid gains across all economic sectors. Average monthly job gains for 2018 stood at a solid 213,000. The unemployment rate remains at its lowest levels in nearly two generations. The tax reform will continue to act as a stimulus, but job growth will likely moderate, as the economy is operating near capacity.*
- *Wage growth stepped up to 3.1% in October—its fastest pace of increase since April, 2009. Although this was significantly improved over earlier periods of the expansion, wage gains are still not historically commensurate with the current level of unemployment, nor have they kept pace with consumer spending over the past three quarters.*

A HEALTHY ECONOMIC OUTLOOK FOR 2019, WITH A SLOWDOWN BY MID-2020

- *Our baseline GDP outlook for 2018, 2019 and 2020 has been revised upward. The remaining impact of the fiscal boost, the capital spending cycle, early signs of wage growth and high consumer confidence will drive a more moderate growth in 2019 than they did in 2018. Rising interest rates will weigh on business and consumer activity by late-2019.*
- *By H2 2020, we expect the economy to slow in reaction to higher interest rates, equity market corrections and credit market problems, with some shrinkage in employment. The slowdown will be relatively mild and short.*
- *We expect one additional rate hike this year, with the possibility of three in 2019, if wage growth and inflation surge.*

The U.S. apartment market remains healthy and continued on a sideways path in Q3 2018.

Strong absorption brought vacancy down to 4.0%, while a robust supply side held annual rent growth to 2.6%.

SUMMARY: Q3 2018 U.S. APARTMENT FUNDAMENTALS

RENTS

- *Year-over-year rent growth for the Sum of Markets increased to 2.6% from last quarter's 2.0%. New York City's YOY rent growth dropped from 1.4% to 1.0%. Topping the rent growth rankings were secondary metros with strong economic trajectories (e.g., Las Vegas, Orlando, and Phoenix).*

VACANCY

- *Only seven markets registered year-over-year increases in vacancy—considerably fewer than last quarter's 37. The Sum of Markets' 4.0% vacancy rate was down 40 bps YOY and down 30 bps QOQ. In most metros that registering vacancy decline, strong demand was the main driver.*

SUPPLY

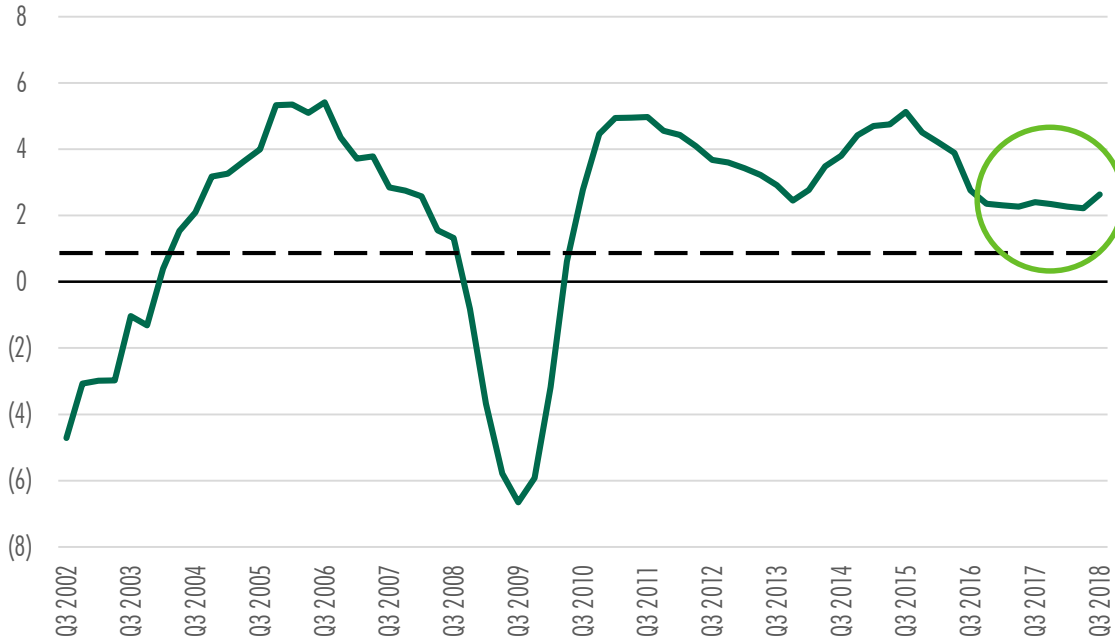
- *Completions are expected to peak in 2018; they may have already peaked, depending on construction delays. Completions-to-inventory ratios are high but are expected to steadily decline over the next two years. Southern markets (plus Denver and Seattle) have posted the strongest stock growth relative to inventory over the past year.*

CAPITAL MARKETS

- *Nationally, cap rates were generally flat again in H1 2018, with some compression in Tier II and Tier III markets—particularly in Class B and C product and value-add properties ([CBRE H1 2018 Cap Rate Survey](#)).*

PAST TWO YEARS' STABLE YOY RENT GROWTH CONTINUES

NET EFFECTIVE RENT GROWTH—SUM OF MARKETS (YOY, %)



