

# Economic & Real Estate Report

## Contents

- Introduction..... 1
  - Summary of Key Economic Indicators..... 2
- 5-Year Graphical Snapshots of Selected Economic Indicators..... 3
- Labor Market ..... 4
- Gross Domestic Product (GDP) ..... 5
- Institute for Supply Management (ISM) Manufacturing Index..... 5
- Construction Spending ..... 6
  - The Architecture Billings Index (ABI)..... 7
- State of the Housing Market ..... 7
- PwC Real Estate Investor Survey ..... 9
  - 2Q18 Survey Highlights..... 9
  - PwC Real Estate Barometer 2Q18..... 9
- RCA Commercial Property Price Index (CPPI) ..... 10
- Green Street Commercial Property Price Index..... 11
- Commercial Property Sales Analysis..... 11
- NCREIF Property Index..... 13
- Equity REIT Analysis ..... 14
  - FTSE National Association of REITs U.S. Real Estate Index..... 14
  - Stock Market Recap ..... 15
  - Capital Raising..... 16
- Commercial Lending ..... 16
- Commercial Mortgage Backed Securities (CMBS) Market..... 17
- Property Sector Overviews ..... 18
  - Office ..... 18
  - Industrial..... 18
  - Retail..... 19
  - Apartment ..... 20
  - Hotel ..... 20
- Forecast ..... 21

## Introduction

U.S. economic growth rebounded considerably during 2Q18, largely driven by strong consumer spending with additional support from export growth and steady business investment resulting from continued deregulation. Consumers have likely benefited from a tighter labor market, the late-2017 tax cuts and greater disposable income, which has increased purchasing power; however, growth is likely to moderate in the upcoming quarters as income has not accelerated to a pace which can sustain 4.1% quarterly growth.

Numerous key metrics were also reflective of economic strength during 2Q18, including (a) low unemployment rates and steady job creation, (b) steady May and June retail sales, (c) heightened consumer confidence levels, (d) favorable June readings for durable goods/factory orders and industrial production, and (e) elevated manufacturing growth as tracked by the Institute for Supply Management (ISM).

Despite healthy demand for housing, limited supply, higher mortgage rates, rising material costs and scarcer labor have limited existing and new home sales and have created growing affordability issues. Also, several leading residential indices have indicated a plateauing in home prices with an uptick in inventory in select markets. Although rising U.S. trade protectionism did not appear to negatively impact 2Q18 growth, escalating trade tensions, brought on by President Trump’s tariffs on imported steel and aluminum being expanded in June to all major trading partners and uncertainty regarding retaliatory tariffs, add upside risk to future economic conditions.

The Federal Reserve (Fed) raised its benchmark interest rate by 25 basis points (BPS) in June to range between 1.75% and 2.00%, the second increase in 2018 and seventh since the end of the Great Recession. The Fed noted an economy strong enough for borrowing costs to rise without negatively impacting economic growth, raised its projections for GDP growth for the year, lowered its unemployment rate forecast, and now sees inflation running slightly above its 2.0% target rate through 2018.

Despite continued domestic and global challenges unique to each property type, market fundamentals within the major commercial real estate (CRE) sectors have remained favorable.

Investor sales activity during the first half of the year improved slightly year-over-year (YoY), and data and analysis from leading real estate indices, including NCREIF, CoStar, Green Street and RCA, were indicative of moderating price growth with considerable variations by sector and property niche. Generally, gains within the industrial sector were the strongest.

Real estate debt market conditions were generally positive. During the first half of 2018, commercial mortgage-backed securities (CMBS) issuances increased YoY while CMBS delinquencies fell to historically low levels. The Fed reported that there was little change in overall CRE lending standards. Although YoY capital raising by REITs fell, three new equity REIT initial public offerings (IPOs) were brought to market early in 2018.

## Summary of Key Economic Indicators

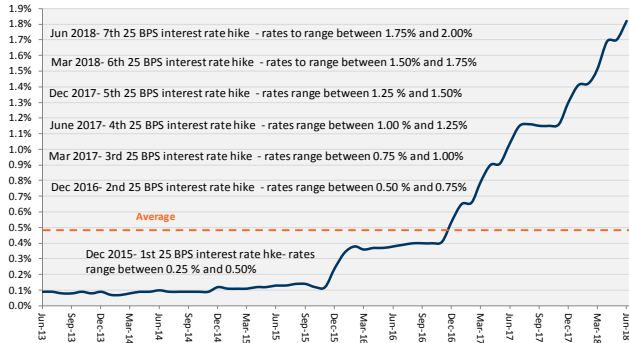
- **GDP Growth Escalates** The advance estimate showed that 2Q18 U.S. GDP increased at a 4.1% seasonally adjusted annualized rate, up from 2.2% in 1Q18.
- **An Uptick in Unemployment Rate.** An influx of workers back into the labor force resulted in a 20 BPS increase in the unemployment rate to 4.0%.
- **Job Openings Linger Near Record Highs.** In June, there were more available jobs than unemployed people for the third consecutive month. Job openings held near a record high (6.7 million) and the job openings rate was unchanged at 4.3%. The quit rate remained at 2.3%, matching the highest level since 2007, which economists view as a measure of job market confidence.
- **Employment Cost Index (ECI) Surges.** Total employment costs, including wages and benefits, increased 0.6% in 2Q18. Benefits increased 0.9% in 2Q18, the largest advance in four years. Total compensation improved 2.8% over the past 12 months, the strongest growth in nearly a decade. Low unemployment is creating upward pressure on labor costs as more firms find it increasingly difficult to find skilled workers.
- **Small Business Optimism Declines.** According to the NFIB Small Business Optimism Index, small business confidence fell slightly in June but still lingered near an all-time high. Owners reported generally strong sales and are planning to invest in additional inventories. During 2Q18, the net share of businesses reporting higher sales averaged the highest level since 1995. The biggest concerns were the availability of qualified labor and compensation increases.
- **Consumer Confidence Declines.** As measured by the Conference Board and the University of Michigan Index, confidence retreated during June but remains at elevated levels.
- **Dodge Momentum Index (DMI) Increases.** The June DMI increased by 1.3 points to a new cycle high. The latest gain was driven by escalating demand for commercial projects and the continued rise in institutional spending. The index has risen 27.4 points in the past year on a three-month moving average basis, the sharpest ascent since April 2007.
- **The Leading Economic Index (LEI) Increases.** In June, the LEI increased 0.5%, following no change in May. There was broad-based growth across the indicators, signaling sustained growth in the U.S. economy.
- **Strong Retail Sales.** Following an upwardly revised gain of 1.3% in May, retail sales increased 0.5% in June. YoY, retail sales increased 4.5%. The latest gain was driven by strong vehicle sales and higher gas prices. Eight of the 13 retail categories increased as consumers spent more on building materials, personal care and food. During 2Q18, retail sales increased 5.9% YoY as it was speculated that tax cuts fueled robust consumer demand. Non-store retailer sales jumped 1.3% in June, the largest gain since May 2017.
- **Consumer Inflation Rises.** Although the June headline Consumer Price Index (CPI) increased just 0.1% due to falling utility prices and declining hotel prices, the broader trend showed an escalation in prices. In the 12 months through June, the CPI increased 2.9%, the most since 2012. Core inflation, which strips out food and energy prices, increased 2.3% during this period, the largest gain since January 2017.
- **Industrial Production Rises.** U.S. industrial output increased 0.6% in June from May's 0.5% decline. The growth was driven by a 7.8% increase in motor vehicle production, which helped support a 0.8% increase in manufacturing output. Industrial production increased at a 6.0% annualized rate during 2Q18, up from 2.4% during the prior quarter.
- **Durable Goods Orders Increase.** Although U.S. durable goods orders increased 1.0% in June, the gain was below expectations for a 3.0% increase. Orders increased 4.3% for non-defense aircraft and 2.2% for transportation equipment. Excluding transportation orders, durable goods orders rose by 0.4% in June.
- **Factory Orders Rise.** Representing the fourth increase during the past five months, June factory orders rose 0.7%, driven by robust demand for transportation and electrical equipment and appliances. YoY, orders increased 8.0%.
- **ISM Nonmanufacturing Index Increases.** June growth within the service sector index escalated, primarily due to strengthening business activity and new orders. Of concern, it was reported that price pressures and supply constraints continue growing and the employment index fell.

# 5-Year Graphical Snapshots of Selected Economic Indicators

The following charts depict historical trends for several key economic indicators.

## Effective Federal Funds Rate

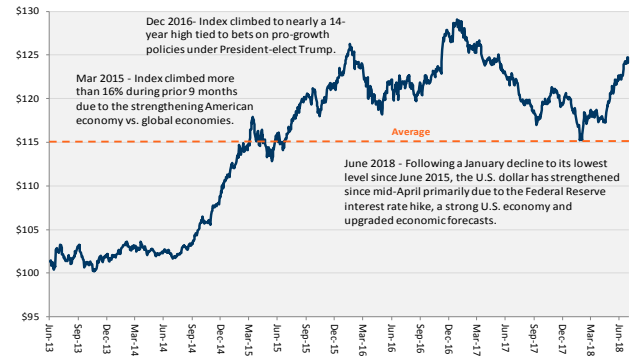
### Historical and Current Figures



Source: St. Louis Federal Reserve Board

## Trade Weighted U.S. Dollar Index (DTWEXB)

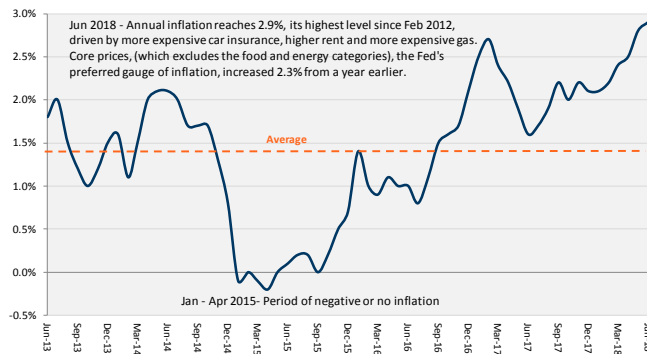
### U.S. Dollar Value Against Major U.S. Trading Partners



Source: St. Louis Federal Reserve Board

## Inflation - All Urban Consumers – (CPI-U)

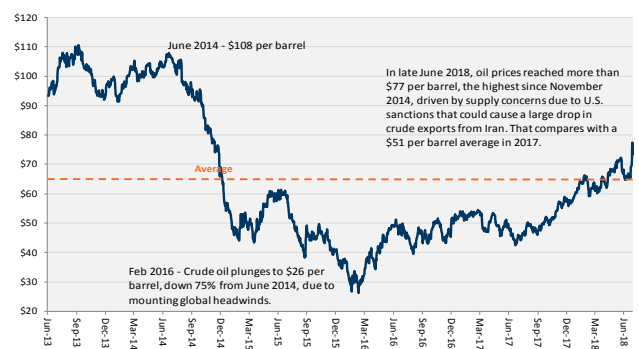
### Historical and Current Figures (YoY)



Source: St. Louis Federal Reserve Board

## West Texas Intermediate (WTI) Crude Oil Prices

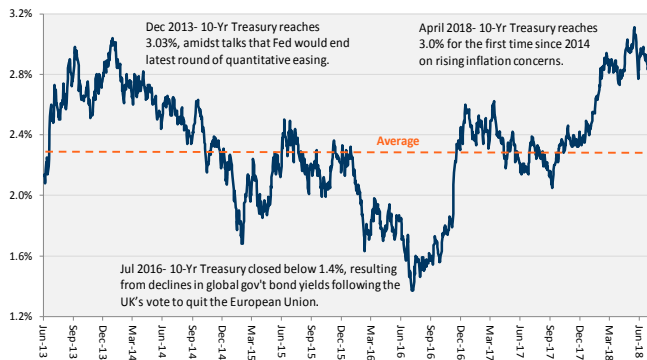
### Price Per Barrel



Source: St. Louis Federal Reserve Board

## 10-Yr Treasury Rates

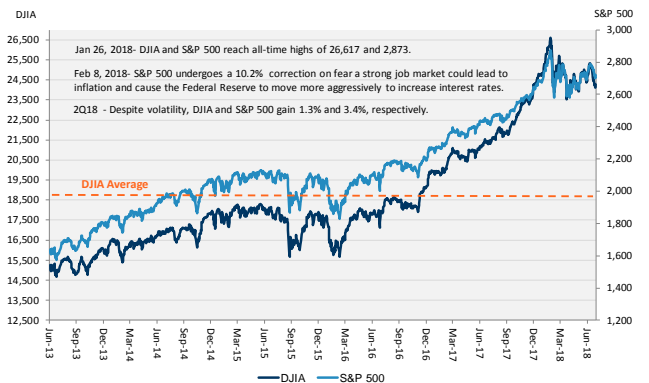
### Historical and Current Figures



Source: St. Louis Federal Reserve Board

## Dow Jones and S&P 500 Averages

### Historical and Current Figures (Closing Average for Day)



Source: Yahoo Finance

## Labor Market

June payroll growth exceeded expectations and increased by 213,000, following upwardly revised job gains totaling 37,000 in April and May. June marked the 93th consecutive month of job growth, which represents the longest continuous jobs expansion on record. The U.S. economy added an average of 211,000 jobs per month in 2Q18, up from the 2Q17 monthly average of 190,000. During the first half of 2018, 1.3 million jobs (or about 215,000 per month) were created.

