

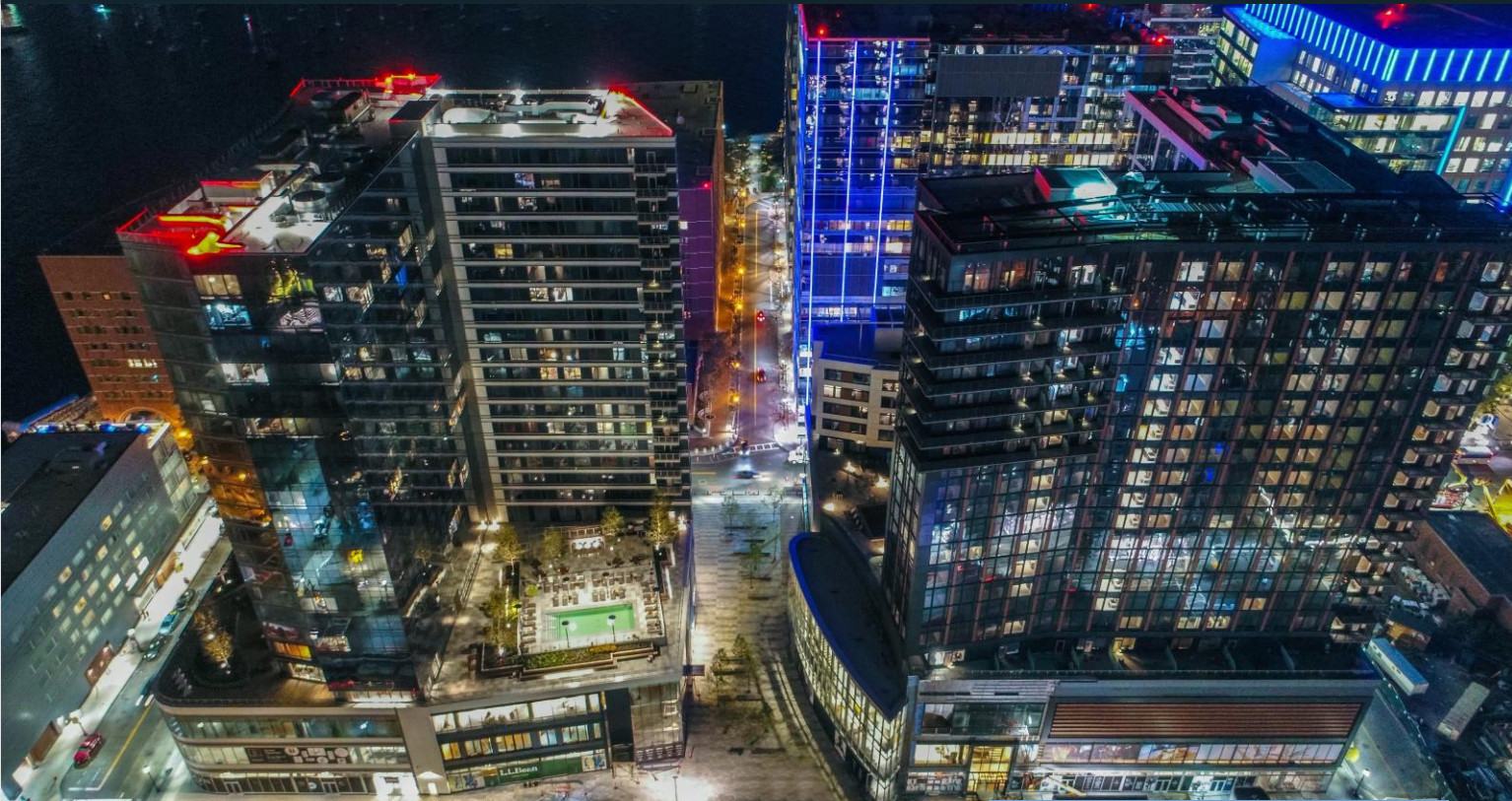


Berkshire

2019 U.S. Rental Housing Outlook: The Longest Expansion

A Berkshire Research Viewpoint

APRIL 2019

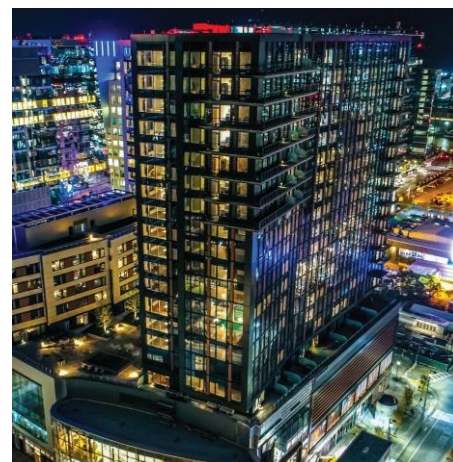


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2019 MULTIFAMILY INDICATORS

	Expectation	Momentum	Berkshire View
ECONOMY & HOUSING			
Job Growth	▼	Stable to Moderating	Job growth is expected to start moderating as the business cycle matures
Income Growth	▲	Expanding	With the labor market near full employment, income growth should continue to improve
Household Growth	▼	Stable to Moderating	Overall household growth remains constrained due to a record share of young adults living at home with parents
Home Price Growth	▼	Moderating	Home prices should continue rising but at a slower pace relative to last year; low housing affordability is becoming a more pronounced constraint on home sales
MULTIFAMILY FUNDAMENTALS			
Demand Growth	▼	Stable to Moderating	Demand grew at a near-record pace last year but is likely to moderate as job growth begins to slow
Supply Growth	▲	Expanding	Supply risk is rising but still relatively concentrated in Class A product
Vacancy Rate	▲	Bottoming	Vacancy rates should have moderate increases in most markets but remain near long-term average levels
Rent Growth	▼	Stable to Moderating	Effective rent growth should continue trailing consumer price inflation, supported by rising incomes and wages
CAPITAL FLOWS & PRICING			
Sales Volume	▼	Stable to Moderating	Apartment sales should remain healthy supported by new product as well as maturing debt
Cap Rates	▲	Stable to Bottoming	Cap rates are likely to stabilize and potentially edge slightly higher as long-term interest rates rise
Property Price Growth	▼	Stable to Moderating	After a period of record gains, the pace of property price growth is starting to moderate

Note:

The direction of the arrows reflects expected change in a given indicator compared to the prior year (orange color denotes potential for a more direct negative impact on operational performance and property appreciation).

OUTLOOK SCORECARD

	2019 Expectation		2018 Actual		2018 Expectation		Cycle Momentum
	Direction	Value	Direction	Value	Direction	Value	
Economy & Housing							
Job Growth	▼	2.1 mil.	▲	2.5 mil.	▲	2.3 mil.	Moderating
Income Growth	▲	3.2%	▲	3.0%	▲	3.0%	Expanding
Household Growth	▲	1.1 mil.	▲	1.5 mil.	▲	1.1 mil.	Moderating
Home Price Growth	▼	4.0%	▼	5.1%	▼	4.5%	Moderating
Multifamily Fundamentals							
Demand Growth	▼	1.0%	▲	1.8%	▼	1.0%	Moderating
Supply Growth	▲	1.5%	▲	1.6%	▲	1.5%	Expanding
Vacancy Rate	▲	+50 bps	▼	-20 bps	▲	+50 bps	Bottoming
Rent Growth	▼	2.5%	▲	2.8%	▼	2.4%	Moderating
Capital Flows & Pricing							
Sales Volume	▼	\$130 bil.	▼	\$150 bil.	▼	\$130 bil.	Moderating
Cap Rate	▲	0/+10 bps	▼	-10 bps	▲	0/+10 bps	Bottoming
Property Price Growth	▼	5%	▼	9%	▼	5%	Moderating

Notes:

The direction of the arrows reflects expected or actual change in a given indicator compared to the prior year (orange color denotes potential for a more direct negative impact on operational performance and property appreciation).

