

U.S. Multifamily, Q4 2015

Rent growth continues, albeit at a slower pace, amid hefty new supply pipeline

 Vacancy Rate
4.7%

 Net Absorption*
187,200 Units

 Rentable Completions*
198,700 Units

 Average Rent Per Unit
\$1,617

Arrows indicate change from previous year.
*Total last four quarters.

- The U.S. homeownership rate increased for a second consecutive quarter, to 63.8%, but remains well below the historic average. Compared to its Q2 2015 low of 63.4%, homeownership has generally risen across age groups and regions, and in suburbs and city centers alike.
- The close of 2015 saw an eighth consecutive quarter of positive apartment absorption. The year was one of the decade’s most active for apartment absorption, although the annual total was 22.6% or 54,500 units below 2014’s pace. A hefty pipeline of new units is moderating the pace of rent growth from 5.1% year-over-year in Q3 2015 to 4.3% in Q4 2015.
- After Q3 2015’s more modest pace of investment, Q4 2015 closed with a record multifamily investment total of \$43 billion.
- CBRE Research’s buyer underwriting survey of prime mid- and high-rise product revealed a transactional environment that is still very competitive, with unlevered target IRRs averaging 6.15% and initial cap rates at 4.20%. These figures are essentially unchanged from the prior quarter.
- Low Income Housing Tax Credit Update: After nearly 30 years, the LIHTC program is one of the more stable and top-performing segments of the multifamily sector, and serves as an attractive safe harbor for multifamily investors seeking risk-adjusted returns on their investment. The near-term outlook for such investments is positive, given the shortages of existing and underway affordable rentals in the U.S.



Accommodative economic conditions supported the multifamily sector’s eighth straight quarter of positive net absorption in Q4 2015, while rent growth remained positive and widespread across markets. Market fundamentals were generally strong in Q4 2015, though more supply-laden markets noted a rise in vacancy rates or a slower pace of rent growth during the quarter. Headwinds facing the sector include two more years of hefty completions activity that could deliver nearly 500,000 new units by the end of 2017, and upticks in the homeownership rate, which hit a low in Q2 2015. Still, apartment demand and absorption activity is

strong and expected to remain so in the near term, especially considering unrealized demand from both millennials and baby boomers.

Investment activity in the multifamily sector extended its impressive run through Q4 2015 with a record quarterly volume. Pricing metrics continued to reflect higher sales prices on a per-unit basis, but cap rates have essentially stabilized after having compressed for the past six years.

CBRE Affordable Housing provides an update on the U.S. Low Income Housing Tax Credit (LIHTC) market in this report, and discusses trends and performance indicators for the 30-year-old program. Given the supply of market-rate apartments recently delivered or underway and the moderate wage increases most workers have realized thus far in the current expansion cycle, demand for affordable units will remain elevated for years to come.

ECONOMIC TRENDS

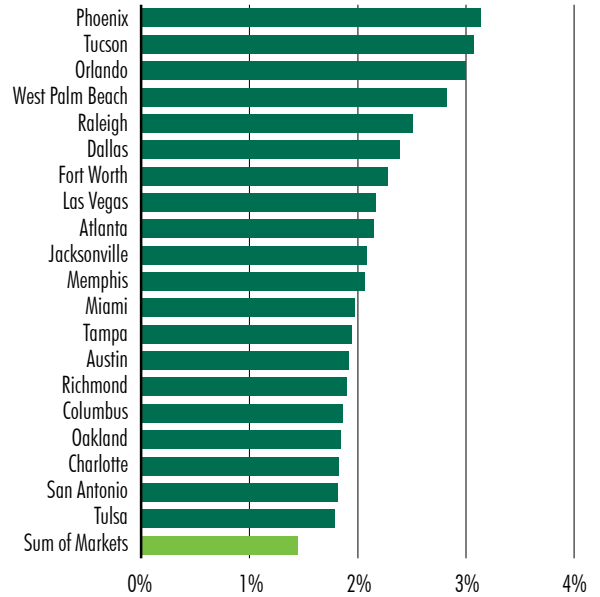
SOLID EMPLOYMENT GROWTH AMID FINANCIAL AND COMMODITY MARKET VOLATILITY

In Q4 2015, U.S. GDP growth slowed to an annualized rate of 1.0% (second estimate) from the Q3 2015 rate of 2.0%, weighed down by the trade imbalance and strong U.S. dollar. For the year, GDP registered a healthy 2.4%—the same figure recorded in 2014. Consumer spending and a strengthening residential sector contributed to 2015’s economic growth, supported by gains in personal income (4.5%) and disposable personal income (3.8%).

The Federal Reserve acknowledged labor market improvement in December and gave the U.S. economy a vote of confidence by raising the target range for the federal funds rate to between 0.25% and 0.5%. Additional rate increases in 2016 are expected to be gradual and modest—particularly considering the volatility in the financial markets since early January and oil prices hovering between \$20-\$30/bbl.

On a positive front, U.S. nonfarm payrolls increased by 151,000 jobs in January 2016 to push the national unemployment rate down to 4.9% (seasonally

Figure 1: Top Markets for Average Annual Job Growth (2015-2018)



Source: CBRE Econometric Advisors, Q4 2015.

adjusted), marking the first time since 2008 that the overall rate has slipped below 5.0%. While January job gains were down 31.7% year-over-year, all sectors posted gains over year-earlier levels—with the exception of mining and logging.

In 2015, more than 1.7 million jobs were added in the 62 markets tracked by CBRE Econometric Advisors (CBRE EA), for an overall payrolls increase of 2.1%. Technology-heavy San Jose, San Francisco and Austin were leaders in job growth during 2015; San Antonio and Orlando rounded out the top five.

By 2018, nearly 3.8 million jobs will be added across the nation’s 62 top apartment markets, for an average annual increase of 1.5%, according to CBRE EA. The strongest average annual rates of job growth are forecast for Phoenix, Tucson, Orlando, West Palm Beach and Raleigh; all are expected to see payrolls increase by 2.5% or more annually. All 62 markets will see positive job growth during the 2015-2018 period, but in absolute terms the leading markets will be Los Angeles (+189,800), Phoenix (+181,300), Dallas (+172,200), Atlanta (+168,600), and Chicago (+162,500).

