Yardi® Matrix

U.S. Multifamily Outlook

Spring 2018

Performance In an Aging Cycle

South, West Lead Nation in Rent Growth

Construction Hitches Push Supply into 2019

Investors Look To Place Equity, Debt

Market Analysis

Spring 2018

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Multifamily Still Solid, But Worries Mount as Cycle Ages

Despite a fair number of headwinds that include decelerating rent gains, growing supply, the advanced age of the economic cycle and the increase in interest rates, the multifamily market remains in a healthy state. Overall demand continues to be bolstered by positive demographic drivers and the consistent growth in jobs that has kept the nation near full employment.

With no signs that the economy is about to slow down, the apartment market is in a good spot, although the heady days from earlier in the cycle are past. We expect U.S. rent growth will remain moderate overall, led by growing Southern and Western metros in which supply growth has not gotten too far ahead of demand.

Economy: The economy remains healthy and growing.

- GDP growth clocked in at 2.3 percent for 2017 and first quarter 2018.
- More than 200,000 jobs have been added per month thus far in 2018.
- Consumers are confident, as tax cuts will increase income, despite stagnant wage growth.
- Long-term fiscal issues are a likely result of short-term benefits.

Rents: Supply/demand fundamentals and the steady economy point to solid rent growth in most metros.

- Rents are forecast to increase 2.9% nationwide in 2018.
- The fastest rent growth is in late-stage markets in the South and West.
- Affordability and new deliveries prevent increases from being higher.

Supply: Deliveries continue, but have begun to plateau after topping 300,000 in 2016 and 2017.

- Roughly 625,000 units are currently under construction.
- Completions are likely to remain in a range similar to the last few years.
- Development has been slowed by construction delays due to worker shortages and rising materials costs.

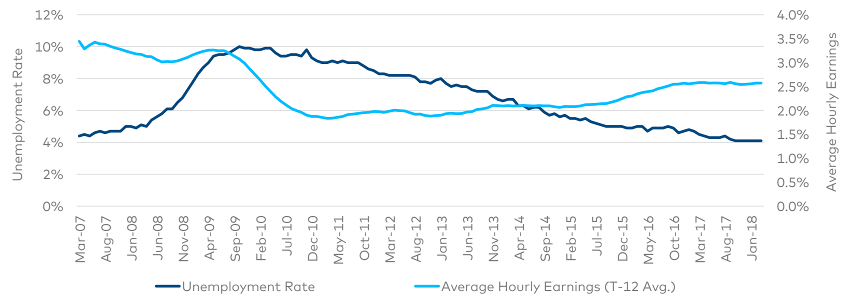
Capital Markets: Commercial real estate continues to thrive on an overabundance of capital flowing into the industry.

- Institutions remain attracted to healthy dividends.
- Money is flowing as much as ever into debt and equity funds, although developers are beginning to show hesitation due to rising costs.
- Due to steady cash-flow history, multifamily remains a favored class within the industry.

Economic Outlook

Increases in interest rates and mildly disappointing first-quarter GDP growth have led to some concerns that the economic cycle is running on fumes, but underlying U.S. economic fundamentals remain steady. Employment continues its upward trajectory, with 164,000 new jobs created in April and more than 800,000 added in 2018 to date. Given that the unemployment rate has steadily declined to 3.9%, the continued job growth is a surprising and welcome sign for the economy.

Unemployment Continues to Fall, Wages to Moderate



Source: Bureau of Labor Statistics

Wage growth, which remains below 3%, has shown some positive signs, but has yet to break out into inflationary levels. However, while wages may not have increased significantly, most Americans received an added boost to their paychecks in early 2018 as the Tax Cuts and Jobs Act went into effect.