The average vacancy rate across Berkshire's tracking markets is expected to increase from 4.8% in 2018 to 5.3% in 2019.

The average cap rate across Berkshire's tracking markets is expected to increase from 4.5% in 2018 to 4.6% in 2019.

EXECUTIVE SUMMARY

- The U.S. business cycle is maturing, and the present baseline scenario is that the current economic expansion will become the longest in the nation's history, despite multiple risks to the outlook.
- The labor market is at or near full employment by most measures, with wage and income growth continuing to improve. We expect a solid but slower pace of job growth with an annual gain of 2.1 million jobs, led by markets in the South and West regions.
- Aggregate housing demand improved in 2018 with all of the net growth driven by owner households as the homeownership rate edged up for the second year in a row. Despite a drop in broader rental demand driven by housing with 1 to 4 units, multifamily demand continued to expand at a near-record rate. Overall household growth should continue at a healthy pace in 2019, including gains in the rental segment.
- Rental housing remains undersupplied, with vacancy rates well below historical norms. We estimate that the aggregate shortage of rental units is currently about 500,000 units, including 200,000 units of multifamily, most of which is concentrated in the middle- and low-income segments.
- New multifamily supply is expected to edge higher in 2019, with national completions of about 370,000 units compared to about 350,000 last year. The multifamily market should remain balanced even with slower projected demand growth.
- Vacancy rates in most markets should remain near their historical norms and allow for slower but still healthy rent growth in the range of 1.0% to 3.0% across our tracked markets.
- Home prices outpaced income growth last year and this trend is expected to continue in 2019, contributing to lower home buying affordability and supporting growth in multifamily demand and rents.
- Investor demand for multifamily remains strong as evidenced by a record sales volume set last year. We expect the sales volume to edge down in 2019 to approximately \$130 billion—the average annual pace from 2012 to 2017.
- Apartment investment performance has remained stable in 2018 and we expect this will also be the case in 2019. Total unleveraged gross returns across the major tracked markets are expected to average 5.0% to 6.5% in 2019, with appreciation return averaging 0.0% to 2.5%. We also expect that senior housing returns will continue to moderate in 2019, likely moving towards the 6.5 to 7.0% range.

I have not been able to find any macroeconomic textbook that places real estate front and center, where it belongs.

Edward E. Leamer¹

The U.S. economic expansion is on a path to become the longest in the nation's history by mid-2019. The labor market is at full employment by most measures, wages and incomes are strengthening, personal consumption is robust, and inflationary pressures remain contained for now. At the same time, a recent drop in business confidence has become a concern. While there are certainly plenty of global and domestic risks to the outlook, the baseline scenario is that this cycle should continue.

Not surprisingly, many still wonder just how long this can last. Few of us, least of all macroeconomists, have perfect 20/20 vision into the future to answer this with certainty and without biases. As investors and managers of residential real estate, we tend to look at the broader economy through that lens: from our experience, housing *is* the business cycle. At market level, rental multifamily fundamentals often lead the local economy and recent operational performance across our portfolios of properties suggests at least one more year of growth.

Some of the main risks, but also opportunities, that we see in today's housing market are the related issues of affordability and major mismatches in the composition of demand and supply. Excluding seasonal and "held off-market" units, the aggregate housing vacancy rate is now at the lowest level in almost 30 years, which indicates a supply shortage. This is positive news regarding further growth in residential investing as well as the broader economy on which it depends. The challenge is whether households can afford to buy or rent the new housing that is under construction.

The levels of new residential units being built for sale are now two times the number being built for rent. There is some optimism among single-family developers regarding demand for their product given that the nation's homeownership rate has been edging higher over the last two years. Despite this increase, sales of new homes have showed no improvement and sales of existing homes have declined. Also, all of the drop in the total rental demand during this period has been driven by homes with 1 to 4 units, while multifamily rental demand growth accelerated to a near-record pace.

One of the factors behind these diverging trends is housing affordability. Over the last few years, the cost of buying a home has been rising much faster than income. In many major metro areas, households struggle to qualify for home loans to purchase median-priced homes. While multifamily rents have also been rising rapidly, their increase relative to income has been less severe. Wages and incomes would have to rise much more rapidly to catch up with the rising costs of homebuying, but this is not likely to happen this year.

Affordability pressures are also evident below the surface of the multifamily rental market. Higher-priced properties are still performing well but have lower occupancy relative to those that have lower rents. Most of the recent growth in rental demand has been driven by middle- and low-income households, while new supply continues to target upper-income renters. In virtually all the major markets that we track, the current vacancy rates are well below the cyclical averages, implying that there is plenty of room for additional new multifamily supply to be delivered, assuming it is the right kind of product. There are still opportunities to develop higher-end product in many areas, yet the middle market has greater potential for more sustainable rent growth at this stage in the cycle.

¹ "Housing IS the Business Cycle", Edward E. Leamer, NBER Working Paper, September 2007.

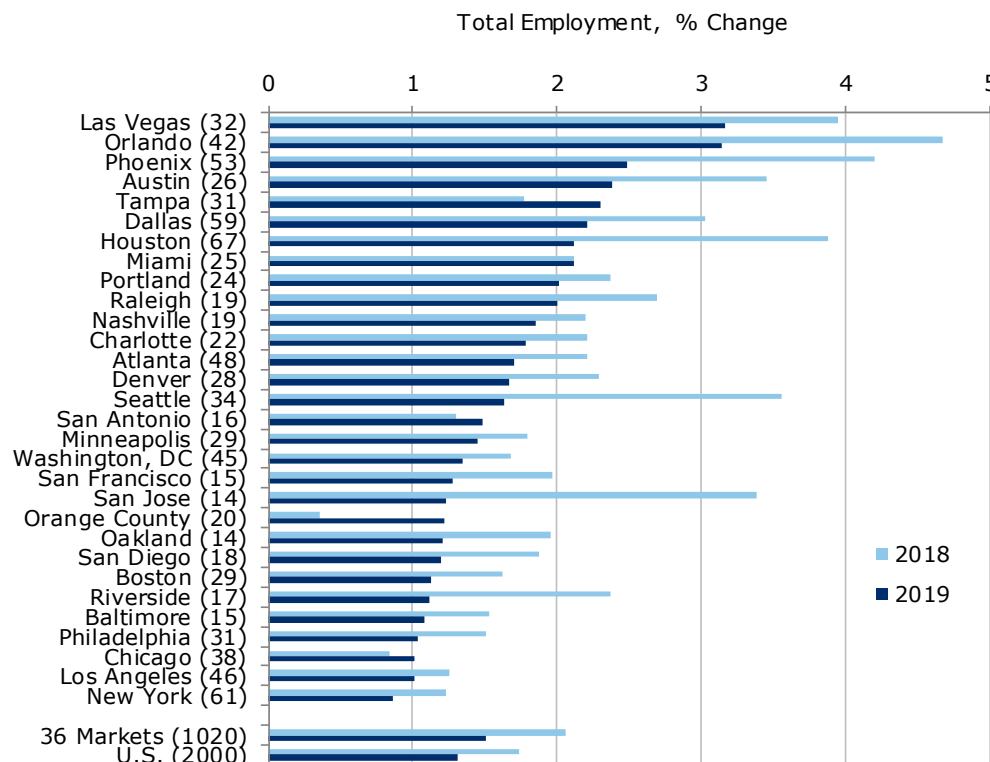
How quickly the housing market is able to resolve these imbalances is key to the duration of this cycle. The same mechanism applies to the labor market where the number of job openings is now at a record high and exceeds the number of unemployed by a wide margin. Sustainability of job growth, which in turn impacts housing demand, will depend on how closely the current strong demand for labor is matched by the available pool of applicants. One of the major indicators to follow over the next few months will be the unemployment rate. As long as unemployment stays at or below its current level, expansion is likely to continue. However, any tangible increase in the unemployment rate would be a signal that the cycle is turning.

