

AEW RESEARCH

U.S. ECONOMIC & PROPERTY MARKET PERSPECTIVE

Q3 2018



Prepared by AEW Research, September 2018

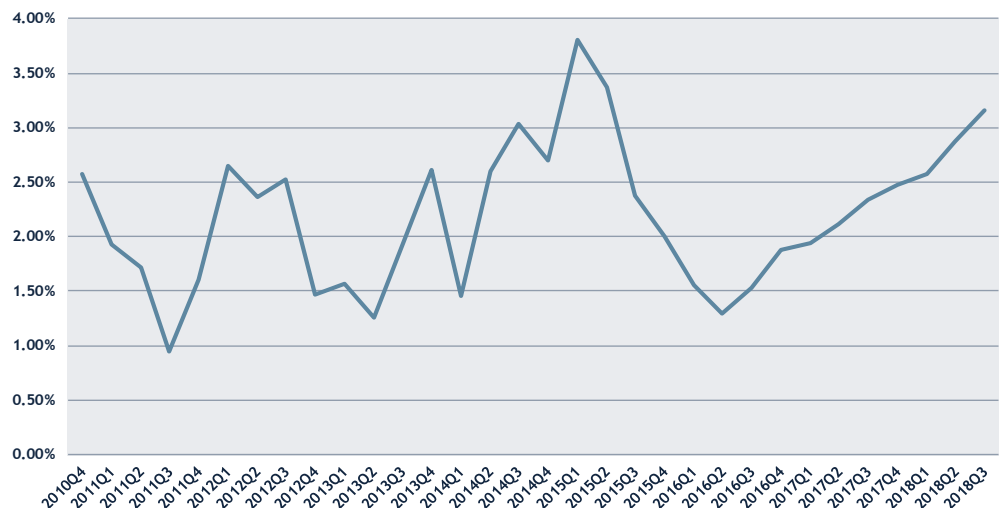
This material is intended for information purposes only and does not constitute investment advice or a recommendation. The information and opinions contained in the material have been compiled or arrived at based upon information obtained from sources believed to be reliable, but we do not guarantee its accuracy, completeness or fairness. Opinions expressed reflect prevailing market conditions and are subject to change. Neither this material, nor any of its contents, may be used for any purpose without the consent and knowledge of AEW.

Currently, U.S. employers report more than seven million open positions, while the total number of unemployed workers fell below six million during September.

The U.S. Economy

The U.S. economic recovery from the Great Financial Crisis began in the middle of 2009 and is now entering its tenth year of expansion, which will make it the longest economic expansion of the post-war period. Atypical of late cycle historical experience and driven by the stimulative effects of tax cuts and federal government spending increases, broad economic growth has accelerated significantly over the past year with real GDP estimated to have increased more than 3% over the prior four quarters. Similarly, job growth has also accelerated, from roughly 180,000 new jobs per month for the year ending October 2017 to more than 210,000 jobs per month for the year ending October 2018. Significantly, most of the increase in job growth has come from gains in manufacturing, construction and mining (specifically, oil and gas extraction).

FIGURE 1
YEAR-OVER-YEAR GROWTH IN REAL GDP



Source: Bureau of Economic Analysis, NIPA

With unemployment at its lowest level since 1968, growing labor shortages seem likely to be the ultimate governor of the pace and duration of the expansion. Currently, U.S. employers report more than seven million open positions, while the total number of unemployed workers fell below six million during September. In contrast to earlier periods of low unemployment, average annual wage growth remained largely range bound between 2.5% and 3% over the past year. Similarly atypical of a long expansion with low unemployment, the Federal deficit is now growing, both in absolute terms and as a share of GDP. For the fiscal year ending on September 30th, the deficit totaled nearly \$780 billion, an increase of 17% over the prior fiscal year.

FIGURE 2

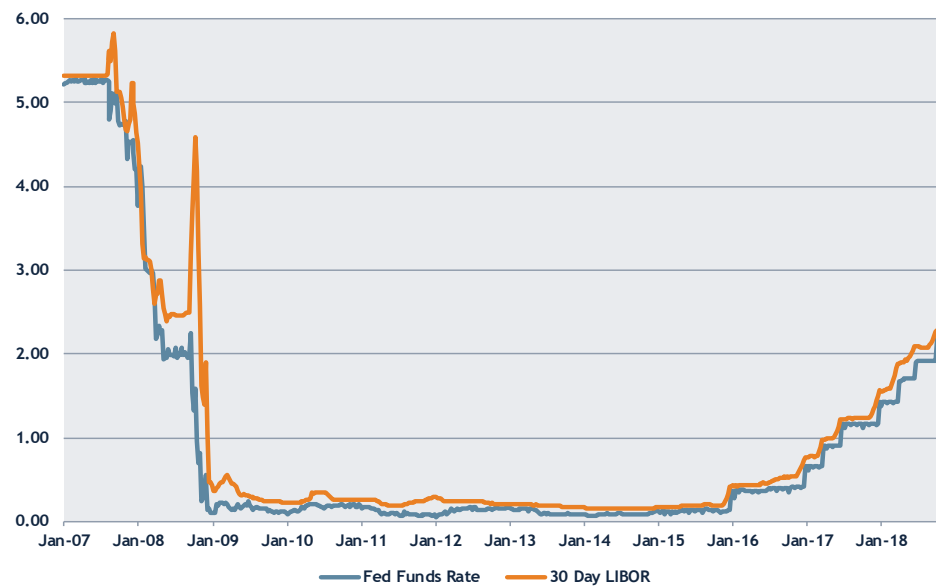
AVERAGE MONTHLY EMPLOYMENT GROWTH OVER PRIOR TWELVE MONTHS (000S)



Source: Bureau of Labor Statistics

For its part, the Federal Reserve continues its slow but steady move towards normalization of monetary policy. Over the past three years, the overnight lending rate target has increased from zero to 225 basis points and is expected to increase by an additional 100 basis points by the end of 2019. Reflecting this, the ten-year Treasury bond yield has already increased towards 3.25% and we continue to believe that additional increases in short-term interest rates will lead to a further flattening of the yield curve. Other key interest rates such as LIBOR continue to move in step with the Federal Reserve overnight borrowing rate; as such, floating rate borrowing costs are currently more or less in line with fixed rate options. Finally, the Federal Reserve continues the slow but steady reduction of excess reserves from the banking system through the gradual shrinking of its own balance sheet. In total, assets held by the Federal Reserve have declined by nearly \$350 billion (or 7.5%) since the beginning of 2015.

