

STABILITY IN A RISK ENVIRONMENT

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US economy expected to keep humming along in 2018

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Thanks to growing e-commerce, expect another banner year for industrial properties

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After years of historic expansion, the hotel market might slow down

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CRE total returns likely to decline, but the overall CRE market should remain stable

2018

Expectations & Market Realities in Real Estate 2018
Stability in a Risk Environment

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Deloitte Development LLC
111 S. Wacker Drive
Chicago, IL 60606

NATIONAL ASSOCIATION OF REALTORS®
430 North Michigan Avenue
Chicago, IL 60611

Situs
5065 Westheimer Road
Suite 700E
Houston, TX 77056

RERC, LLC
6600 Westown Pkwy
Suite 260
West Des Moines, IA 50677

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EXPECTATIONS & MARKET REALITIES IN REAL ESTATE 2018

STABILITY IN A RISK ENVIRONMENT

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FOREWORD

January 2018

Dear Readers,

Situs RERC, Deloitte and the National Association of REALTORS® are delighted to present our next installment of *Expectations & Market Realities in Real Estate*. In last year's report, we stated that global uncertainty was the new normal. 2017 certainly did not disappoint; it was filled with surprises and controversies — almost daily — thanks in no small part to the political landscape, but CRE was able to stay above the fray and remain attractive to those looking for **stability in a risk environment**.

The US economy, building on the momentum of an often sluggish but long recovery since the Great Recession, grew at an annual rate of about 3 percent by the end of the year. Unemployment fell during the year even as inflation remained low by historical standards. The Dow, the S&P and Nasdaq soared to record levels throughout the year. Reasonably strong US economic growth is expected in 2018, thanks to the corporate and individual tax cuts passed in December, and to the Trump administration's continued commitment to reducing government regulations.

Due to the continued rise of e-commerce, we expect another strong year for the industrial sector, while the retail sector will face continued pressure to remain innovative as it faces the challenge of online shopping. The single-family housing market will continue to experience an affordability crisis due to a lack of supply, resulting in a potential boost in demand for the apartment sector.

In 2018, we expect that risks in the financial markets and political uncertainty will continue and keep investors on the lookout for some stability. In this report, we will explore the economy, the capital markets and the property markets in detail and provide our collective perspectives for 2018.

We would like to extend our gratitude to all who contributed to this report. This includes the data providers, survey respondents, economists, researchers and analysts, and reviewers and business colleagues, without whom this report would not have been possible. We also would like to thank our clients, subscribers and consultants for their continued support of this annual publication.



Matthew G. Kimmel

Matthew G. Kimmel, CRE, FRICS, MAI
Principal & US Real Estate Services Leader
Deloitte Transactions and Business Analytics LLP

Lawrence Yun

Lawrence Yun, PhD.
Sr. Vice President, Chief Economist
NATIONAL ASSOCIATION OF REALTORS®

Ken Riggs

Kenneth P. Riggs, Jr., CFA, CRE, MAI, FRICS
President
Situs RERC

ACKNOWLEDGMENTS

SPONSORING FIRMS & CHAIRS

Matthew G. Kimmel, CRE, FRICS, MAI

Principal, Deloitte Transactions and Business Analytics LLP

Kenneth P. Riggs, Jr., CFA, CRE, MAI, FRICS

President of Situs RERC

Lawrence Yun, PhD Chief Economist

NATIONAL ASSOCIATION OF REALTORS®

LEAD CONTRIBUTORS

Jodi Airhart, Director, Research and Publications

Situs RERC

Todd J. Dunlap, MAI, MRICS, Senior Manager

Deloitte Transactions and Business Analytics LLP

Kenneth W. Kapecki, CRE, FRICS, MAI, Managing Director

Deloitte Transactions and Business Analytics LLP

Andy J. Miller, Senior Manager

Deloitte Transactions and Business Analytics LLP

Jen Rasmussen, PhD, AVP, Editor-in-Chief

Situs RERC

George Ratiu, Managing Director

NATIONAL ASSOCIATION OF REALTORS®

Morgan Westpfahl, Director

Situs RERC

ASSOCIATES

Charles Ellis, Copy Editor

Situs RERC

Janey Graveman, Graphic Designer

Situs RERC

Joseph Henry, Analyst

Situs RERC

Surabhi Kejriwal, Research Leader, Real Estate

Deloitte Support Services India Pvt. Ltd.

Matt Lamers, Senior Consultant

Deloitte Transactions and Business Analytics LLP

Saurabh Mahajan, Manager, Real Estate

Deloitte Support Services India Pvt. Ltd.

Noel Nathan, Intern

Situs RERC

Neeraj Sahjwani, Senior Analyst, Real Estate

Deloitte Support Services India Pvt. Ltd.

Shradha Shrestha, Associate

Situs RERC

Nellie Tiggelaar, Consultant

Deloitte Transactions and Business Analytics LLP



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1

INTRODUCTION



STABILITY IN A RISK ENVIRONMENT

Throughout 2017, geopolitical concerns took center stage. Possible Russian meddling in the US presidential election, serious concerns about the possibility of a nuclear war with North Korea, deadly terrorist attacks in the US and throughout the world, and major policy shifts on climate control and trade agreements contributed to a heightened risk environment for investors.