Employment Growth

U.S. labor market growth picked up momentum, with a Q4 2018 year-over-year gain of 2.6 million jobs, or 1.7%, compared to 2.2 million in Q4 2017. Total job growth continues to be primarily driven by the professional and business services, and health and education sectors. Meanwhile, the nation's unemployment rate stood at 4.0% in January 2019, down slightly from a year ago but showing some signs of stabilization. Based on the baseline economic scenario, Berkshire Research expects a gain of 1.4%, or 2.1 million jobs, in 2019, which should help generate net absorption of approximately 200,000 rental multifamily units. Such growth in demand should be sufficient to keep the market relatively balanced amid moderately higher vacancy rates.

Most of Berkshire's tracked markets are expected to have slower job growth in 2019 relative to last year. Markets with the strongest projected job growth include Las Vegas, Orlando, Phoenix, Austin, Tampa, Dallas, and Houston, which should support rental multifamily demand in those markets—especially considering that some of these areas will also see increasing new supply.

Slower Job Growth is Expected for Most Markets in 2019



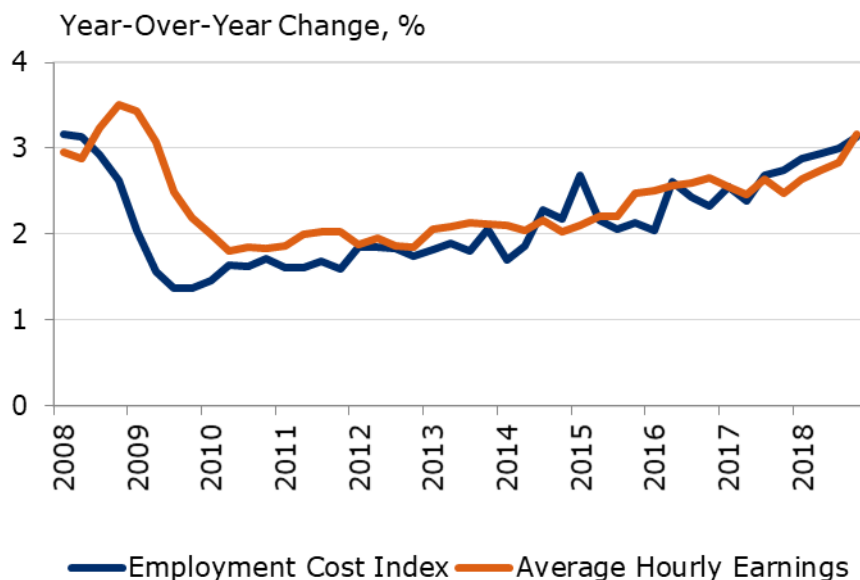
(*) Number in parentheses shows 2019 job growth in thousands.
Sources: Moody's Analytics, Berkshire Research.

Wage Growth

With the labor market nearing full employment, year-over-year growth in average hourly earnings in Q4 2018 edged up to 3.2% compared to 2.5% in Q4 2017. The employment cost index, another closely watched indicator, also showed steady improvement last year and is expected to continue the trend in 2019.

Improving wage and income trends are important elements of the outlook as they help to partially mitigate housing affordability concerns, including the rental segment. Considering that multifamily occupancy in most markets is close to full capacity, Berkshire believes local wage growth will be an increasingly important driver of rent growth.

Wage Growth is Trending Up

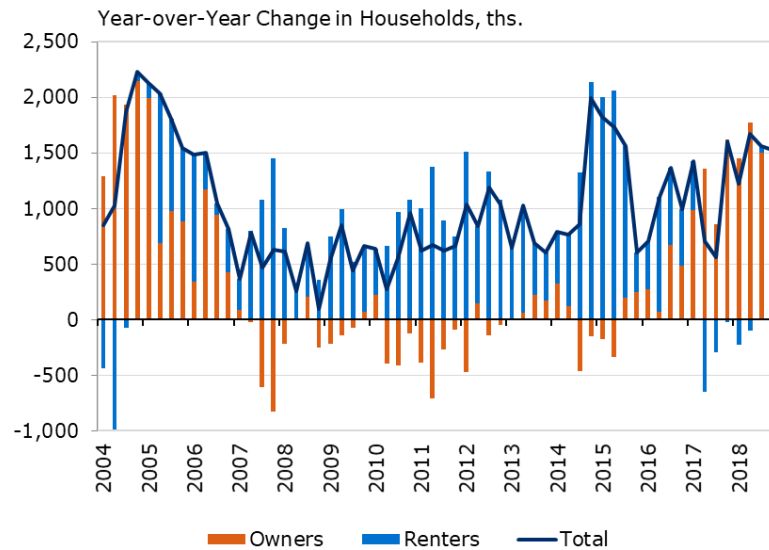


Sources: Federal Reserve, Berkshire Research.

Household Growth

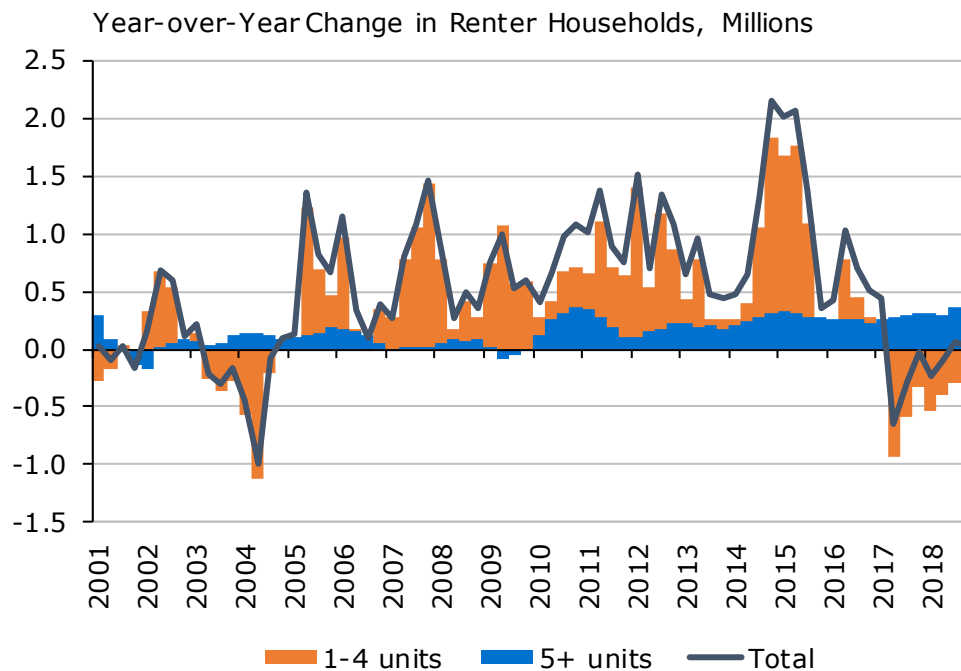
Total household growth expanded by 1.5 million in Q3 2018 on a year-over-year basis, keeping with the pace reached in Q4 2017. The homeowner segment was the primary beneficiary of this growth, gaining 1.7 million households, with the U.S. homeownership rate edging up to 64.8% in Q4 2018, about a 60 basis points gain relative to a year ago. Despite the year-over-year drop in broader rental demand of about 200,000 units (driven by housing with 1- to 4 units), multifamily demand continued to expand at a near-record pace and added 331,000 units on a year-over-year basis compared to 303,000 units as of Q4 2017. In 2019, Berkshire expects that the total number of households will grow by 1.3 million, with the rental market accounting for approximately 300,000 households, as the homeownership rate continues to stabilize and edge towards its long-term historical average of 65.2%.