Most industries added jobs during the first half of 2018, led by 292,000 new positions in the professional and business services sector and followed by gains of 243,000 in the education & health services sector and 177,000 in the trade, transportation and utilities sector. Continuing momentum from 2017, the manufacturing (+155,000) and construction (+150,000) sectors also both witnessed healthy payroll gains. Since 2017, government hiring remained sluggish (+10,000) while the information services sector lost 8,000 positions.

The June ADP National Employment Report reported that non-farm private sector employment increased by 177,000. During 2Q18, a monthly average of 179,000 jobs was created, lagging the 1Q18 of pace of 227,000 but consistent with the 2Q17 pace. Since 2017, mid-sized businesses added 547,000 jobs, exceeding job adds of 394,000 and 276,000, respectively, for large- and small-scale businesses.

Despite steady hiring, the June unemployment rate increased 20 BPS to 4.0% as just over 600,000 workers joined the labor force. The June U-6 rate, a broader measure of unemployment that includes Americans in part-time jobs or not looking for work, registered 7.7% and has declined 70 BPS YoY. Annual wage growth remained unchanged since May and has increased 2.7%. Despite a slight rise in the June labor force participation rate to 62.9%, this metric continues to trend near a 40-year low.

Below is a comparison of industry employment over the past five years.

### U.S. Non-Farm Employment by Industry

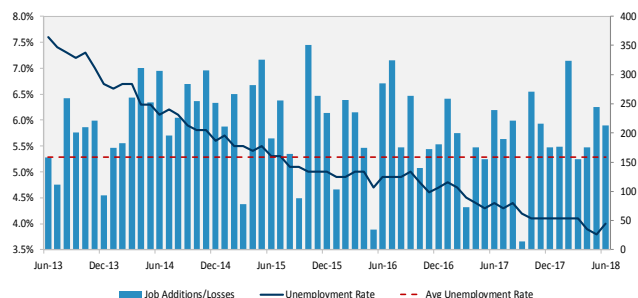
#### Historical and Current Figures (thousands)

United States Non-Farm Employment by Industry				
Historic & Current Figures (thousands)				
Industry Sector	Jun. 2018	Jun. 2013	Total	Percent
	Employment	Employment	Change	Change
Construction	7,222	5,855	1,367	23.3%
Leisure & Hospitality	16,315	14,252	2,063	14.5%
Prof. & Bus. Services	20,969	18,517	2,452	13.2%
Educ. & Health Services	23,623	21,070	2,553	12.1%
Financial Activities	8,576	7,887	689	8.7%
Trade, Trans. & Utilities	27,770	25,803	1,967	7.6%
Other Services	5,878	5,480	398	7.3%
Manufacturing	12,713	12,004	709	5.9%
Information	2,768	2,707	61	2.3%
Government	22,341	21,840	501	2.3%
Mining and Logging	737	865	(128)	-14.8%
<b>Total Nonfarm</b>	<b>148,912</b>	<b>136,280</b>	<b>12,632</b>	<b>9.3%</b>

Source: Bureau of Labor Statistics

As shown below, the unemployment rate has declined 360 BPS since June 2013. The current rate is about 130 BPS below the 5.3% average recorded between June 2013 and 2018, and the rate has been below 4.5% for the past 15 months.

### U.S. Unemployment Rate Trends



Source: Bureau of Labor Statistics

Consumer confidence indices are considered key indicators of economic conditions.

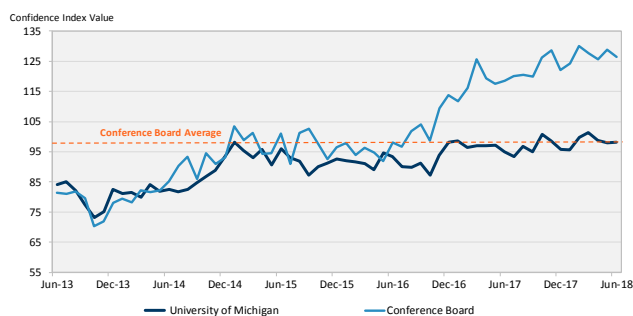
**The Conference Board.** Consumer confidence declined in June following an upwardly revised gain in May. Despite the decline, consumer confidence remains at elevated levels, driven by an upbeat current assessment regarding income and employment. Consumers reported being increasingly concerned about rising gasoline prices and ongoing trade disputes and took on a slightly more pessimistic view regarding future economic conditions, reflecting less optimism regarding income growth prospects and concerns regarding business conditions.

**University of Michigan Index.** In late June, overall consumer sentiment retreated modestly from a mid-month reading, largely due to escalating concerns regarding the potential impact of tariffs on the domestic economy. Overall, consumer sentiment was largely unchanged during 2Q18. It was reported that consumers currently have a favorable assessment of jobs and incomes. Primary concerns were a moderating pace of future economic growth and a rise in inflation.

Below are consumer confidence trends since March 2013.

### Consumer Confidence Overview

#### Historical and Current Figures (thousands)



Source: Conference Board, University of Michigan

## Gross Domestic Product (GDP)

The U.S. economy accelerated to its strongest pace since 3Q14, driven by steady business investment, stronger consumer spending and a surge in exports. The advance estimate of 2Q18 GDP showed that growth increased at an adjusted annualized rate of 4.1% after advancing 2.2% in 1Q18. During the first half of 2018, real business fixed investment rose at a 9.4% annual rate, outpacing 2.2% growth for consumer spending.

Driven by rising disposable income, a healthy labor market and elevated confidence, consumer spending, the main driver of economic growth, advanced at a 4.0% rate, the strongest pace since 4Q14 and up from 0.5% last quarter. Outlays on durable goods increased 9.2%, reversing the 2.0% decline in 1Q18, while spending advances on non-durable goods escalated from 0.1% to 4.2% and spending on services jumped from 1.0% to 3.1%.

Growth in non-residential fixed investment, a measure of corporate business spending, moderated to a 7.3% pace from 11.5%, but was still strong. Although businesses reduced spending on equipment, investment advanced 3.9%. Outlays on structures grew 13.3% and increased 8.2% intellectual property products during 2Q18.

U.S. trade added about 1.0 percentage point to 2Q18 GDP, the most since 2013, as exports rose sharply, growing at a 9.3% pace in comparison to a 0.5% gain in imports. Economists attribute the surge in exports to foreign buyers increasing their purchases of American soybeans ahead of China's 25.0% retaliatory tariff on the commodity, which hit in July.

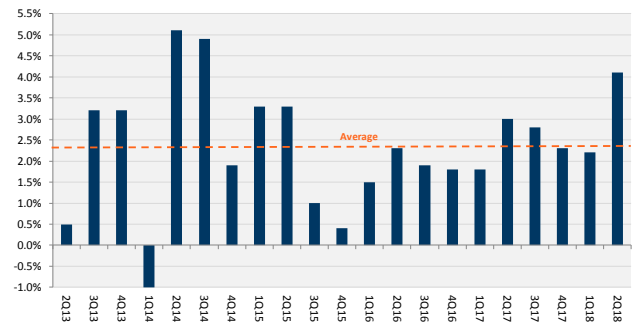
### Other 2Q18 GDP Key Trends

- Housing weakness persisted as residential investment declined at a 1.1% rate, the fourth decline in five quarters.
- Declines in private inventory investment were also a drag on GDP growth, subtracting 1.0 percentage point. This volatile metric typically experiences large fluctuations on a quarterly basis.
- Overall government spending increased from a 1.5% to a 2.1% growth rate. Federal outlays, boosted by defense spending, increased 3.5%, which represented the second fastest rate since 2014. State and local government expenditures grew 1.4%, up from 0.9%.
- Inflation slowed as the personal consumption expenditures index, excluding food and energy, advanced 2.3% after increasing 2.5% in 1Q18.
- Real disposable personal income increased 2.6%, a slowdown from 4.4% during the prior quarter. The personal savings rate (personal savings as a percentage of disposable income) was revised higher to 6.8%, but was down from the revised 7.2% pace in 1Q18.

The following chart summarizes U.S. GDP growth since 2Q13.

### Gross Domestic Product

#### Quarter-to-Quarter Growth in Real GDP



Source: Bureau of Economic Analysis

## Institute for Supply Management (ISM) Manufacturing Index

The ISM index, a national survey of purchasing managers, is calculated based on a weighted average of the following five sub-indexes: new orders (30%), production (25%), employment (20%), deliveries (15%) and inventories (10%).

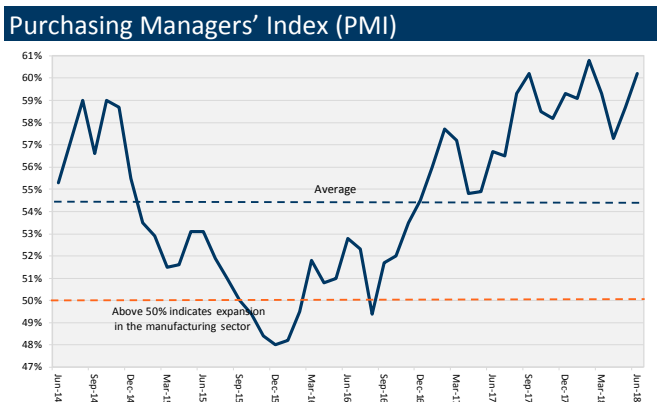
The headline Purchasing Managers' Index (PMI) increased for the second consecutive month in June, matching its second highest reading since 2004. The June PMI reading is 1.2% ahead of the 12-month average of 59.0. Indexes of factory employment, production and orders remained elevated. Of the 18 manufacturing industries tracked, 17 reported growth in June.

Despite positive underlying fundamentals within the manufacturing sector, several headwinds have emerged. Of note, supplier deliveries increased to the highest level in 14 years as lead-time extensions for production materials, transportation delays, and ongoing uncertainty in steel and aluminum markets have continued to restrict production output. The delays potentially reflect purchasing managers' efforts to acquire materials ahead of President Trump's planned tariffs on Chinese products, which would follow global levies on steel and aluminum. Elevated demand, driven by steady consumption and business investment, is challenging capacity limits of transportation sector and manufacturers.

Timothy Fiore, chair of the ISM Manufacturing Survey Committee, remarked, "Lead-time extensions, steel and aluminum disruptions, supplier labor issues, and transportation difficulties continue. Demand remains robust, but the nation's employment resources and supply chains continue to struggle. Respondents are overwhelmingly concerned about how tariff related activity is and will continue to affect their business."



The graph below shows fluctuations within the PMI since June 2014.



Source: Institute for Supply Management

The following summarizes key components of the ISM Index.

- Purchasing Managers' Index (PMI).** A reading above 50.0% indicates that the manufacturing economy is generally expanding; below 50.0% indicates that it is generally contracting. Manufacturing has expanded for 22 consecutive months. The PMI has averaged 59.0% over the past 12 months, ranging from 56.5% to 60.8%, and the June 2018 reading was 60.2%.
- New Orders Index.** A New Orders Index above 52.1%, over time, is generally consistent with an increase in the Census Bureau's series on manufacturing orders. Although the index decreased 0.2 percentage points to 63.5% in June, growth was recorded for the 30th consecutive month.
- Production Index.** An index above 51.0%, over time, is generally consistent with an increase in the Fed's industrial production figures. The index increased 0.8 percentage points in June to 62.3%, marking the 22nd consecutive month of growth.
- Employment Index.** An Employment Index above 50.6%, over time, is generally consistent with an increase in manufacturing employment. Although a decrease of 0.3 percentage points dropped the index to 56.0%, growth was recorded for the 21st consecutive month in June.
- Prices index.** A Prices Index above 52.4%, over time, is generally consistent with an increase in the BLS Producer Price Index for Intermediate Materials. In June, a decrease of 2.7 percentage points lowered the index to 76.8%. Still, raw materials prices have increased for 28 straight months.
- Supplier Delivery Index.** A reading below 50.0% indicates faster deliveries, while a reading above 50.0% indicates slower deliveries. The delivery performance of suppliers registered 68.2% in March, marking the 21st straight month of slowing supplier deliveries, which continues to constrain production growth and inventory expansion.

## Construction Spending

In June, U.S. construction spending declined 1.1% to a seasonally adjusted annual rate of 1.32 trillion, the largest monthly decline since April 2017. On the positive side, growth in construction outlays was revised upwards in April from 0.9% to 1.7% and from 0.4% to 1.3% in May. The June decline was driven by less investment in both private and public construction projects. Despite the latest monthly fall, total construction spending is still up 6.1% YoY, driven by an 8.7% increase in residential outlays.

### Private Construction

- Comprising 77.0% of total construction expenditures, outlays fell 0.4% in June but advanced 6.5% YoY.
- Although outlays on residential projects declined 0.5% in June from May, spending increased 8.8% YoY. Outlays on new, single-family home projects advanced 6.8% YoY, bettering the 1.8% YoY rise for new multifamily homes.
- YoY, non-residential construction spending increased 3.7%. Spending on lodging projects increased 9.9%, outpacing gains on office (+9.5%) and commercial (+0.8) projects. Spending on manufacturing projects fell 5.0%.