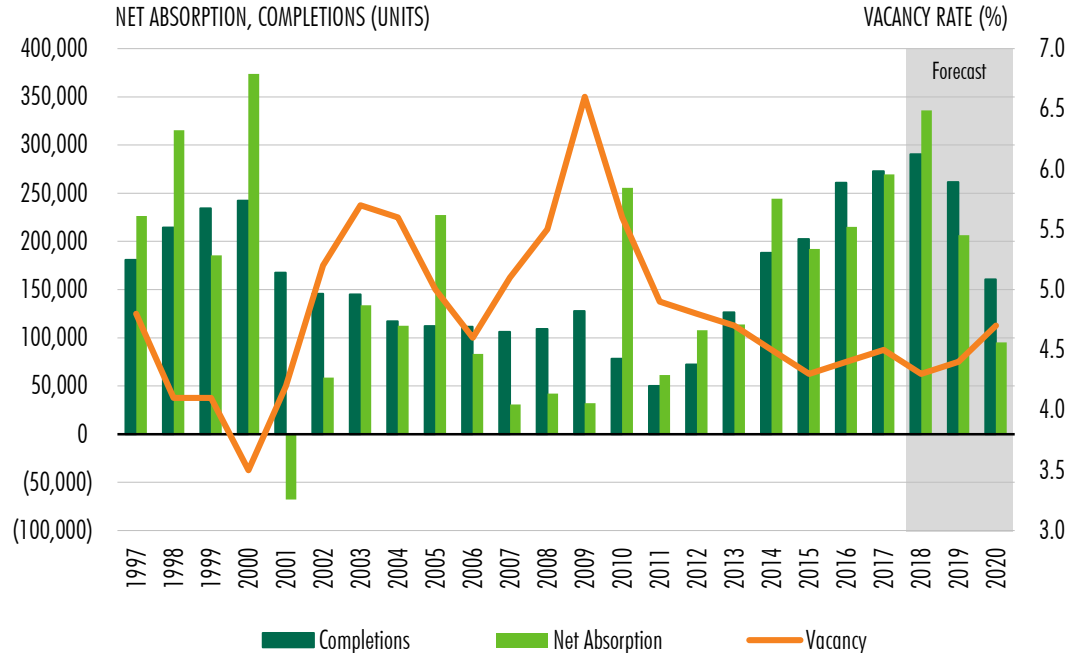
Source: CBRE Econometric Advisors, Axiometrics Inc., Q3 2018.

- Rent growth remains stable. Higher demand led to a slight increase in Sum of Markets rent growth, despite high completions.
- As our data providers continue to expand their metro samples, the new sample properties—and their respective histories—introduce changes to the historical data.
- While most market histories are consistent with past quarters' releases, a few registered notable changes this quarter. For example...
- For NYC and LA, the recent revision saw average rents shift downward due to proportional increases in the samples of suburban, class B, and class C properties in those metros.
- Because the NYC and LA revisions were vertical shifts (like most other historical revisions), **rent growth** histories were largely unaffected.