Homeowners Drove Total Household Growth in 2018



Sources: Bureau of the Census, Berkshire Research.

Multifamily Rental Demand Grew at a Near Record Pace in 2018, While 1-4 Unit Rental Demand Has Contracted



Sources: Census Bureau, Berkshire Research.

New Housing Supply Growth

Total housing completions have kept the pace of the prior year at 1.2 million units, with multifamily (5+ units) completions edging down from 345,000 units in 2017 to 338,000 in 2018. Accounting for demolitions, effective growth in total housing supply has fallen slightly short of demand and the total average annual vacancy rate for all year-round housing units for sale and for rent edged down to 9.8% as a result.

Based on the current level of starts, new housing completions are expected to increase to about 1.25 million units in 2019, with about 370,000 units delivered in the multifamily segment. Given the shortage of the current rental supply and the outlook for solid job and household growth, we expect only moderate increases in rental vacancy rates as a result.

In the senior housing segment, the overall volume of units started in 2018 across primary and secondary markets came in at about 26,000 units, down from about 35,000 in 2017. This suggests that deliveries of senior housing product will likely edge lower in 2019, which should be a welcome trend in this part of the rental market where vacancy rates have been trending up over the last three years.

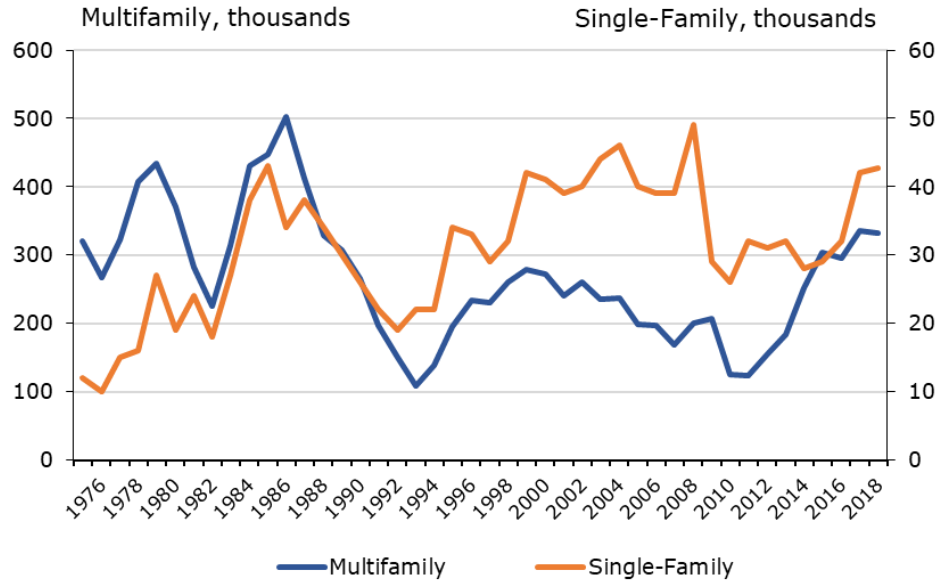
From the perspective of its intended use (i.e., for rent or for sale) rather than structure type, new supply has also largely kept the momentum in 2018, with rental single-family completions at 43,000 units and rental multifamily completions at 332,000 units. Judging by the number of units under construction, we expect new rental supply, including niche sectors such as student housing and manufactured housing, to generally keep the same pace or edge higher in 2019. As the charts below indicate, despite the historically high levels of new rental supply, the market remains very tight with rental vacancy rates remaining near record lows.

This is not necessarily the case in all niche sectors of rental housing. For example, average vacancy for most of the assisted living product, a sub-segment of senior housing, is now hovering near the highest rate in over a decade. With supply growth in this sub-segment expected to moderate in 2019, the vacancy pressure can potentially begin to subside.

Our research suggests that the current total rental supply deficit is about 500,000 units nationally, with most of it concentrated in the middle- and low-income tiers of the market.² The potential to fill this gap through new construction as well as own-to-rent conversions of existing housing inventory is particularly high in markets that were hit the hardest by the last housing bust and foreclosure crisis.

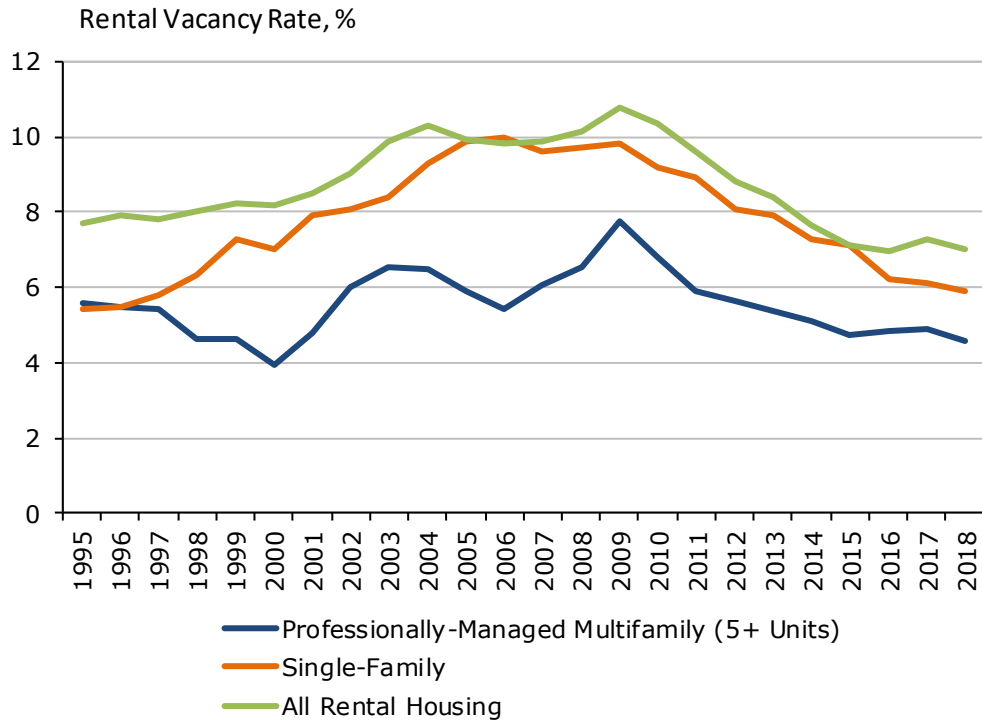
² “Growing Opportunity for Investing in Middle-Income Multifamily.” Berkshire Research Viewpoint, 2018

Rental Completions Edge Higher in 2018



Sources: Bureau of the Census, Berkshire Research.