DEMAND TRENDS

APARTMENT DEMAND HEALTHY AS HOMEOWNERSHIP RATES STRENGTHEN

The U.S. homeownership rate increased for a second consecutive quarter in Q4 2015, but remains well below its historic average. The Q4 2015 rate of 63.8% reflects a 40-basis point (bps) increase from the most recent low of 63.4%, posted in Q2 2015. However, Q4 2015 homeownership was still down by 20 bps, year-over-year.

A closer look at homeownership rates by age cohort reveals homeownership to be mostly up from the Q2 2015 low, with the exception of the under 35 and 55-64 year old groups. The sharpest increase in homeownership since Q2 2015 occurred among those aged 35-44. Homeownership is also up slightly in both principal cities and suburbs.

With the exception of the Midwest, which is down 30 bps since Q2 2015, homeownership has also increased at the regional level. Although all regions except the West are reporting homeownership rates that are below year-ago levels, homeownership rates are generally rising.

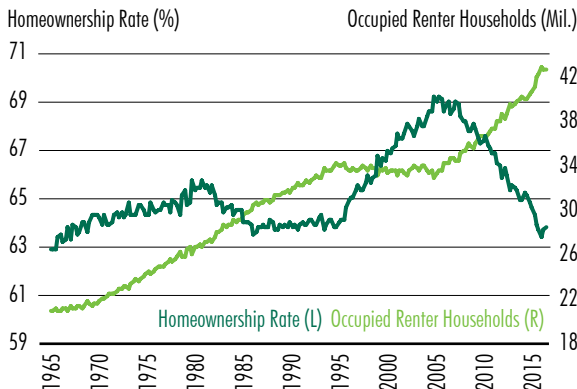
Paralleling the rising U.S. homeownership rate, the total number of occupied rental units in the U.S.—including single-family home rentals—declined for a second consecutive quarter in Q4 2015. Occupied rental units slipped by 0.1% to just

under 42.6 million units, which stands 1.3% above the year-ago level. Owner-occupied housing units saw a third consecutive quarterly increase—to more than 75 million units, for the first time since Q4 2012.

Despite a seeming trend reversal in homeownership rates, apartment absorption remains healthy. The multifamily sector logged its eighth consecutive quarter of positive net absorption in Q4 2015. The most recent quarter recorded positive net absorption of only 3,200 units, reflecting some seasonality in affected markets. Annual net absorption surpassed 187,200 units in 2015—down 22.6%, or 54,500 units, from 2014. Still, net absorption in 2015 was at one of its highest levels of the past decade. Four-quarter net absorption totals declined for a fourth consecutive quarter in Q4 2015 and will stay under the current pace throughout 2016, according to the CBRE EA forecast.

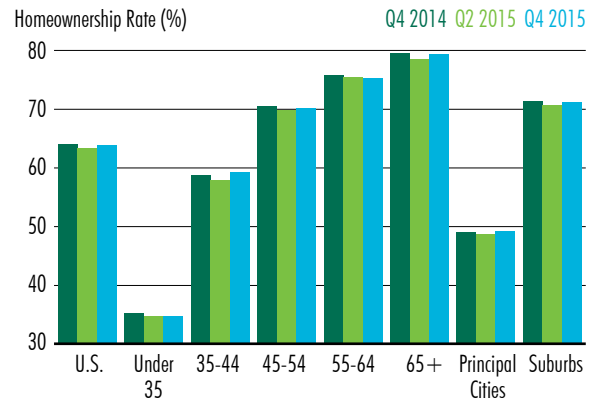
Washington, D.C. and Dallas led the major markets in annual net absorption in 2015, with both markets posting annual totals exceeding 10,000 units. Markets with annual net absorption between 8,000 and 10,000 units included Boston, Phoenix, Atlanta, Seattle, Los Angeles and Austin. The 2015 annual absorption rate—the ratio of total units absorbed to existing market inventory—was strongest in Charlotte, San Antonio, Austin, Orlando and Nashville, each with a rate above 3.0%.

Figure 2: U.S. Homeownership Rate vs. Occupied Renter Households



Source: U.S. Bureau of the Census, Q4 2015.

Figure 3: U.S. Homeownership Rate Trends Vary by Age Cohort



Source: U.S. Bureau of the Census, Q4 2015.

SUPPLY TRENDS

SUPPLY CONTINUES TO INCREASE, WITH MORE ON THE WAY

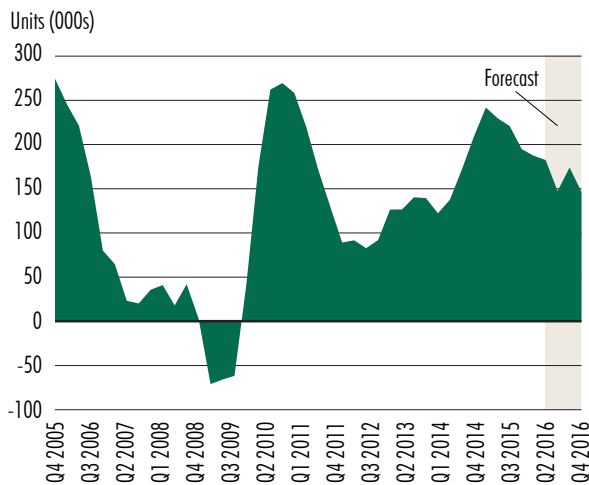
Nearly 63,000 apartment units were delivered in Q4 2015 among the 62 apartment markets tracked by CBRE EA, bringing total deliveries in 2015 to just fewer than 199,000 units. Fourth-quarter deliveries showed a 15.8% year-over-year increase and the annual total was 3.4% above the total for 2014. More apartment units were delivered in 2015 than in any year since the peak of the last construction cycle in 2000.

Relative to their respective average annual completions rates during the past 10 years, Detroit, Denver, Minneapolis, Seattle, Boston and Chicago saw particularly large numbers of deliveries in 2015. Deliveries in these markets during 2015 more than doubled their 10-year averages. In Detroit, 2015 deliveries were more than 4.5 times the 10-year average, but this large multiple reflects a drastic reduction in completions in the city between 2003 and 2014, rather than an especially large number of completions in 2015. Supply pressure was particularly light in San Diego, where 2015 deliveries amounted to just 63% of the 10-year annual average.

Looking at forthcoming supply, Q4 2015 saw the second-highest quarterly rate of permitting for multifamily structures in the U.S. since 1986. During the fourth quarter, roughly 118,000 building permits were issued nationwide for structures with five or more units, marking a 15.5% year-over-year increase. The number of permits issued during Q4 was second only to the number of permits issued in Q2 2015, when the expiration of a property tax abatement for new residential construction in New York City prompted developers to rush to apply ahead of the deadline. The 118,000 permits issued in the fourth quarter were 56.0% higher than the 10-year average quarterly rate of 75,700 permits.