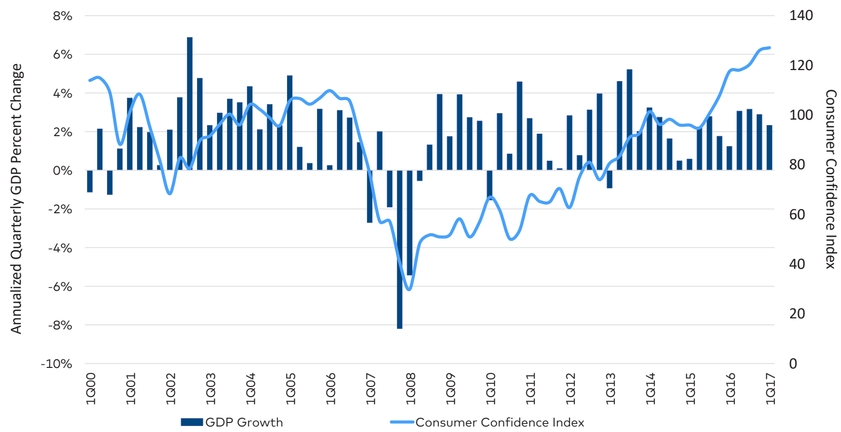
The reduced taxes, combined with a red-hot equity market in January and February and the continued upward movement in home prices, have left consumers feeling confident. The Consumer Confidence Index reached an 18-year high in February, although it retreated slightly in March. However, initial consumer spending numbers for first quarter 2018 were disappointing—up 1.1 percent year-over-year, the weakest quarterly growth since 2013.

First-quarter 2018 GDP rose 2.3 percent, down 60 basis points from the prior quarter but also the highest first-quarter growth number in several years. Full-year 2017 GDP growth was also 2.3 percent. Most of the gains in 2017 were driven by business investment and exports, however, and both may be at risk, as new tariffs and restrictive trade policies are on the table. The tax cut may help drive business investment, but the benefit from tax reductions will likely have a diminishing return for businesses throughout the next few years. It remains too soon to determine the impact of the tax cuts passed by Congress in December 2017, but growth should be 40 to 60 basis points higher in 2018.

Market volatility has increased, as the good feelings about lower corporate taxes were mitigated to some degree by President Trump's foray into tariffs on aluminum and steel and the prospects of a trade war between the United States and China intensified. The tariffs remain somewhat symbolic, as some of the U.S.'s major trade partners will be exempted and the date for the tariffs to take effect has been pushed back to June, but markets have bounced around based on day-to-day developments. Oil prices have started to rise, which could diminish some of the capital available to consumers and help push inflation over the Federal Reserve's 2 percent target.

Maybe the biggest concern for commercial real estate is the impact of rising interest rates, as the 10-year Treasury rate started May flirting with 3 percent, the highest it has been in several years. With a rising federal deficit, a more hawkish Federal Reserve and higher growth anticipated, rates are more likely moving up than down. That could drive up the cost of debt and depress REIT stock prices.

Consumer Confidence Accelerates as GDP Grows



Sources: Conference Board, Bureau of Economic Analysis

While the financial markets may stagnate for the foreseeable future, we expect to see continued steady job growth, which will put downward pressure on the unemployment rate. Workers continue to come off the sidelines and enter the labor force, increasing the participation rate and driving down the underemployment (U-6) rate. As these trends persist, expect wages to continue rising, which may finally force overall inflation upward as well.

Rent Growth Trends

After stagnating over the winter, rent growth has picked up in the spring, a good sign that the cycle has not run out of steam. With the economy continuing to perform well, adding more than 180,000 jobs per month, demand remains healthy.

Gains are led by the late-cycle markets such as Orlando, Tampa, Las Vegas and Phoenix. Some high-growth Western tech markets—such as San Jose, Seattle, Denver and San Francisco, where rent increases had decelerated the most between the frothy period in 2015 and the end of 2017—have once again perked up. Improvements are smaller in slow-growth Northeast and Midwest metros, and in high-growth markets such as Nashville, Austin and Raleigh that are trying to absorb a greater level of new deliveries.

Metros	2018 Rent Forecast % Change	YoY Change 2018 Indexed Rents March 2018
National	2.9%	2.3%
Sacramento	7.2%	6.4%
Tacoma	6.6%	7.0%
Colorado Springs	6.5%	4.8%
Phoenix	5.0%	4.3%
Inland Empire	4.9%	4.4%
Salt Lake City	4.9%	3.8%
Las Vegas	4.8%	5.2%
Seattle	4.8%	2.5%
Los Angeles	4.7%	3.9%
Orlando	4.5%	7.0%
Dallas	4.4%	2.0%
Columbus	4.3%	3.1%
Jacksonville	4.1%	4.4%
Tampa–St Petersburg	3.7%	4.2%
Atlanta	3.7%	3.1%
Twin Cities	3.7%	3.2%
Raleigh	3.5%	1.5%
Long Island	3.5%	3.9%
San Diego	3.5%	4.4%
Tucson	3.5%	4.2%

