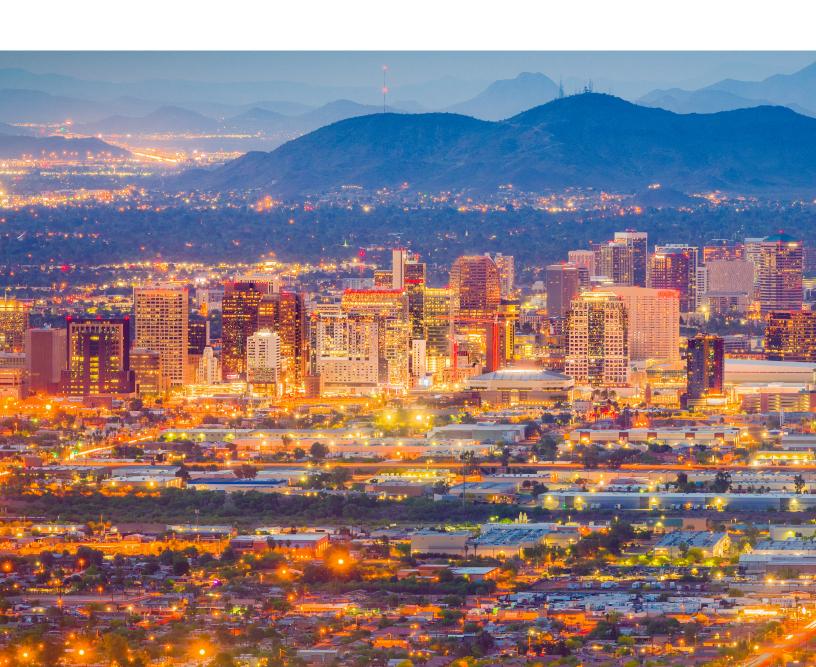
Yardi[®] Matrix

Multifamily National Report

November 2018



Rents Cool With Onset of Cold Weather

- U.S. multifamily rents fell by \$2 in November, dropping to \$1,419, while year-over-year growth fell by 10 basis points to 3.1%. Rents are down \$3 from the peak of \$1,422 in September.
- The small decline can be chalked up to normal seasonal fluctuation. Demand has remained strong as the occupancy rate has stayed stable for the last six months despite the growth in supply in many metros.
- Rent growth continues to be strongest in the West, Southwest and Southeast. Las Vegas and Phoenix have the highest rent growth, and five of the top 10 metros are in California.

2018 is shaping up to be another solid year for the multifamily market. Rent growth for the year is 3.1%, which slightly tops our estimate—and those of most market prognosticators—coming into the year. U.S. multifamily rents have stalled in the fourth quarter, but that reflects a typical seasonal pattern.

Demand continues to be the main driver. U.S. household formation is running at roughly 1.5 million per year, helping fill the 300,000 multifamily units of new supply. Occupancy rates of stable properties have remained above 95.0% for more than two years.

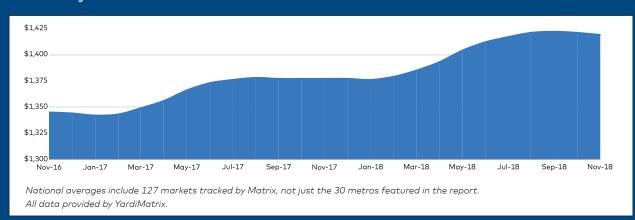
Robust job growth and a long-term population shift have propelled warm-weather and West Coast metros. Las Vegas (7.4% year-over-year) and Phoenix (6.6%) have the highest rent growth, while Atlanta (5.4%), Orlando (5.2%) and Tampa (3.9%) are all among the top metros.

Despite the brush with rent control (which failed to win a referendum in the November election) and increasing problem with affordability, rents continue to march upward in California. The Inland Empire (5.4%), San Jose (5.0%), Los Angeles (4.2%), San Francisco (4.0%) and Sacramento (3.8%) are all among the top 10 metros in rent growth. Job growth ranges between moderate and robust in those metros, but the big issue in most of the state is supply; California desperately needs new stock to house the number of people that want to live there.

The five California metros in the top 10 for rent growth all are among the bottom seven in deliveries as a percentage of stock. Sacramento and the Inland Empire are growing at less than 1% per year, while San Francisco, San Jose and Los Angeles are adding less than 1.5% to stock per year.