FIGURE 3
FED FUNDS RATE AND 30 DAY LIBOR (%)



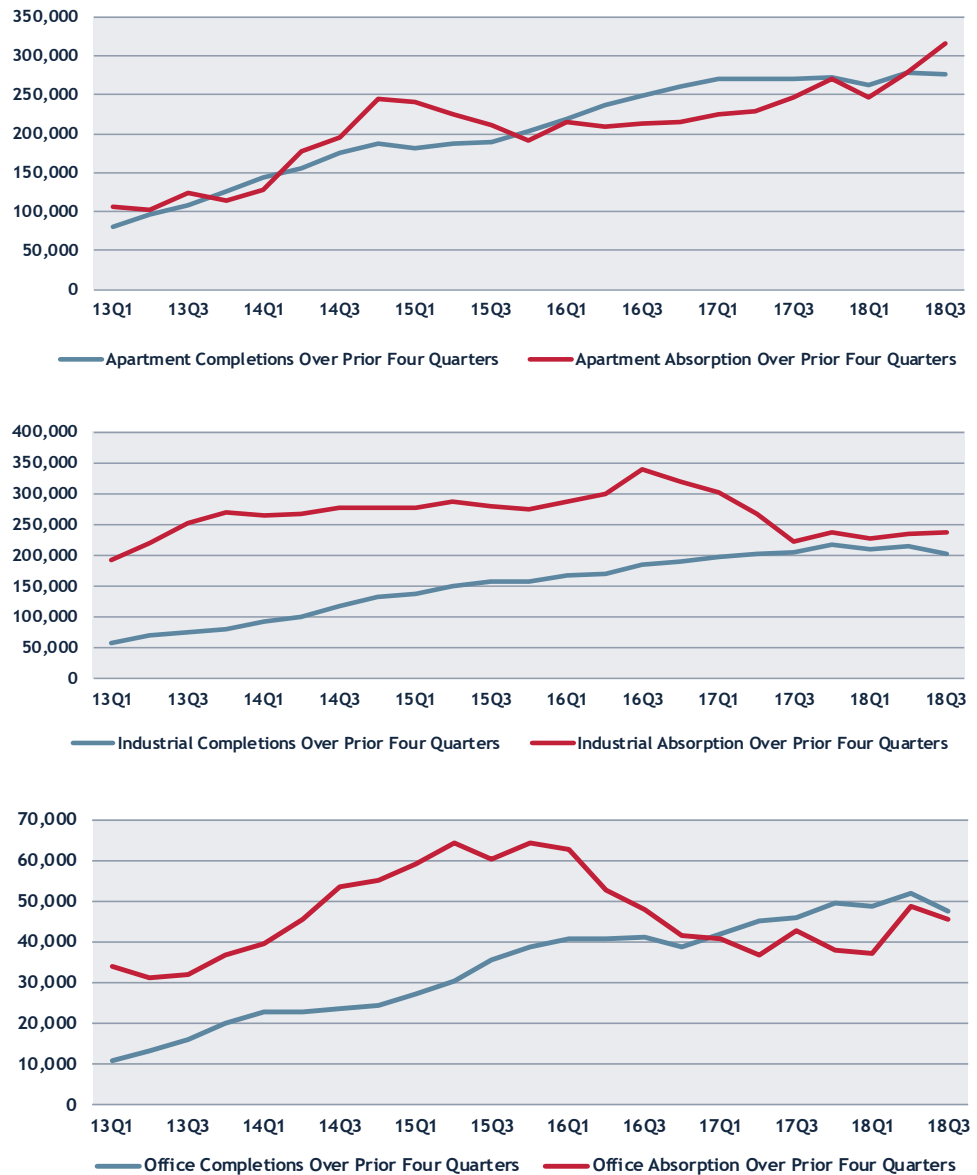
Source: Bloomberg

The U.S. Property Market

As with the broader U.S. economy, the U.S. property market is also in the latter stages of the current cycle. U.S. property market fundamentals remain strong, but the pace of improvement is generally slowing. Broadly speaking, growth in property demand is being met with comparable levels of new supply (Figures 4-6 on following page), leaving occupancy rates largely unchanged. For example, the national average vacancy rate for office properties has held steady near 13% for eight consecutive quarters, while the availability rate of industrial properties has been consistently below 8% for six consecutive quarters.

FIGURE 4-6

NET ABSORPTION AND COMPLETIONS OVER THE PRIOR FOUR QUARTERS – APARTMENT, INDUSTRIAL AND OFFICE PROPERTIES

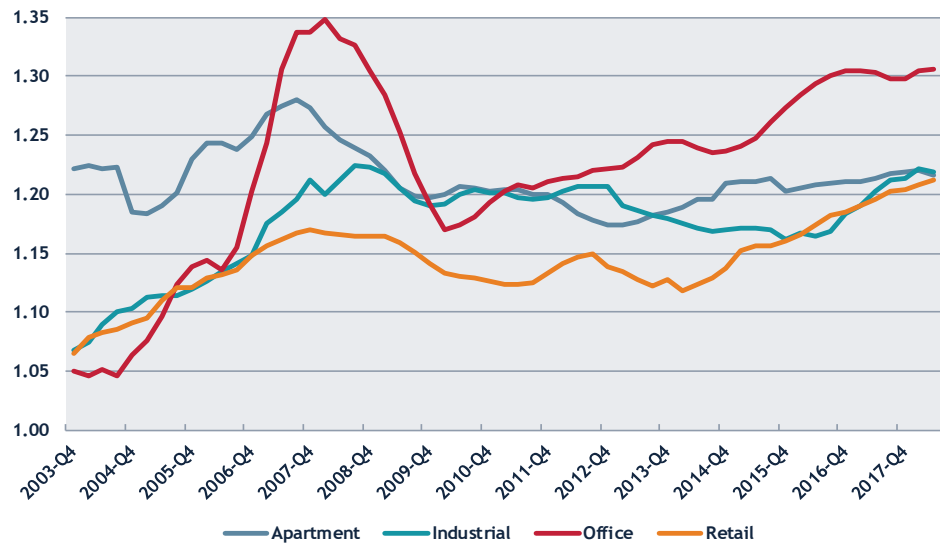


Source: CBRE-EA

Current core property pricing assumes an increase in terminal capitalization rates of 20% to 30% relative to current stabilized income yields. As such, average property net operating income will need to show average annual growth of 2% to 3% over a typical ten-year holding period to maintain stable valuations (Figure 7). Over the next several years, we expect NOI growth to moderate in step with slowing rental rate growth as well as somewhat lower average occupancy rates as new supply moves marginally ahead of slowing demand growth (Figure 8).