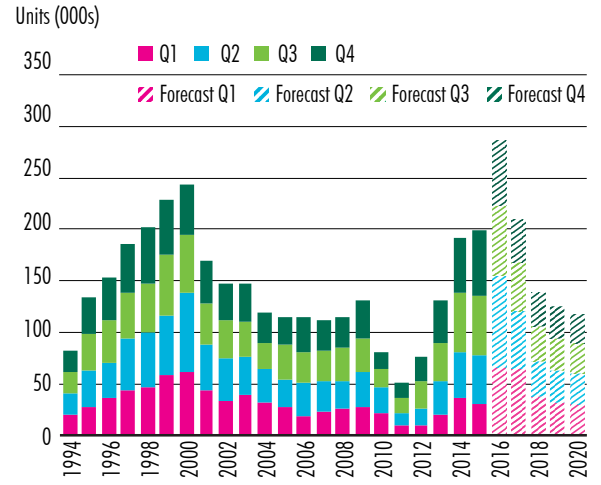
Given the rapid rate of permitting in 2015, CBRE EA anticipates the delivery of nearly 497,000 multifamily units in the next two years. Of these, 287,000 units are expected to be completed in 2016—the highest annual total in the dataset (which reaches back to 1994) and 44% more than the nearly 199,000 units delivered in 2015, which was itself the greatest annual total in 15 years. CBRE EA expects the completion of an additional 210,000 units in 2017. Unexpected building delays could push 2016 deliveries back to 2017, but even so, the supply of multifamily units across the 62

Figure 4: Apartment Absorption (Rolling Four-Quarter)



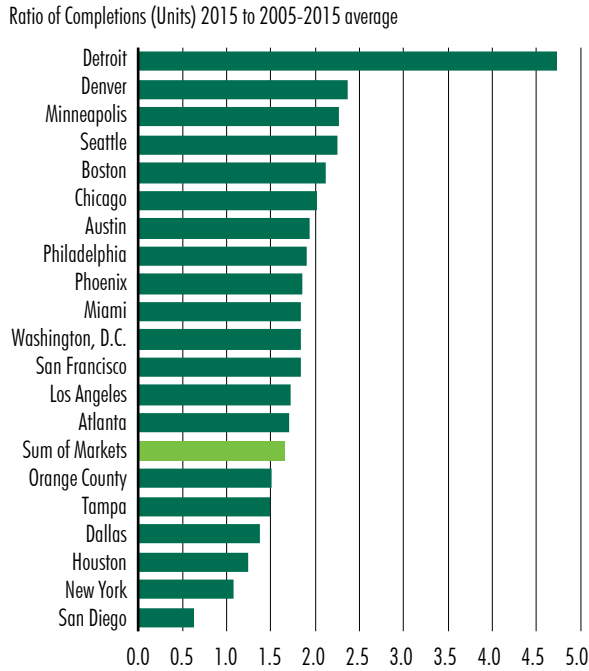
Source: CBRE Econometric Advisors, Q4 2015.

Figure 5: Multifamily Completions to Peak in 2016



Source: CBRE Econometric Advisors, Q4 2015.

Figure 6: Near-Term Supply Pressure Varies Across Markets



Source: CBRE Econometric Advisors, Q4 2015.

Figure 7: U.S. Multifamily Permits (5+ units)



Source: U.S. Bureau of the Census, CBRE Research, Q4 2015.

tracked markets is expected to expand considerably during the next two years.

Among the 62 markets, 17 are expected to set records for annual apartment completions in 2016. New York is expected to see the most deliveries (51,627 units), followed by Washington, D.C. (14,098 units) and Austin (10,372 units). Deliveries this year are expected to represent the greatest share of current total stock in Nashville (7.2%), Austin (5.5%) and Charlotte (5.3%). Denver, Seattle, Los Angeles, San Antonio, Chicago, Miami, Philadelphia, San Francisco, Pittsburgh, Newark, Hartford and Greenville are also expected to see record numbers of completions in 2016.

RENT AND VACANCY TRENDS

IMPROVEMENTS IN VACANCY AND RENT CONTINUE, BUT START TO MODERATE

The downward trend in the nationwide multifamily vacancy rate appears to be losing momentum. In

Q4 2015, the vacancy rate for the national sample of professionally managed apartments was 4.7%—the same as the prior year. The stabilization of the vacancy rate reflects the considerable tightening that has already occurred in several markets as a result of strong demand during the past five years, and the fact that supply has started to ramp up.

Compared to a year earlier, 33 of the 62 markets tracked by CBRE EA saw vacancy rates decline in Q4 2015, while 25 markets recorded increases and four saw rates unchanged. Of the markets with declining rates, Richmond (-140 bps), Cincinnati (-130 bps) and Tucson (-110 bps) saw the largest year-over-year improvements. Nine additional markets saw vacancy decline more than 50 bps, year-over-year. Four markets—Hartford, Oklahoma City, San Jose and Denver—saw vacancy increase by more than 100 bps, year-over-year, and 10 more saw vacancy increase by 50 bps or more relative to a

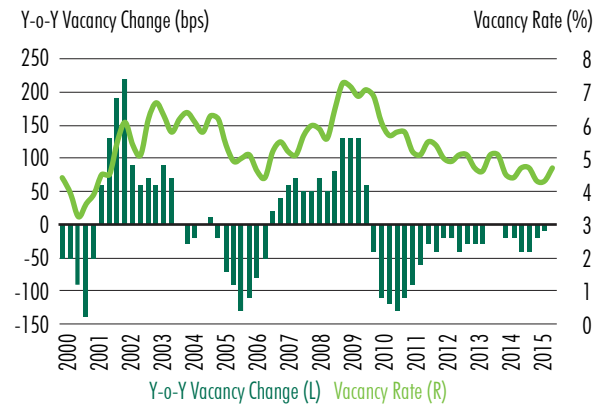
year earlier. Of the 20 largest apartment markets in terms of stock, Miami (-70 bps), Tampa (-70 bps) and Phoenix (-60 bps) were most improved, while Denver (+110 bps), Cleveland (+70 bps), San Francisco (+60 bps) and Houston (+60 bps) saw the largest increases in vacancy. Only six markets registered Q4 2015 vacancy rates below 4%—down from 14 markets in Q3 2015. The tightest vacancy rates in Q4 2015 were found in Providence (2.6%), Long Island (3.0%), Newark (3.2%), Miami and New York (both with 3.4%).