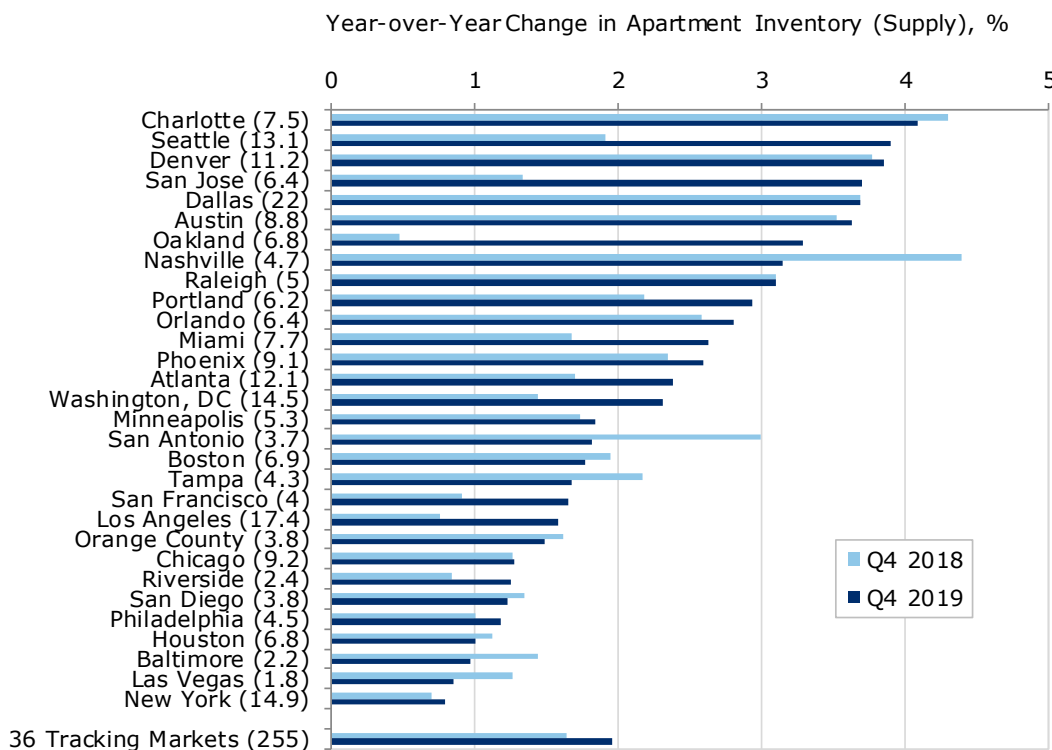
Rental Vacancy Rates Continued to Drop in 2018



Sources: Bureau of the Census, Berkshire Research.

Like 2018, there will be a wide variation in housing supply trends across markets that need to be carefully monitored in the context of local job growth, a key driver of demand particularly for rental multifamily. The most active markets for new multifamily development in 2019 include Charlotte, Seattle, Denver, San Jose, Dallas, Austin, Oakland, and Nashville, where apartment inventory is expected to increase by 3.0% to 4.0%, well above their projected job growth. While this trend by itself may not necessarily result in negative property performance in 2019, most of these markets are likely to experience upward pressure on vacancy and rental concessions. In contrast, near-term supply pressure is relatively low in Las Vegas, Baltimore, and Houston, which should help these markets maintain or potentially improve the current momentum in fundamentals.

Apartment Supply Growth Edges Higher in 2019



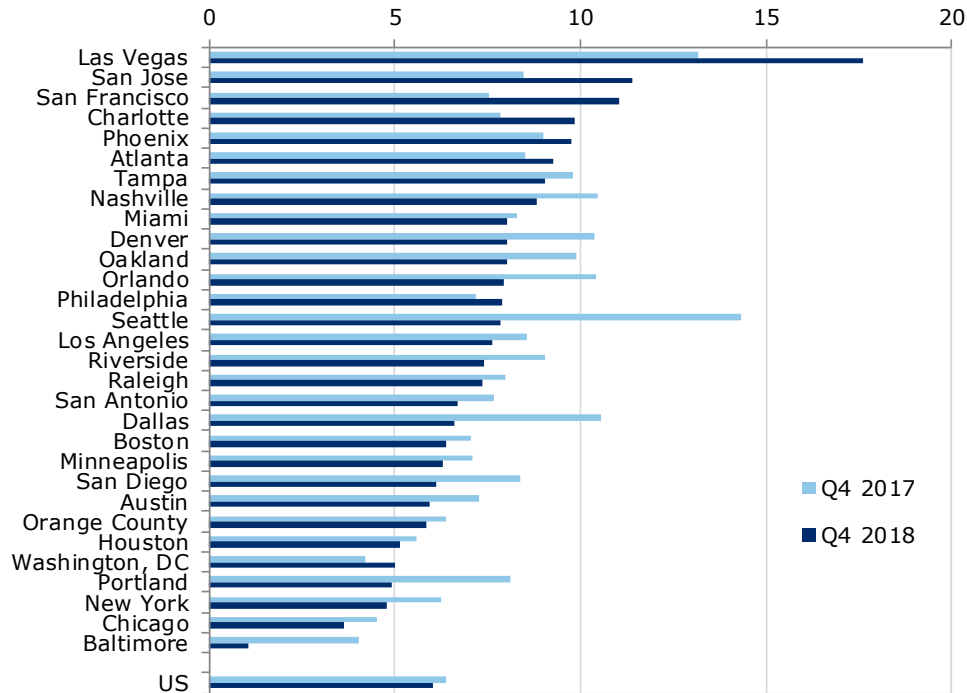
(*) numbers in parentheses show 2019 supply growth in thousands of units.
Sources: RealPage, Berkshire Research.

Home Price Growth

With homeowner demand strengthening and supply of homes for sale remaining low relative to actual sales, home prices continued to climb in 2018 but at a slower pace relative to 2017, which was consistent with our outlook from a year ago. Falling housing affordability is one of the factors constraining both sales and prices and this impact is expected to continue in 2019. The strong year-over-year home price appreciation reported in Las Vegas, San Jose, San Francisco, Charlotte, Phoenix, and Atlanta are supporting apartment demand in these markets and higher home prices should continue to put upward pressure on rents. Rising home prices in these and other markets, along with higher mortgage rates, will further reduce homeownership affordability and continue to stimulate rental demand. Home price appreciation has slowed down slightly in many larger markets compared to last year's pace and the boost to rents coming from home price appreciation is not expected to be as strong compared to 2018.

Home Price Appreciation Slowed Slightly in 2018

Year-over-Year Change in Home Price Index, %



Sources: FHFA, Berkshire Research.