FIGURE 7

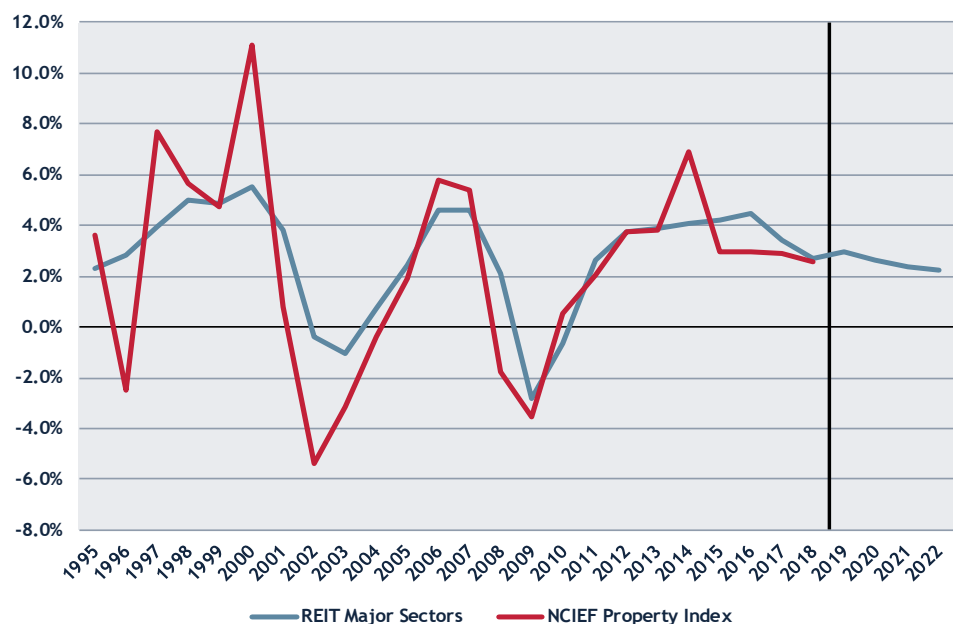
RATIO OF TERMINAL CAP RATE TO STABILIZED YEAR ONE INCOME YIELD



Source: Altus

FIGURE 8

YEAR-OVER-YEAR SAME STORE NOI GROWTH (%)



Source: NCREIF, Green Street

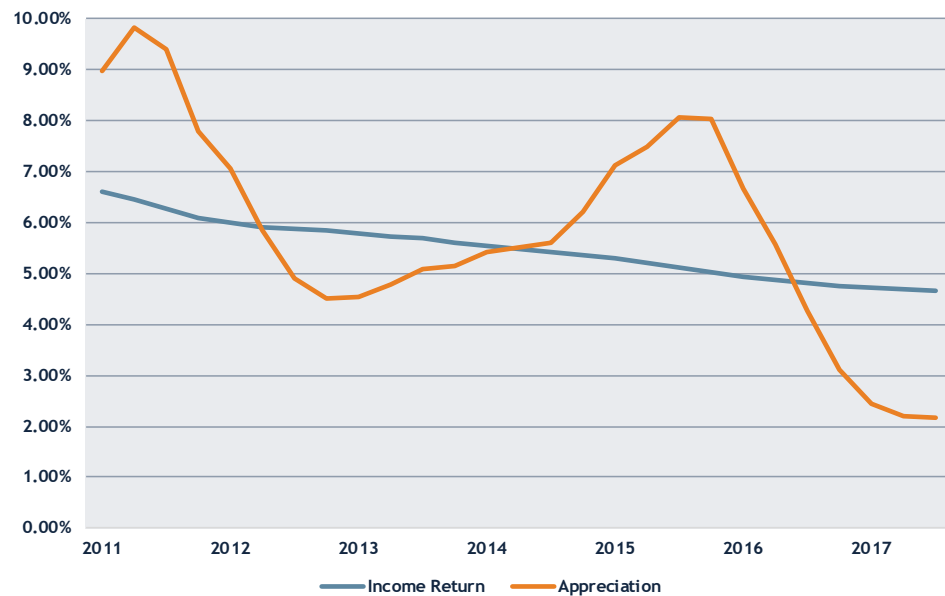
Looking ahead, in the face of long-term interest rates remaining relatively low, we anticipate flat or slightly rising property yields, which will result in capital appreciation continuing to account for a declining share of total return (Figure 9). For its part, consensus surveys by the Pension Real Estate Association (PREA) currently project aggregate capital appreciation below inflation over the next five years. In this context, AEW believes unleveraged total returns for core commercial properties will likely produce average annual total returns of approximately 5.6%-5.8% over the next 3-5 years, roughly in line with the PREA consensus return expectation of 5.4% over the same period.

TABLE 1
CONSENSUS RETURN EXPECTATIONS

2018 Q3 Survey	2018	2019	2020	2018 to 2022
NPI Total Return	6.6%	5.3%	4.6%	5.4%
Income Return	4.7%	4.8%	4.9%	4.9%
Capital Appreciation	1.9%	0.5%	-0.3%	0.4%

Source: PREA 2018 Q3

FIGURE 9
NCREIF PROPERTY INDEX – CAPITAL APPRECIATION AND INCOME RETURN



Source: NCREIF

Twenty markets showed an improvement of three times the U.S. average or better, including thirteen markets with a contraction in vacancies of 100 bps or more.