DEMAND FINALLY CATCHES UP TO SUPPLY; VACANCY DIPS

STATE OF THE APARTMENT SECTOR

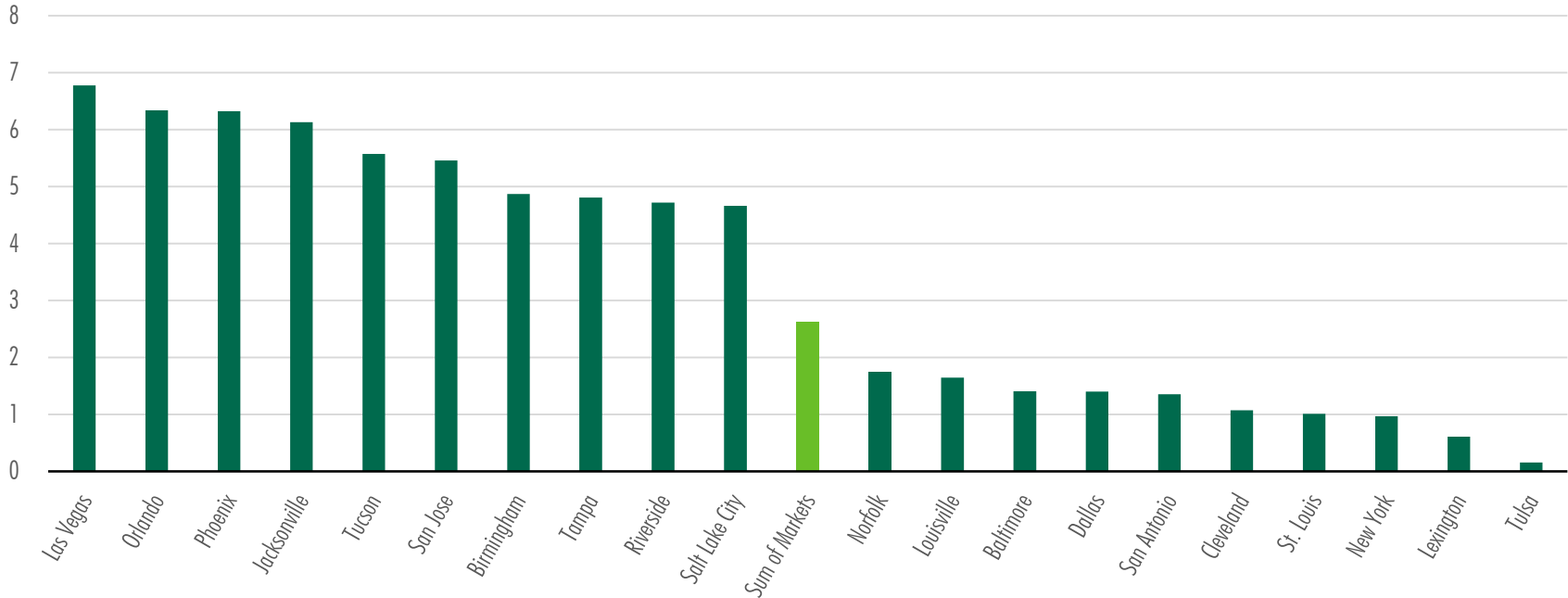
- Sum of Markets vacancy rate in Q3: 4.0% (down 40 bps YOY, down 30 bps QOQ).
- Completions remain high (4-qtr sum: 276,347) but are decelerating. They are expected to peak in Q4 2018 and then decrease through 2020.
- Robust demand (4-qtr sum: 316,713) has overtaken supply for the first time since 2014—averaging 223,917 over the past four years. Absorption is on pace to reach its cycle peak in 2018, with more than 335,000 units absorbed.
- Persistent demand will help to moderate rising vacancy in the near term; our model predicts by year-end 2020 an increase of just 90 bps to 4.9%, with a peak of 5.6% in H1 2022.



Source: CBRE Econometric Advisors, Axiometrics Inc., Q3 2018.

FLORIDA, WARM CLIMATES DOMINATE RENT GROWTH

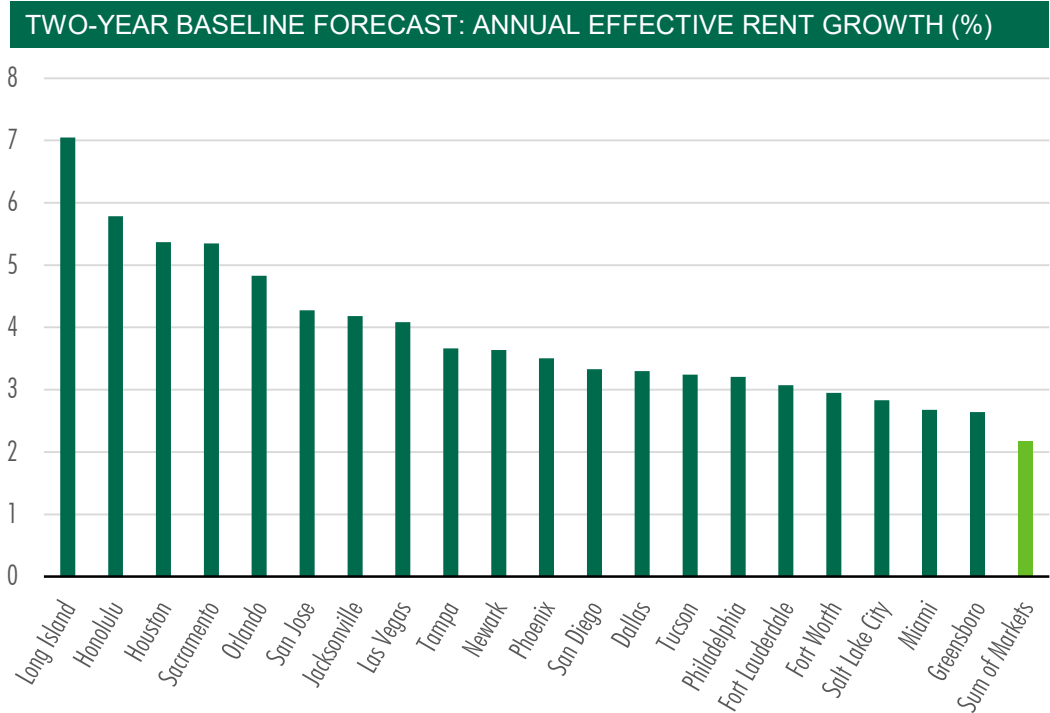
NET EFFECTIVE RENT GROWTH (YOY, %)



Source: CBRE Econometric Advisors, Axiometrics Inc., Q3 2018.