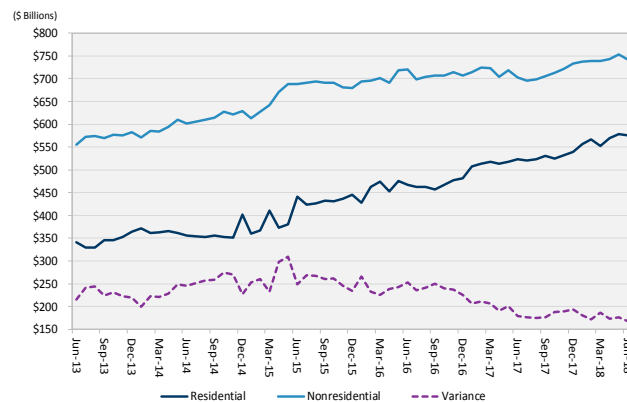
### Public Construction

- After growing 3.0% in May, institutional outlays fell 3.5% in June, the largest drop since March 2013. YoY, spending grew at a 4.9% pace. Nonresidential expenditures increased 5.1% YoY. Of note, spending on office and commercial projects increased 20.7% and 10.5%, respectively. Spending on highway and street, the largest public segment, increased 6.3% YoY.

The following chart highlights annualized residential and non-residential construction outlays since June 2013.

## U.S. Construction Spending

### Value of Construction (Seasonally Adjusted Annual Rate)



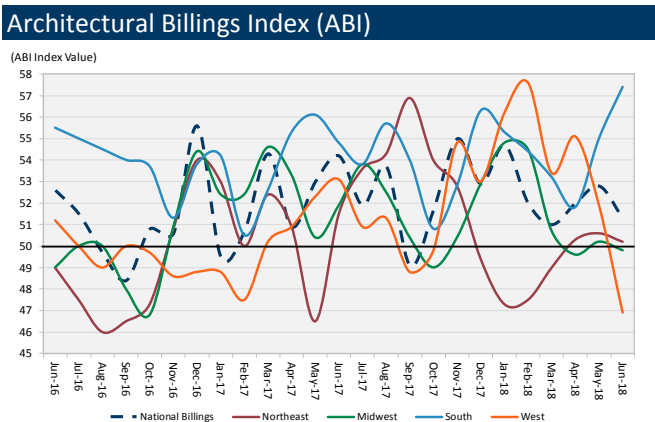
Source: U.S. Census Bureau

## The Architecture Billings Index (ABI)

The Architecture Billings Index (ABI) is a diffusion index derived from the monthly Work-on-the-Boards survey, conducted by the American Institute of Architects (AIA) Economics & Market Research Group. The ABI is a leading economic indicator of non-residential construction activity, reflecting an approximate nine- to twelve-month lag time between architecture billings and construction spending. Any measure below 50 indicates a decline in firm billings from the prior month and a score above 50 indicates an increase in firm billings from the prior month.

- Despite slowing from the prior month, architecture firm billings stayed positive for the ninth consecutive month in June. The ABI averaged 52.0 during 2Q18, down from the 1Q18 average of 52.6.
- During June, indices for new project inquiries (56) reflected a softer reading while design contracts (55.4) posted a stronger reading. On the positive side, both metrics were indicative of favorable business conditions.
- Business conditions softened in the West for the fourth consecutive month while demand for services in the Northeast and Midwest have changed little during the past several months. Firms in the South reported the only month-over-month increase in demand for design services, and conditions within the region are considerably stronger than in other regions. Strong population growth in the South is thought to support construction throughout the area.
- The multifamily residential sector (54.6) witnessed the largest increase in design services during June. Demand for design services in the institutional sector (51.6) slowed while the commercial/industrial sector (53.6) posted a modest drop.

The following graph shows fluctuations within the ABI on a national level and by U.S. region since June 2016.



Source: The American Institute of Architects

## State of the Housing Market

A strong economy, healthy labor market, escalating household income and more millennials seeking to make purchases has created a strong demand for home ownership; however, the housing market continues to be constrained by the lack of supply and inventory, which has been negatively impacted by growing construction and lot development costs, which has driven up home prices and limited lower-end sales. Higher mortgage rates and property price appreciation continue to outpace wage growth, which has also created affordability issues.

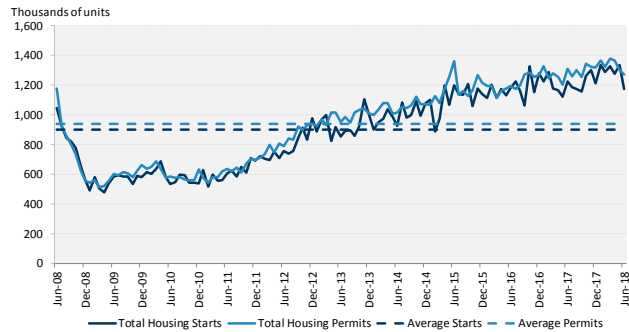
In June, the National Association of Realtors (NAR) reported that existing home sales fell 0.6%, the third consecutive monthly decline and are 2.2% lower YoY. Home sales were restricted by tight inventories, specifically at the entry-level segment of the market. On the positive side, total housing inventory increased 4.3% in June, and NAR reported that the total inventory of existing homes increased 0.5% YoY, the first such increase since June 2015, to a 4.3-month supply.

Below are several key points pertaining to the housing market.

- Median existing home prices increased 5.2%, which marked the 76th consecutive month of YoY price gains. Favorable economic conditions and high competition for housing have supported elevated pricing.
- According to Freddie Mac, the average commitment rate for a 30-year, conventional, fixed-rate mortgage decreased 2 BPS to 4.57% in June. The average 2017 rate was 3.99%.
- According to ATTOM Data Solutions, foreclosure filings in the first half of 2018 declined 15.0% YoY and are down 78.0% from the peak recorded during the first half of 2010.
- The NAR reported that distressed sales constituted 3.0% of total June sales, the lowest since NAR began tracking this metric in October 2008.
- The May 2018 S&P/CoreLogic Case-Shiller U.S. National Home Price Index reported a 6.4% annual gain, the same as the previous month. Seattle, Las Vegas, and San Francisco reported the highest YoY gains among the top 20 cities.
- New home sales, which represent about 10.0% of the housing market, decreased 5.3% in June to an eight-month low but are still up 2.4% YoY. Sales in the South region, accounting for most transactions, declined 7.7% in June. The median sales price of a new home fell 4.2% YoY to \$302,100, and new home inventory continued to rise.
- The CoreLogic Home Price Index reported that U.S. home prices increased 6.8% YoY in June. Metro areas experiencing the largest YoY price gains were Las Vegas (+12.6%), San Francisco (+11.2%), Denver (+8.1%), Boston (+8.0), Los Angeles (+7.6%) and San Diego (+6.7%).

Below is a breakdown of the seasonally adjusted annualized rate of housing starts versus permits since June 2008.

### Annualized Housing Starts vs. Permits



Source: U.S. Census Bureau

### Housing Starts (Annualized Rate)

- Housing starts fell 12.3% in June to a seasonally adjusted annual rate of 1.17 million units, which was 4.2% below the June 2017 rate. This represented the largest monthly decline since November 2016 and a nine-month low. Higher prices for lumber and building materials, along with labor and land shortages, likely contributed to the weakness.
- Single-family housing starts fell 9.1% in June from the prior month and were down 0.2% YoY. This recent weakness is expected to extend the shortage of houses on the market. Multifamily (five or more units) housing starts decreased 20.2% from the prior month and are down 15.3% YoY.

### Building Permits (Annualized Rate)

- In June, building permit activity fell for the third consecutive month, decreasing 2.2% from the prior month to an annual pace of 1.27 million units. Permitting is down 3.0% YoY.
- Single-family permits increased 0.8% from the prior month and are up 4.6% YoY. In contrast, multifamily permits fell 8.7% in June and are down about 16.0% YoY.

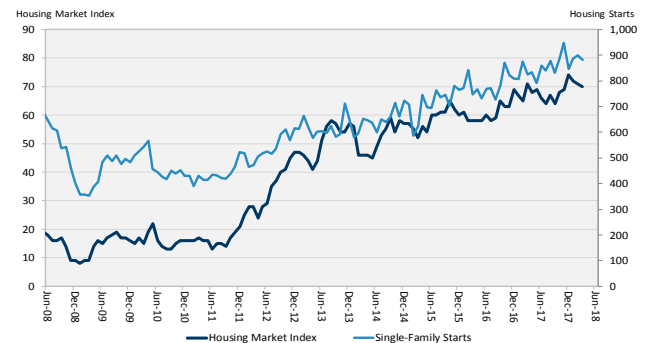
### Builder Confidence

Builder confidence in the market for newly built single-family homes weakened slightly in June, primarily due to considerably higher lumber prices, based on a monthly survey of the National Association of Home Builders. The sales expectations, buyer traffic and current sales conditions components all fell slightly during June. Still, builder optimism remains generally strong, driven by favorable economic conditions, steady buyer demand and continued job creation, which is expected to drive the construction of single-family construction throughout the remainder of the year. Three-month moving averages for regional housing market index scores continue to report developer confidence is strongest in the West, followed by the South, Midwest and Northeast regions.

Despite positive sentiment within the industry, builders have expressed increasing concerns about tariffs placed on Canadian lumber and other imported products, which have negatively impacted affordability. The survey reported that record-high lumber prices have added nearly \$9,000 to the price of a new single-family home since January 2017.

The following is a historical chart comparing the NAHB/Wells Fargo Housing Market Index and single-family starts.

### NAHB/Wells Fargo Housing Market Index



Source: NAHB/Wells Fargo; U.S. Census Bureau

### Notable Housing Sale and Pricing Trends

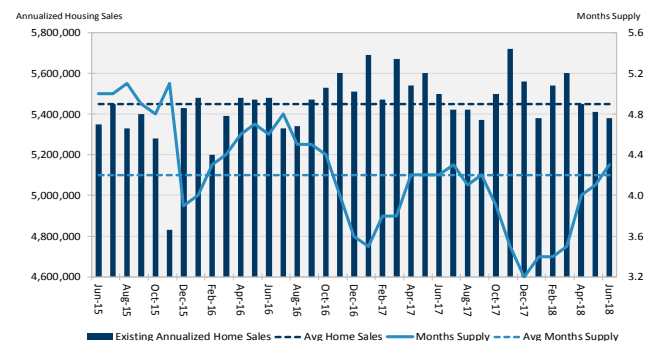
Below are key housing market statistics as of June 2018.

- YoY, existing home sales decreased 5.0% in the West, 4.0% in the Northeast and 3.1% in the Midwest, but increased 0.4% in the South.
- YoY, the median price of an existing home increased 10.2% in the West, followed by gains of 3.5% in the Midwest, 3.3% in the Northeast and 2.7% in the South.
- First-time buyers accounted for 31.0% of sales in June, down from 32.0% a year ago.
- Properties stayed on the market for 26 days in June, down from 28 days a year ago.

Below is a breakdown of existing annualized housing sales vs. supply since June 2018.

### Housing Sales

#### Existing Annualized Housing Sales vs. Monthly Supply



Source: National Association of Realtors



## PwC Real Estate Investor Survey

- Institutional and private investors surveyed for the 2Q18 PwC Real Estate Investor Survey reported that overall cap rates (OARs) decreased in 14, increased in 8 and held steady in 12 of the survey's 34 tracked markets compared to 1Q18. Collectively, OARs decreased 5 BPS across the major property sectors since 2Q17.
- Terminal cap rates stayed at 6.52% in 2Q18 and generally have moved little during the past 12-month period.
- Discount rates (IRRs) declined 3 BPS to 7.34% in 2Q18 and recorded a decline of 1 BPS YoY.

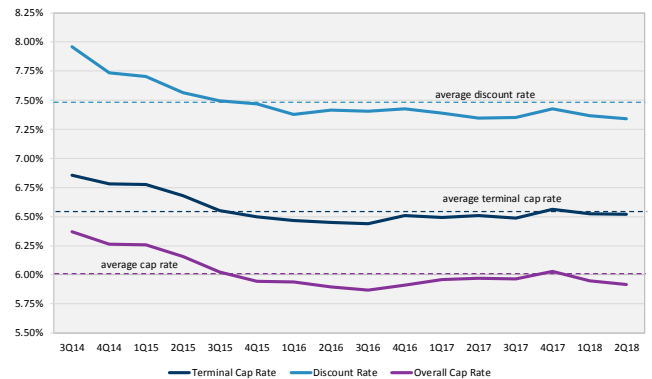
### 2Q18 Survey Highlights

- OARs decreased within four of the major property sectors since 1Q18, led by a 15 BPS decline within the warehouse sector and a 7 BPS decline in the apartment sector. The regional mall sector experienced a 5 BPS increase while no change was recorded in the strip and power center sectors. Slight downward movement was recorded within the office sector.
- The warehouse sector had the lowest OAR (4.8%) followed by the apartment sector (5.3%). Power center properties had the highest average OARs at 6.7%, followed by the suburban office and strip center sectors. The simple average across all sectors was 5.92%.
- Terminal capitalization rates decreased within four of the major commercial property sectors since 1Q18, including a 14 BPS decline in the warehouse sector. Modest declines were recorded in the apartment, CBD-office and suburban office sectors. All retail sectors recorded gains, led by a 13 BPS increase within the regional mall sector.
- The apartment (5.6%) and warehouse (5.7%) sectors had the lowest terminal capitalization rates. Suburban office (7.6%) assets had the highest terminal capitalization rate.
- IRRs fell from the prior quarter in six of the major commercial property sectors, including a 19 BPS decline within the warehouse sector. The power center sector experienced an 18 BPS increase.
- Warehouse (6.4%) properties had the lowest IRRs, followed by the CBD-office (6.9%) sector. The highest IRRs were recorded in the suburban office (8.3%) sector.