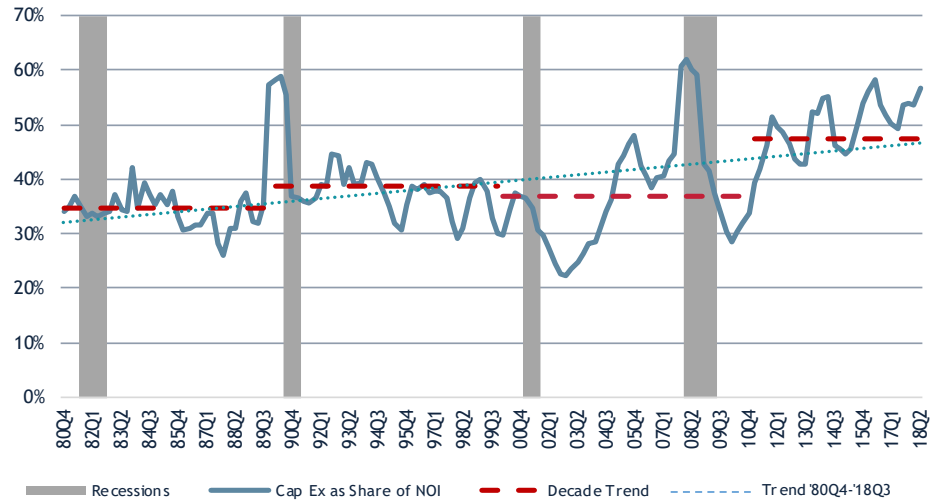
Office

The recent performance of both the overall U.S. economy and property markets has shown surprising strength. Job growth and office space demand have both outpaced expectations as of late. According to CBRE-EA, second-quarter net absorption was revised upwards by more than 3 million square feet (msf) to 18.7 msf, while third-quarter net absorption was a still healthy 11.0 msf. Over the previous four quarters, net absorption has totaled more than 45 msf, a marked acceleration from the roughly 38 msf four-quarter total reported in the last quarter of 2017 and first quarter of 2018. The solid demand over the previous two quarters has outpaced new supply, pushing vacancies down 20 basis points (bps) to 12.8% in the third quarter of 2018.

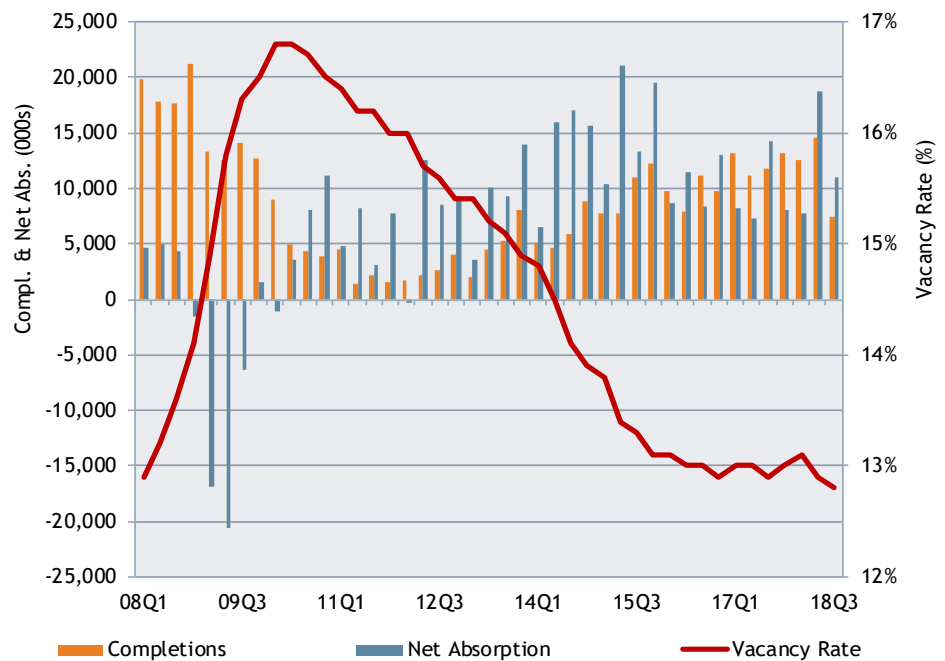
As is often the case with headline figures, though, the variation among markets was quite disparate. Twenty markets showed an improvement of three times the U.S. average or better, including thirteen markets with a contraction in vacancies of 100 bps or more. San Jose, San Francisco, Denver, Raleigh, Seattle, Orlando and Charlotte all reported a marked improvement in vacancies. San Francisco and San Jose in particular had a somewhat lackluster performance in 2017, but have since come roaring back. Vacancies in San Francisco declined 170 bps year to date to 6.0%, the lowest rate in the market since the fourth quarter of 2000 and currently the lowest rate in the nation. Neighboring San Jose, meanwhile, reported vacancies of 10.4% in the quarter, down 250 bps year-to-date. Also on the West Coast, Seattle bounced back following a pause in demand related to the short-lived “headcount tax”. Roughly 40% of recent (2015-2017) leasing activity in the Seattle market was attributable to Amazon. Given its importance in the market, it is not surprising that the headcount tax was rolled back once Amazon paused construction of its latest tower and threatened to sublease additional space. Vacancies in Seattle declined to 7.2% from 8.0% at year-end 2017 and, similar to those in the Bay Area, are now back to levels last seen in 2000. The Southeastern portion of the country has also come on strong recently. Raleigh and Orlando reported the third and fourth lowest vacancy rates in the nation at 7.4% and 7.8%, respectively, down 90 and 70 bps year-to-date.

Going forward, the recent accelerated pace of job creation is unlikely to continue unless the labor force participation rate expands substantially, which would be challenging based on the aging of the domestic population. Thus, we continue to expect office space demand will slow in the coming years, although we also expect supply to crest this year. In the near term, supply may modestly edge out new demand, leading to a slight uptick in vacancies. Nevertheless, vacancies are expected to remain low; further, market fundamentals are expected to remain healthy, yielding near-term rent growth in the 3%-5% range, depending on the market. That said, AEW will continue to approach the sector with caution, given the headwinds of increased space densification, rising tenant improvement costs, higher taxes and the generally high operating costs and capital-intensive nature of the sector.

OFFICE CAP EX AS PERCENT OF NOI CONTINUES TO CLIMB



CBRE-EA OFFICE MARKET FUNDAMENTALS



OFFICE

Vacancy Rate 12.8%

12-Month Historical Trend

Vacancy Change	↓
Rent	↑
Absorption	↑
Completions	↔
Cap Rates	↔
Transaction Volume	↑

Sunbelt markets are currently the strongest markets with respect to both demand and rent growth.