President Trump also signed a number of executive orders in 2017 that curbed regulatory enforcement for the financial industry. And while Congress was unable to repeal and replace the Affordable Care Act, a major campaign pledge of the Trump administration, it was able to muster enough votes to pass a sweeping overhaul of the US tax system in December 2017 that sharply lowered tax rates for corporations and individuals. This overhaul is expected to boost short-term economic growth.

Amid the volatility, economic indicators throughout the year gradually improved. The unemployment rate steadily decreased from 4.8 percent to 4.1 percent, while inflation ended the year near the Federal Open Market Committee's (FOMC) target of 2 percent. The Federal Reserve (Fed) increased its funds rate three times in increments of 25 basis points (bps) to help keep the US economy from overheating without jeopardizing gross domestic product (GDP) growth, which surpassed 3 percent by the end of the year. This adds to the stability of the commercial real estate (CRE) market, which typically mimics (though lags) the health of the general economy.

Despite the political chaos, investors gravitated toward the financial markets with zeal on the hopes that tax and regulatory reform would benefit businesses. By the beginning of 2018, the Dow soared past 26,000 and the S&P 500 and Nasdaq reached record highs at 2,800 and 7,000, respectively.

However, the bull run in the equity markets raises the risk of a stock market correction. According to Bloomberg, the global equities market added \$2.1 trillion to the market capitalization in less than two weeks of the new year. The US 10-year Treasury yield has moved up higher since the tax reform bill was passed. Further rate hikes and shrinkage of the Fed's balance sheet will likely put more upward pressure on bond yields.

Long-term return averages, however, paint a different picture of the financial and capital markets. **Exhibit 1-A** shows historical returns for several investment alternatives. CRE returns have held their own against stocks from a long-term perspective without having the added risk of volatility. The 15-year annual return on the Dow and S&P 500 were 10.23 percent and 10.04 percent, respectively. The National Council of Real Estate Investment Fiduciaries Property Index (NCREIF NPI) had a 15-year annual return of 9.09 percent and the 15-year annual return on the 10-year Treasury was only 3.21 percent. The significantly greater

long-term returns over the 10-year Treasury make investment in CRE as opposed to bonds worth the risk premium. While investing in one or another asset class is never a binary decision, CRE tends to be more favorable than other investment alternatives because of the relative stability of the income component of returns. Moreover, investors can reap tax benefits from the CRE investment while hedging themselves against inflation.

The expected continued stability of CRE fundamentals further supports the stability of this asset class. According to a survey of top CRE valuation experts conducted by Situs RERC in third quarter 2017, CRE valuations are not expected to change much over the next year as 80 percent said CRE values would remain the same and 20 percent predicted they will increase, but only by 1.0 percent. Over the course of 2017, significantly more respondents came to believe that the tremendous CRE price growth witnessed over the past recovery cycle would continue in 2018 and that the eventual correction in values will be minimal.

Geopolitical uncertainty will continue to weigh on investors' minds, but the focus has turned toward a number of positive economic indicators and the continued optimism over tax reform. Despite this

confidence, the CRE market may be beginning to slow from its peak. Many experts believe that fundamentals are still strong with low vacancy and solid rent growth expected for at least the next year. Market participants should look to take advantage of high prices and strategically shift their portfolio allocations to better capture market potential.

YEAR IN REVIEW: 2017

Last year in our annual *Expectations & Market Realities in Real Estate 2017 - Intersection of Global Change: Embracing a New Era*, we anticipated an economic boost because we believed the new presidential administration would implement more pro-business policies and fewer regulations. We predicted 2017 GDP growth to remain between 2 percent and 3 percent, with inflation likely staying below the Fed's target rate of 2 percent, and the US unemployment rate continuing below 5 percent.

Many of our 2017 expectations were realized. The Bureau of Economic Analysis (BEA) reported that the US economy grew at a faster clip, from 1.2 percent in first quarter 2017 to 3.0 percent in third quarter 2017. According to the Bureau of Labor Statistics (BLS), the US unemployment rate dropped during the year from 4.8 percent to 4.1 percent. While inflation rose

past the 2.0 percent target in first quarter 2017, it remained below the mark in the second and third quarters; core inflation spent the majority of 2017 below the 2.0 percent target.

For CRE, we forecast that 2017 would continue to offer solid risk-adjusted returns, that the CRE market would maintain its strong fundamentals and that CRE values would continue to support prices. However, we thought that the market was fully priced, and CRE growth would be more measured, or even flat for certain property sectors. We predicted cap rates would stabilize and begin an upward trajectory, but spreads would remain healthy.