Many more apartment markets will likely begin to loosen in 2016. Despite strong rental demand and healthy economic growth in the U.S., the significant volume of new supply anticipated in 2016 will put upward pressure on vacancy.

Rent growth remained strong and widespread in Q4 2015, though the pace of growth appears to be moderating. The average monthly rent per unit across the 62 CBRE EA markets increased by 4.3%, year-over-year, and 30 of the tracked markets posted rent growth of 5% or more relative to a year earlier. While these figures indicate a strong market—with the annual growth rate well above both its 10-year average (2.9%) and core inflation (2.1%)—they also indicate a loss of momentum from Q3 2015. In Q3 2015, the 62-market average rent increased by 5.1%, year-over-year, and 33 markets posted rent growth of 5% or more.

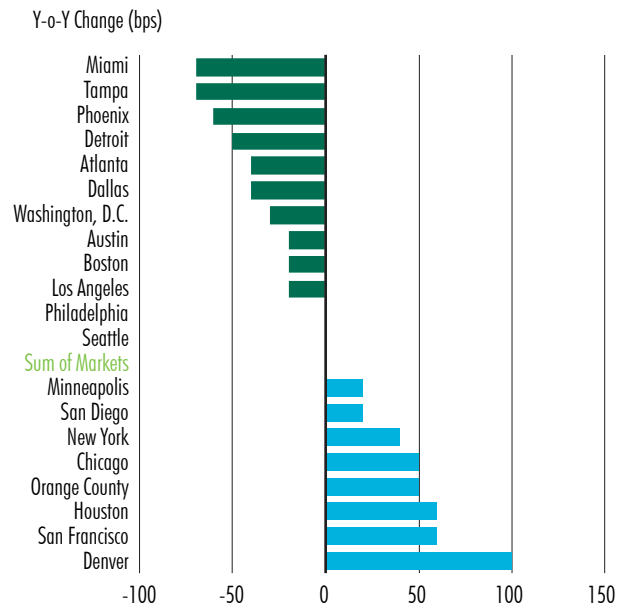
High effective rent levels (exceeding pre-recession peaks in most major markets) will continue to bring considerable amounts of apartment construction during the next couple years. Markets that are farthest along in their expansionary cycles will begin cooling as new supply comes on line. In most markets, however, demand growth is strong enough to absorb much of this activity and there is no glaring risk of severe or sudden corrections. Over a longer time horizon, slowing job growth and additional construction and renewed competition from single-family homes will temper rent growth.

Figure 8: Multifamily Vacancy Rate for Major Markets



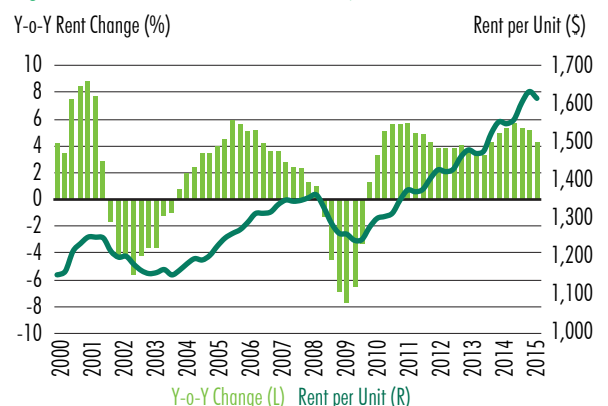
Source: CBRE Econometric Advisors, Q4 2015.

Figure 9: Trends in Vacancy Vary Widely by Market



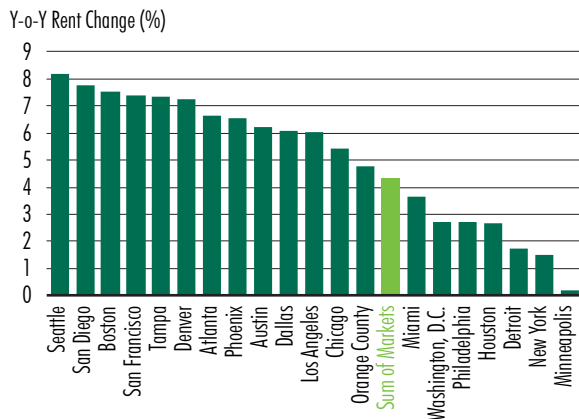
Source: CBRE Econometric Advisors, Q4 2015.

Figure 10: National Rent Growth Continues, but Moderates



Source: CBRE Econometric Advisors, Q4 2015.

Figure 11: Rent Growth Remains Widespread



Source: CBRE Econometric Advisors, Q4 2015.

CAPITAL MARKETS

AFTER A QUIETER Q3, MULTIFAMILY INVESTMENT ROSE TO RECORD LEVELS IN Q4

Rental multifamily investment continued its extraordinary run through Q4 2015, surprising most industry participants with a record quarter investment volume. Pricing metrics continued to

reflect higher sales prices on a per-unit basis; however, cap rates essentially stabilized after having compressed for the past six years. Indicators of credit/debt performance and availability remained favorable in the last quarter of 2015.

Despite the robust activity of Q4 2015, some concerns about national economic performance, multifamily debt availability, mortgage pricing and other issues are leading to slightly more cautious investment strategies and decisions in the early months of 2016. That said, the multifamily capital markets environment remains very active and generally positive.