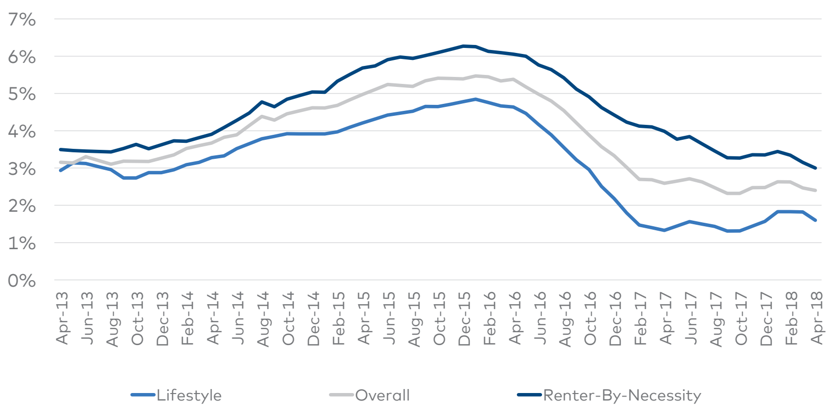
Source: Yardi Matrix

Nationally, rent growth has settled into the 2.5 percent range, and we expect the momentum will pick up over the summer. Our forecast is for rents to appreciate 2.9% in 2018, slightly above initial forecasts for the year. That rate is still relatively tame compared to some of the highs we've seen over parts of the cycle.

Demand continues to be strong, but rent increases will be constrained by the amount of supply that has led to a roughly 80-basis-point drop in the occupancy rate over the last year. Metros with the biggest drop in occupancies—Nashville, Portland and Seattle, all down 160 basis points year-over-year through March—have seen severe moderation in rent growth. Still, the occupancy rate remains above historical averages, and more housing stock is needed in many markets. Another constraint on rents is affordability, which is a problem in gateway markets such as New York, San Francisco and Washington, D.C. Meanwhile, smaller markets are leading growth, thanks mostly to the spillover effect from major technology-driven economies—such as Tacoma (7.1%), Sacramento (6.8%) and Colorado Springs (5.0%).

At a time when rents are finally inching upward after a lengthy interval of middling performance, there has been significant shuffling at the top of our rent growth rankings. Although still improving at a very quick rate, Sacramento has yielded its position as the top market for rent growth to

Orlando this spring, following a 21-month run during which the capital of California led all major metros in rent gains. Orlando rents had risen 7.2% year-over-year as of April, leading the nation in rent growth for the first time this cycle.



Source: Yardi Matrix

While Houston's post-Harvey recovery efforts, combined with a stabilization in the city's energy sector, have yielded a resurgence for the multifamily market, New York City will likely continue to see a slide in rents—of about 1.0%. Significant inventory growth in both rentals and condos across the five boroughs has led to rents flattening over the past few quarters, with New York City the only major metro where depreciation is expected in 2018.

Supply

Development activity continues to be strong, although deliveries might not reach the 300,000-plus units that were completed in the last two years, as a large swath of projects are likely to be pushed into 2019. We expect roughly 290,000 units to be delivered this year—an increase in total stock of 2.2%. Some metros will experience a peak in inventory expansion, while others will taper from peaks earlier in the cycle.

With more than 625,000 units under construction nationally, construction activity isn't sluggish. However, many projects are taking longer to be completed due to construction worker labor shortages and rising materials costs. The end result is that instead of deliveries peaking in 2018, we are more likely to see a consistent number of units come online this year and next.

Metros	Total Inventory as of 4/18	2018 Forecast Completions	2018 Completions % Change
National–All Markets	13,311,250	290,000	2.2%
Dallas	708,010	16,619	2.3%
Denver	250,403	16,107	6.4%
New York City	544,764	14,040	2.6%
Miami	274,720	11,520	4.2%
Phoenix	294,092	11,354	3.9%
Washington, D.C.	508,492	10,699	2.1%
Atlanta	424,386	10,354	2.4%
Chicago	332,280	10,197	3.1%
Los Angeles	409,138	10,077	2.5%
Seattle	230,454	9,790	4.2%
Austin	218,695	8,472	3.9%
San Francisco	247,932	7,127	2.9%
Houston	628,510	6,475	1.0%
Charlotte	162,106	5,861	3.6%
Raleigh	145,422	5,601	3.9%
Nashville	123,820	5,426	4.4%
San Diego	180,425	5,221	2.9%
Salt Lake City	93,183	5,109	5.5%
Boston	213,862	4,876	2.3%
San Jose	122,812	4,857	4.0%

Source: Yardi Matrix

Demand remains strong, as does the need for housing in some high-growth metros. But developers are being more cautious as the cost of land, labor and materials rises, and due to signs that some markets have a glut of new luxury units. Even single-family housing has started to pick up, as both starts and permits recently hit cycle highs, accoring to U.S. Census data.