Indeed, we witnessed prices and volume leveling off in 2017 for the majority of property types. In third quarter 2017, transaction volume decreased for all property types except industrial and apartment, according to Real Capital Analytics (RCA). Also based on RCA data, year-over-year (YOY) price changes were negative for retail and hotel, increased for industrial and apartments, but were stable for office, supporting our 2017 expectations. Spreads between Situs RERC required pre-tax yield rates and 10-year Treasuries remained stable across the first three quarters of 2017, between 550 and 560 bps, and the cap rate for all property types was 10 bps

Exhibit 1-A

Compounded Annual Rates of Return as of 9/30/2017

Market Indices	YTD ⁶	1-Year Trailing	3-Year Trailing	5-Year Trailing	10-Year Trailing	15-Year Trailing
Consumer Price Index ¹	1.10%	2.23%	1.23%	1.30%	1.68%	2.08%
10-Year Treasury Bond ²	2.33%	2.27%	2.09%	2.21%	2.63%	3.21%
Dow Jones Industrial Avg. ³	15.46%	25.45%	12.35%	13.57%	7.72%	10.23%
NASDAQ Composite ⁴	21.06%	24.12%	13.19%	15.90%	9.20%	12.12%
NYSE Composite ⁴	8.79%	15.97%	4.49%	8.15%	1.98%	6.56%
S&P 500 ³	14.24%	18.61%	10.81%	14.22%	7.43%	10.04%
NCREIF NPI ⁵	5.15%	6.98%	9.93%	10.45%	6.27%	9.09%
NCREIF NFI ODCE ⁵	4.95%	6.58%	9.52%	10.13%	6.03%	8.85%
NAREIT Index (Equity REITs) ⁵	6.04%	2.57%	10.18%	9.97%	6.06%	10.98%

¹ Based on published data from the Bureau of Labor Statistics (Seasonally Adjusted).

² Based on Average End-of-Day T-Bond Rates.

³ Based on Total Return Index, and includes the Dividend Yield.

⁴ Based on Price Index, and does not include the Dividend Yield.

⁵ NCREIF Total Return, composed of Capital and Income Returns.

⁶ Year-to-date (YTD) averages are current as of September 30, 2017. YTD averages are compounded annually except for CPI.

sources BLS, Federal Reserve Board, S&P, Dow Jones, NCREIF, NAREIT, compiled by Situs RERC, 3Q 2017

higher in third quarter 2017 than it was a year ago.

As presented in our 2017 **Expectations & Market Realities** report, we forecast that total expected returns for the NPI would be approximately 6.0 percent for institutional properties on an unleveraged basis. The 2017 year-end total return for the NCREIF NPI was near 7.0 percent due to a stronger-than-expected capital appreciation return in the fourth quarter.

THE 2017 YEAR-END TOTAL RETURN FOR THE NCREIF NPI WAS 7.0 PERCENT DUE TO STRONGER-THAN-EXPECTED CAPITAL APPRECIATION RETURN IN THE FOURTH QUARTER.

THE DELOITTE DBRIEF

For the past six years, the authors of this report have conducted a webinar, known as Deloitte Dbrief, to showcase the results of our report. Each year, we polled the webinar participants to gauge their sentiment about the market. For the 2017 Dbrief, the number of responses for these survey questions ranged from 2,360 to 3,088. See **Exhibit 1-B** for charts of selected poll results.

The 2017 Dbrief poll showed optimism among participants in the state of the economy and CRE. About 13 percent of the respondents believed that the overall economy would go full speed ahead in 2017 compared to 3.7 percent of responses in 2016. An additional 42 percent of the 2017 respondents believed that the economy would continue growing in a slow to modest pace, compared to 34 percent of the respondents in 2016.

The highest number of respondents (33.7 percent) felt that the CRE market was in the early stages of a recovery in 2017 and an additional 19 percent felt that a robust recovery was underway. Only 4 percent of the respondents believed that the CRE market was poised for further deterioration, compared to 7 percent of the respondents in 2016. Despite the perceived optimism in the CRE market, only 3 percent of respondents expected to see robust strengthening in CRE values in 2017. The greatest number of respondents (about 39 percent) expected moderate improvements in CRE in 2017, while 36

percent felt that values would have little or no change.

About 47 percent of the respondents believed that multifamily assets would offer the most favorable investment opportunity based on the fundamentals for the property type. In comparison, office and industrial and warehouse assets were believed favorable by 12 percent and 14 percent of the respondents, respectively.

Compared to 2016, Dbrief participants predicted that capital availability would be the same or greater in 2017. The percentage of respondents suggesting

that capital would seek a riskier position increased from 18.5 percent to 29 percent YOY, yet they did not believe the excess capital would lead to overly aggressive pricing.

THE CURRENT REPORT: CHAPTER 2 SUMMARY

In Chapter 2 of this report, we provide a look into the US and global economies. We discuss primary components of the US economy, trade statistics, employment and demographic trends, and monetary policy.

A year ago, global economies were seeing potential declines, with central banks resorting to negative interest rates, but since the third quarter of 2017, economic activity has picked up around much of the world. The United Kingdom's economy posted a moderate 1.7 percent gain by third quarter 2017, nowhere near the recession expected a year ago, per The Economist Intelligence Unit. Other European countries such as Germany, France, Italy and Switzerland posted GDP growth in the 1.7 percent to 2.8 percent range.