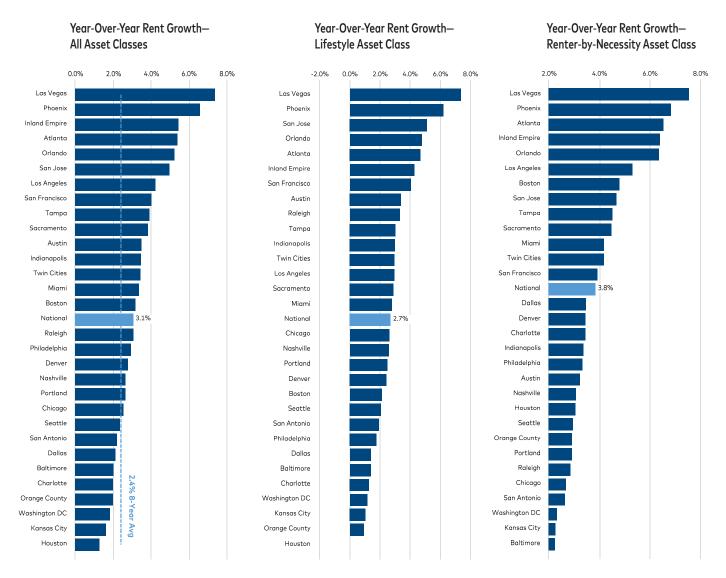
It's a testament to the economy's strength that most of the metros with the highest supply pipelines are maintaining occupancy rates and moderate rent growth. That includes Nashville (6.5% supply growth, 2.6% rent growth), Austin (5.0%, 3.5%), Denver (4.9%, 2.8%) and Miami (4.2%, 3.4%). On the flip side, Houston's rent growth lags at 1.3% despite healthy job creation numbers.

National Average Rents



Year-Over-Year Rent Growth: Rent Growth Flattens as Seasonality Effects Set In

- Rents increased 3.1% year-over-year in November, a 10-basis-point deceleration from October and a 20-basis-point slowdown from the 2018 peak in September. After accelerating through much of this year, rents have flattened and are in line with typical end-of-year seasonality.
- Las Vegas (7.3%) remained atop our rankings, as job growth is significantly stronger than new supply. Year-over-year employment growth totaled 3.9% in October, while 12-month completions as of November represented only 1.9% of stock. The metro will likely remain under-supplied, as the number of units under construction and planned represent only a 4.0% increase in stock.
- California markets have rebounded well, despite the high cost of living and outmigration. The Inland Empire (5.4%), San Jose (5.0%), Los Angeles (4.2%), San Francisco and San Diego (both 4.0%) all outpaced the national average.

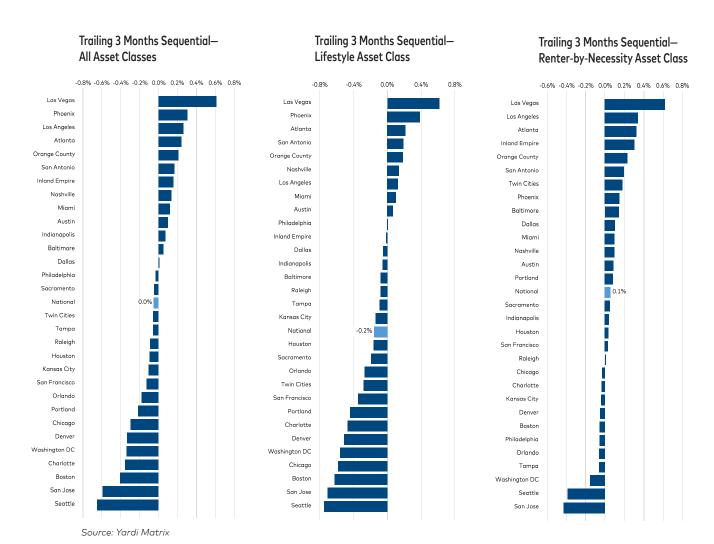


Trailing 3 Months: Only Warm Weather Metros See Rent Growth

- Rents were flat nationwide on a T-3 basis in November, showing further seasonal slowdown.
- Undersupplied Sunbelt metros grew, while rents in most major markets declined.

Rents were unchanged nationally on a trailing three-month (T-3) basis, which compares the last three months to the previous three months. The T-3 ranking demonstrates short-term changes and not necessarily long-term trends.