Simple averages of overall capitalization, terminal capitalization and discount rates are presented in the following table. The averages reflect the following property types: industrial (warehouse), office (central business district (CBD) office, suburban office), apartment and retail (strip center, regional malls and power centers).

### PwC Real Estate Investor Survey Historical Results

#### Investment Rate Analysis



#### Additional 2Q18 Report Insights/Findings

- Investors were generally pleased regarding property performance in terms of occupancy and rent growth.
- Investors believed the warehouse sector investment environment was the strongest, driven by unrelenting tenant demand.
- Investors were more bullish on the apartment sector and believe the investment climate will remain strong in the near term due to an increasing renter base and continued steady income growth.
- Surveyed investors view suburban office assets as riskier than CBD-office assets.

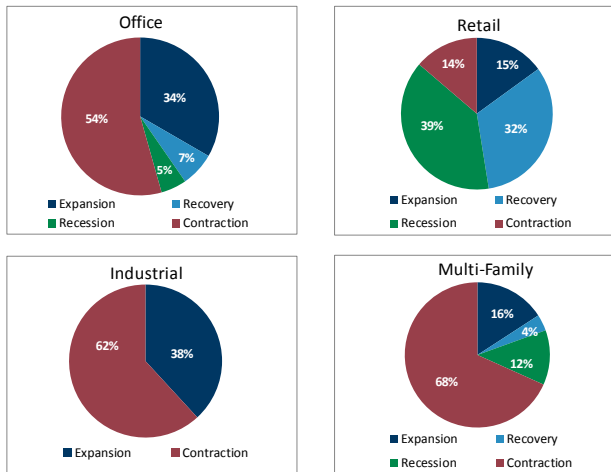
### PwC Real Estate Barometer 2Q18

The PwC Real Estate Barometer was introduced as a system for analyzing historical/forecasted CRE data within the four major U.S. property sectors. The barometer indicates where a major property type is positioned within the real estate cycle, which consists of the following four phases: contraction, recession, recovery and expansion.

- About 54.0% of the tracked office markets are expected to be in the contraction phase of the real estate cycle in 2018 as market fundamentals are projected to soften somewhat as new supply is anticipated to exceed demand in selected markets. On the positive side, nearly 33.0% of the tracked office markets are in the expansion phase, and the outlook for office assets remains positive.

- About 39% of the tracked retail markets are projected to be in the recession phase of the real estate cycle in 2018, as bankruptcies and store closings are expected to decrease brick and mortar footprints. On the positive side, 32.0% of the tracked markets are projected to be in the recovery phase by the end of 2018 due to more absorption.
- Despite strong market fundamentals characterized by strong leasing, rental growth and absorption, the majority of tracked industrial markets are projected to be in the contraction phase in 2018, due to gradually softening market conditions following the market peak.
- Nearly 70.0% of multifamily markets are expected to be in the contraction phase in 2018, primarily resulting from new supply additions; however, sustained demand and a preference to own rather than rent have kept market fundamentals favorable within the sector.

Below is a snapshot of each major property type as of 2Q18.



Source: PwC

## RCA Commercial Property Price Index (CPPI)

The RCA Commercial Property Price Index (CPPI) is a periodic same-property investment price change index of the U.S. commercial investment market based on Real Capital Analytics (RCA) data. RCA collects price information for every U.S. commercial property transaction over \$2.5 million. The index tracks same-property realized round-trip price changes based purely on the documented prices in completed, contemporary property transactions. The methodology is an extension of market-accepted regression-based, repeat-sales indices and uses no appraisal valuations.

Below are key highlights from the June 2018 report.

- The National All-Property Composite Index (the “Index”) increased 1.2% during 2Q18. Growth was stronger within the

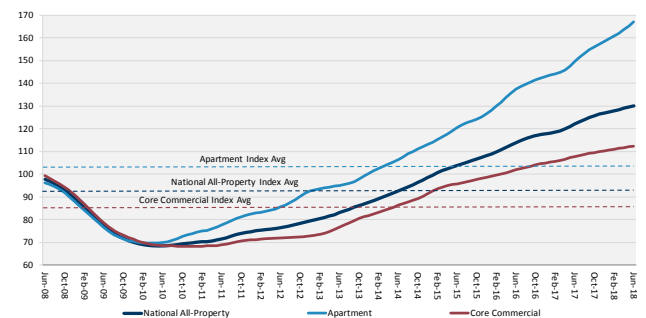
apartment sector, which gained 3.0% versus a 0.9% increase for the core commercial sector.

- Pricing within the suburban office sector increased 3.6% during 2Q18, the highest among the core commercial sectors. In contrast, pricing fell 0.9% in the CBD office sector, which was the worst-performing sector. Little change occurred within the retail and industrial sectors.
- 2Q18 price appreciation was stronger in non-major markets (1.4%) than in major markets (1.2%).
- The Index increased 6.5% YoY. Growth was strongest in the apartment (+11.6%) and suburban office (+7.9%) sectors while growth lagged in the CBD office sector (-1.0%). Pricing gains were strong within the industrial sector (6.5%).
- YoY, pricing increased faster within non-major markets (6.9%) than in major markets (5.6%).
- During the past five-year period, gains for apartment assets (+76.0%) outpaced gains within the other sectors.

Below are changes within the major RCA commercial property indices since March 2008.

### RCA Commercial Property Price Index

#### National All Property vs. Apartment vs. Core Commercial Index



The following chart illustrates cumulative price returns for the primary sectors in the CPPI from one month to ten years.

RCA CPPI						
Cumulative Returns by Sector/Type						
Index	1	3	1	3	5	10
	Month	Months	Year	Years	Years	Years
Apartment	1.0%	3.0%	11.6%	38.5%	75.6%	73.7%
Core Commercial	0.3%	0.9%	4.3%	17.3%	46.5%	13.0%
Industrial	-0.5%	-0.1%	6.5%	26.0%	57.0%	22.5%
Office	0.8%	2.5%	6.2%	19.3%	51.0%	12.8%
CBD	-0.1%	-0.9%	-1.0%	16.9%	56.3%	37.3%
Suburban	1.1%	3.6%	7.9%	20.5%	51.3%	9.2%
Retail	0.1%	0.2%	0.9%	8.1%	32.6%	5.8%
Major Markets	0.4%	1.2%	5.6%	24.1%	59.1%	46.8%
Non-Major Markets	0.5%	1.4%	6.9%	25.9%	56.2%	26.0%
<b>National All-Property</b>	<b>0.4%</b>	<b>1.2%</b>	<b>6.5%</b>	<b>25.1%</b>	<b>56.7%</b>	<b>32.9%</b>

\* Represents data as of June, 2018

## Green Street Commercial Property Price Index

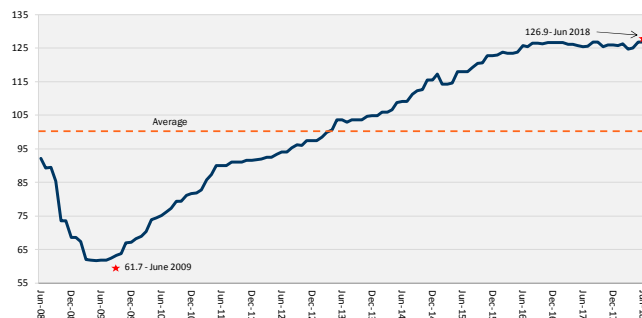
Green Street’s Commercial Property Price Index is a time series of unleveraged U.S. commercial property values that captures the prices at which CRE transactions are currently being negotiated and contracted. Features that differentiate this index are its timeliness, emphasis on institutional quality properties, and ability to capture changes in the aggregate value of the commercial property sector.

- Despite remaining unchanged in June, aggregate pricing increased 2.0% during 2Q18.
- Property pricing has plateaued during the past 18 months due to slowly weakening fundamentals and elevated asset prices.
- Pricing in the industrial sector increased 5.0% during 2Q18 and has risen 12.0% during the past 12 months, outpacing the other sectors.
- Quarterly and annual gains of 2.0% and 6.0%, respectively, were recorded in the apartment sector while little change in pricing occurred in the office sector.
- Although no change in pricing occurred in the mall sector during 2Q18, a 9.0% decline has occurred during the past 12 months.
- Student housing, a specialty sector not included in the aggregate CPPI, experienced a 6.0% increase in value during 2Q18 and a 10% gain during the past year.
- Self-storage, a specialty sector not included in the aggregate CPPI, experienced little change in value during the past year, but pricing has continued to trend near historically high levels.

Below are changes since June 2008.

### Green Street Commercial Property Price Index

#### National Index – All Properties



## Commercial Property Sales Analysis

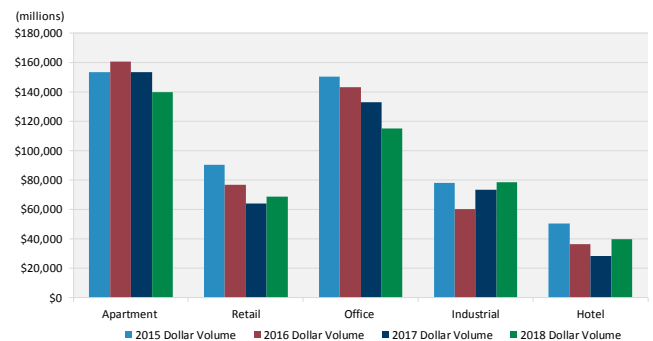
RCA reported that investment sales volume registered \$221 billion (excluding land and senior housing) during the first half of 2018, an increase of 5.0% YoY. The uptick in volume reflected a 21.0% YoY increase in portfolio and entity-level sales. Single-asset sales, which represented about 75.0% of the volume, increased nearly 2.0% YoY. Investors continued to be drawn to assets in secondary and tertiary markets, where nearly 60.0% of activity transpired. YoY, volume increased by the largest percentages in the hotel and industrial sectors and fell within the office sector.

Buyers have continued to exhibit more caution in response to an uptick in interest and capitalization rates and deal activity, and continued to migrate to secondary locations where investors search for greater yields and returns. Even so, RCA noted that Manhattan was the leader in deal volume during the first half of 2018, followed by Los Angeles, Dallas, Chicago and Atlanta.

2015 to 2018 sales activity by property type is summarized below; 2018 activity is annualized based on 2Q18 data.

### Investment Sales Activity

#### Dollar Value of Sales Transactions by Property Type



Source: Real Capital Analytics

Below we look at sales activity, per RCA, by product type, during the first half of 2018.

- **Apartment.** Nearly \$70 billion of sales were transacted, the highest total among the property sectors. YoY, activity increased nearly 8.0%. Single-asset sales increased 16.0% YoY, in contrast to an 18% decline for portfolio and entity-level transactions. Mid-/high-rise sales, accounting for 35.0% of sector activity, increased 55.0% YoY while sales of the larger garden apartment sector fell 1.0%. RCA reported garden apartment cap rates averaged 5.7% for the quarter vs. 4.9% for mid-/high-rise assets. Since 2017, the top four largest single-asset transactions occurred in the New York City market, highlighted by the sale of Spring Creek Towers, which comprises 5,881 apartment units in 46 buildings, to Brooksville Company and Rockpoint Group for \$905 million.

- Retail.** Sales volume increased 1.4% YoY on sales of about \$34 billion during the first half of 2018. The increase was driven by a 31.0% rise in portfolio and entity-level transactions, highlighted by the acquisition of Westfield Corp. by Unibail-Rodamco SE. It was reported that the Brookfield acquisition of GGP has not closed but could add significant volume to the sector in 2018. Investment activity in the centers sector (multi-tenant space of 30,000 sf or more) increased 3.1% as compared to a 1.9% decline in the shops sector (usually single tenant space of under 30,000 sf). Among subtypes, YoY sales of grocery-anchored centers and single-tenant properties fell 36.0% and 7.0%, respectively.
- Office.** Deal activity declined 13.0% YoY on sales of \$57.6 billion. Investors favored suburban buildings, which accounted for 60.0% of total volume and where pricing is more favorable. YoY, total volume fell 17.0% for CBD assets versus a 10.0% decline for suburban assets. During the first half of 2018, portfolio and entity-level transaction volume fell 34.0% whereas sales of individual assets decreased only 8.0%. Despite the decline, Manhattan continued to lead all major metro areas in volume during the first half of 2018, driven by the \$2.4 billion sale of the Chelsea Market Building to Alphabet Inc. and Silverstein Properties' \$1.2 billion acquisition of Disney's ABC West Side complex.
- Industrial.** Driven by the growing need for warehouse space, robust investor demand resulted in \$39.2 billion of transaction volume since 2017, which is up 26.0% YoY. Portfolio and entity-level transactions, representing 40.0% of overall volume, increased 75.0% YoY in comparison to a 7.0% gain in single-asset volume. Sales of warehouse properties accounted for 75.0% of total volume and improved 37% YoY. Highlighting the activity, Blackstone acquired a portfolio comprised of 146 last-mile infill warehouses and distribution buildings from Cabot Properties for a reported \$1.8 billion.
- Hotel.** Increasing investor interest resulted in a 38.0% YoY increase in volume, the highest among the major property sectors. Volume within the full-service sector increased 54.0% YoY and accounted for two-thirds of the nearly \$20 billion of sales activity during the first half of 2018. Since 2017, portfolio and entity-level sales volume increased 215.0% versus a 5.0% increase in single-asset sales. Highlighting activity, Blackstone agreed to buy the Grand Wailea in Maui, HI from GIC, a sovereign wealth fund based in Singapore, for a reported \$1.1 billion, and Host Hotels & Resorts acquired three hotels, located in CA, HI and FL, from Hyatt Hotels for a reported \$1 billion.