The US continued its path of expansion for the eighth consecutive year. Rising optimism about economic conditions fueled employment gains, and higher wages, business investment and consumer spending. Payroll employment registered a net gain of 1.68 million new positions from January through November, according to the BLS, with the private sector accounting for 1.62 million net new jobs.



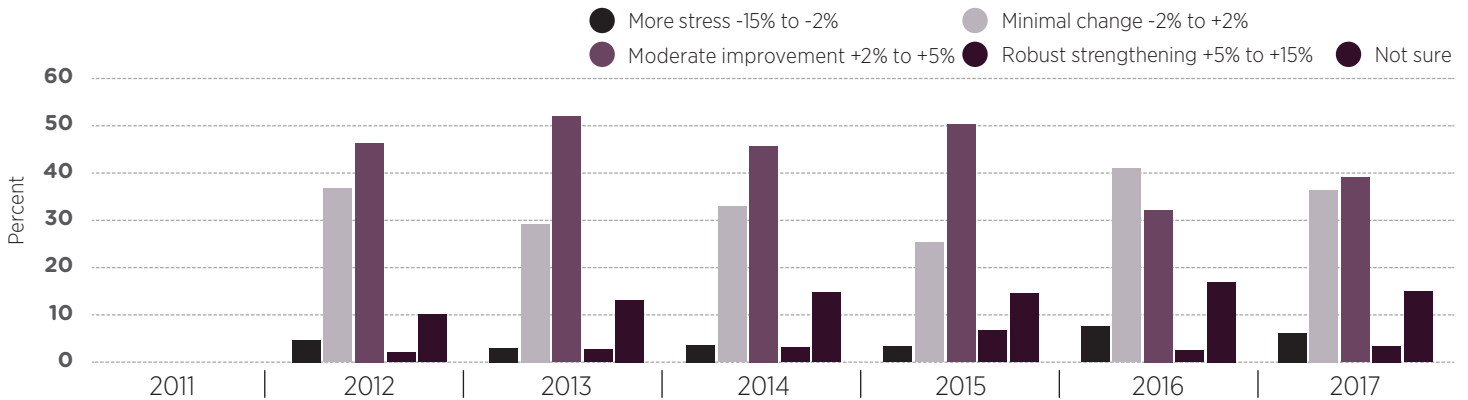
Exhibit 1-B

Deloitte Dbrief Poll Results

Which property type do you view as offering the most favorable investment opportunity based on recent performance of fundamentals?

	2011	2012	2013	2014	2015	2016	2017
Office	17.5%	13.1%	12.3%	13.0%	16.0%	14.0%	11.5%
Industrial and Warehouse	11.9%	10.0%	11.1%	12.4%	12.8%	10.4%	14.0%
Multifamily	29.2%	45.8%	46.8%	45.5%	35.5%	40.7%	46.8%
Retail	9.4%	8.4%	8.4%	6.5%	8.3%	7.7%	6.8%
Hotel	4.7%	3.7%	3.2%	4.4%	6.0%	6.9%	3.8%
Not Sure	27.4%	19.1%	18.2%	18.2%	21.4%	20.3%	17.1%

To what extent do you expect commercial real estate values to change over the next 12 months?



sources The Deloitte Dbriefs Real Estate series, Expectations and Market Realities in Real Estate, March 2017

Headline inflation averaged 2.1 percent through the entirety of 2017. Core inflation – which excludes food and energy – averaged below 2.0 percent most of the year, ending 2017 at 1.8 percent, according to the BLS.

CHAPTER 3 SUMMARY

In Chapter 3 of this report, we provide insight into the capital market environment.

The commercial mortgage-backed securities (CMBS) lending market declined after the financial crisis and continued to decline through the beginning of 2017 as investors sought an increase in yields. Fears that the new risk-retention rules would hurt the market appear to have been unsubstantiated as an overall increase in CMBS origination was recorded in third quarter 2017. The CMBS market

is still dealing with the large amount of 2007-era maturing debt, but that amount is expected to decline considerably in 2018.

Situs RERC research shows that while institutional investors believe that the availability of debt capital is very good, perceptions are that it is significantly below what it was a few years ago. Underwriting standards for debt capital have generally become more disciplined since fourth quarter 2015 and appear to be moving in tandem with the availability of capital, suggesting stability in the market. About \$336 billion in CRE acquisitions occurred through the first three quarters of 2017, according to RCA, down from about \$355 billion during the same period in 2016. The decrease was most notable in pricey gateway markets such as Manhattan, San Francisco and Boston.

With acquisition activity down, investors are finding another way to insert capital into the sector through new construction. Real Estate Investment Trusts (REITs), in particular, saw positive net capital flows largely due to capital committed to new construction.