UNDERWRITING SURVEY REFLECTS STABLE RATES AND STILL-HIGHLY COMPETITIVE PRICING

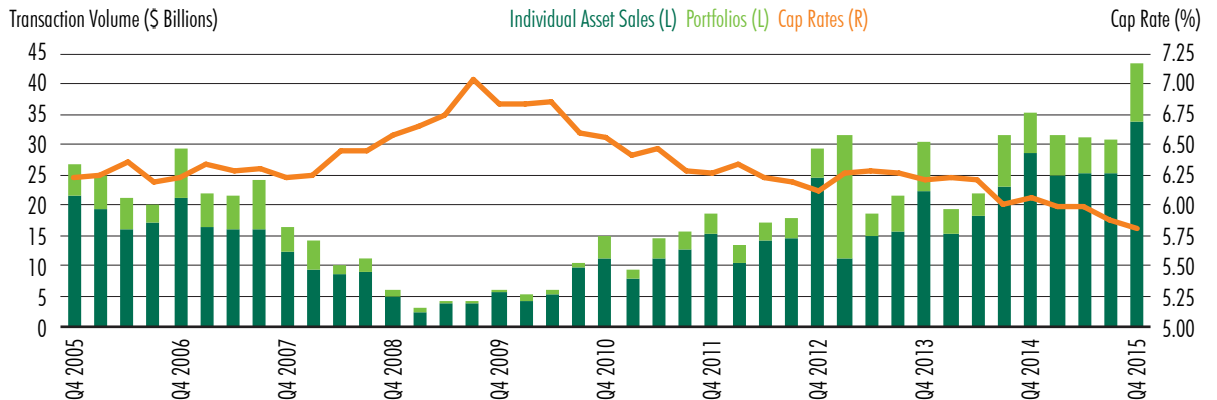
CBRE Research’s Q4 2015 buyer underwriting survey reveals a highly competitive environment for multifamily transactions, a willingness among buyers to accept low returns for prime Class A assets, and a confidence that rents will continue to rise at a favorable pace. The survey also reflects little change from previous quarters.

Figure 12: Buyer Valuation Underwriting Survey for Prime Class A Multifamily Assets (Ranked by IRR Target and Cap Rate)

Market	Submarket	Multifamily Subtype	Asking Rent (\$/SF/PM)	Average Annual Rent Growth Underwriting First 3 Years (%)	Unlevered IRR Target (%)	Going-in Cap Rate (%)	Exit Cap Rate (%)	Holding Period (Years)
San Francisco	South of Market	Mid Rise	5.80	4.0	5.50	3.50	4.50	10
Boston	Downtown	High Rise	4.75	3.0	5.75	4.00	4.75	7 - 10
Chicago	River North	High Rise	3.60	3.0	5.90	4.25	5.00	10
Los Angeles	West Los Angeles	Mid Rise	4.53	5.0	6.00	4.00	4.75	5 - 7
Seattle	Downtown	Mid Rise	3.75	4.0	6.00	4.00	5.00	10
Austin	Downtown	High Rise	3.40	3.5	6.00 - 6.25	4.25	5.00 - 5.25	10
Dallas	Intown Dallas	High Rise	3.00	3.5	6.00 - 6.25	4.00 - 4.50	4.75 - 5.25	5 - 7
Washington, D.C.	West End	High Rise	4.50	3.0	6.25	4.25	4.50 - 4.75	5 - 7
Miami	Downtown/Brickell	High Rise	3.00	3.0	6.00 - 6.25	4.00 - 4.25	5.00 - 5.25	7 - 10
Atlanta	Midtown	High Rise	2.65	4.0	6.00 - 6.25	4.00 - 4.25	5.00	7
New York	Manhattan	High Rise	5.80	3.7	6.50	4.00	4.50	10
Houston	Inner Loop W/Greenway Plaza	High Rise	2.88	3.5	6.00 - 7.00	4.50 - 5.00	5.25 - 5.75	7 - 10
Denver	Downtown	High Rise	2.80	3.5	6.50	4.50	5.20	7 - 10
Phoenix	South Scottsdale	Mid Rise	2.25	4.2	6.75	4.75	5.50	10
Average			3.77	3.6	6.15	4.20	4.97	8.5

Source: CBRE Research, Q4 2015. The “prime” statistics displayed above are estimates of current buyer underwriting assumptions for the highest-quality asset in the best location of a particular market. The quoted prime rents reflect the level at which top-tier relevant transactions are being completed. Estimates are based on the expert opinion of CBRE brokers that provide advisory services in these particular markets.

Figure 13: U.S. Multifamily Investment Sales Volume and Cap Rates



Source: CBRE Research, Real Capital Analytics, Q4 2015. Excludes property acquisitions via M&A activity.

The survey, which is based on CBRE buyers' underwriting of high-end multifamily transactions, shows cap rates averaging a still-very-low 4.20%; similarly, the unlevered target IRRs are averaging only 6.15%. Both went essentially unchanged all year. The annual rent growth used in underwriting averaged 3.6%—down slightly from the prior quarter's 3.8%. The average spread between the going-in and exit cap rates was 77 bps. San Francisco's IRR target of 5.50% and going-in cap rate of 3.50% remain the lowest among U.S. markets.

MULTIFAMILY ACQUISITIONS EXCEED \$40 BILLION IN Q4

Multifamily investment ended 2015 with its largest acquisitions total in history. In Q4 2015, \$43 billion of multifamily properties were acquired in the U.S. The total represents year-over-year growth of 23% and growth of 41% over the previous quarter. The high volume also brought the 2015 investment total to \$137 billion, setting a new record and reflecting a 26% gain over 2014.

A robust investment climate is expected to continue into 2016; investor interest and capital for both debt and equity remain high. However, the double-digit increases in investment are not likely to be repeated in 2016; acquisitions volume could even come down.

Figure 14: Leading Metros for Multifamily Investment, 2015

Rank	Metro	Invested (\$ billions)	Market Share (%)	
			Metro	Cumulative
1	New York City Metro	23.9	16	16
2	Los Angeles/Southern California*	11.1	7	23
3	Washington, D.C.	8.7	6	29
4	Dallas/Ft. Worth	7.9	5	34
5	Atlanta	6.3	4	39
6	San Francisco Bay Area	5.0	3	42
7	Seattle	4.9	3	45
8	Denver	4.7	3	48
9	Houston	4.3	3	51
10	Miami/South Florida	4.1	3	54
11	Chicago	3.9	3	57
12	Boston	3.9	3	59
13	Phoenix	3.8	3	62
14	Baltimore	3.1	2	64

Source: Real Capital Analytics, CBRE Research, Q4 2015. Note: Total include entity-level acquisitions. * Los Angeles/Southern California includes Orange County and Inland Empire

Investment in low-rise (and mostly suburban) product rose faster than mid- or high-rise investment in 2015. Last year, 66% of the capital invested in multifamily assets was directed at garden product—up from 2014's 63%. Investment in garden communities rose 38% last year, while mid- and high-rise rose 23%.

The acquisition totals cited above do not include mergers and acquisitions (M&A) activity or the transfer of property ownership through company

purchases. Real Capital Analytics (RCA) cites an additional \$13 billion in acquisitions from entity-level purchases in 2015, with more than half in Q4 2015 alone—from Lone Star Funds' acquisition and privatization of Home Properties in October.