Below are the top buyers of CRE per RCA.

Top Buyers (Largest to Smallest)		
1st Half 2018 (by Investment Volume)		
Office	Industrial	Retail
Alphabet Inc.	Bank of China	Unibail-Rodamco-Westfield
Sterling Bay Cos.	Hillhouse Capital	Apollo Global RE
Silverstein Properties	SMG Eastern	Hudson Pacific Props
Invesco	Hopu Investment	Publix
Heitman	China Vanke	Alexander & Baldwin
CPP Investment Board	Mapletree Commercial	Fortress
Equinix (REIT)	BREIT	Cardinal Capital Partners
Apartment	Hotel	Overall
Brookfield AM	Blackstone	Unibail-Rodamco-Westfield
Rockpoint Group	Atrium Holding	Bank of China
Brooksville Company	Fortress	Hillhouse Capital
TIAA	Maefield Development	SMG Eastern
Goldman Sachs	Host Hotels & Resorts	China Vanke
Blackstone	Brookfield AM	Blackstone
AIMCo	Highgate Holdings	Brookfield AM

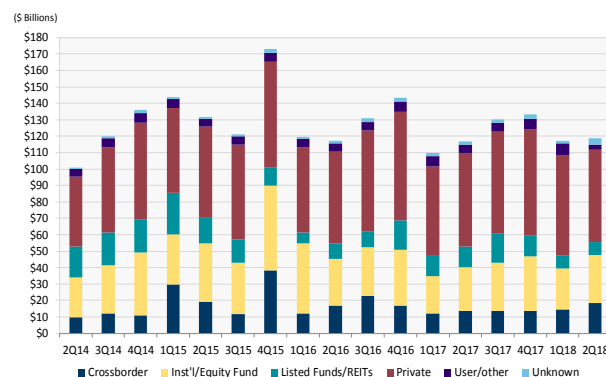
In addition to the preceding data, we have also analyzed RCA historical sales activity by buyer type.

- Private buyers continued as the most active buyers of real estate during the first half of 2018, acquiring \$117 billion of CRE assets. This represented about half of total transaction volume. In 2017, volume registered \$238 billion.
- Acquisition volume by institutional/equity buyers totaled \$54.0 billion during the first half of 2018, exceeding the \$49.0 billion at this time last year. The group's market share is currently 23.0%, similar to 2017.
- International investment in U.S. CRE escalated during 2Q18 and totaled \$18.6 billion, the highest quarterly total since 3Q16. During the first half of 2018, \$33.0 billion was transacted, which is ahead of the pace set last year, when volume registered \$53.5 billion.
- After registering \$55 billion during 2017, volume slowed considerably to \$16 billion during the first half of 2018 for listed funds/REITs. The group's market share fell to 7.0%.

2Q14 to 2Q18 sales activity by buyer type is summarized below.

### Investment Sales Activity

#### Summary of Transactions by Buyer



Source: Real Capital Analytics

Below are the top metropolitan areas for sales activity per RCA.

Top Metro Areas		
1st Half 2018 Investment Volume (Total \$)		
Office	Industrial/Flex/R&D	Retail
Manhattan	Los Angeles	Los Angeles
Chicago	Chicago	Manhattan
Los Angeles	Dallas	San Diego
Boston	Inland Empire	San Jose
Seattle	NYC Boroughs	Chicago
San Francisco	San Jose	Dallas
DC VA burbs	Atlanta	NYC Boroughs
Apartment	Hotel	Overall
Los Angeles	Manhattan	Manhattan
Dallas	Phoenix	Los Angeles
NYC Boroughs	San Francisco	Dallas
Atlanta	DC VA burbs	Chicago
Houston	Dallas	Phoenix
Phoenix	Seattle	Atlanta
Manhattan	Boston	Houston

### Significant 2Q18 Sales Transactions

The following tables summarize noteworthy sales executed during 2Q18 in the major CRE sectors per CoStar.

Office Sale Transactions				
Address/Name	City, State	Size (SF)	Sale Price (\$ mil)	Buyer(s)
5 Bryant Park	New York, NY	681,575	\$640.0	Savanna
28 State Street	Boston, MA	682,385	\$417.6	Heitman LLC
175 West Jackson Boulevard	Chicago, IL	1,452,390	\$305.0	Brookfield Asset Management, Inc.
123 Mission Street	San Francisco, CA	345,595	\$300.0	Northwood Investors LLC
1111 Brickell Avenue	Miami, FL	522,892	\$248.5	KKR and Parkway Prop.Investments, LLC
615 South College Street	Charlotte, NC	375,865	\$222.0	CBRE Global Investors Ltd and CalSTRS
2100 Powell Street	Emeryville, CA	346,025	\$170.9	CBRE Global Investors Ltd

Industrial/Flex/Data Center Sale Transactions				
Address/Name	City, State	Size (SF)	Sale Price (\$ mil)	Buyer(s)
3740 & 3780 104th St & 3760 108th St	Hialeah, FL	1,062,427	\$180.0	Duke Realty
5300 Sheila Street	Commerce, CA	695,120	\$121.0	Rexford Industrial
20333 Normandie Ave	Torrance, CA	512,490	\$102.5	Morgan Stanley Services Group Inc.
66 Saratoga Boulevard	Devens, MA	816,375	\$88.0	Morgan Stanley Services Group Inc.
2115 19th St N - US Pipe	Bessemer, AL	962,000	\$86.1	W.P.Carey, Inc.
1601 Dry Creek Dr	Longmont, CO	556,410	\$68.5	Lakestar Properties
1650 Union Hill Rd	Alpharetta, GA	165,000	\$64.0	Centurion Investments, LLC

Retail Sale Transactions				
Address/Name	City, State	Size (SF)	Sale Price (\$ mil)	Buyer(s)
PGA Plaza (2)	Palm Beach Gardens, FL	114,374	\$88.0	InvenTrust Properties
Silver Spring Square (11)	Mechanicsburg, PA	342,600	\$80.8	The Wilder Companies
Rivertowns Square (9)	Dobbs Ferry, NY	116,422	\$68.9	Regency Centers Corporation
Maple Avenue Shopping Center (3)	Vienna, VA	111,810	\$63.6	Global Retail Investors, LLC
Southgate Mall (3)	Missoula, MT	638,233	\$58.0	Washington Prime Group Inc.
MacArthur Commons (5)	Whitehall, PA	372,569	\$55.3	Abrams Realty & Development, LLC
Primrose Marketplace (2)	Springfield, MO	372,478	\$51.8	DRA Advisors LLC

Multifamily Sale Transactions				
Name	City, State	Units	Sale Price (\$ mil)	Buyer(s)
North Harbor Tower	Chicago, IL	596	\$240.0	Waterton Residential, LLC
The Rivington	Hoboken, NJ	240	\$146.0	Equity Residential
Sussex at Kingstowne	Alexandria, VA	556	\$144.0	Harbor Group Management Co., LLC
Domain Oakland Apartments	Oakland, CA	264	\$140.0	Magnolia Capital
Avalon Blue Hills	Randolph, MA	472	\$131.3	Blackstone Real Estate Income Trust, Inc.
The Quay at Wellington	West Palm Beach, FL	350	\$120.0	Stockbridge Capital Group, LLC
Sofi Shadowridge	Vista, CA	314	\$115.0	Pacific Urban Residential

Hospitality Sale Transactions				
Name	City, State	Rooms	Sale Price (\$ mil)	Buyer(s)
The Modern Honolulu	Honolulu, HI	360	\$215.1	Diamond Resorts International
Taj Boston	Boston, MA	273	\$203.0	Iconiq Capital, Inc.
SLS Las Vegas Hotel & Casino	Las Vegas, NV	1,622	\$190.0	Meruelo Group
Renaissance Las Vegas Hotel	Las Vegas, NV	548	\$188.0	Rockpoint Group LLC
The Quin Hotel	New York, NY	208	\$173.9	Hilton Grand Vacations Company, LLC
Hilton Fort Lauderdale Marina	Fort Lauderdale, FL	589	\$170.7	Thayer Lodging Group, Inc.
Hotel Mdr - a DoubleTree by Hilton	Marina Del Rey, CA	283	\$127.0	London & Regional Properties Ltd

## NCREIF Property Index

The NCREIF (National Council of Real Estate Investment Fiduciaries) Property Index (NPI) is a quarterly time series composite total rate of return measure of investment performance of individual CRE properties acquired in the private market for investment purposes only. Properties in the NPI are accounted for using market value accounting standards. NCREIF requires that properties included in the NPI be valued at least quarterly using standard CRE appraisal methodology. Each property must be independently appraised a minimum of once every three years. The capital value component of return is predominately the product of property appraisals. When entering the NPI, properties must be 60% occupied; investment returns are reported on a non-leveraged basis and properties must be owned/controlled by a qualified tax-exempt institutional investor or its designated agent.

### NPI General Recap

- NPI total returns increased 11 BPS from the prior quarter to 1.81%, composed of a 1.14% income return and a 0.67% capital appreciation return. Despite the modest gain, returns during 2Q18 were the highest since 2Q16.
- Total one-year returns registered 7.2%, 20 BPS higher YoY. The average quarterly return during the past five years was nearly 2.4%, or 9.9% annualized.
- It was reported that overall market fundamentals remained favorable during 2Q18.
  - Occupancy rates (94.0%) increased to a new 16-year high for NCREIF-tracked properties. Industrial assets had the highest occupancy (97.0%), followed by retail assets (93.0%).
  - The report also noted that rent turned positive during 2Q18 after having been negative during the prior quarter, and overall cap rates increased 8 BPS from the prior quarter to 4.94%.

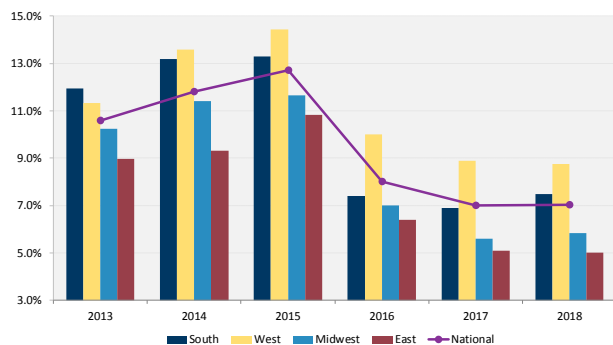
### NPI Annualized Returns by Region

- Like the prior quarter, the West and South regions had the greatest returns (2.2% and 1.9%, respectively) during 2Q18. One-year returns were strongest in the West at 9.2%, which was 200 BPS higher than in the South.
- Property gains remained weakest in the East. The region's one-year returns of 5.2% trailed the broader index by 200 BPS. A 2Q18 return of 1.3% was recorded.
- Quarter-over-quarter (QoQ) gains in the Midwest increased 38 BPS during 2Q18 to 1.7%, the highest quarterly gain. Regional returns averaged 5.8% during the past year.



Below is a graph illustrating total returns by region since 2012. Returns for 2018 are annualized based on 2Q18 data.

**NCREIF: Regional Total Returns**



**NCREIF Composition by Market Value**

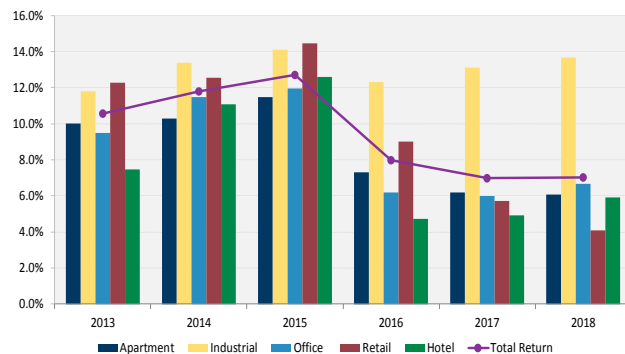
Property Type	Region	Percentage
Office	West	39.0%
Apartment	East	32.4%
Retail	South	20.1%
Industrial	Midwest	8.5%
Hotel		0.6%

**NPI Annualized Returns by Property Type**

- 2Q18 spreads between the best- and worst-performing asset types registered 226 BPS (3.58% vs. 1.32%), less than the 253 BPS (3.25% vs. 0.72%) spread during the prior quarter.
- Similar to the prior quarter and year, the industrial sector recorded the strongest price appreciation with a 3.6% return during 2Q18. The one-year return of 14.1% outpaced all other property types by at least 750 BPS.
- Returns within the office sector decreased 26 BPS QoQ to 1.5% during 2Q18, the only decline among the sectors. The one-year return of 6.6% trailed the broader index by 60 BPS.
- Within the apartment sector, a 1.5% return was recorded during 2Q18, or 4 BPS higher than the prior quarter. The one-year return of 6.5% is 20 BPS lower than the one-year return at 2Q17.
- Growth within the retail sector recovered from the prior quarter and increased 60 BPS to 1.3%. The one-year return of 4.6% lagged the 6.9% one-year return at 2Q17.
- Returns within the hotel sector increased 95 BPS QoQ to 1.95% during 2Q18. This asset class had the strongest 2Q18 income return at 2.3%, but recorded its tenth consecutive quarter of depreciation. The one-year return of 6.3% trailed the broader index by 90 BPS.