Apartment

The apartment sector continued to be a solid performer in the third quarter. Vacancies remained flat on a year-over-year basis at 4.6% as demand and supply remained in balance. While vacancies have leveled off recently, new supply has pushed vacancies up from their low point in 2015. Further, the elevated level of construction is beginning to impact some markets. In fact, Seattle previously shrugged off new supply and was a consistent leader in rent growth; however, recent rent growth in the metro area has slowed to an annual pace of 1.7% in the third quarter, the second slowest pace in the nation behind Nashville. While absolute demand has remained healthy, concessions increased and the share of construction underway relative to demand suggests it will take two years for the market to absorb the new supply. As such, AEW has moderated our near-term Seattle market rent growth expectations, particularly for properties in the Capitol Hill/Queen Anne neighborhoods. That said, Seattle's favorable job growth and demographics trends should allow the market to recover and post healthy long-term rent growth.

On the flip side, Northern California markets are showing late-cycle strength, following an uptick in vacancies and a slowdown in rent growth in 2016 and 2017. Vacancies have tightened and rent growth is accelerating. According to Axiometrics, San Jose's third-quarter annual rent growth was nearly 5%, one of the strongest growth rates in the nation; San Francisco (3.5%) and Oakland (2.6%) also reported solid growth for the same period.

Broadly speaking, Sunbelt markets are currently the strongest markets with respect to both demand and rent growth. Las Vegas, Orlando, Phoenix, Jacksonville, Tampa, Atlanta and Houston were in the top ten markets for annual rent growth, with rent growth exceeding 6% in Las Vegas (6.6%), Orlando (6.5%) and Phoenix (6.2%). Orlando, in particular, stands out with net absorption in the market as a share of inventory accelerating to 4.4% in the second quarter, the second fastest rate in the nation behind Charlotte (4.6%) and more than double the national average of 1.7%. Further, unlike Seattle where the absorption rate is roughly half the pace of inventory growth, demand in Orlando is roughly on par with inventory growth.

Additional markets where demand is consistent with or exceeding supply include Charlotte, Phoenix, San Antonio, Orange County, Las Vegas and Houston. Conversely, Sacramento, Chicago, Jacksonville, Long Island and Philadelphia have more than 2.5 years of supply underway, assuming the pace of absorption remains consistent with the previous four quarters. Nationally, projects currently underway amount to 2.6% of inventory, ahead of the current pace of demand of 1.7%. Importantly, however, the new supply underway will likely take more than a year to come to fruition. Thus, we still expect the market to remain essentially in equilibrium. Rent growth will remain strongest in the Sunbelt, Northern California and Suburban Boston, with rent growth generally ranging from 4%-5% in the near term. Longer term, growth will likely moderate toward 3%.

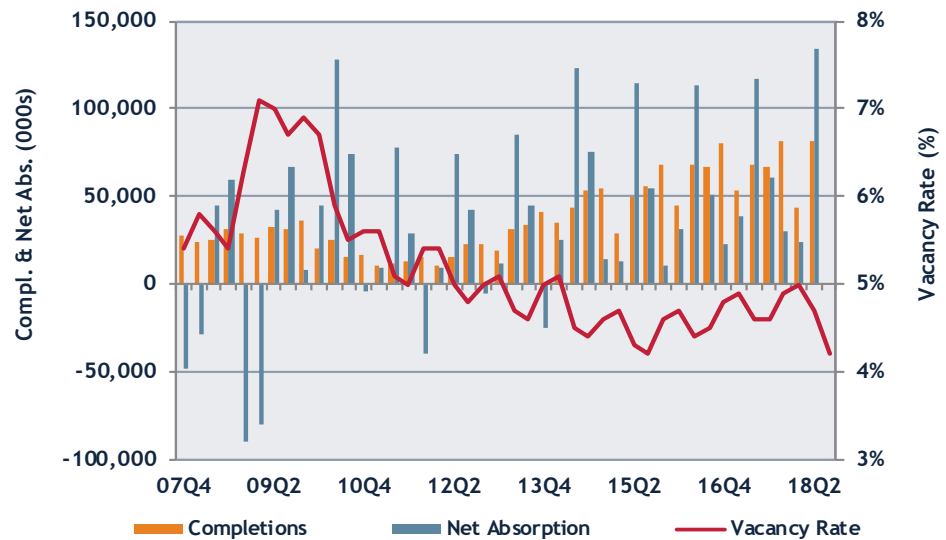
**ANNUAL RENT GROWTH LEADERS AND LAGGARDS
THIRD QUARTER 2018**

Metro Leaders	Percent Change	Metro Laggards	Percent Change
Las Vegas	6.60%	St. Louis	0.70%
Orlando	6.50%	Baltimore	1.30%
Phoenix	6.20%	Chicago	1.30%
Jacksonville	5.70%	Cleveland	1.30%
San Jose	4.90%	Dallas	1.30%
Tampa	4.90%	Milwaukee	1.40%
Riverside	4.70%	San Antonio	1.50%
Salt Lake City	4.50%	Virginia Beach	1.50%
San Diego	4.10%	New York	1.70%
Atlanta	3.70%	Portland	1.70%
Houston	3.70%	Seattle	1.70%
Sacramento	3.70%	Nashville	1.80%

Source: RealPage, Inc.

CBRE-EA APARTMENT MARKET FUNDAMENTALS

(VACANCY DATA AS OF 18Q3, NET ABS. & COMPL. AS OF 18Q2)


APARTMENT

Vacancy Rate 4.6%

12-Month Trend

Vacancy Change ↔

Rent ↑

Absorption ↑

Completions ↓

Cap Rates ↓

Transaction Volume ↑

To date, the international trade impasse appears to have had little effect on trade flows through the ports and, thus, little impact on industrial demand.