Seasonality continues to impact most major metros, although a few undersupplied, warmclimate markets such as Las Vegas (0.6% rent growth) and Phoenix (0.3%) remain outliers. Rents declined on a T-3 basis in most markets, and tech hubs including Seattle, San Jose (both -0.6%) and Boston (-0.4%) had the largest drops. Despite the slowdown, the seasonality effects portrayed in the T-3 figures represent normalcy and stability in the multifamily market. Deliveries have plateaued at a cycle high near 300,000 units in each of the past three years, and occupancy remains at or above 95% in most markets. Cooling rents in November and December reflect a historical trend in apartments.



Employment, Supply and Occupancy Trends; Forecast Rent Growth

- Capital trends in commercial real estate are likely to remain healthy, and multifamily stands to benefit.
- Lenders are discriminating among property types and trying to incorporate less risky asset classes into portfolios. That means more multifamily and industrial and less retail and niche property types.
- Lenders are acting much differently at this stage of the cycle than the last time around, when loan terms became ever more aggressive until the market collapsed. In the next downturn, debt sources will have much less capital at risk.



One of the strengths of the multifamily market in recent years is the availability of capital, especially debt. Despite some concerns about the durability of the economic expansion, the healthy capital environment should continue through 2019.

If anything, the worries might be working in favor of multifamily, as lenders are increasingly looking to book loans on less risky assets and property types. Plus, Fannie Mae and Freddie Mac have dominated the apartment debt market since the recession, which makes other lenders more eager to originate multifamily loans.

The Mortgage Bankers Association reports that lending on multifamily (and industrial) properties increased by 19% year-over-year in the third quarter, despite a 7% overall drop in commercial mortgage originations. They fell most on health-care properties (-55%), while lending on retail (28%), hotel (19%) and office (17%) also declined.

Life companies and the GSEs posted slight increases in lending. CMBS, whose bread and butter is loans in secondary markets and asset types, dropped 53% year-over-year, while commercial banks were down 22%, according to the MBA.

The decline in lending is more a reflection of demand than supply, as rising interest rates are

discouraging some borrowers from refinancing. Since bottoming at just over 2.0% in September 2017, the 10-year Treasury has increased steadily and has been over 3.0% since mid-September. That has increased loan coupons, although loan spreads have generally come down 40 to 50 basis points over the past year, so the cost of borrowing has not risen as much as interest rates. Tightening loan spreads reflect lenders' healthy appetite.

One way that borrowers are exercising caution is increasing demand for floating-rate loans relative to fixed rate. Floating-rate loans provide borrowers with more flexibility to sell or refinance. Some borrowers are paying for interest rate caps that provide certainty for debt-service payments while giving them the flexibility they desire.

The growth of floating-rate deals has been a boon to debt funds at the expense of commercial banks and CMBS. Debt funds are taking market share from commercial banks for construction and redevelopment loans. CMBS, meanwhile, is seeing less demand for medium-size fixed-rate conduit loans.

Lenders are competing hard on pricing, offering more interest-only periods and easing some covenants, but are keeping leverage at 60-70% and requiring significant equity stakes from borrowers.

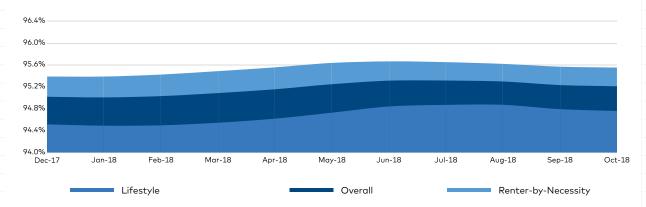
Employment, Supply and Occupancy Trends; Forecast Rent Growth