Below is a graph showing total returns by property type since 2012. Returns for 2018 are annualized based on 2Q18 data.

**NCREIF: Property Type Total Returns**



**Equity REIT Analysis**

**FTSE National Association of REITs U.S. Real Estate Index**

Composed of 172 REITs, the Financial Times of London and London Stock Exchange (FTSE) NAREIT All Equity REITs Index (“The Index”) posted its fourth consecutive monthly gain in June after weakness early in the year. Following a 3.6% gain in May, the Index increased 4.2% in June as interest rate concerns have largely subsided, REIT market fundamentals have been strong, and increasing numbers of investors seek to deploy capital in more defensive sectors amidst inflation concerns and the potential for an escalating trade war.

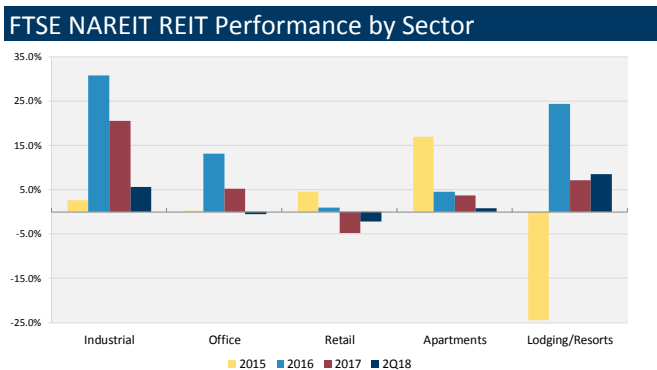
With the latest monthly increase, REIT returns posted a 1.3% return during the first half of 2018 but still lagged the 4.9% return recorded at this time last year. Since reaching a low point in February, REIT returns have outperformed the S&P 500 Index. Last year, the Index increased 8.7%.

Below is a brief overview of selected CRE sector performance. All sectors rebounded from the 1Q18 performance.

- The industrial sector (composed of 14 REITs) gained 5.7% during the first half of 2018 but still lagged the 11.2% return YoY. Analysts are generally optimistic on sector performance, due to sustained demand for modern big box distribution warehouse space resulting from the continued growth of e-commerce.
  - Often tied to industrial market performance, the self-storage sector (composed of five REITs) gained 12.3% during the first half of 2018, the highest among any sector. In contrast, the data center sector lost 3.1% since 2017 despite a 6.7% gain during June.

- The office sector (composed of 23 REITs) posted a 0.5% loss during the first half of 2018, lagging the 9.0% return recorded during this same period last year. Analysts have expressed cautious optimism but are increasingly concerned regarding underlying growth in the labor market and rental rate appreciation in select markets.
- Returns have steadily improved within the retail sector (composed of 31 REITs) during 2018. Following a negative 11.2% return in 1Q18, returns of 4.1% and 5.8% were recorded in May and June, respectively. The negative 2.2% first half of 2018 return is better than the negative 12.0% YoY return. Since 2017, returns within the free-standing subsector (+1.8%) bested those with the regional mall (-2.2%) and shopping center (-4.6%) subsectors.
- After returning 5.7% during the first half of 2017, the apartment sector (composed of 14 REITs) posted a 0.9% increase during the first six months of 2018 and rebounded from a 5.1% loss posted in 1Q18. Investors are still generally upbeat on the sector due to steady demand, the high cost of home ownership and favorable demographics.
- The lodging/resorts sector (composed of 17 REITs) rebounded during 2Q18 after posting a 5.0% loss during the first quarter. The 8.5% return since 2017 was the highest among the major property types. Concerns regarding the increasing cost and availability of labor will continue to challenge the sector.

Below is a graph illustrating total returns by property sector from 2015 to 2Q18.



### Largest REIT by Market Cap

The following is a summary of the performance of the largest U.S. equity REITS during 2Q18. The healthcare REITs Ventas Inc. and Welltower Inc. experienced the largest quarterly percentage increases in market capitalization. Other strong performers included Public Storage, Host Hotels & Resorts Inc. and Vornado Realty Trust.

Largest U.S. Equity REITs					
Name	Symbol	Sector	2Q18 Market Cap (billions)	1Q18 Market Cap (billions)	% Change
American Tower REIT	AMT	Infrastructure	\$63.7	\$61.8	3.1%
Simon Property Group Inc.	SPG	Retail	\$52.7	\$48.2	9.4%
Crown Castle International Corp.	CCI	Infrastructure	\$44.7	\$44.1	1.4%
Public Storage	PSA	Storage	\$39.5	\$34.8	13.5%
Prologis Inc.	PLD	Industrial	\$35.0	\$33.4	4.8%
Equinix, inc.	EQIX	Data Center	\$34.2	\$32.6	4.8%
Weyerhaeuser Co.	WY	Timber	\$27.6	\$26.3	4.9%
Avalonbay Communities Inc.	AVB	Residential	\$23.8	\$22.7	4.8%
Equity Residential	EQR	Residential	\$23.5	\$22.5	4.1%
Welltower Inc.	WELL	Healthcare	\$23.3	\$20.2	15.7%
Digital Realty Trust Inc.	DLR	Data Center	\$23.0	\$21.6	6.6%
Ventas Inc.	VTR	Healthcare	\$20.9	\$17.6	19.0%
GGP Inc.	GGP	Retail	\$19.6	\$19.4	1.2%
Boston Properties Inc.	BXP	Office	\$19.4	\$19.0	2.1%
SBA Communications Corp.	SBAC	Infrastructure	\$19.0	\$20.1	-5.3%
Essex Property Trust Inc.	ESS	Residential	\$15.8	\$15.8	0.0%
Host Hotels & Resorts Inc.	HST	Hotel/Lodging	\$15.6	\$13.8	13.3%
Realty Income Corp.	O	Retail	\$15.3	\$14.6	4.9%
Vornado Realty Trust	VNO	Diversified	\$14.1	\$12.7	10.3%
Alexandria Real Estate Equities	ARE	Office	\$13.0	\$12.6	2.8%

Source: REIT.com; 2Q18 as of June 30, 2018; 1Q18 as of March 31, 2018

### Stock Market Recap

Following a tumultuous first quarter, volatility eased somewhat during 2Q18. Despite positive corporate fundamentals, analysts believed that escalating trade tensions between the United States and China were partly responsible for lagging stock performance relative to strong corporate profits. Trade concern also extended to Canada and Mexico with the uncertain future of the North American Free Trade Agreement. Towards the end of the quarter, the potential for tariffs appeared to impact corporate strategy and profits outlook, causing the leading markets to slump.

Performance varied among stock indices. Market gains were largely attributed to technology stocks, driving a 6.3% gain for the NASDAQ during the quarter, outpacing returns with the S&P 500 Index (+ 3.4%) and Dow Jones Industrial Average (+1.3%). Within the S&P 500 Index, energy shares (+13.5%) were the best performer as oil prices reached four-year highs. The strong domestic economy also lifted small caps and REITs, which are less exposed to global trends and trade risk. For the first half of 2018, the consumer discretionary sector led all sectors in gains, up 11.5%, followed by information technology (+10.9%). The worst performing sectors have been consumer staples (-8.6%) and telecom services (8.4%).

The following chart highlights the annual returns of Equity REITs in comparison to several of the leading stock market indices.

Index	2013	2014	2015	2016	2017	2018	2013-2017 avg
Equity REIT	2.9%	28.0%	2.8%	8.6%	8.7%	1.3%	10.2%
NASDAQ	12.1%	13.4%	5.7%	8.9%	28.2%	8.8%	13.7%
S&P 500	38.3%	11.4%	-0.7%	12.0%	19.4%	2.9%	16.1%
DJIA	29.6%	7.5%	-2.2%	16.5%	25.1%	0.4%	15.3%

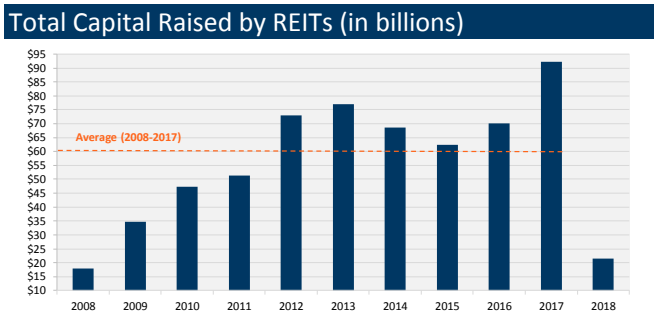
Source: Reit.com, Yahoo Finance: 2018 is from January 2, 2018 to June 29, 2018

## Capital Raising

Publicly traded U.S. equity REITs raised \$21.5 billion through the first half of 2018, a 53.0% YoY decline. It appears that capital raising has been negatively impacted by rising interest rates, which have made bonds more attractive and will likely lessen the appeal of the dividends paid by REITs. In 2017, publicly traded U.S. equity REITs raised about \$90 billion.

During the first six months of 2018, the specialty sector (including data center, student housing and communications REITs) raised \$8.8 billion, followed by \$3.2 billion by industrial REITs, \$2.1 billion by residential REITs (comprising multifamily, single family, student housing and manufactured home REITs), \$2.0 billion by office REITs, \$1.8 billion by retail REITs and \$1.7 billion by healthcare REITs. Senior debt offerings totaled \$15.4 billion, accounting for 72.0% of total capital raising.

Below is a graph showing the capital raised by REITs since 2008.



Source: NAREIT/ SNL Financial

## Initial Public Offerings

According to SNL Financial and NAREIT, three REIT IPOs were priced during the first half of 2018, all in January.

- Industrial Logistics Properties Trust (NASDAQ: ILPT) completed its \$480 million IPO. ILPT, based in Newton, MA, was formed to own and lease industrial and logistics properties throughout the United States.
- AmeriCold Realty Trust (NYSE: COLD) raised \$725 million for its IPO. Based in Atlanta, Georgia, Americold owns and operates 158 temperature-controlled warehouses, with approximately 1 billion cubic feet of storage, in the United States, Australia, New Zealand, Canada and Argentina.
- Based in Las Vegas, Nevada, VICI Properties, (NYSE: VICI), completed its \$1.21 billion IPO. VICI owns, acquires, and develops gaming, hospitality, and entertainment destinations in the United States. The company's portfolio includes 20 gaming facilities as well as approximately 14,500 hotel rooms, 150 restaurants, bars, and nightclubs. VICI leases its properties primarily under the Caesars, Horseshoe, Harrah's, and Bally's brands.

## Commercial Lending

The Mortgage Bankers Association's (MBA) Quarterly Survey of Commercial/Multi-Family Mortgage Bankers Originations reported that 2Q18 commercial and multifamily mortgage loan originations increased 4.0% YoY and grew 33.0% QoQ. Among property types, the largest YoY increase was within the hotel sector, while the health care and office sectors posted declines. Loans originated for government sponsored entities (GSEs) recorded the largest increase while the CMBS/conduit sector posted the largest decline in origination volume.

Jamie Woodwell, MBA's VP of CRE Research, remarked, "Commercial and multifamily real estate borrowing and lending continues to track with last year's level. Investor demand for multifamily properties and hotels are helping push originations higher, even as loan demand for retail properties is down. New loan demand continues to be supported by still-low long-term interest rates, growing property incomes and rising values."

According to the July 2018 Senior Loan Officer Opinion Survey on Bank Lending Practices, there was little change in overall CRE lending standards; however, it was reported that a modest number of domestic banks tightened lending standards for loans secured by multifamily residential properties. Domestic banks reported weaker demand for construction and land development loans and multifamily loans. During the past year, domestic banks' current levels of CRE lending standards appear generally less tight, while foreign banks' current levels of such standards appear to have tightened on balance.

CBRE's Lending Momentum Index, which tracks loans originated or brokered by CBRE Capital Markets, indicated that the commercial mortgage market remained favorable, characterized by tight loan credit spreads and stable underwriting standards, despite lower loan maturity volumes resulting in fewer originations. It was noted that lending volume moved little from the prior quarter during 2Q18, but the June reading was down 10.6% YoY. The report also mentioned that commercial loan spreads continued to tighten in 2Q18 and although multifamily spreads recorded a slight uptick from the prior quarter, spreads were down YoY. Overall debt service coverage and loan-to-value ratios were consistent with 1Q18.

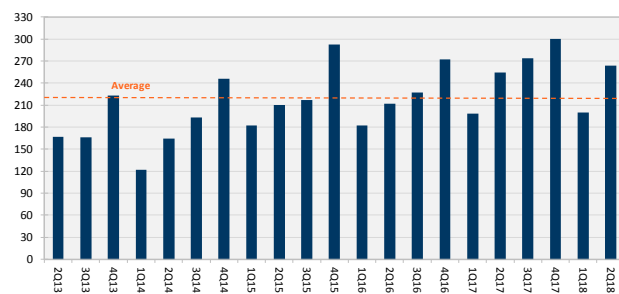
The following chart, per the Mortgage Bankers Association, summarizes lending activity by property and investor type.