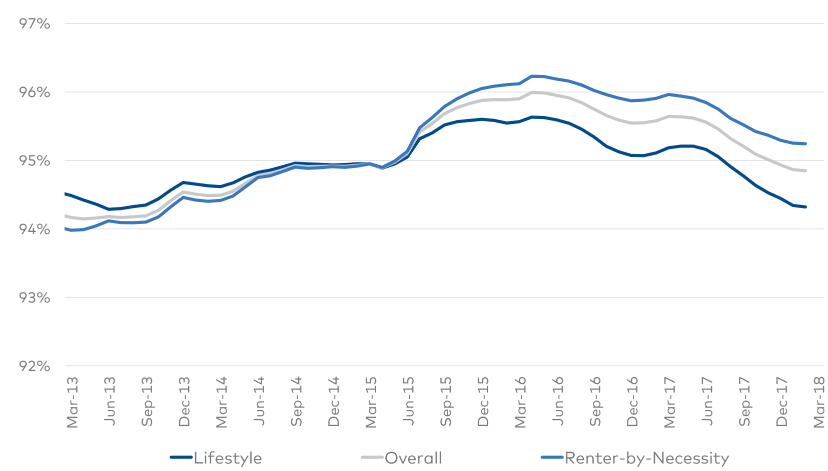
Multifamily inventory growth is highest in the Sunbelt and Western U.S. markets. Dallas and Denver—each with more than 16,000 units scheduled for delivery in 2018—are leading the way as demand there continues to be robust. Both markets have some of the strongest rates of employment growth and below-average unemployment rates.

Meanwhile, some high-volume markets where development has been rampant are now tapering, leading to a slide in overall stock expansion. Washington, D.C. (2016 cycle high of 16,000 units; 10,000 expected in 2018), Austin (more than 12,000 units delivered in 2016; 8,400 slated for completion in 2018) and Houston (18,000+ units added in both 2016 and 2017; 6,500 forecast this year) are among the metros illustrating that trend. Rent growth in these markets is likely to be below average in 2018 as incoming stock outpaces demand.

Because the overall number of deliveries this year is likely to be lower than originally expected and demand should remain elevated, development will roughly be in lockstep with the rate of new household creation. Nationally, the average occupancy rate of stabilized properties will continue to regress to the mean. As of March, the rate had slid yet again, at 94.8%, 80 basis points lower than it was 12 months ago.

Development continues to be almost exclusively in the luxury Lifestyle segment, which constitutes about 88 percent of deliveries, while demand is stronger in the working-class Renter-by-Necessity segment. That has led to a deepening average occupancy divide between assets in Lifestyle (94.3 percent) and Renter-by-Necessity (95.2 percent).

National Occupancy

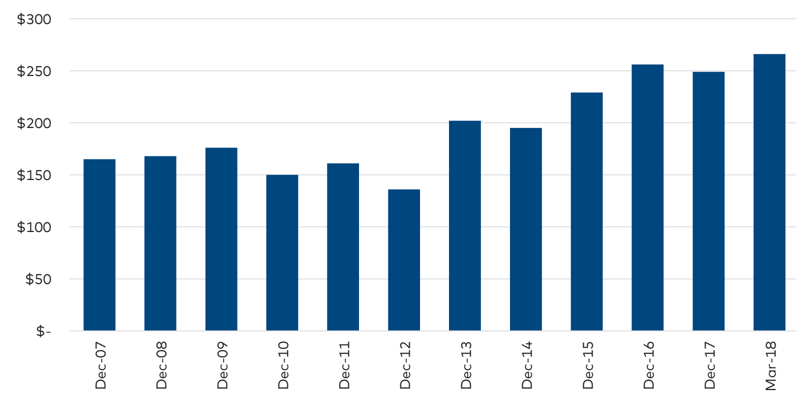


Source: Yardi Matrix

Capital Markets

Despite ongoing nervousness about rising interest rates, growing supply in some segments and weakening of income growth, capital flows into commercial real estate continue to be very strong. Although there is some pullback from capital sources—the public reduction of funds coming from China, for example—equity capital remains more than abundant and debt sources continue to grow.