Foreign investment in US CRE plummeted YOY, according to RCA, dropping faster than overall investment. The top countries investing in the US were Canada, Singapore and China, but new Chinese regulations sharply curtailed its foreign investment. However, according to RCA, the 2018 outlook for foreign investment is encouraging, due to ongoing quantitative easing programs in Europe and Japan. Chapter 3 also discusses in greater detail the effect of the Fed's decision to gradually increase interest rates and end its quantitative easing program. In addition,

we discuss the impact of the 2017 tax reform bill, which reduces corporate and individual tax rates. Despite all the controversy regarding the tax bill, the effect on CRE appears to be less than what was feared. Finally, 10-year Treasury rates are projected to rise in 2018; therefore, the spread between CRE yields and the 10-year Treasury is expected to narrow.

CHAPTER 4 SUMMARY

Chapter 4 includes our highlights and expectations for the five major property sections – office, industrial, retail, apartment and hotel. Our analysis explores volume, pricing, transaction-based cap rates, vacancy/occupancy rates, absorption and completions, and rental rates/revenues for the various property types.

Although the unemployment rate was low throughout 2017, the office sector experienced a stark decline in sales activity during that time. According to RCA, overall office transaction volume declined 19 percent YOY in the third quarter. Central Business District (CBD) office properties dropped 46.4 percent YOY in the third quarter. The employment growth rate is expected to decline in 2018, but the office sector will continue to draw a lot of

investor interest due to the stability of the sector.

The industrial sector has been active due to growth in e-commerce and manufacturing. This has sparked a surge in warehouses, fulfillment centers and delivery services. Single-asset transaction volume was weaker compared to portfolio and entity-level transaction volume, increasing by only 9 percent YOY compared to 92 percent and 41 percent, respectively, according to RCA.

Sales in the retail and food service industry are up 3.8 percent since 2016. Major decreases were seen in the sporting goods, hobby, book, and music category (4.6 percent) and the department store category (3.3 percent), according to the August 2017 US Census Bureau report. Some of the largest mall owners and managers are implementing several impressive revamps, falling into two categories: entertainment-driven centers and mixed-use developments. Malls that are not able to undergo such dramatic changes are struggling, and many are closing, but our opinion is that the shopping mall sector will not go completely extinct.

The apartment market is finally beginning to show signs of slowing down after a long run of dominating the other major property types. In the first three quarters of 2017, there was an 8.6 percent decrease YOY for apartment transaction volume, based on RCA data. Considering the previous seven consecutive years of growth, this decline is notable as it may signal the end of the cycle in this property sector, which has been favored by investors for many years.

Sales activity in the hotel sector has been booming for a number of years, but the historic run might be on the verge of ending. US hotel construction declined YOY for the first time since 2011. Hotel transaction volume has slowed dramatically in five of the top six major markets even though some of the smaller markets are seeing dramatic growth. The industry is dealing with competitive disruptions, and the share of foreign capital investment has decreased. Nonetheless, occupancy remains at an all-time high.





CHAPTER 5 SUMMARY

Chapter 5 looks at Situs RERC's 10-year Treasury Forecast and the Situs RERC Total Return Forecast for the NCREIF NPI. In addition, the chapter predicts future global economic growth, consumer and business spending, and the prospects for residential and commercial real estate.

Here are our expectations for 2018:

- According to Situs RERC's Treasury Forecast, the 10-year Treasury rate will increase to 2.8 percent by fourth quarter 2018 and 3.2 percent by the end of 2019 for the base case scenario.
- CRE total returns are expected to decline in 2018, driven primarily by the expected decrease in capital returns. This has the greatest potential to affect office and retail because of their long-term locked-in leases. Nonetheless, the overall CRE market is expected to remain stable for at least the next year.
- Situs RERC predicts in its base case scenario for the cap rate (income component) of NCREIF NPI returns that the slight compression of cap rates in third quarter 2017 was a blip, and cap rates are expected to increase to 4.7 percent by the end of 2018.
- US GDP growth in 2018 is expected to be in the 2.0 percent to 3.0 percent range for the base case scenario.
- Most likely, continued low unemployment will lead to moderate wage increases in 2018, driving inflation slightly above the FOMC's 2.0 percent target.
- It is most likely that consumer and business spending will continue to grow in 2018, thanks to higher wages, lower corporate tax rates and more consumer confidence, but so will the federal deficit.
- Housing prices are expected to keep rising faster than wages, as demand continues to surpass supply, caused by a shortage of qualified labor, rising material costs and, according to industry analysts, government policies that do not do enough to encourage home building.