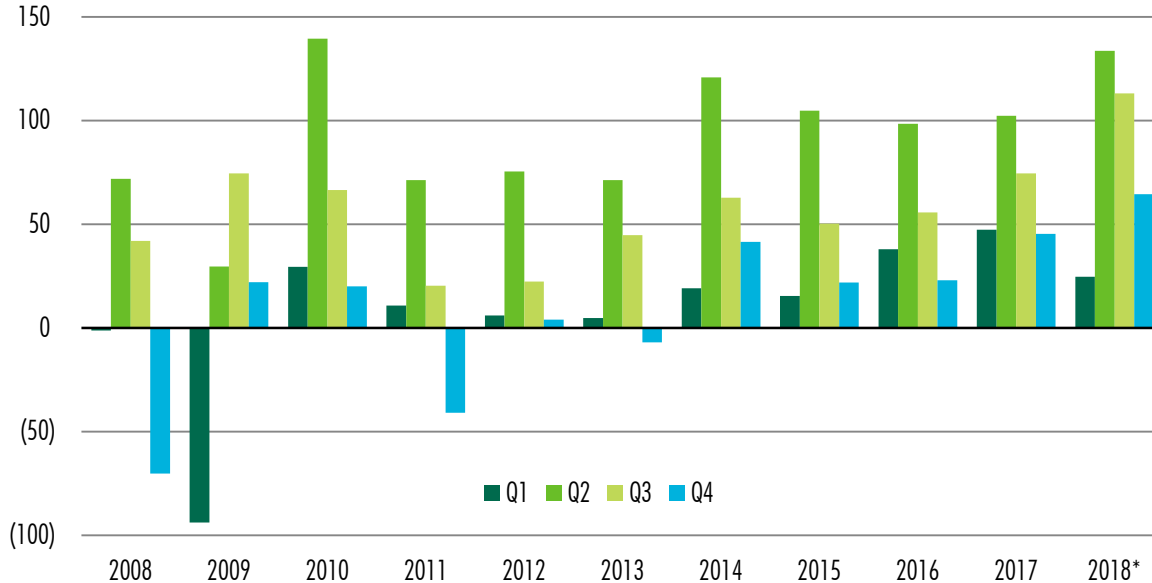
FORECAST: STRONG 2-YEAR RENT GROWTH EXPECTED IN COASTAL SECONDARY MARKETS

- Stronger-than-expected absorption has led to positive revisions to rent growth in most markets.
- 2.2% annual rent growth for the next two years is forecast for the Sum of Markets.
- Secondary and tertiary markets edged out the major markets in forecast rent growth; only seven markets among the nation's 20 largest are top-20 markets for two-year rent growth.
- Houston leads those seven major markets with annual growth of 5.4% forecast.
- Among the top 20 markets for forecast rent growth, 5 are in Florida, 3 in California, and 3 in Texas.
- Our baseline outlook favors markets with restricted supply growth and strong growth in professional services employment.



STRONGEST Q3 DEMAND IN THE CURRENT CYCLE

NET ABSORPTION BY QUARTER—SUM OF MARKETS (UNITS, 000s)

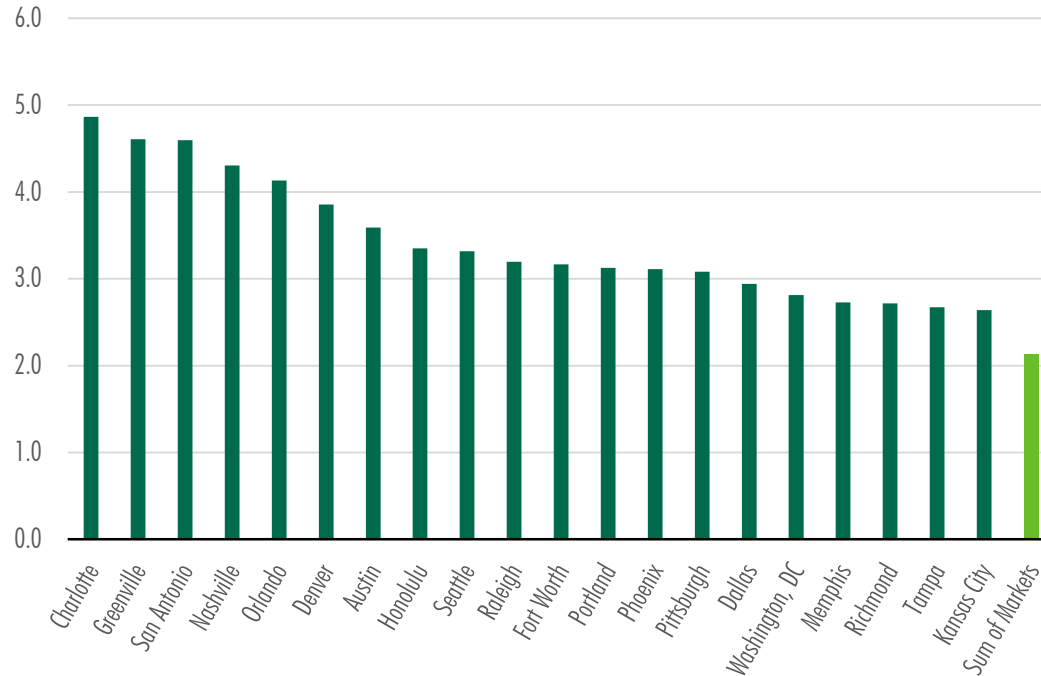


- Q3 2018 brought typical seasonality on the demand side of the apartment sector.
- Typically, U.S. apartment demand peaks in Q2 and then progressively declines over Q3 and Q4—this year was no different.
- Q3 net absorption was 113,051 units, down from 133,610 in Q2, bringing the year-to-date total to 271,373—a very strong showing—the highest Q3 absorption since 1998.
- The first 3 quarters of 2018 have surpassed total absorption for 2017.
- We expect absorption to top 335,000 in 2018—the highest yearly total since 2000.