Market	YoY Rent Growth as of Nov- 18	Forecast Rent Growth (YE 2019)	YoY Job Growth (6-mo. moving avg.) as of Oct - 18	Completions as % of Total Stock as of Nov - 18	Occupancy Rates as of Oct - 17	Occupancy Rates as of Oct - 18
San Jose	5.0%	2.5%	3.3%	1.3%	95.9%	95.8%
Orlando	5.2%	4.1%	3.8%	3.1%	95.8%	95.5%
Phoenix	6.6%	4.0%	3.3%	2.7%	94.7%	95.3%
Seattle	2.4%	4.1%	3.4%	3.9%	95.3%	95.4%
Charlotte	2.0%	2.5%	2.7%	4.1%	95.3%	95.0%
Chicago	2.5%	2.5%	0.8%	2.2%	94.8%	94.6%
nland Empire	5.4%	4.6%	3.3%	0.3%	95.9%	96.1%
Sacramento	3.8%	6.5%	1.7%	0.9%	96.6%	96.3%
Boston	3.2%	2.8%	1.7%	3.2%	96.3%	96.4%
_as Vegas	7.3%	4.1%	3.4%	1.9%	94.7%	95.5%
Atlanta	5.4%	3.5%	1.9%	2.0%	94.3%	94.4%
Гатра	3.9%	3.4%	2.6%	1.8%	95.3%	95.5%
San Francisco	4.0%	2.7%	1.7%	1.4%	95.9%	96.1%
win Cities	3.4%	3.7%	1.7%	2.5%	97.5%	97.2%
os Angeles	4.2%	4.2%	1.4%	1.6%	96.7%	96.6%
Denver	2.8%	3.4%	2.9%	4.9%	95.0%	95.2%
Portland	2.6%	2.0%	2.2%	2.9%	95.3%	95.7%
Austin	3.5%	2.1%	3.4%	5.0%	94.1%	94.9%
Washington DC	1.8%	1.3%	1.7%	2.2%	95.2%	95.5%
ndianapolis	3.4%	3.3%	1.6%	0.8%	94.3%	94.5%
Raleigh	3.0%	3.5%	2.8%	3.7%	94.6%	95.0%
Nashville	2.6%	2.0%	2.0%	6.5%	94.8%	94.8%
Miami Metro	3.4%	2.2%	1.8%	4.2%	95.2%	94.9%
Philadelphia	2.9%	2.3%	1.6%	1.4%	95.4%	95.6%
Dallas	2.1%	4.4%	3.2%	3.6%	94.8%	94.6%
Kansas City	1.6%	2.3%	1.9%	2.1%	95.0%	95.1%
San Antonio	2.2%	1.9%	1.5%	3.5%	93.0%	93.4%
Baltimore	2.0%	1.3%	1.7%	2.0%	94.5%	94.6%
Houston	1.3%	2.4%	3.3%	1.7%	93.6%	93.3%
Orange County	2.0%	3.5%	0.9%	2.1%	96.1%	96.0%

Source: Yardi Matrix

Occupancy & Asset Classes

Occupancy—All Asset Classes by Month



Source: Yardi Matrix

Year-Over-Year Rent Growth, Other Markets

	November 2018				
Market	Overall	Lifestyle	Renter-by-Necessity		
Reno	8.3%	5.1%	10.9%		
Central Valley	5.1%	5.5%	5.2%		
Tacoma	5.0%	5.0%	4.8%		
Tucson	4.8%	4.9%	4.9%		
San Fernando Valley	4.6%	3.3%	5.4%		
NC Triad	4.6%	4.8%	4.5%		
Salt Lake City	3.8%	2.2%	5.3%		
El Paso	3.6%	2.6%	4.0%		
ndianapolis	3.4%	3.0%	3.4%		
Albuquerque	3.4%	4.6%	2.6%		
SW Florida Coast	3.2%	2.0%	5.1%		
Long Island	2.7%	2.6%	2.7%		
Northern New Jersey	2.1%	1.8%	2.3%		
Colorado Springs	2.0%	0.6%	3.0%		
Louisville	1.9%	1.4%	2.3%		
Bridgeport - New Haven	1.7%	0.5%	2.5%		
St. Louis	1.2%	0.9%	1.2%		
Central East Texas	-0.5%	-1.8%	0.0%		

Source: Yardi Matrix

Market Rent Growth by Asset Class

Atlanta Boston 12% 12% 10% 8% 8% 6% 4% 4% 2% 2% 0% 0% -2% -4% 11/1/14 11/1/15 11/1/16 11/1/17 11/1/18 11/1/14 11/1/15 11/1/16 11/1/17 11/1/18 Denver **Dallas** 12% 12% 10% 10% 6% 6% 2% 2% 0% -2% -2% -4% 11/1/14 11/1/14 11/1/18 11/1/15 11/1/16 11/1/17 11/1/18 11/1/15 11/1/16 11/1/17 Houston **Inland Empire** 12% 12% 10% 6% 4% 2% 2% 0% 0% -2% 11/1/14 11/1/15 11/1/16 11/1/17 11/1/18 11/1/14 11/1/15 11/1/16 11/1/17 11/1/18