Interest Rates

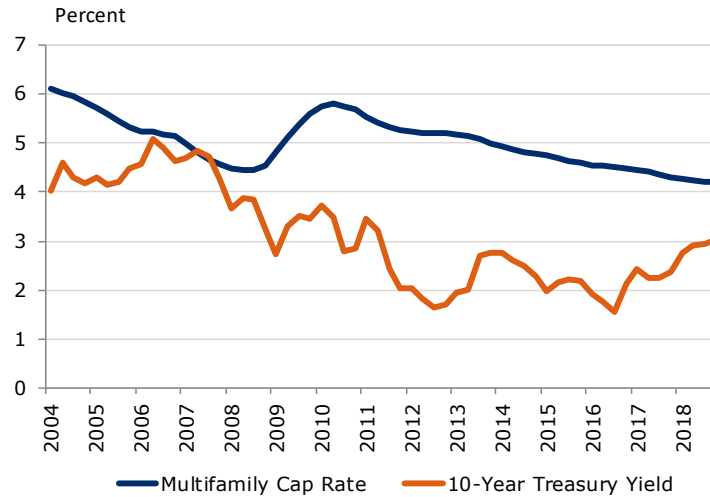
Multifamily cap rates are expected to be stable in 2019 if interest rates increase in line with expectations. So far, rising rates align with Berkshire's expectations from a year ago with the yield on the 10-year Treasury rate edging up from 2.4% in Q4 2017 to 3.0% in Q4 2018. Despite the drop in the 10-year Treasury rate from 3.2% in October of 2018 to 2.7% in January 2019, Berkshire still expects the 10-year Treasury rate to move into the 3.0% to 3.3% range in 2019, given our assumption of continuing economic growth and gradually rising inflation.

Meanwhile, the national appraisal-based cap rate for apartment properties in NCREIF averaged 4.2% in Q4 2018, or 10 basis points below levels one year ago. The cap rate spread relative to the 10-year Treasury rate has compressed to 116 basis points in Q4 2018 compared to a 236 basis points spread averaged over the 2008 to 2017 period. The spread of the 10-year Treasury is likely to continue compressing in 2019 but is still likely remain wider than near the peak of the last business cycle in 2006-2007.

While cap rates are lower than a year ago in most of the markets tracked by Berkshire, there was less compression in large metro areas, with the latest figures providing further evidence that cap rates are stabilizing. Most markets are expected to experience stabilizing cap rates in 2019. With growth in net operating income expected to remain positive, apartment values should continue rising, but at a slower pace than last year.

If 2019 short- and long-term interest rates and multifamily borrowing spreads rise in line with the expectations of stronger economic growth, the impact on the pricing of core institutional-quality apartment assets should be relatively small due to the offsetting effect of property income and investor demand. However, a potential increase in borrowing rates could affect pricing for buyers, especially those pursuing investments that require higher leverage.

Cap Rate Spread Relative to 10-Year Treasury Yield Expected to Compress Slightly in 2019



Sources: NCREIF, Berkshire Research.

Rising rates should create more investment opportunities as a significant volume of multifamily loans will be maturing in 2019, which will contribute to increased activity in sales, refinancing, and recapitalizations. Rising mortgage rates combined with rising home prices, property taxes and other costs such as insurance premiums will make homeownership less affordable. Additionally, federal income tax benefits that have incentivized homeownership for decades have been nearly eliminated by the Tax Cut and Jobs Act (TCJA), supporting rental demand but also affecting home price growth in many major markets where it is already lagging the national pace.

MULTIFAMILY TRENDS

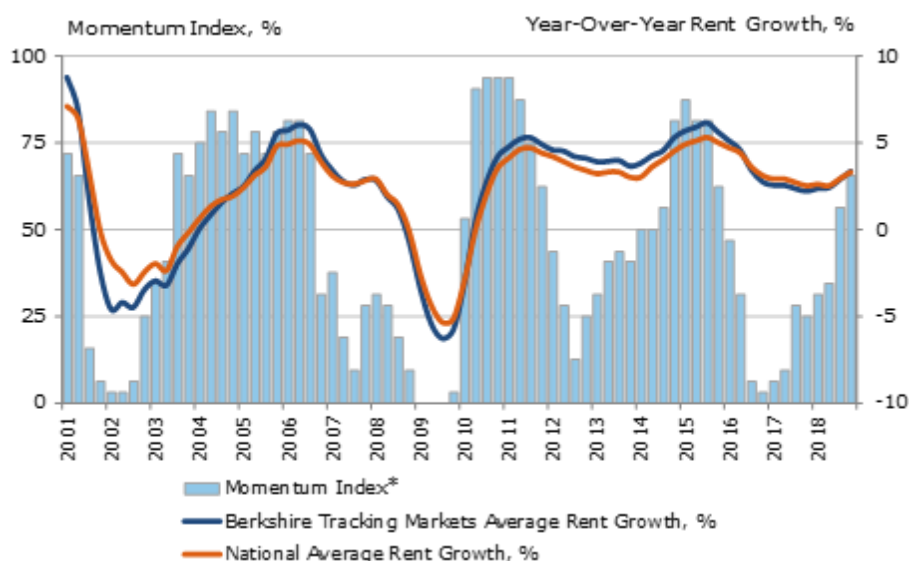
Vacancy and Rent Growth

Even after almost a decade-long expansion, multifamily market fundamentals regained momentum in 2018. The average vacancy rate across the 36 major markets tracked by Berkshire improved to 4.5% in Q4 2018 relative to 4.8% in Q4 2017 and remained below the 15-year average of 5.2%. Markets where current vacancy rates were particularly tight relative to historical norms include Phoenix, Orlando, Atlanta, Tampa, and Fort Worth. Berkshire expects that higher levels of new completions combined with a slower pace of job growth will likely lead to a moderate (typically ranging from 40 to 80 basis points) increase in 2019 across major markets.

The average effective year-over-year rent growth across Berkshire's 36 tracked markets has increased to 3.4% in Q4 2018 relative to 2.2% in Q4 2017. Rent growth fell within the range of 1.0% to 3.0% on a year-over-year basis for approximately half of the markets tracked by Berkshire. The strongest year-over-year rent growth was reported in Phoenix, Las Vegas, Orlando, San Diego, and San Jose. The weakest year-over-year rent growth was in Chicago, Newark, Dallas, Baltimore, and Houston.

Effective rent growth for 2019 is still expected to remain in the range of 1.0% to 3.0% across most of the tracked markets. Overall, continuing rent growth should support positive operational performance despite moderately higher vacancy rates.

Rent Growth Regained Momentum in 2018



* Share of target markets where rent growth is improving relative to a year ago
Sources: RealPage, Berkshire Research.