Source: CBRE Econometric Advisors, Axiometrics Inc., Q3 2018. *Q4 2018 is forecasted

DEMAND STRONGEST IN SECONDARY MARKETS

TOP 20: NET ABSORPTION AS A % OF INVENTORY (PAST 4 QUARTERS)



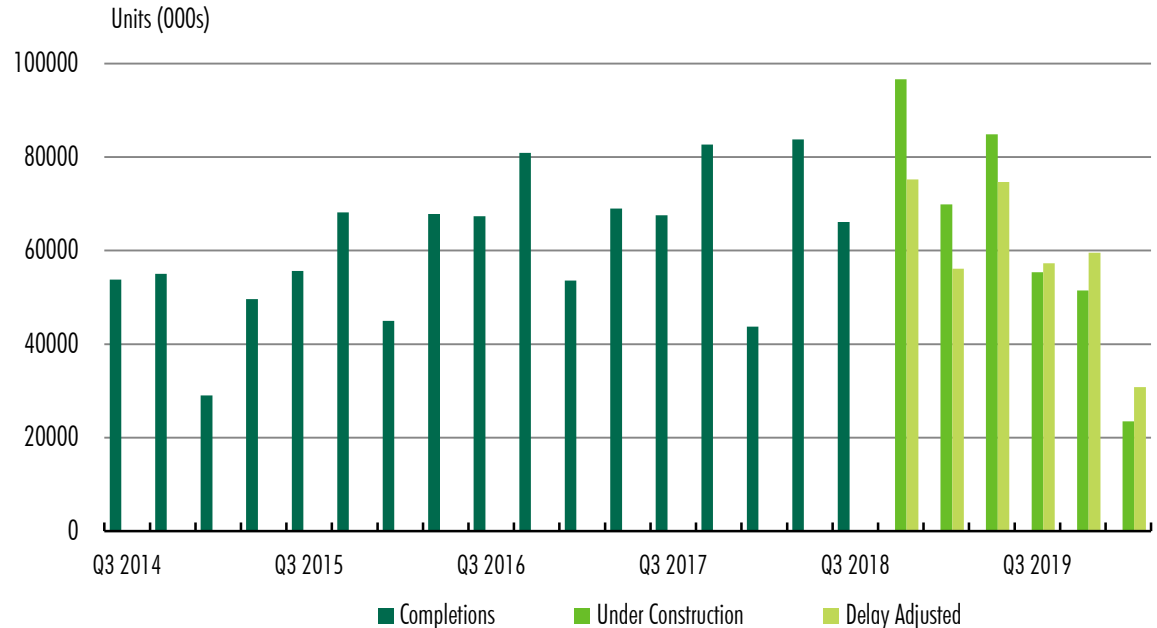
- The past year's strongest absorption markets are scattered across the U.S. and include Charlotte, Washington DC, Orlando, Dallas, Seattle, Denver, Honolulu and Phoenix.
- The common thread: most are secondary markets with strong population growth and economic momentum.
- Only four of the nation's 10 largest markets (by inventory) are among the past year's top 20 for absorption: Washington DC, Dallas, Seattle, and Phoenix. Over the past four quarters, these four markets have absorbed a combined total of 54,430 units.
- Three gateway markets—Boston, Atlanta, and Washington D.C.—saw their demand outpace the Sum of Markets.
- Expect secondary markets to continue outpacing gateway markets in demand growth over the near term.

Source: CBRE Econometric Advisors, Axiometrics Inc., Q3 2018.

U.S. APARTMENT CONSTRUCTION NEAR PEAK

- 193,634 units were delivered in the first three quarters of 2018; 66,112 units were delivered in Q3 alone.
- Construction data suggest that completions will peak in Q4 2018, but if the typical construction delays occur, we may have seen the peak in Q2 2018.
- On average, 15-25% of the units projected to complete in a quarter are delayed.
- Delay-adjusted completions converge to the construction data after about four quarters, as the number of delayed buildings pushed forward replace new delays.
- Read our analysis of construction delays [at our blog](#).

SUM OF MARKETS QUARTERLY COMPLETIONS



Source: CBRE Econometric Advisors, Q3 2018.

Forecasts are based on EA's baseline economic scenario. Estimated construction delays are based on historic delay rates.