Lending Activity 2Q 2018		
Type	% Change since 2Q 2017	% Change since 1Q 2018
<b>Property Type</b>		
Industrial	-10.0%	9.0%
Multi-Family	17.0%	25.0%
Office	-4.0%	36.0%
Retail	1.0%	87.0%
Hotel	22.0%	89.0%
Health Care	-16.0%	-9.0%
<b>Investor Type</b>		
CMBS/Conduits	-8.0%	79.0%
Commercial Banks	-1.0%	33.0%
Life Insurance Co.	6.0%	21.0%
GSE's (FNMA/FHLMC)	18.0%	33.0%
<b>Overall</b>	<b>4.0%</b>	<b>32.0%</b>

Below is a graph depicting the frequency of commercial/multifamily loan originations since 1Q13.

### Commercial/Multifamily Mortgage Bankers Origination Index

2001 Quarterly Average = 100



Source: Commercial Mortgage Bankers Association

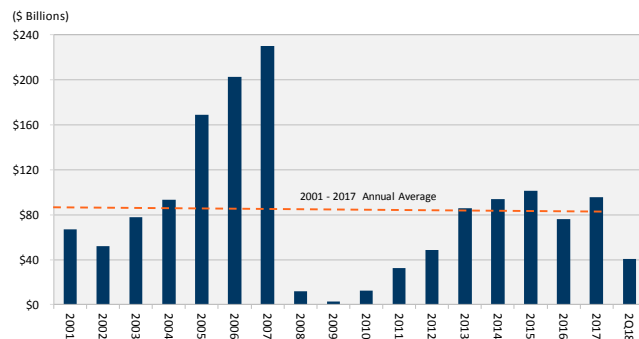
## Commercial Mortgage-Backed Securities (CMBS) Market

The revitalization of the CMBS market continues as a vital action for the recovery of the commercial real-estate market.

### CMBS Issuances

According to data from Commercial Mortgage Alert (CMA), CMBS issuances registered \$21.1 billion during 2Q18, down 3.0% during the same period last year. During the first half of 2018, issuance totaled \$40.5 billion, up 13.0% YoY. According to Trepp, deal volume has been driven by single-asset, single-borrower CMBS deals for high-end buildings in major cities, and office loans (29.0%) have accounted for the largest percentage of CMBS issuances during the first half of the year. Last year, CMBS issuance registered about \$95 billion, up about 25.0% from 2016, and ramped up quarterly during the year as the market adapted to the risk retention rules enacted in 2016.

### U.S. CMBS Issuances



Source: Commercial Mortgage Alert

### CMBS Delinquency

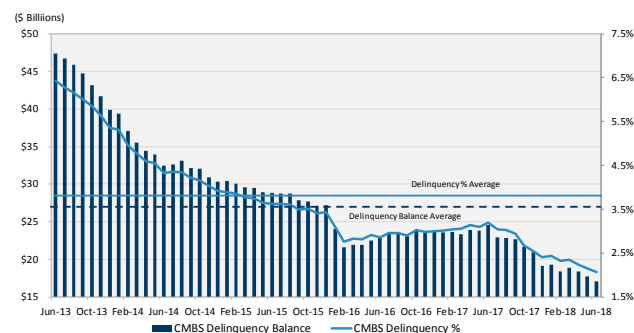
According to Morningstar, the June 2018 CMBS delinquency rate decreased 9 BPS to 2.06%, representing a post-crisis low, the lowest level since 2009 and 113 BPS lower on a YoY basis. The delinquent unpaid balance for CMBS totaled \$17.1 billion or \$7.5 billion lower YoY. By property type, multifamily properties had the lowest delinquency rates at 0.3%. Retail properties had the highest delinquencies (5.4%) followed by office (4.3%), industrial (3.7%) and hotel (2.1%) assets.

Other notable information from the June report is summarized below.

- Retail loan delinquencies (40.0% of the total) were the greatest contributor to CMBS delinquencies during the past 12 months, but fell 19.4% YoY to \$6.8 billion.
- Office loan delinquencies (32.0%) decreased \$2.8 billion or 34.0% YoY to \$5.4 billion. Hotel loan delinquencies (9.0%) fell 34.0% YoY to \$1.5 billion. Multifamily loan delinquencies (7.0%) declined 44.0% YoY to \$976 million. Industrial loan delinquencies (5.0%) decreased 34.0% YoY to \$809 million.
- It is projected that nearly \$4.4 billion of CMBS loans will mature throughout the remainder of 2018.

Below is a chart depicting monthly CMBS delinquencies since June 2013.

### CMBS Delinquency Balance vs. Percentage



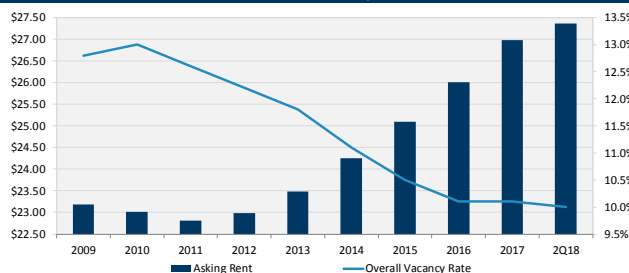
Source: Morningstar

# Property Sector Overviews

## Office

- 2Q18 office vacancies remained unchanged at 10.0% on both a YoY and QoQ basis. (CoStar)
- YoY, asking rental rates increased 3.6%, the seventh consecutive year of growth. Class A asking rental rates were about \$8.05/sf higher than for Class B space. (CoStar)
- CoStar reported numerous significant leases during 2Q18, including Pfizer, Inc. committing to 792,000 sf at The Spiral in Hudson Yards for its new headquarters when complete. At Park Tower at Transbay, Facebook leased 763,102 sf. Other large deals included Micron Technology (603,666 sf) and Analog Devices (445,058 sf) taking space in the South Bay/San Jose market, Latham & Watkins (407,000 sf) and J. Crew (321,732 sf) signing on for space in Manhattan and Indeed.com committing to 307,771 sf in the Austin market.
- Nearly 156 million square feet (msf) was under construction as of 2Q18, off slightly YoY. Development is progressing on 433 West Van Buren Street (2.7 msf) in Chicago, 30 Hudson Yards (2.6 msf) in Manhattan, American Airlines Corporate Campus (1.7 msf) in Fort Worth, Comcast Technology Center (1.3 msf) in Philadelphia and First Street Tower (1.3 msf) in San Francisco.
- Driven by growth in the professional and business services sector, about 349,000 jobs were created in the office-using employment sectors during the first half of 2018, up 19.0% YoY, despite a fall in information service employment.

Office Market: Rents vs. Vacancy Rates



Source: CoStar (reflects select markets)

- Nearly 44.0 msf was delivered during the first half of 2018, a 5.0% YoY increase. Highlighting activity was the completion of 3 World Trade Center (2.9 msf) in Manhattan. Other construction included Salesforce Tower (1.4 msf) in San Francisco, Liberty Mutual Campus (1.1 msf) in Plano, TX, 151 North Franklin Street (807,350 sf) in Chicago and Apple Campus (777,000 sf) in Sunnyvale, CA.
- Net absorption registered 36 msf during the first half of 2018, representing a 15.0% YoY increase. Suburban markets accounted for 65.0% of net absorption since 2017, while 80.0% of absorption was recorded in Class A assets. (Costar)

Below is CoStar’s ranking of key market indicators among the largest office markets.

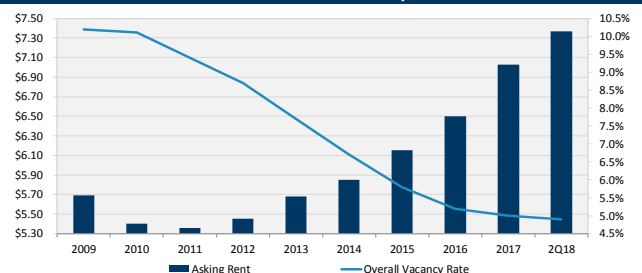
2Q18 Largest 25 Office Markets Comparison					
YTD Net Absorption		Vacancy Rate		YTD Construction Deliveries	
Million SF		Best Performing Markets		Million SF	
San Francisco	3.70	San Francisco	6.1%	Dallas/Ft Worth	4.10
New York City	2.79	Portland	6.6%	San Francisco	3.00
Chicago	2.25	Kansas City	6.8%	Denver	2.90
Denver	2.17	Seattle	7.0%	Washington D.C.	2.50
Dallas/Ft Worth	2.17	Tampa	7.0%	Chicago	2.10
Seattle	2.13	Minneapolis	7.7%	Atlanta	1.96
Washington D.C.	1.80	Boston	7.8%	Portland	1.60
Atlanta	1.73	Long Island	8.0%	Minneapolis	1.29
Phoenix	1.53	New York City	8.1%	Los Angeles	1.15
Philadelphia	1.01	Philadelphia	8.1%	Philadelphia	0.80

Source: CoStar

## Industrial

- Steady demand for modern distribution space and a healthy manufacturing sector have positively impacted the sector. According to CoStar, vacancy rates have declined 20 BPS YoY to 4.9% to further decrease to historically low levels. Approximately 136 msf was absorbed during the first half of 2018, down 4.0% from this period last year.
- Increasing demand from logistics/big-box users and third-party logistics services (3PLs), who have continued seeking out locations near major inland hubs, seaports and locations with good transportation infrastructure, continue to place upward pressure on asking rental rates, which have increased 10.0% YoY and have now firmly surpassed pre-recession peak levels. (CoStar)

Industrial Market: Rents vs. Vacancy Rates



Source: Costar (reflects select markets)

- To satisfy escalating demand, developers delivered about 142 msf during the first half of 2018, a 5.0% YoY increase. Approximately 75 industrial facilities greater than 500,000 sq ft were delivered since 2017, including a 2.6-msf distribution center for Walmart in Irvington, AL, a 2.5-msf facility for Sterilite Corp. in Davenport, IA, a 1.6-msf facility for Sofidel Group in Circleville, OH, a 1.5-msf warehouse for Lindt Chocolate in McDonough, GA and a 1.3-msf facility for Wayfair Inc. in Cranbury, NJ (Costar).



- About 325 msf was under construction as of 2Q18, a 20.0% YoY increase. CoStar estimates that about 55 facilities of at least 1.0 msf are under construction. Work progresses on facilities for Tesla (3.8 msf) in Northern Nevada, Proctor and Gamble (3.5 msf) in West Virginia, Facebook “data centers” (5.4 msf) in New Mexico and Nebraska, Amazon (2.4 msf) in Colorado and Volvo (2.3 msf) in South Carolina.
- During 2Q18, notable new leases of approximately 1.0 msf were executed by UPS, Amazon and DAMCO Distribution. Firms signing new deals for more than 400,000 sf included Facebook, Schneider Electric, Kuehne & Nagel, Geodis Logistics, Schenker Logistics, Blue Buffalo Pet Products, Inc., Hand Air Express LLC, XPO Logistics, Clutter, PPG Industries, Ross Stores Inc., Dart and Fashion Nova.

Below is CoStar’s ranking of key market indicators among the largest industrial markets.

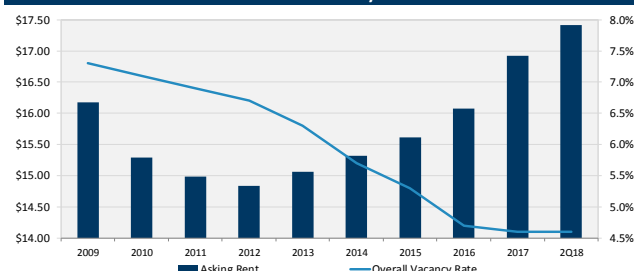
2Q18 Largest 25 Industrial Markets Comparison					
YTD Net Absorption		Vacancy Rate		YTD Construction Deliveries	
Million SF	Best Performing Markets			Million SF	
Inland Empire	14.27	West Michigan	1.7%	Inland Empire	11.13
Northern NJ	9.53	Orange County	2.4%	Atlanta	9.22
Dallas/Ft Worth	7.79	Los Angeles	2.7%	Dallas/Ft Worth	7.75
Atlanta	7.07	Cincinnati	2.8%	Chicago	7.64
Philadelphia	6.78	Detroit	3.1%	Northern NJ	6.08
Chicago	5.15	Seattle	3.1%	Philadelphia	4.75
Indianapolis	4.54	Minneapolis	3.6%	Houston	4.68
Charlotte	4.28	Portland	3.7%	Charlotte	4.29
Phoenix	4.27	Milwaukee	4.0%	Los Angeles	3.57
Cincinnati	3.74	Cleveland	4.2%	Kansas City	3.56

Source: CoStar

## Retail

- Despite an increasing number of retail closings and bankruptcies, the overall retail vacancy rate fell 10 BPS YoY to 4.6% as of 2Q18. The neighborhood shopping center sector had higher vacancies (7.2%) than the mall (4.0%) and power center (4.7%) sectors. (CoStar)
- Modest new development continues as developers wait for projects to be significantly pre-leased before breaking ground, typically for single-tenant formats. American Dream at Meadowlands (2.1 msf), among the largest U.S. retail projects, continues to progress in Northern New Jersey.