- For CRE, many of the concerns that arose during the prolonged negotiations about tax reform did not come to pass. In 2018, there will likely be only modest changes for real estate investors.
- Capital is expected to be ample for CRE investment, causing prices to remain high, especially for properties in Class A prime markets. CRE is expected to remain the best investment option compared to stocks, cash and bonds amid investor fears that the stock market cannot keep soaring forever.
- Regarding specific property types, the office market is expected to remain a top investment in 2018 because of its stability, especially for foreign investors.
- Specifically, suburban office space is expected to outperform CBD from a risk-adjusted return perspective because it's often easier to adjust suburban space to new consumer and employee preferences.
- The retail sector will likely remain volatile in 2018. Subsectors of retail, including high street and grocery-anchored neighborhood/community centers, will likely perform well, yet traditional strip centers and some big-box retailers continue to face strong headwinds as shoppers prefer in greater numbers "experiential retail" and e-commerce.
- The growth of e-commerce and manufacturing is expected to continue through 2018, and that's good news for investors in industrial assets, especially warehouses, fulfillment centers and delivery services.
- We can expect a slowdown in the hotel market's historic expansion, as foreign investment is slowing down and occupancy rates are leveling off; new supply is expected to keep pace with increased demand.
- The abundance of apartment construction could keep rents flat, but tax reform might make homeownership less attractive and therefore continue the appeal of renting rather than owning a home.



2

THE ECONOMY



GLOBAL PERSPECTIVES

The global economic landscape found itself under sunnier skies during 2017. Just a year ago, developed economies were gazing into the potential darkness of economic declines, with central banks resorting to negative interest rates. Since the third quarter of last year, world economies have rebounded and found a steady, upward path. Encouragingly, the economic advance is widespread, with about 75 percent of the world economy experiencing accelerating economic activity, according to the International Monetary Fund (IMF). In light of the first three quarters' activity, the IMF projects global economic growth of 3.6 percent in 2017 and 3.7 percent in 2018.

The gains were most noticeable across Europe, where the anxiety wrought by the 2016 UK referendum decision to leave the European Union (EU) gave way to a more tempered outlook. While the UK's economy posted a moderate 1.7 percent gain by the third quarter of 2017, according to The Economist's Intelligence Unit, it was nowhere near the recession expected a year ago. See **Exhibit 2-A** for a comparison of GDP by region.

While economic growth in the EU was broad-based, momentum gains came mostly from peripheral countries during 2017. Based on the latest quarterly data, the Irish economy rose by 10.5 percent, followed by Latvia, Poland, the Czech Republic, Slovenia, and Estonia — all of which recorded gross domestic product gains exceeding 4.0 percent, according to The Economist's Intelligence Unit. The other developed Eurozone economies — Germany, France, Italy and Switzerland — displayed more modest economic conditions, with GDP growth in the 1.7 percent to 2.8 percent range.

Asian economies continued moving with a solid upward momentum during the year, as Chinese growth picked up a slight tailwind. While China's monetary policy remained accommodative, GDP increased at a 6.8 percent annual rate in the third quarter, and was projected to close 2017 with a 6.8 percent advance, according to The Economist's Intelligence Unit. The Bank of Japan also continued its monetary stimulus program, with its GDP expected to increase by 1.5 percent in 2017. India's economy continued its growth pattern, with GDP poised for a 6.5 percent growth rate, despite the country's massive currency adjustment in 2016 — the government canceled 500- and 1,000-rupee banknotes without any advance notice. Other Asian economies — Indonesia, Malaysia, Philippines, South Korea, Thailand and Vietnam among them — reflected the strength of neighboring larger economies with GDP growth in a solid range of 3.0-6.3 percent.

In the Americas, economic trends underscored a rising global tide. Canada registered solid economic gains, with a third-quarter GDP increase of 3.0 percent, placing the annual GDP on a path to 3.0 percent annual gain, according to The Economist's Intelligence Unit.

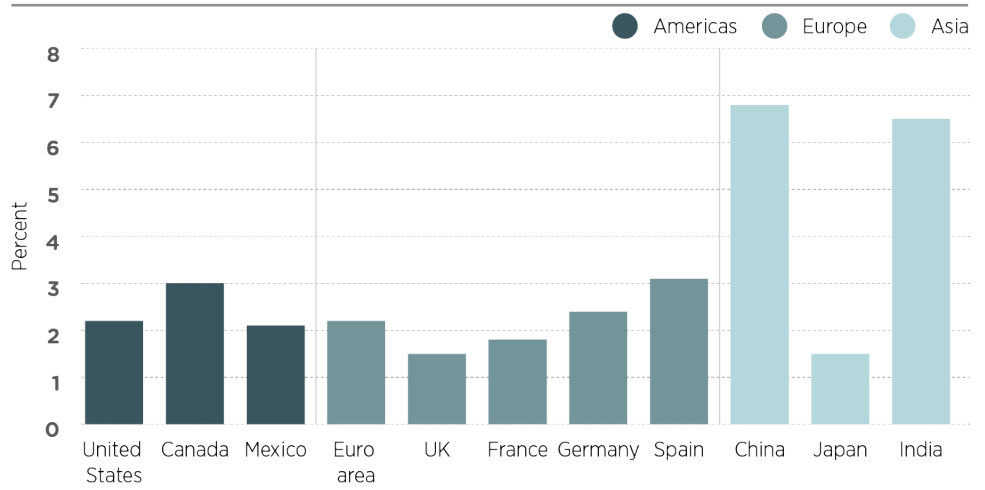
Mexico's economy took a more moderate path, with GDP projected to close 2017 with a 2.1 percent gain. During the year, Canada and Mexico began renegotiating the North American Free Trade Agreement with the US, as the President continued to express concerns over the benefits of existing trade agreements. The post-Olympic glow did not last for Brazil's economy, which fell into a mild recession during 2016, and experienced a slight improvement in 2017. Argentina's economy found a more solid footing in 2017, with GDP expected to gain 2.8 percent during the year. The economies of Colombia and Chile remained positive, at 2.0-2.2 percent GDP rates of growth, while Venezuela's political crisis deepened its economic woes.