LEADING METROS FOR COMPLETIONS

SEVEN METROS ADDED 10,000+ UNITS IN THE PAST 4 QUARTERS

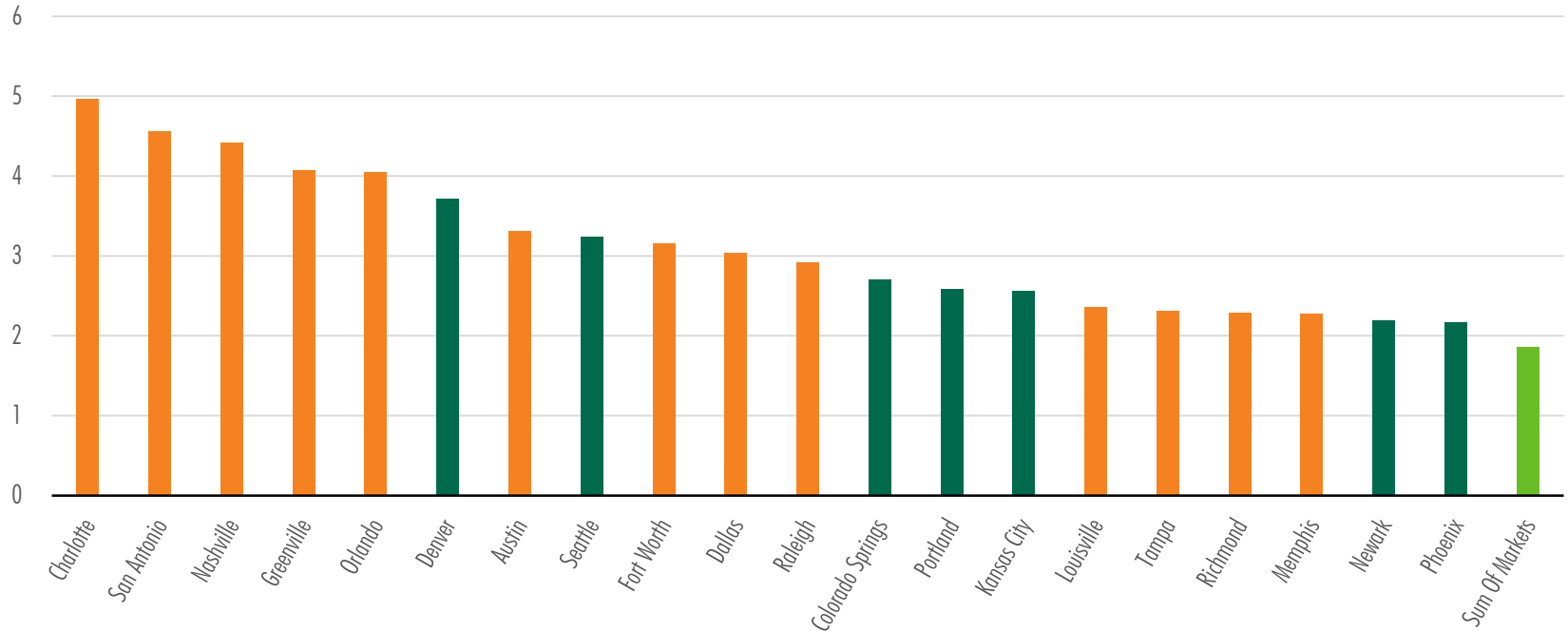
Metro	Units Added Past 4 Qtrs.	Completions to Inventory (%)*
1 New York	29,369	1.51
2 Dallas	15,732	3.04
3 Los Angeles	13,026	1.21
4 Washington, DC	12,283	2.14
5 Seattle	11,958	3.24
6 Denver	11,382	3.72
7 Boston	10,111	2.12
8 Chicago	8,862	1.24
9 Atlanta	8,650	2.03
10 Orlando	8,137	4.05
11 Charlotte	7,714	4.97
12 Phoenix	7,585	2.17
13 San Antonio	7,490	4.57
14 Austin	6,816	3.31
15 Nashville	5,916	4.42
16 Miami	5,781	2.09
17 Houston	5,559	0.91
18 Tampa	5,408	2.31
19 Fort Worth	5,314	3.16
20 Portland	4,944	2.58



Source: CBRE Econometric Advisors, Q3 2018. *Markets highlighted **red** have greater risk of overbuilding, based on a high completions-to-inventory ratio.