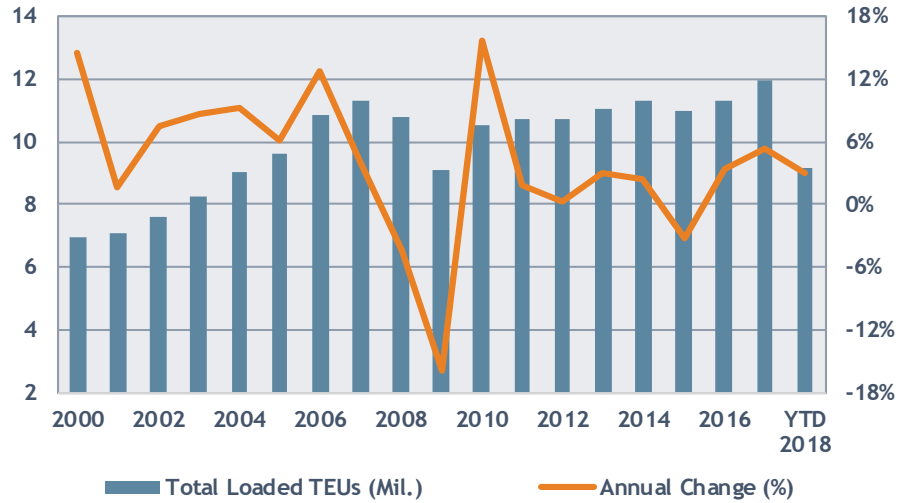
Industrial

The U.S. industrial market performance remained solid in the third quarter. Availability continued to trend modestly downward as it has for more than eight years now, dropping to 7.1% in the third quarter, a 10-basis-point (bps) improvement from the prior quarter and 30 bps lower than one year ago. On a four-quarter rolling basis, net absorption totaled more than 236 million square feet (msf), consistent with the previous four-quarter period. New deliveries, which totaled 203 msf over the previous four quarters, were also on par with recent quarters. Rent growth, meanwhile, remained the strongest among the property types, with net asking rents advancing by 5.6% on a year-over-year basis.

As has been the case for some time now, West Coast industrial markets remained among the tightest in the nation with Portland, San Francisco, Los Angeles, Salt Lake City and Seattle recording availability below 5%. Orange County and Riverside followed with availability of only 5.1% and 5.9%, respectively. To date, the international trade impasse appears to have had little effect on trade flows through the ports and, thus, little impact on industrial demand. This is particularly the case in Southern California; with limited availability in Los Angeles and Orange County, demand for space in the Inland Empire remains exceptionally strong. In fact, Riverside posted the third-highest net absorption in the nation, both in the most recent quarter (6.5 msf) and year to date (14.6 msf). The ongoing strength in the market has been supported by still healthy trade flows. Indeed, year-to-date through September, loaded container volumes through the Ports of Los Angeles and Long Beach were up 3.1%. Moreover, on the East Coast, volume through the Port of New York and New Jersey increased 7.5% year to date through August. In other parts of the country, the Midwest and the South regions reported some of the largest improvements in availability. Kansas City, Raleigh, Orlando, Fort Worth, Cincinnati and Indianapolis all reported a drop in availability between 100 and 170 bps. Overall, nearly half of the 63 markets tracked by CBRE-EA reported declining availability. Among the 23 markets that experienced an increase in availability, 14 of those markets still reported positive demand and the increase in availability was generally led by supply.

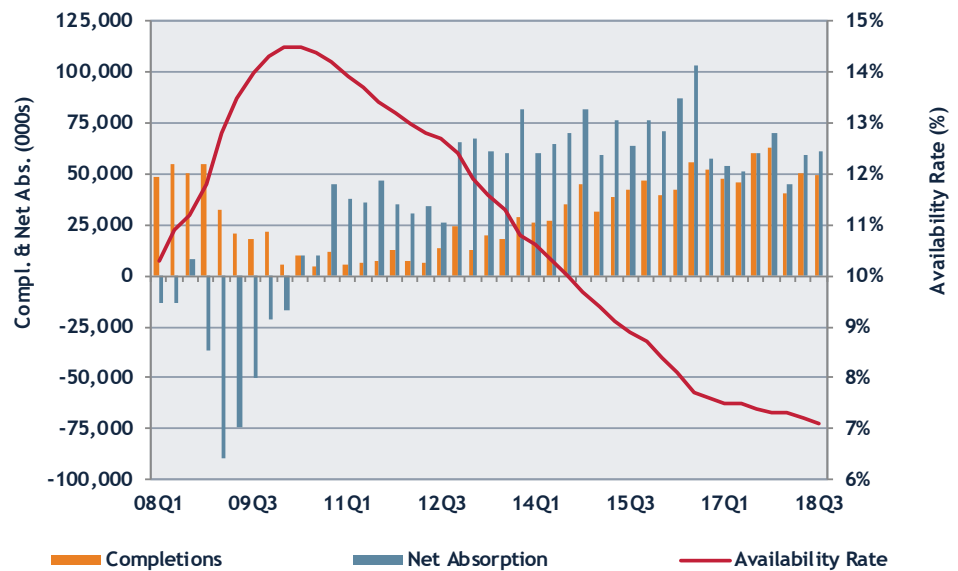
Broadly speaking, supply remains largely in check. U.S. industrial inventory increased by only 1.5% over the previous four quarters, in line with the historical average since 1990. Of note, however, is the fact that the increase in inventory only rose to this level in 2017, six years into the recovery. Typically, construction ramps up much more quickly. Riverside, Allentown, Dallas, Fort Worth, Orlando, Baltimore, New York/NJ and Atlanta all reported above-average supply growth. However, with the exception of Dallas and Baltimore, demand is outpacing supply in the aforementioned markets. Going forward, the industrial sector will continue to be one of the strongest performing sectors. The ongoing economic expansion should support continued demand, while supply is expected to peak next year. Rent growth will remain strongest in the coastal/gateway markets (4%-6% near term), although most markets should see healthy growth of 3% or better.

CONTAINER VOLUME THROUGH SOUTHERN CALIFORNIA



Source: Ports of LA & LB

CBRE-EA INDUSTRIAL MARKET FUNDAMENTALS



INDUSTRIAL

Availability Rate 7.1%

12-Month Historical Trend

Availability Change	↓
Rent	↑
Absorption	↑
Completions	↔
Cap Rates	↓
Transaction Volume	↔

Retail

Total retail availability continued to improve in the third quarter of 2018. Availability dropped to 6.4%, down 10 basis points (bps) from the previous quarter and 20 bps year to date. Demand was positive in the quarter, with 13.3 million square feet (msf) being absorbed on net, more than double the 5.8 msf completed. That said, we fully anticipate some demand-side weakness to close out the year as retail bankruptcies continued to make headlines. Brookstone, Mattress Firm and Sears all recently filed for bankruptcy. Mattress Firm will close 200 stores immediately and up to 700 in total. Sears will close nearly 200 stores this year and will re-evaluate 250 other locations. Brookstone will shutter all 102 of its stores.