As a major engine of global economic activity, the US continued on its path of expansion for the eighth consecutive year. As the central bank tightened its monetary policy, optimism about economic conditions fueled employment gains, higher wages, as well as increased business investment and consumer spending. The few clouds hanging in the economic skies were a slowing housing market momentum and continued declines in CRE investment volume, which provided reasons for concern about the current real estate cycle's timing and duration.

US ECONOMY

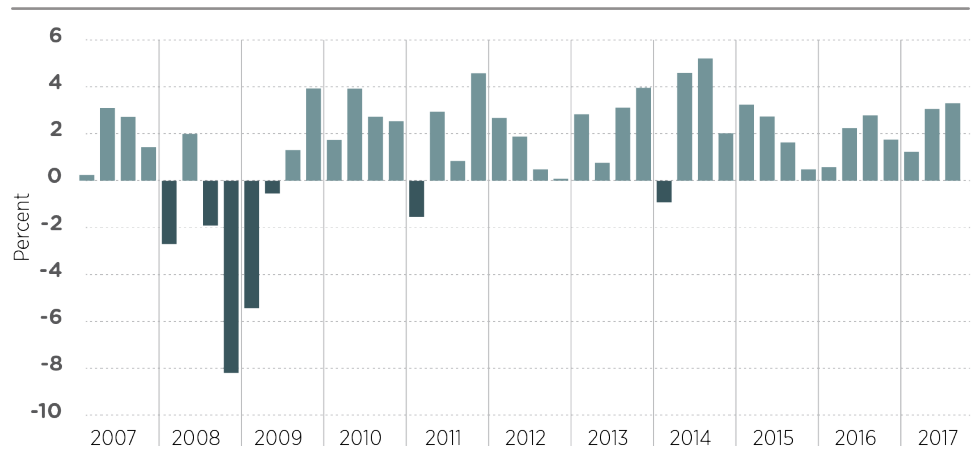
Economic activity in the US accelerated during 2017, as a strengthening labor market boosted consumer confidence. Corporate optimism was also elevated, as evidenced by market indexes and job

Exhibit 2-A
2017 Annual GDP Growth by Region



source The Economist Intelligence Unit, January 2018

Exhibit 2-B
Quarterly GDP Growth in the US



source BEA, 3Q 2017



openings, which trended at record highs during the year. The level of economic output, however, remained moderate compared with the long-term trend. In the first quarter, GDP advanced at a modest 1.2 percent annual rate, according to data from the BEA. However, the pace picked up in the ensuing two quarters, as the GDP rose 3.1 percent in the second quarter and 3.0 percent in the third quarter (see Exhibit 2-B).

The advances in economic output came from a combination of higher consumer spending, increased business investments and strong export activity. Benefiting from higher wages, as well as increased tenure for homeowners, consumers opened their wallets wider for remodeling projects, including furniture and household appliances. With more disposable income, consumers purchased more recreational vehicles and equipment, as well as cars and light trucks. Consumers also spent more on services during the year, with health care, recreation and financial services posting solid gains.

Buoyed by increased demand for goods and services, along with the promise of fewer regulations and lower tax rates, the bullish corporate outlook was reflected in stronger business investments. Companies made capital investments through higher spending on information processing and industrial and transportation equipment. Businesses also spent more on intellectual property products, with software investment advancing at double-digit annual rates during the first three quarters of the year. Investments in CRE started off the year on a high note, with a 14.8 percent increase in the first quarter, but moderated as the year wore

on. Similarly, investments in residential real estate kicked 2017 off with an 11.1 percent increase in the first quarter, only to experience declines in the subsequent quarters, as large builders faced a labor shortage and higher construction costs.

International trade continued as a mainstay of economic activity, picking up

time frame, based on data from the BLS, with the private sector accounting for 1.62 million net new jobs. The pace of change reflected slightly slower growth in the third quarter. Average weekly earnings of private employees increased by 2.8 percent as of the third quarter of the year, compared to one year earlier.

... OPTIMISM ABOUT ECONOMIC CONDITIONS FUELED EMPLOYMENT GAINS, HIGHER WAGES, AS WELL AS INCREASED BUSINESS INVESTMENT AND CONSUMER SPENDING.

steam during the year. Exports advanced during the first nine months of the year at a healthy clip, with US manufacturers seeing favorable conditions in the first half of the year, and service providers adding momentum. Imports — a negative contributor to GDP — grew more slowly through the year, leading to an improvement in the balance of trade.

The other major GDP component — government spending — declined in each of the first three quarters, as nondefense expenditures were scaled back. State and local governments also cut back on infrastructure investments.