Cross-border capital continues to play a notable role in the multifamily investment arena. RCA reported that international capital accounted for \$8 billion of the \$43 billion in total acquisitions in Q4 2015. Consistent with recent quarters, Canada was the lead source of capital, representing 80% of the total—largely through Ivanhoé Cambridge's participation in the acquisition of Stuyvesant Town/ Peter Cooper Village (with The Blackstone Group), as well as a \$200 million partial interest portfolio acquisition in San Francisco. China was the next largest country source of capital for multifamily acquisitions in Q4.

For full-year 2015, the New York City metropolitan area attracted the most multifamily investment in the U.S. by a wide margin, followed by Los Angeles/ Southern California, Washington D.C. and Dallas/ Ft. Worth.

SALES PRICES HIGHER IN Q4 2015, CAP RATES STABILIZE

Pricing for multifamily investment is measured largely through sales prices per unit and through cap rates. RCA data shows the sales price per unit for Q4 2015 acquisitions to have averaged \$150,500, reflecting a 14% climb from the prior year. Mid- and high-rise product rose 23%, while garden product increased 12%.

While sales prices per unit are still rising, cap rates have essentially stabilized. The *CBRE North America Cap Rate Survey H2 2015* found no appreciable change between H1 2015 and H2 2015 in rates for stabilized assets. (Changes of 15 bps or less are not considered particularly significant.) The expected returns-on-cost for infill value-add acquisitions

Figure 15: Multifamily Cap Rates, H2 2015

Sector	Class	H2 2015 (%)	Change from H1 2015 (bps)	Spread Over 10-Year Treasury*
Infill	A	4.57	-2	230
	B	5.17	2	290
	C	6.09	-3	382
Suburban	A	4.99	-13	272
	B	5.56	-4	329
	C	6.57	-9	430

Source: CBRE Research, H2 2015. Cap rates for stabilized assets. *10-year Treasury bond at end of H2 2015 (2.27%).

were also essentially stable; however, the survey found very modest downward movement in suburban value-add expected returns.

For both infill and suburban Class A assets, the California markets of San Francisco and Los Angeles had the lowest cap rates at about 3.75%. Over H1 2016, cap rates in the vast majority of U.S. markets are expected to experience no change in either infill or suburban product.

RCA cap rate data still reflects modest downward movement. During the past two quarters, the average suburban cap rate has edged down by only 12 bps, to 6.0%, but the average cap rate for mid- to high-rise acquisitions declined by 38 bps to 4.75%.

INVESTMENT RETURNS HAVE EDGED DOWN, BUT REMAIN FAVORABLE

NCREIF return data for multifamily properties owned primarily by institutional owners confirms the sector's ongoing healthy performance. The 2015 return was 12.0% (appreciation 7.0%, income 4.8%). This level compares favorably with the 20-year average of 9.8%. However, the Q4 2015 return of 2.7% does reflect some moderation in performance, dropping below the 2.9% average of the first three quarters of 2015. The drop came predominantly from lower levels of appreciation;

the income component held fairly constant through the year. On an annual basis, multifamily remains lower than the other major property types, which range from 12.5% to 15.3%.

By multifamily asset type, garden communities are showing the highest returns, with 14.6% for 2015. High-rise multifamily assets have edged down to an annual level of 10.6%. With a total return of 18.5%, Denver has the highest multifamily return among the markets tracked by NCREIF. Portland (17.0%), Atlanta (16.5%) and the Inland Empire (16.3%) are among those markets having seen stellar returns in Q4 2015 due to significant appreciation.

LENDING REMAINS VERY ACTIVE BUT ITS GROWTH PACE HAS MODERATED

The high levels of multifamily acquisitions activity in Q4 2015 was paralleled by high levels of mortgage financing.

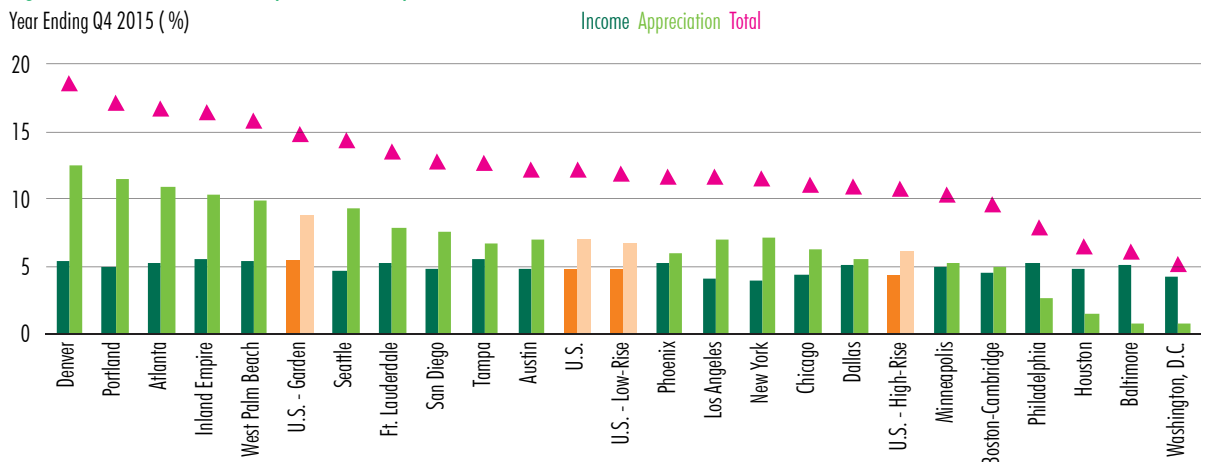
One measure of the new debt production is the Mortgage Bankers Association’s *Quarterly Survey of Commercial/Multifamily Mortgage Bankers Originations*. The Q4 2015 survey index revealed a 31% year-over-year gain in multifamily lending. This gain was the

second-highest among the five major property types and greater than the 24% year-over-year gain for all commercial real estate.

Fannie Mae and Freddie Mac—the country’s two leading sources of multifamily mortgage capital—were both extraordinarily active in Q4 2015 and both reached record volumes in 2015. New mortgage production in Q4 totaled \$10.1 billion for Fannie Mae and \$13.2 billion for Freddie Mac. For full-year 2015, production reached \$42.3 and \$47.3 for the two agencies, respectively. Collectively, they financed approximately 1.3 million apartment units in 2015. Both GSEs expect to raise their production volumes slightly in 2016, based on caps being raised from \$30 to \$31 billion and greater lending on the affordable side, which is not capped.