Capital Flows and Pricing

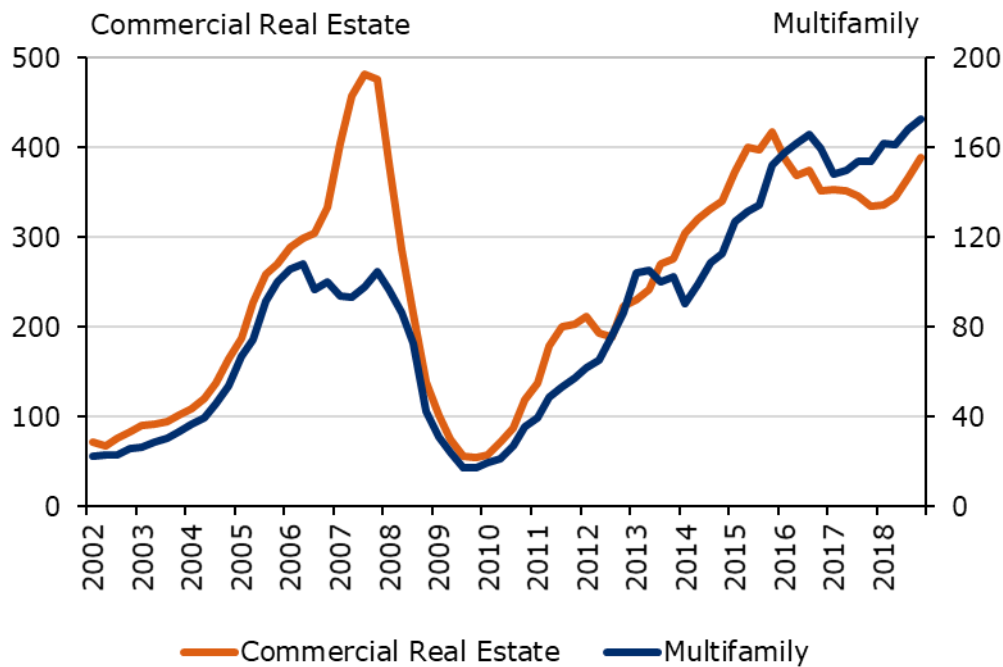
Apartment investment in the U.S. set new records in 2018 with an annual sales volume of \$173 billion as of Q4 2018 compared to \$154 billion in Q4 2017. Over 8,500 apartment properties, totaling approximately 1.2 million units, sold nationally. The share of annual sales volume accounted for by the six gateway markets³ edged up to 24% in 2018 from 20% in 2017. Meanwhile, investor demand for apartment assets in smaller markets with annual volume under \$1 billion remained strong.

Strong market fundamentals and investor demand keep pushing apartment prices to new records, with the Moody's/RCA CPPI index up 8.9% from a year ago as of December 2018. The apartment sector had the strongest growth in sale prices relative to all other major sectors and accounted for 31% of the total commercial real estate sales dollar volume, also ahead of other sectors.

Considering the strong investor demand for apartments and the amount of capital currently being allocated to the sector for 2019, Berkshire expects prices to continue rising this year although not as strongly as in 2018. Based on near-term income growth and current cap rates across targeted locations, there are likely to be attractive opportunities in 2019 to buy existing apartment properties adjacent to the central urban core of primary markets, well-located, high quality product in secondary markets, and high-density supply-constrained suburban locations.

³ Boston, Chicago, Los Angeles, New York, San Francisco and Washington, D.C.

Apartment Sales Volume Rebounded, Setting a New Record in 2018



Sources: Real Capital Analytics, Berkshire Research.

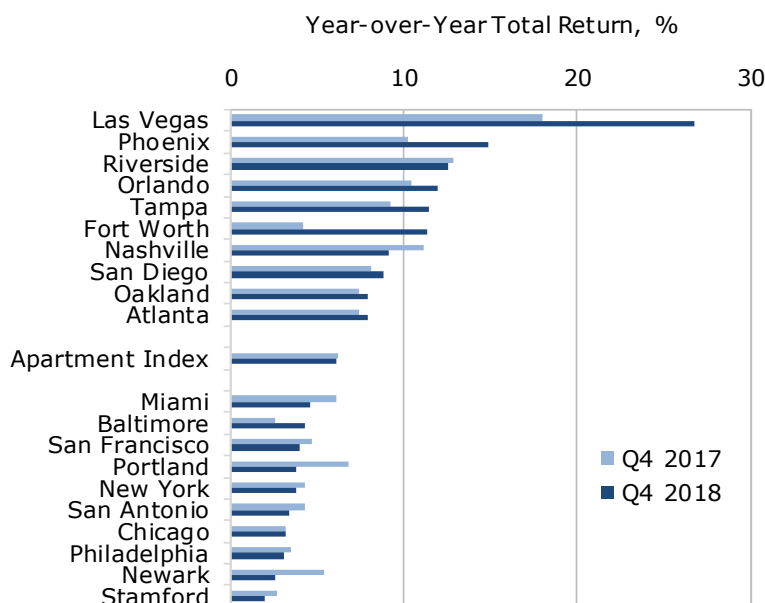
Investment Performance

Total unleveraged returns for apartment properties privately owned by institutional investors edged down from 6.2% in 2017 to 6.1% in 2018, with the income component accounting for over 70% of the total return. Same-store net operating income grew by 1.4% on a year-over-year basis in Q4 2018 compared to 0.8% a year prior, mainly due to a more rapid increase in operational expenses.

There was a wide variation in returns across various types of apartment properties and markets. Garden-style apartments continued to outperform high-rise product by a wide margin with 2018 total returns for the two sub-segments remaining at 8.9% and 4.7%, respectively. The year-over-year appreciation return for high-rises was just 0.7%, as many of the properties located within the central urban cores struggled with supply pressures.

The divergence in returns was even wider across locations. The table below shows last year's top 10 and bottom 10 performers among the major tracked markets. Las Vegas and Phoenix not only had the highest total returns in 2018 but have also showed considerable improvement relative to 2017, with Riverside, Orlando, Tampa, and Fort Worth not far behind. Meanwhile, most gateway markets continued to underperform the apartment index, particularly Chicago and New York.

Multifamily Returns Steady in 2018



Sources: NCREIF, Berkshire Research.

Past performance is neither a guarantee nor a prediction of future results.

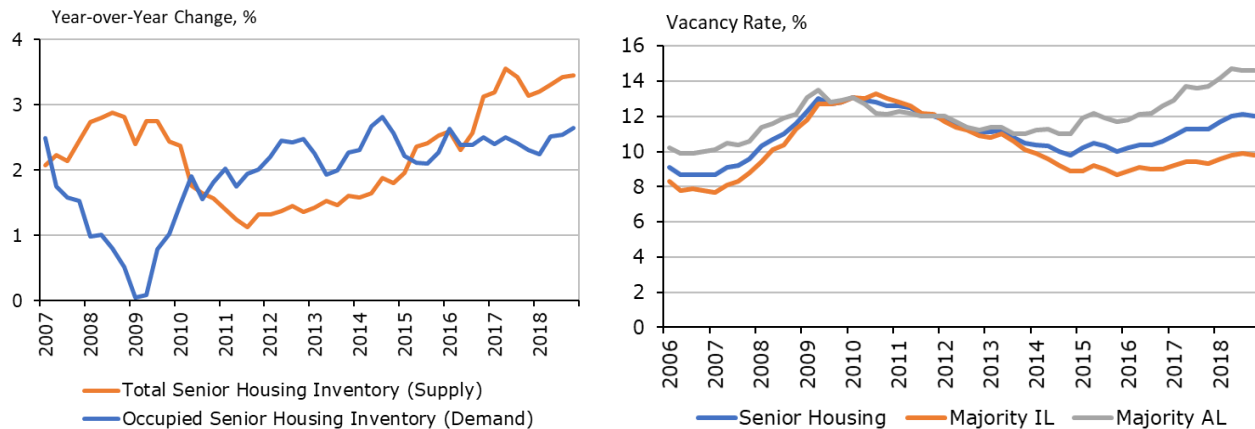
Total unleveraged gross returns across the tracked markets are expected to average 5.0% to 6.5% in 2019, with appreciation return averaging 0.0% to 2.5%.