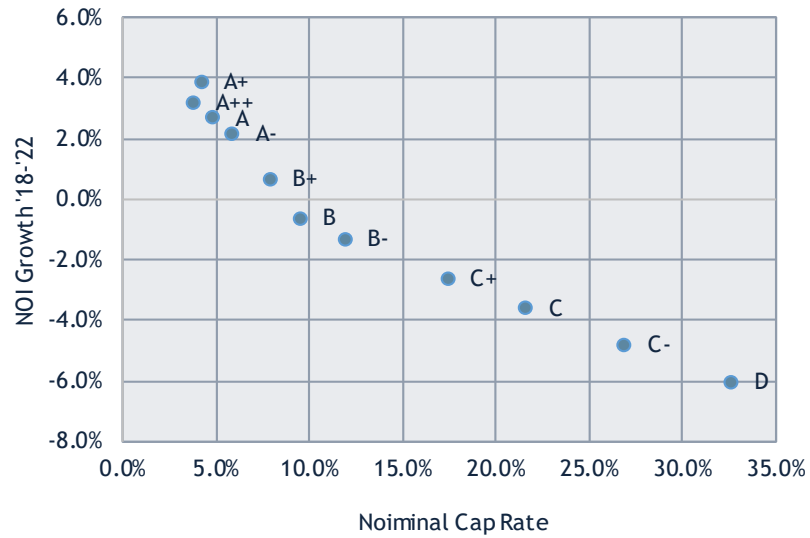
The bulk of the recent improvement in fundamentals in the third quarter was in the neighborhood and community shopping center (N&C) space, where availability declined to 9.1%, down 20 bps from the previous quarter and 40 bps year to date. Lifestyle/mall and power center availability stood at 5.8% and 6.8%, respectively. Both availability rates were down 20 bps quarter over quarter, but were up 10 bps from year-end 2017. Notably, CoStar reports higher quality malls are faring better. Four- and five-star mall availability stood at 3.4%, less than half the lower quality mall availability of 7.4%. Demand for lifestyle/mall and power center space has been mixed, while N&C shopping center space has been consistently positive. The lifestyle/mall and power center subsectors will likely continue to see demand-side pressure given the recent bankruptcy announcements, but the departure of Brookstone and Sears will allow some malls to recapture space to be released to better quality tenants, while the restructuring of Mattress Firm will alleviate redundancy in other centers. Higher quality malls will eventually benefit from these bankruptcies; however, lower quality malls will remain challenged.

Only 11 markets nationwide had an increase in availability greater than 20 bps year-to-date. Austin, Minneapolis, San Jose and Seattle are among the few markets that reported larger than average increases in availability. Minneapolis, San Jose and Seattle all reported negative year-to-date demand and modest new supply. All three markets, however, remain exceptionally tight with availability of 5.0%, 5.2% and 4.3%, respectively, which is 120 to 210 bps below the U.S. average. Austin also posted a below-average availability rate of 4.9%, but reported both solid demand and modest new supply. The tightest markets remain on the coasts, while many Midwestern markets continue to have availability rates well above average. Cincinnati, Chicago, Detroit, Cleveland, Indianapolis and St. Louis all reported availability rates that were 150 to 310 bps above the U.S. average of 6.4%.

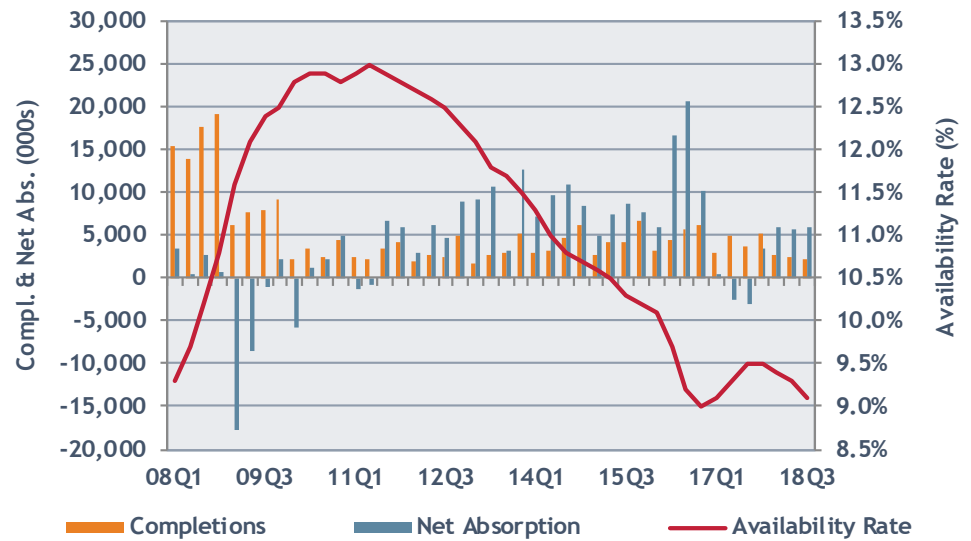
In the next two quarters, availability will likely fluctuate due to pending bankruptcies. Thereafter, demand will moderate in step with the expected slowing of the economic expansion. Supply, however, will be limited, helping to keep the market in equilibrium. Despite the market being in equilibrium, the continued negative headlines will limit landlords' ability to push rents in the near term. Additionally, the continued need to refresh retail concepts will likely push capital expenditure trends higher.

Sears will close nearly 200 stores this year and will re-evaluate 250 other locations; Brookstone will shutter all 102 of its stores.