The favorable health of multifamily property performance and the active investment market are also reflected in very low delinquency rates. As of December 2015, the multifamily 60+ day delinquency rates for Fannie Mae and Freddie Mac were 0.07% and 0.02%, respectively. While extremely low, Fannie Mae’s rate was slightly higher than a year earlier, while Freddie Mac’s was slightly lower.

Figure 16: Institutional Multifamily Returns for Major Markets



Source: CBRE Research, NCREIF, Q4 2015.
 Note: All returns are reported on an unlevered basis.

In the CMBS world, as reported by Morningstar Credit Ratings, the 30+ day multifamily delinquency level ended Q4 2015 at 1.8%, essentially unchanged from the prior quarter but down about one-half point, year-over-year. Multifamily has the lowest CMBS delinquency rate among major property types, and is not considered to be at any particular risk from the “wall of maturities,” the 2006-07 vintage loans maturing this year. For banks, the FDIC reports that Q4 2015 30+ day delinquency rates on multifamily loans represented only 0.4% of the total loan balance—a 22 bps improvement over Q4 2014.

MARKET OUTLOOK

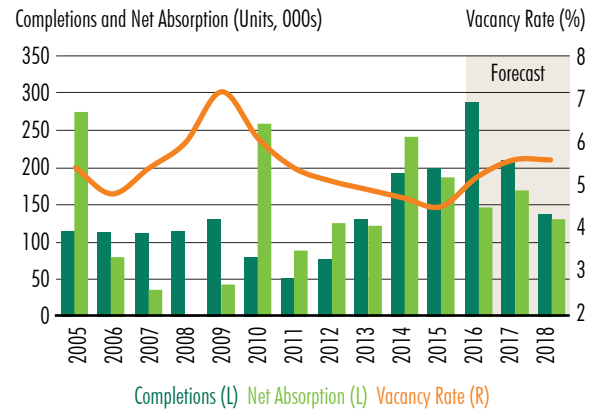
RENT GROWTH TO DOWNSHIFT

Multifamily vacancy peaked at 7.2% in 2009 and by Q2 and Q3 2015 had trended down to a tight 4.3%. Strong demand has handily absorbed new supply, but vacancy will start to reverse its downward trend as the supply pipeline continues to deliver rental units. Apartment vacancy in the 62 CBRE EA markets increased 40 bps quarter-over-quarter in Q4 2015, and is forecast to generally increase for the next two years, discounting seasonal influences. The forecast calls for vacancy to increase to 5.6% by 2017, which is well below the prior, 2009 peak level of 7.2%.

After six years of annual, nominal rent growth of 3.4%-5.3% (peak was 5.3% in 2014), rent growth will moderate to 2.4% in 2016 and 2.0% in 2017. Across the 62 CBRE EA markets, the average apartment rent is forecast to increase by almost \$100 by 2018—to \$1,716 per month. While markets vary in their positions in the real estate cycle, and several markets are projected to see stronger-than-average rent growth due to moderating development activity or expectations of strong employment growth, the multifamily sector as a whole has turned a corner—such that key market fundamentals are expected to soften in the near term.

Baby boomers and young millennials in particular will snap up apartments at a healthy clip during the

Figure 17: U.S. Multifamily Supply and Demand Outlook



Source: CBRE Econometric Advisors, Q4 2015.

Figure 18: U.S. Annual Completions vs. Absorption (Units)

	2012	2013	2014	2015	2016*
Completions	76,056	131,358	192,139	198,714	286,661
Net Absorption	126,403	122,168	241,765	187,220	146,215

Source: CBRE Econometric Advisors, Q4 2015.
*Forecast

next few years. Annual net absorption most recently peaked at 241,800 units in 2014, but will average 138,000 units during the next five years. 2017 is forecast to be a particularly strong year for apartment demand, with about 170,200 units absorbed as new supply is delivered.

Construction permits continue to be pulled for apartment projects, and despite the surge in Q4 2015 permits, CBRE EA expects completions to peak in 2016 at a record 286,700 units—surpassing the 243,600 units that were delivered in 2000. The number of units delivered in 2017 will decline to roughly 210,000 units, which will be the third most active year for deliveries since 2000. Beyond 2017, completions are expected to taper off significantly, to annual levels below 140,000 units.

Despite the cyclical nature of the sector, market fundamentals will remain at healthy levels accommodative to investor interests.

INDUSTRY UPDATE

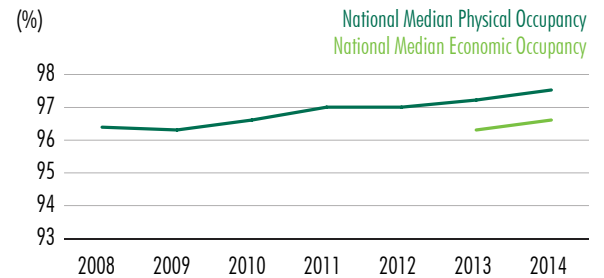
THE LOW-INCOME HOUSING TAX CREDIT PROGRAM: A SAFE HARBOR FOR MULTIFAMILY INVESTORS

The most effective, longest-existing federal affordable housing program reaches its 30th anniversary in 2016. Responsible for the construction or rehabilitation of nearly 2.8 million apartment units nationwide, the Low-Income Housing Tax Credit (LIHTC) program finances 90,000 to 95,000 affordable apartments each year.

According to an analysis of more than 20,000 LIHTC properties across the country between 2008 and 2014, LIHTC operations consistently strengthened during the study period in direct response to the growing demand for affordable housing units caused by the recession and the weak economic recovery.

The survey properties enjoyed effective full occupancy in 2014, with 97.5% median occupancy. The major driver of the consistently high occupancy rates in LIHTC properties has been the critically short supply of affordable housing units in the U.S. The U.S. Census Bureau recently reported that 46.7 million people, or 14.8% of the population, were living in poverty in 2014—the highest number since the Bureau began tracking this statistic in 1959. According to the National Low Income Housing Coalition, in 2014 there was a shortage of more than seven million affordable apartments in the country.

Figure 19: LIHTC Properties National Median Occupancy



Source: CBRE Research, CohnReznick, January 2016.

The strength of demand for affordable housing is also demonstrated by the economic occupancy data collected for 2013 and 2014. Economic occupancy takes into account the turnover of units, re-leasing efforts, and losses from rent skips and collection problems. The fact that there was only 90 bps between the physical occupancy and the economic occupancy rates in 2013 and 2014 shows how the robust demand for affordable housing has reduced the turnover rate and lowered the loss of rental income caused by rent skips in LIHTC properties.