SENIOR HOUSING TRENDS

Rapid growth in senior housing supply continued to pressure market performance in 2018. Across primary markets, supply grew by about 3.5% on a year-over-year basis as of Q4 2018, compared to 3.1% a year ago.⁴ Meanwhile, demand grew by only 2.7% and the overall vacancy rate for the segment edged up to 12.0% in Q4 2018 compared to 11.3% in Q4 2017. The vacancy increase was more pronounced in the majority Assisted Living (AL) sub-segment where the rate across primary markets ended the year at 14.6%, 90 basis points above the level a year ago and about 250 basis points above the 2008 to 2017 average. Meanwhile, the majority Independent Living (IL) sub-segment vacancy rate was at 9.6%, a 50-basis-point increase from a year ago but 90 basis points below its 2008 to 2017 average. The primary markets' average rent growth in the majority AL sub-segment slowed from 2.9% in 2017 to 2.6% in 2018 whereas it improved from 2.5% to 3.2% in the majority IL segment.

⁴ Sources: NIC Map Data Service, Berkshire Research.

Senior Housing Vacancy Rates Edged Up in 2018 As Supply Growth Rebounded



Sources: NIC Map Data Service, Berkshire Research.

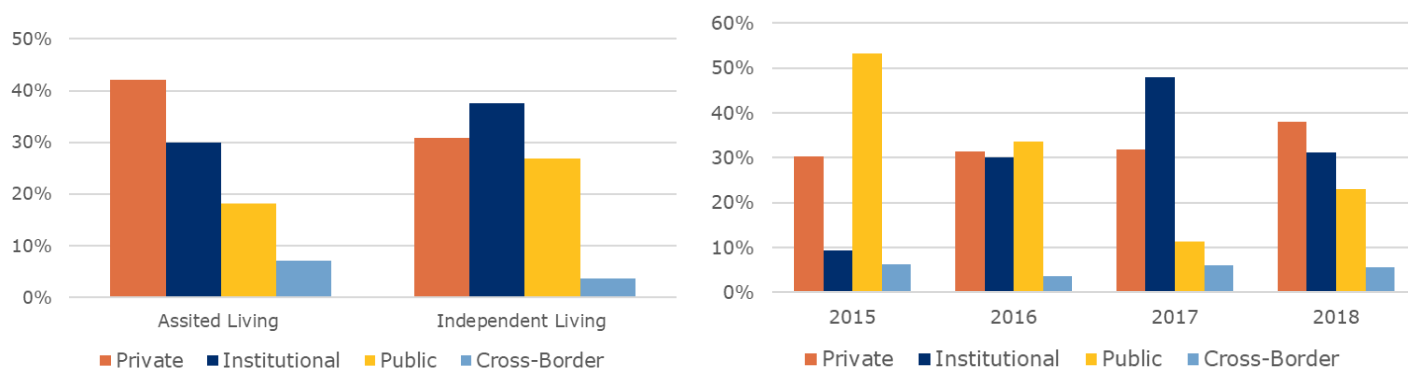
There was wide variation in supply/demand growth dynamics across the country. In about half of the major markets that we track, including most of the primary markets, total senior housing supply grew ahead of demand. Primary markets that bucked the trend in 2018 included Boston, Dallas, Philadelphia, Pittsburgh, and San Diego. The strongest (over 4.5%) annual rent growth for majority AL product was reported in San Antonio, San Diego, and Portland, while for the majority IL product, San Jose, Portland, Washington, DC, Houston, and Chicago topped the list of primary markets.

Judging by the projects currently underway and expected to be completed in 2019, supply growth should moderate this year in the majority AL segment, yet it is likely to keep its current pace in the majority IL segment. Primary markets with the most active pipeline for AL product as of Q4 2018 (to be delivered in 2019 and beyond) include Denver, Detroit, Philadelphia, Riverside, and Washington, D.C. Primary markets with the most active pipeline for IL product include Atlanta, Houston, Phoenix, Sacramento, and San Diego.

In terms of transaction dynamics, investment sales of senior housing properties (excluding skilled nursing care facilities), dropped by 10% in 2018 relative to the prior year.⁵ This was based on \$8.4 billion in volume during 2018 compared to \$9.4 billion a year ago and \$14.5 billion at the peak of activity in 2015. Private investors drove acquisition activity in 2018, gaining share in overall volume. The share of sales volume accounted for by institutional funds dropped while the share accounted for by publicly-traded REITs has increased, with cross-border investment staying flat relative to 2017. Private investors drove acquisition activity for AL communities in 2018, while institutional funds drove sales of IL communities.

⁵ Source: Real Capital Analytics, Berkshire Research.

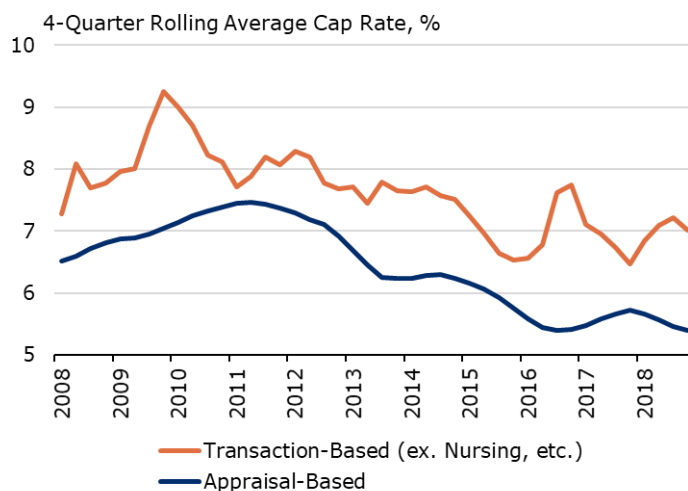
2018 Senior Housing Buyer Composition



Sources: Real Capital Analytics, Berkshire Research.

On a rolling four-quarter average basis, transaction-based cap rates for senior housing (excluding nursing care) fell from late 2016 through 2017, then rose through much of 2018. Meanwhile, appraisal-based cap rates kept declining in 2018 after peaking in late 2017. We expect that senior housing cap rates will remain stable or edge up slightly in 2019.

Transaction-Based and Appraisal-Based Cap Rates Diverge in 2018



Sources: Real Capital Analytics, NCREIF, Berkshire Research.

From the investment return perspective, senior housing continued to perform well relative to NCREIF's National Property Index (NPI) as well as the apartment sub-index. Senior housing generated year-over-year total unleveraged returns of 9.5% as of Q4 2018 compared to 13.3% a year ago and is expected to outperform NPI again in 2019.

Conclusion

Rental market fundamentals and investment performance are expected to remain healthy in 2019 supported by further growth in employment, incomes, and home prices. However, new supply in the rental housing market is expected to increase just as job growth begins to slow, which will likely push the vacancy rate up bringing it in line with historical norm. Overall, 2019 is expected to be a positive year for operational performance and returns, with greater differentiation across various segments of rental housing, locations, and types of product. With the current supply deficit concentrated in the middle- and low-income tiers of the market, they also carry the most upside potential for near-term performance.

There are multiple risks to the outlook as the business cycle matures and economic growth begins to slow down. An expansion does not usually die of old age, yet the uncertainty around its future strength and duration tends to rise once the labor market reaches full employment. Investors in rental housing should be adjusting their expectations and assumptions regarding future returns accordingly. Considering that the greater share of return is likely to come from income growth, the ability to effectively manage revenue and expenses at the property level will become more important as the cycle matures. This includes close monitoring of new supply across locations to properly manage risks to property-level performance that stem from the broader market or submarket fundamentals.

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