### Retail Market: Rents vs. Vacancy Rates



Source: CoStar (reflects select markets)

- Regional malls continued to experience considerable bifurcation as high-end malls in primary locations have performed well. In contrast, older malls continue to have high vacancies and closures. Developers have continued to redevelop and reposition this aging inventory with alternative uses.
- Retailers continued filing for bankruptcy protection during the first half of 2018 as consumers continue to shop more online, shift spending habits to more travel and experience-related activities and shop more at off-price and discount retailers.
  - Notable filings included The Walking Company, The Bon-Ton Stores, Claire’s, Remington Outdoor, Nine West Holdings, A’gaci, Kiko USA, Southeastern Grocers and Tops Markets.
- As the supply of physical stores outpaces shopper demand, retailer profits continue to be negatively impacted, contributing to more store closing operations. Coresight Research estimated that nearly 4,140 store closings were announced during the first half of 2018

### YTD 2018 Major U.S. Store Closure Announcements

Company	Stores	Company	Stores
Toys R Us	881	Foot Locker	110
Walgreens	600	The Children's Place	100
Sears and Kmart	274	Southeastern Grocers	94
Ascena Retail Group	267	Aaron Brothers	94
Bon-Ton	260	Nine West	71
Best Buy	250	Gap	70
Signet Jewelers	200	Walmart	63
Mattress Firm	200	Abercrombie & Fitch	60
GNC	200	A'gaci	49
Claire's	132	Shoe Carnival	25

Source: Coresight Research

Source: Coresight Research (Dated June 29, 2018)

- Dollar-store chains (such as Dollar General), national discounters (such as Ross Stores, Five Below and Walmart), and new U.S. grocery chains (Aldi and Lidl) are the main drivers of brick-and-mortar retail growth. Most of the Gap openings are under the Old Navy brand.

Coresight Research estimated that nearly 2,000 store openings were announced during the first half of 2018.

### YTD 2018 Significant Announced Retail Store Openings

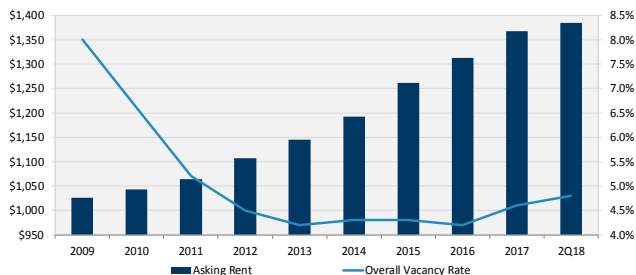
Company	Stores	Company	Stores
Dollar General	900	Walmart	90
Aldi	200	Gander Outdoors	69
Five Below	125	Old Navy	60
O Bag	100	Untuckit	50
Ross Stores	100	Foot Locker	40
Gap	90	Warby Parker	36

Source: Coresight Research (Dated June 29, 2018)

## Apartment

- According to Reis, Inc., the national vacancy rate increased 10 BPS QoQ and 50 BPS YoY to 4.8%, mainly due to new supply being delivered. 69 of out of Reis’s top 82 metro areas reported flat or declining occupancies in 2Q18. Vacancies have escalated slowly since bottoming at 3Q16.
- Despite the uptick in available units, average asking and effective rental rates both increased 1.3% QoQ. YoY, Reis, Inc. reported that average asking rental rates increased 3.0%, down from 3.5% at this period last year.
- As steady demand for apartments continues, partly due to the challenges of home ownership, landlord concessions have generally lessened, resulting in higher effective rents.
- Apartment deliveries totaled about 57,000 units during 2Q18, up from 41,560 in the prior quarter. In 2017, approximately 235,300 units were completed to satisfy pent-up demand (Reis, Inc.).
- According to RealPage, Inc., the Charlotte market (31.0%) had the highest percentage of inventory growth since 2010. Other markets reporting growth greater than 20.0% during this period included Austin, Nashville, Salt Lake City, San Antonio, Raleigh, Dallas, Seattle and Denver.

### Apartment Market: Rents vs. Vacancy Rates



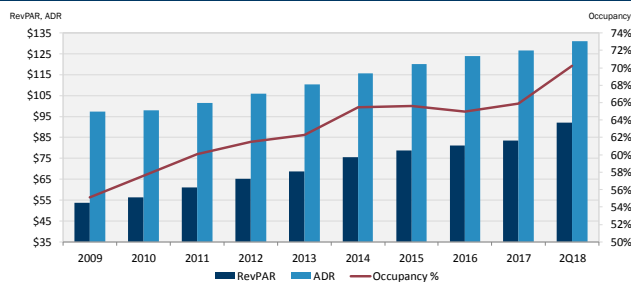
Source: Reis, Inc.

- 2Q18 net absorption totaled nearly 40,400 units, up 11.0% from 1Q18 totals; still, first half of 2018 totals lagged output by 20.0% YoY. (Reis, Inc.) Given the active pipeline currently under construction, an increase in absorption appears likely during the second half of the year.
- Steady demand continues to be driven by downsizing baby boomers, new millennial household formations and existing renters who cannot qualify for a mortgage.
- The divide continues to widen between new, luxury apartment communities, where concessions are common to lure renters, and less-expensive, class B and C apartment communities that are fully occupied with long waiting lists. Many new households cannot afford the expensive new apartment properties now under construction, which will pose a challenge for property managers.

## Hotel

- YoY, Smith Travel Research (STR) reported that hotel occupancies increased 1.1% to 70.2%, the average daily rate increased 2.9% to \$131.02 and RevPAR improved 4.0% to nearly \$92.00. The absolute values in these three primary performance metrics were each the highest STR has ever benchmarked for a second quarter. It was reported that overall numbers benefitted from favorable macroeconomic conditions and steady demand across the travel segments.
  - There were also records set for demand (room-nights sold) and supply (room-nights available). YoY, demand grew at a 3.1% rate versus a 2.0% rise in supply.
- STR reported that June marked the 100th consecutive monthly increase in U.S. RevPAR, which represents the second longest streak after the period between December 1991 through March 2001. RevPAR has generally benefitted from consistently high demand in combination with a lack of significant supply growth.
- According to the latest data from STR, there were about 1,422 U.S. projects, totaling nearly 185,600 rooms, under construction. STR reported that New York had about 12,740 rooms being built, followed by the Orlando (6,980 rooms), Dallas (6,500 rooms), Los Angeles/Long Beach (5,250 rooms) and Nashville (5,200 rooms) markets.

### Lodging Market: RevPAR, ADR & Occupancy



Source: Smith Travel Research

- Of the top 25 markets, San Francisco/San Mateo was the only market to record double-digit increases in RevPar (+10.4%) and ADR (+10.1%) during 2Q18. Houston saw the biggest increase in occupancy (+4.4%) and second-largest rise in RevPAR (+9.2%).
- In contrast, Boston reported a slight decline in RevPAR and occupancy rates during 2Q18 and the only quarterly decline in ADR among the top 25 markets.
- In absolute values, New York recorded the highest levels in occupancy (90.0%), ADR (\$274) and RevPAR (\$246) during 2Q18.

## Forecast

### Economic

- GDP is projected to trend around 3.0% per quarter throughout the remainder of 2018, driven by steady personal consumption expenditures and continued healthy business spending, which have benefitted from the recent tax cuts.
- After the Federal Reserve raised the federal funds rate in June for the second time this year, expectations are for another two hikes during the second half of 2018.
- An unbalanced housing market is expected to persist in the near term as strong demand will continue exceeding tight inventory levels, leading to increased affordability issues for homebuyers.
- Job growth is expected to slow in the upcoming quarters as the labor market trends toward full employment while wage growth is slowly projected to escalate.
- Inflation is expected to ease somewhat throughout the second half of 2018 from June's 2.9% rate.

### General Property

- Spreads between real estate cap rates and interest rates are projected to further compress with additional interest rate hikes.
- Investors will continue exploring secondary and tertiary markets, expanding property acquisition beyond core assets and into niche property sectors to maximize yields.
- The gap between buyer valuations and seller expectations will likely continue weighing on investment volume despite a large amount of dry powder by investors to spend.
- Steady flows of international capital will move into U.S. CRE assets although increased caution due to political turmoil, interest rate risks, elevated valuations, oversupply (in select markets) will continue as potential headwinds.
- According to Morningstar, CMBS delinquency rates are likely to trend below 2.5% for the remainder of 2018 due to the fast pace of new loan origination and the continued disposal of distressed legacy debt.
- The commercial mortgage lending market is expected to remain favorable to borrowers through the second half of 2018 despite escalating trade tensions and financial market volatility.

### Property Sector

- **Office:** Market fundamentals are expected to remain favorable due in part to the strong national economy. Elevated construction levels are expected to increase vacancies and to limit rental growth in select metropolitan markets. As employers find it more difficult to fill positions in a tight labor market, growth in the sector may be challenged. More tenants are expected to explore suburban and secondary/tertiary locations, where pricing has not appreciated as quickly as within CBD locations.
- **Apartment:** Despite a slowdown in rental growth, market fundamentals will remain desirable. Healthy levels of development will attempt to satisfy pent-up demand as rising home prices will continue presenting affordability challenges. Increasing millennial household formations, resulting from a strong labor market, and more empty-nester baby boomers seeking to downsize from owned-homes into amenity-filled rentals, will help to drive demand.
- **Retail:** Although rising wages are projected to support steady consumer spending growth, the consolidation and closure of brick-and-mortar stores will persist into the foreseeable future. As e-commerce continues to capture a larger percentage of sales, developers will increasingly reposition and transform older vacant retail assets into new, consumer-driven venues and mixed-use projects. Grocery-anchored centers, urban street retail in primary locations and national discounters will be among the most coveted product.
- **Industrial:** E-commerce will continue to drive demand for modern distribution space/fulfillment centers and result in supply chain modernization to deliver products to consumers in the fastest and most efficient way. Strong tenant demand is expected to place upward pressure on rental rates and keep vacancies at historically low levels in the near term. Uncertainty over trade policy could translate into higher costs and needs to be monitored.
- **Hotel:** According to a recent forecast from STR and Tourism Economics, the U.S. hotel industry is expected to continue to post strong performance levels through 2019, driven by steady domestic leisure and business travel, which is projected to increase occupancy and fuel RevPAR and ADR growth. Of concern, escalating labor costs and the continued growth of home-sharing companies will continue to challenge leading hotel flags.

# Real Estate and Infrastructure

Every real estate client or stakeholder has unique objectives, constraints, operational circumstances and economic realities. The FTI Consulting Real Estate and Infrastructure group has the deep bench of expertise and experience to help real estate owners, users, investors and lenders better navigate the market's complexities and manage the inherent risks in this climate. For more than three decades, clients have relied on our creative and sound business solutions to turn these complexities into opportunities.

As unbiased and independent advisors, we represent leading public and private real estate entities and stakeholders including REITs, financial institutions, investment banks, opportunity funds, insurance companies, hedge funds, pension advisors and owners/developers to align strategy with business goals.

Our innovative and results-driven strategy and superior execution are supported by authoritative, state-of-the-art financial and tax analyses developed by some of the industry's foremost experts.

We offer a comprehensive integrated suite of services:

## STRATEGIC ADVISORY, TRANSACTION DUE DILIGENCE & MANAGEMENT

- Valuations
- Transaction Strategy, Due Diligence and Management
- Debt/REO Acquisitions and Dispositions
- Operations Optimization
- Portfolio Optimization
- Development Advisory
- Lease Consulting
- Site Selection and Incentive Negotiation
- Construction Project Management

## LITIGATION SUPPORT

- Expert Testimony
- Investigations and Forensic Accounting
- Dispute Advisory Services

## REAL ESTATE CAPITAL MARKETS

- Capital Markets Advisory
- Investment Sales
- Debt/ Equity Placement, Joint Ventures, and Investment Programs
- Merger & Acquisition Advisory

## RESTRUCTURING SERVICES

- Company-Owner Advisory
- Interim Management Services
- Secured Lender and Special Servicer Advisory
- Unsecured Creditors/Committees Advisory
- Trustee-Receiver Services
- Opportunistic Investor Services
- §363 Asset Sales
- Bankruptcy Administration & Reporting

## TAX ADVISORY

- Tax Structuring, Consulting and Compliance
- State and Local Tax Consulting
- Cost Segregation
- Tax Strategy and Planning Related to Bankruptcy and Financial Restructuring
- Private Client Advisory

## SPECIAL FOCUS AREAS

- Residential and Commercial Mortgage-Backed Securities
- Hospitality, Gaming and Leisure
- Outsourced Accounting and Financial Reporting
- Executive Compensation and Corporate Governance

The views expressed herein are those of the authors and are not necessarily the views of FTI Consulting, Inc., its management, its subsidiaries, affiliates or other professionals.

FTI Consulting, Inc., including its subsidiaries and affiliates, is a consulting firm and is not a certified public accounting firm or a law firm.



Greg Gotthardt, Senior Managing Director  
+1 213 452 6323  
greg.gotthardt@fticonsulting.com

John A. Ennis, Senior Director  
+1 973 852 8139  
john.ennis@fticonsulting.com

Mark E. Field, Director  
+1 973 852 8157  
mark.field@fticonsulting.com

EXPERTS WITH IMPACT™

### About FTI Consulting

FTI Consulting is an independent global business advisory firm dedicated to helping organizations manage change, mitigate risk and resolve disputes: financial, legal, operational, political & regulatory, reputational and transactional. FTI Consulting professionals, located in all major business centers throughout the world, work closely with clients to anticipate, illuminate and overcome complex business challenges and opportunities. For more information, visit [www.fticonsulting.com](http://www.fticonsulting.com) and connect with us on Twitter (@FTI Consulting), Facebook and LinkedIn.

[www.fticonsulting.com](http://www.fticonsulting.com)

©2018 FTI Consulting, Inc. All rights reserved.