GREEN STREET MALL ASSUMPTIONS BY QUALITY



CBRE-EA SHOPPING CENTER MARKET FUNDAMENTALS



RETAIL	N&C SHOPPING CENTER	LIFESTYLE & MALL	POWER CENTER
Availability Rate	9.1%	5.8%	6.8%
12-Month Historical Trend			
Vacancy Change	↓	↑	↑
Rent	↑	↓	↑
Absorption	↑	↓	↑
Completions	↓	↓	↓
Cap Rates	↑	↓	↓
Transaction Volume	↓	↑	↓

Capital Markets

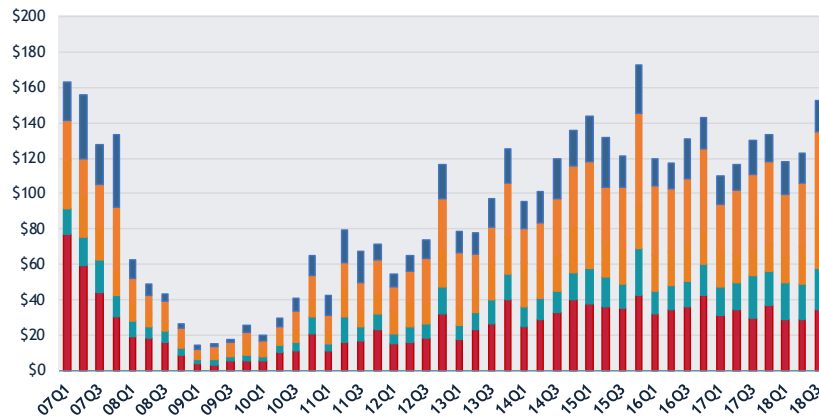
According to Real Capital Analytics (RCA), transaction volume was up 17% on a year-over-year (YOY) basis in the third quarter with nearly \$152 billion in properties changing hands. Brookfield's \$15 billion acquisition of GGP was one of the driving forces behind the surge in transaction volume; however, even single property transaction volume remained healthy. As a result of the GGP trade, the retail sector reported the largest increase in volume (90% YOY) with \$28.3 billion in sales. Office and apartment volumes were up 15% and 14% YOY, respectively, to \$34.3 and \$48.3 billion. Industrial transactions were relatively flat from the previous year at \$23.7 billion. Seniors housing and health care reported the only meaningful decline (-28% YOY) in volumes with only \$4.7 billion in properties changing hands.

Meanwhile, year-to-date total volume, excluding development sites, amounted to nearly \$380 billion, up 11% from the same period a year ago. The major markets (Manhattan, Los Angeles, Chicago, Boston, San Francisco and Washington D.C) remained the most active. Together, these markets accounted for nearly 37% of all transactions (\$139 billion). That said, typically, at the later stages of the recovery/expansion, when investors are searching for yield, secondary and tertiary markets gain traction and this property market cycle is no different. Phoenix, Las Vegas and Raleigh/Durham are among the most active markets year to date. Further, Phoenix and Raleigh/Durham reported record high year-to-date transaction volume of \$11.6 and \$4.5 billion, respectively. Phoenix's transaction activity is also up 62% YTD, while Raleigh/Durham is up 43%.

With transaction volume remaining strong, pricing also remained healthy. The RCA Commercial Property Price Index (CPPI) was up 7.2% in the 12 months ending September 2018. The apartment sector led the four core property types in pricing gains with the CPPI for apartments advancing nearly 11% YOY in September. The office, industrial and retail sectors followed with gains of 7.9%, 6.2% and 1.8%, respectively, over the same period. As was the case last quarter, pricing is at an all-time high in all sectors but retail, where the CPPI is 3.9% below its pre-Great Financial Crisis (GFC) record high. Relative to the pre-GFC peak, today's pricing among the four core property types is up 26% in aggregate. Apartment leads the way at 66.5%, followed by CBD office, industrial and suburban office, which are exceeding their pre-GFC peak by 35.3%, 16.7% and 3.2%, respectively.

Cap rates drifted down slightly on a quarter-over-quarter market value-weighted basis. Apartment and retail cap rates compressed roughly 10 basis points (bps) to 4.1% and 4.4%, respectively, while industrial and office cap rates dropped 20 bps to 4.5% and 4.3%, respectively. On a YOY basis, cap rates in the industrial sectors showed the largest compression at 30 bps, apartment and office both declined 10 bps and retail was flat. While there has been modest improvement, the overall trend in cap rates shows a clear flattening, with any movement limited to 10-20 bps, on average, per quarter.

RCA TRANSACTION VOLUME BY PROPERTY TYPE
(BILLIONS OF U.S. DOLLARS)



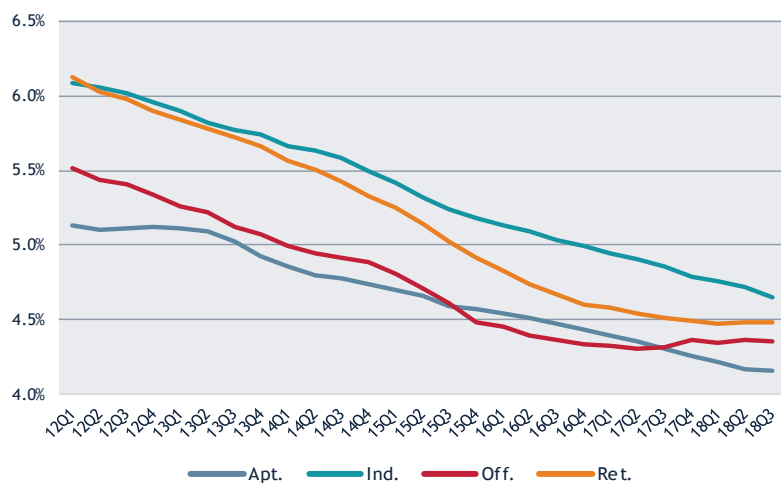
*Other includes Hotel, Seniors Housing & Dev. Sites

RCA CPPI PRICE CHANGE AS OF SEPTEMBER 2018

	% Above/Below Peak	Prior Peak
National Total (All Property Types)	26.0%	Q3 2007
Apartment	66.5%	Q2 2007
Industrial	16.7%	Q3 2007
Office	8.0%	Q3 2007
CBD	35.4%	Q4 2007
Suburban	3.2%	Q3 2007
Retail	-3.7%	Q3 2007
Major Markets ¹	40.3%	Q3 2007
Non-Major Markets	18.7%	Q3 2007

¹Major markets include Boston, New York, Washington, D.C., Chicago, Los Angeles and San Francisco

NPI CAP RATES BY PROPERTY TYPE
(MARKET VALUE-WEIGHTED, 4-QUARTER MOVING AVG.)



**For more information,
please contact:**

AEW Research
+1.617.261.9000
www.aew.com