TOP 20 SUPPLY GROWTH—STRONG IN SOUTHERN MARKETS

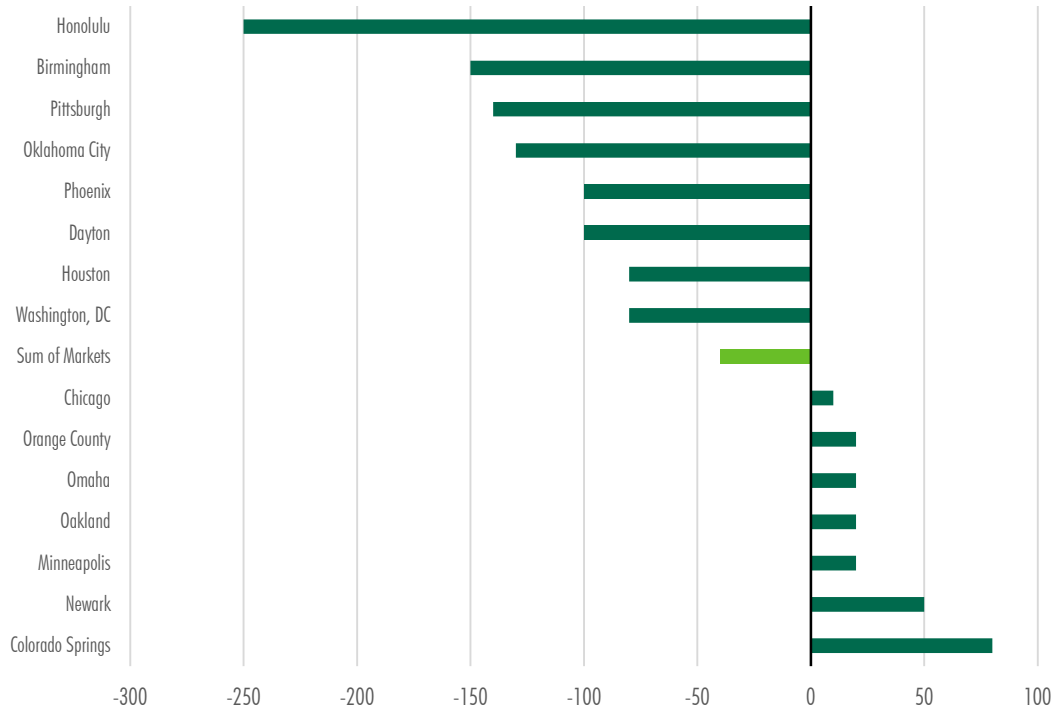
STOCK GROWTH (PAST 4 QUARTERS, %)



Source: CBRE Econometric Advisors, Q3 2018.

TOP & BOTTOM VACANCY CHANGES—VACANCY PLUMMETS

YEAR-OVER-YEAR CHANGE IN VACANCY RATE (BPS)

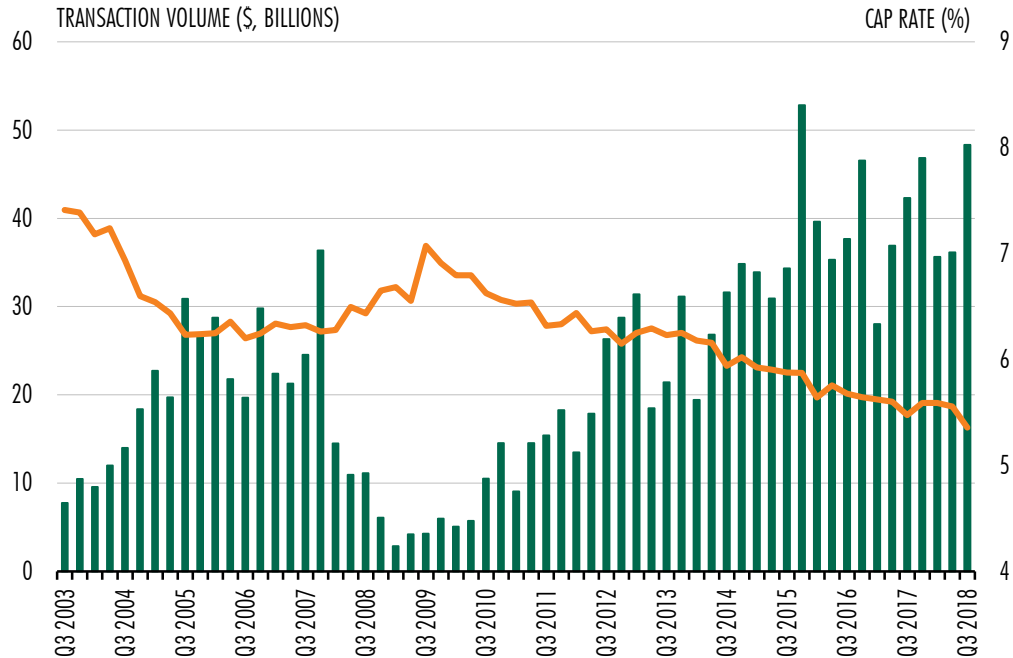


Source: CBRE Econometric Advisors, Axiometrics Inc., Q3 2018.

- Sum of Markets vacancy rate in Q3: 4.0% (down 40 bps YOY and down 30 bps QOQ).
- Only seven markets registered vacancy increases in Q3 (down from 37 in Q2). The Sum of Markets and 54 individual markets saw their rates decrease (up from 18 in Q2). Five markets registered no change.
- All seven markets that registered vacancy rate increases had demand growth that was weak compared to the Sum of Markets. The highest vacancy rate increases occurred in markets that have also seen higher-than-average supply growth (Colorado Springs, Newark).
- Markets with the greatest vacancy decreases had relatively low supply growth versus the Sum of Markets. The exceptions were Phoenix and Washington DC, where high demand growth more than made up for growth in supply.