Per-unit cash flow closely tracks with the movement of a property's debt coverage ratio (DCR). Since 2008, per-unit cash flow has increased by nearly 140%, to \$597 in 2014. The remarkable increase in cash flow during the past seven years has improved the median DCR for LIHTC properties by 15.7%, to 1.33 in 2014. A major driver of the improved financial performance since 2008 has been the

Figure 20: Overall Low-Income Housing Tax Credit Performance

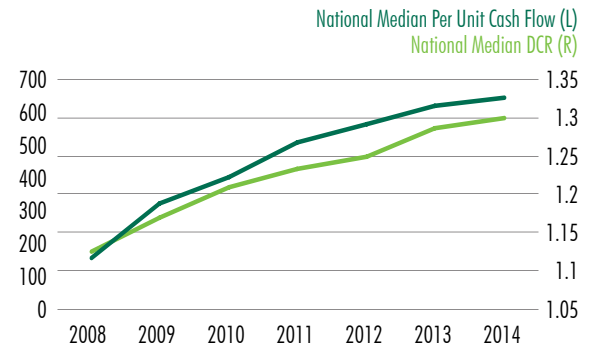
	2008	2009	2010	2011	2012	2013	2014
Median Physical Occupancy	96.4%	96.3%	96.6%	97.0%	97.0%	97.2%	97.5%
Median Economic Occupancy	N/A	N/A	N/A	N/A	N/A	96.3%	96.6%
Median Debt Coverage Ratio	1.15	1.21	1.24	1.28	1.3	1.32	1.33
Median Per-Unit Cash Flow	\$250	\$341	\$419	\$464	\$498	\$571	\$597

Source: CBRE Research, CohnReznick, January 2016.

increasing prices of tax credits. Rising tax credit prices allowed more LIHTC properties to be financed with less hard debt, resulting in higher cash flow. In fact, more than 48% of the stabilized properties surveyed reported less than 20% in hard debt.

As the LIHTC program turns 30, it has established its place as one of the most stable, best-performing segments of the multifamily market. It has become an attractive safe harbor for multifamily investors seeking risk-adjusted returns on their investment, and given the shortage of affordable rental units in the country, it is likely to continue its solid performance for many years to come.

Figure 21: LIHTC Properties Debt Coverage Ratio and Per-Unit Cash Flow



Source: CBRE Research, CohnReznick, January 2016.

Figure 22: Multifamily Fundamentals for the 50 Largest U.S. Markets, Q4 2015

Inventory Rank	Market	Vacancy Rate Q4 2015 (%)	Vacancy Rate Y-o-Y (bps)	Net Absorption Last 4 Quarters (Units)	Rent per Unit Q4 2015 (\$)	Y-o-Y Rent Change (%)
1	New York	3.4	40	6,492	2,910.41	1.5
2	Los Angeles	3.8	-10	8,294	2,047.42	6.0
3	Chicago	5.3	50	1,680	1,395.07	5.4
4	Houston	6.2	60	4,824	1,045.22	2.7
5	Washington, D.C.	4.9	-30	10,792	1,592.52	2.7
6	Dallas	4.7	-50	10,383	1,012.03	6.1
7	Boston	4.2	-20	9,756	1,996.20	7.5
8	Atlanta	5.6	-40	8,548	977.62	6.7
9	Seattle	4.7	0	8,470	1,464.17	8.2
10	Phoenix	5.3	-60	8,730	853.14	6.5
11	Philadelphia	4.8	0	2,317	1,273.74	2.7
12	San Diego	4.0	20	53	1,716.85	7.7
13	Denver	5.2	110	5,342	1,258.20	7.2
14	Miami	3.4	-70	5,174	1,580.53	3.7
15	Minneapolis	4.1	20	3,926	1,266.37	0.2
16	Detroit	4.2	-50	2,900	915.12	1.7
17	Orange County	4.3	50	1,234	1,868.12	4.8
18	Tampa	4.3	-70	4,424	986.98	7.3
19	San Francisco	4.0	60	910	3,032.37	7.4
20	Cleveland	5.1	70	148	877.14	0.7
21	Cincinnati	4.8	-130	4,319	851.92	4.0
22	Oakland	4.2	70	-531	2,076.03	11.7
23	Baltimore	5.0	0	1,685	1,234.93	2.6
24	Austin	4.8	-20	8,120	1,093.27	6.2
25	Orlando	4.2	-40	6,169	1,020.67	8.0
26	Fort Lauderdale	4.1	-60	3,094	1,406.46	6.7
27	Portland	4.6	40	2,506	1,195.62	11.5
28	Las Vegas	6.3	-40	1,110	820.06	6.9
29	Newark	3.2	-20	1,355	1,666.35	5.0
30	Fort Worth	4.5	-70	3,199	897.67	7.8
31	Riverside	4.7	40	310	1,303.69	7.3
32	San Jose	4.9	100	625	2,540.07	7.3
33	San Antonio	6.4	0	6,571	866.13	3.4
34	Columbus	4.5	-30	3,484	812.41	3.3
35	Charlotte	4.4	-50	6,611	926.46	6.2
36	Indianapolis	7.0	-30	2,337	770.58	3.1
37	Sacramento	4.0	10	269	1,154.83	8.6
38	Kansas City	4.7	-90	3,879	864.85	2.9
39	Raleigh	5.1	10	2,437	925.47	4.6
40	Nashville	4.1	-30	3,729	1,007.84	7.8
41	Norfolk	6.7	0	934	1,003.12	0.4
42	West Palm Beach	5.0	80	542	1,401.42	6.4
43	Pittsburgh	6.4	40	1,431	1,310.04	-2.3
44	St. Louis	6.9	-20	1,059	847.87	10.0
45	Providence	2.6	-70	974	1,329.25	5.6
46	Jacksonville	5.7	-70	1,936	898.97	5.0
47	Salt Lake City	4.3	-50	2,585	915.53	7.3
48	Memphis	7.0	-40	1,533	781.37	0.9
49	Honolulu	6.1	70	81	1,965.80	1.1
50	Hartford	5.2	130	19	1,255.17	1.3
	National*	4.7	0	187,220	1,617	4.3

* National figures represent the sum of 62 markets.
Source: CBRE Econometric Advisors, Q4 2015.

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