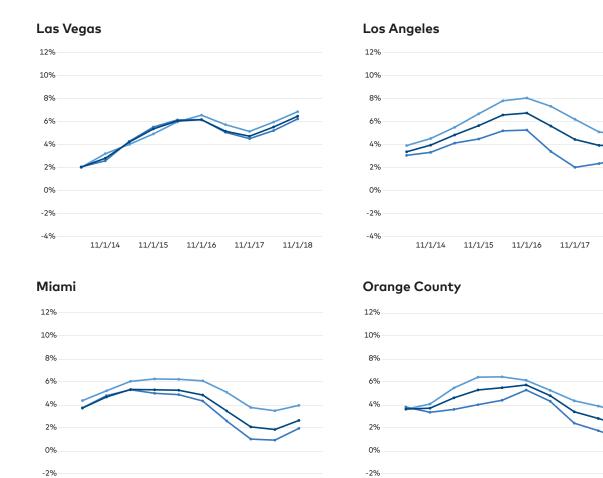
Source: Yardi Matrix

Trailing 12 Months Overall

Trailing 12 Months Lifestyle

Trailing 12 Months Renter-by-Necessity

Market Rent Growth by Asset Class



Orlando 12% 10% 8% 6% 0% -2%

11/1/16

11/1/17

11/1/18



11/1/14

11/1/15

11/1/16

11/1/17

11/1/18

11/1/18

Source: Yardi Matrix

11/1/14

11/1/15

Trailing 12 Months Overall

11/1/14

11/1/15

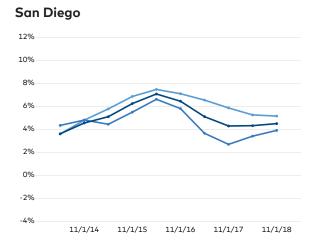
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11/1/17

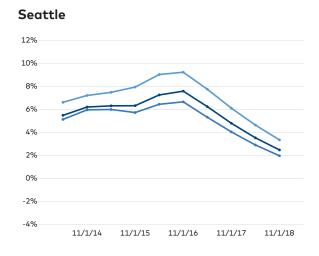
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Market Rent Growth by Asset Class

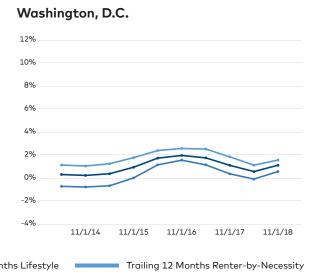
Sacramento 12% 10% 8% 6% 4% 2% 0% -2% -4% 11/1/14 11/1/15 11/1/16 11/1/17 11/1/18











Source: Yardi Matrix

Definitions

Lifestyle households (renters by choice) have wealth sufficient to own but have chosen to rent. Discretionary households, most typically a retired couple or single professional, have chosen the flexibility associated with renting over the obligations of ownership.

Renter-by-Necessity households span a range. In descending order, household types can be:

- A young-professional, double-income-no-kids household with substantial income but without wealth needed to acquire a home or condominium;
- Students, who also may span a range of income capability, extending from affluent to barely getting by;
- Lower-middle-income ("gray-collar") households, composed of office workers, police officers, firefighters, technical workers, teachers, etc.;
- Blue-collar households, which may barely meet rent demands each month and likely pay a disproportionate share of their income toward rent;
- Subsidized households, which pay a percentage of household income in rent, with the balance of rent paid through a governmental agency subsidy. Subsidized households, while typically low-income, may extend to middle-income households in some high-cost markets, such as New York City;
- Military households, subject to frequency of relocation.

These differences can weigh heavily in determining a property's ability to attract specific renter market segments. The five-star resort serves a very different market than the down-and-outer motel. Apartments are distinguished similarly, but distinctions are often not clearly definitive without investigation. The Yardi® Matrix Context rating eliminates that requirement, designating property market positions as:

Market Position	Improvement Ratings		
Discretionary	A+ / A		
High Mid-Range	A- / B+		
Low Mid-Range	B / B-		
Workforce	C+ / C / C- / D		

The value in application of the Yardi® Matrix Context rating is that standardized data provides consistency; information is more meaningful because there is less uncertainty. The user can move faster and more efficiently, with more accurate end results.

The Yardi® Matrix Context rating is not intended as a final word concerning a property's status—either improvements or location. Rather, the result provides reasonable consistency for comparing one property with another through reference to a consistently applied standard.

To learn more about Yardi $^\circ$ Matrix and subscribing, please visit www.yardimatrix.com or call Ron Brock, Jr., at 480-663-1149 x2404.

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