INVESTMENT VOLUMES REMAIN ELEVATED IN Q3 2018

Q2 2018 VOLUME WAS UP FROM YEAR-EARLIER LEVELS

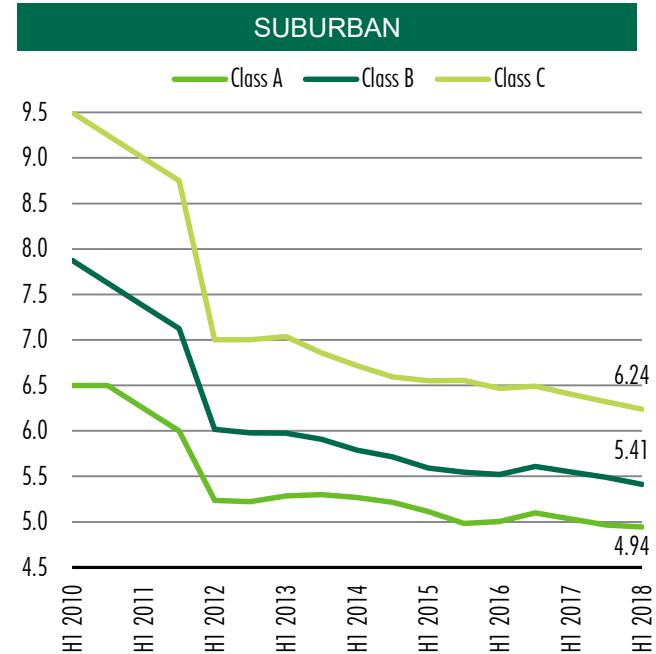
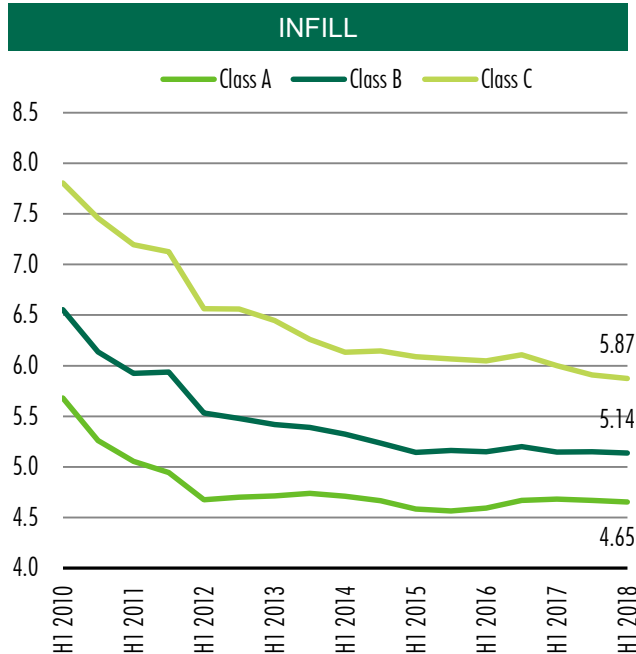


- Cap rates remained low in Q3 2018 and continued a long downward trend.
- At 5.5%, cap rates reached a new cycle low for this sector.
- YTD investment volume was up 12.0% from Q1-Q3 2017—to \$120.2 billion from 2017’s \$107.2 billion. Q3 2018 alone saw an investment volume of \$48.3 billion.
- Last year started particularly slowly as interest rates began rising and the Trump election gave global capital pause.
- The persistently strong investment volumes can be partially attributed to continued stability in the apartment sector and to the amount of foreign capital focused on U.S. multifamily assets.
- Strong global economic growth and the U.S. tax cuts should prop up volumes and asset pricing throughout 2018.

Source: Real Capital Analytics, CBRE Econometric Advisors, Q2 2018.

CAP RATES BY CLASS & INFILL VS. SUBURBAN*

SUBURBAN CLASS B & C ASSETS COMPRESSED THE MOST



Source: CBRE Research, CBRE Capital Markets Cap Rate Survey, H1 2018. *For stabilized assets during H1 2018.

CAP RATES—U.S. MULTIFAMILY

CAP RATE COMPRESSION MOST PRONOUNCED IN TIER II AND TIER III MARKETS DURING H1 2018

Average Rate (%)	INFILL				SUBURBAN			
		METRO TIER				METRO TIER		
	All	I	II	III	All	I	II	III
Class A	4.65	4.38	4.70	5.48	4.94	4.66	4.97	5.59
Class B	5.14	4.84	5.19	6.04	5.41	5.15	5.42	6.06
Class C	5.87	5.48	5.76	7.33	6.24	5.95	6.11	7.21

Change vs H1 2017 (BPS)	INFILL				SUBURBAN			
		METRO TIER				METRO TIER		
	All	I	II	III	All	I	II	III
Class A	-1	-2	-1	-2	-2	-1	-3	-4
Class B	-1	4	-7	-8	-8	-1	-14	-12
Class C	-3	4	-10	-12	-8	0	-12	-20

Source: CBRE Research, CBRE Capital Markets Cap Rate Survey, H1 2018.

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