Dry Powder Available to Real Estate Funds Globally
($ in billions)



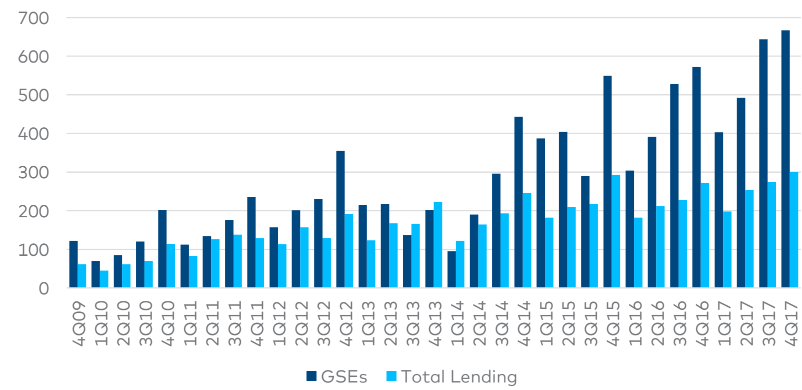
Source: Preqin

Prices have remained firm even as interest rates finally began their long-awaited increase, with 10-year Treasury rates moving closer to 3 percent after years of being nearer to 2 percent. One reason is the huge amount of undeployed capital waiting to be used, which is a record $266 billion globally, according to Preqin. The market is saturated with funds that have dry powder and unspent allocations. In part, that's because either they don't want to overpay or buying at today's low acquisition yields would leave them unable to meet return targets. Plus, many funds have specific strategies/return hurdles and there aren't enough assets on the market that thread some particular needles.

Some of the impacts of this development include:

- The amount of undeployed capital should keep cap rates low, despite market worries about whether the cycle is long in the tooth and rising interest rates. Even with some investors dropping out, there is still far more capital looking to buy than sell.
- Large blue-chip money managers that can find deals and execute strategies in any environment begin to look more attractive to institutions and will soak up a bigger share of investors' funds.
- More capital will be deployed in niche sectors and secondary/tertiary markets, where there is less competition for acquisitions.
- More funds are using debt strategies because they can achieve comparable returns to equity with less risk. It is also easier to find and win debt deals, since banks are avoiding riskier loans and CMBS is now less competitive on pricing for loans on B- and C-quality properties.

As of late April, REITs were down about 10% since late last year, mostly due to the increase in interest rates, the second-biggest decline in the post-Great Recession cycle. That has impacted REITs' ability to add through acquisitions and raises the threat of being acquired by private operators. REITs with development arms will find it makes more sense to build properties rather than buy. There is even talk that some REITs will convert to C-corporations because the tax advantage of the REIT structure is diminished by the lowering of the corporate tax rate to 21 percent.



Source: Mortgage Bankers Association

Another reason that prices are firm is that debt spreads are compressing, so the cost of debt is not moving in lockstep with the increases in Treasury rates. As of April, the 10-year Treasury has increased by about 50 basis points over the past 12 months, while the average cost of debt originated by the government-sponsored enterprises (GSEs) has increased only 25 basis points, according to PGIM. That means mortgage coupons are up roughly 25 basis points. However, the increase isn't big enough to affect pricing too much, especially since rates are so low by historical standards.

One reason for the compression is competition in the debt space, especially for multifamily loans. A growing number of institutional investors are channeling capital to debt funds as a way of diversifying risk. This late in the cycle, many funds deem it wise to issue debt and assume second-lien risk rather than execute an equity strategy that would leave them with first-lien risk and the possibility of greater and faster losses in the event of a downturn.

The result for borrowers is that interest-rate increases have not been quite as drastic as the headlines imply, although even the small increase in debt costs has made some deals harder to pencil, particularly those with low debt service coverage ratios.

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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, policemen, firemen, 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	Improvements 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® Matrix and subscribing, please visit www.yardimatrix.com or call Ron Brock, Jr., at 480-663-1149 x2404.

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