EMPLOYMENT TRENDS

In keeping with the steady economic growth, employment continued expanding during 2017. Payroll employment registered a net gain of 1.68 million new positions over the January-November

Private service-providing industries continued as the employment growth engine, with 1.28 million net new jobs in the first 11 months of 2017, based on data from the BLS. Within the service industries, benefiting from an expanding corporate sector, the professional and business services sector posted the highest number of net new employees — 454,000. The education and health services sectors provided the second largest contribution to job growth, with 383,000 net new positions. With business and leisure travel rising in tandem with economic and wage gains, the leisure and hospitality sectors added 235,000 net new employees to payrolls by November 2017. As financial services added 119,000 new positions, demand for office space remained on an upward trajectory during the year.

Exhibit 2-C
Historical US Unemployment Rates



source BLS, December 2017

Demand for industrial warehouses and distribution centers continued apace in 2017, leading to transportation and warehousing employment gains of 72,900 new positions, with accompanying employment advances in the wholesale trade sector of 55,800 net new jobs. A key driver of industrial absorption came from the expansion of e-commerce, led by Amazon and its high-profile acquisition of Whole Foods Market in 2017, as well as its announcement that it plans to open a new, secondary headquarters. On the other hand, retail stores continued struggling with oversupply, as more department stores announced closures and layoffs. Retail trade employment declined by 65,800 jobs from January through November 2017, according to the Bureau of Labor Statistics.

While the solid growth in service industries outpaced employment in goods-producing industries, the 334,000 net new jobs was noteworthy. Construction companies added 147,000 new positions to their payrolls by the end of November 2017, based on data from the BLS. As several large companies announced plans to expand their existing US operations, others scrapped plans to move plants to other countries, and manufacturing employment advanced by 138,000 net new jobs. In a reversal of the past couple of years, the mining and logging sector also expanded, with a net gain of 49,000 new positions.

The unemployment rate fell throughout the year, from 4.8 percent in January to 4.3 percent by the third quarter, and 4.1 percent in October, November and December 2017 (see Exhibit 2-C). The average duration of unemployment registered an uptick during the year, from 25 weeks in January to 26 weeks in November of 2017, according to the BLS. The number of Americans employed part time for economic reasons declined from 5.7 million in the first quarter to 4.8 million by the end of November. Echoing the improving trends, the average number of employees leaving their jobs for other opportunities rose to 15.6 million in 2017, a 3.4 percent increase from 2016 and a 5.3 percent gain from 2015.

The labor force participation (LFP) rate has been on a downward trend for the past 17 years; however, the rate of decline has slowed over the past three years. From a high of 67.1 percent during the 1998-2000 period, the LFP rate dropped

Exhibit 2-D
Historical Labor Force Participation Rate



source BLS, November 2017

Exhibit 2-E
Total Supply of Existing Homes (Months)



source National Association of REALTORS®, October 2017

to 62.4 percent in September of 2015, the same level as in October 1977, according to the BLS. The decline slowed over the past three years. The LFP rate moved sideways in 2017 — despite monthly shifts — at 62.9 percent, on par with the figures from a year ago (see Exhibit 2-D). As of October of 2017, 95.4 million Americans were out of the labor force.

The momentum in 2017 employment found a counterpart in the consumer confidence figures. The Conference Board's index advanced to 125.9 by November of the year, the highest value since December 2000. Separately, the Consumer sentiment index compiled by the University of Michigan rose to 97.8 in November 2017, from 93.8 recorded during the same month in 2016.

HOUSING

Residential real estate continued to grapple with an imbalance between solid demand and insufficient supply in 2017, with tight inventory for new and existing homes. While the historical inventory equilibrium averages a six- to seven-month supply, the inventory in 2017 was about four months nationally, and even tighter for some metropolitan areas, according to data from the National Association of REALTORS® (see Exhibit 2-E).

With an improving economy, low unemployment and the total US population increasing by almost 9.0 percent over the past decade, household formation returned toward long-term trends. From 1956 to 2016, household formation averaged 1.2 million net new households

Exhibit 2-F

New Single-Family Home Sales



source US Census Bureau, October 2017

Exhibit 2-G

Annualized Existing-Home Sales



source National Association of REALTORS®, October 2017

each year, according to the Census Bureau. While the Great Recession curtailed that process, the past couple of years marked progress, with the first nine months of 2017 registering 1.1 million new households.

Supply failed to keep up with growing demand as builders faced a shortage of qualified labor, rising materials costs and several hurricanes, which diverted resources to emergency infrastructure projects. Monthly single-family housing starts averaged 826,000 units by the end of the third quarter, with completions averaging 782,000 units, according to the Census Bureau. New single-family home sales averaged a modest 608,000 units during the first three quarters of 2017 (see Exhibit 2-F).

At the same time, faced with tightening inventory, existing-homes sales slid from an average annual rate of 5.6 million units in the first quarter of the year, to 5.4 million units by the end of September, according to the National Association of REALTORS® (see Exhibit 2-G). Despite continuing low mortgage rates and rising wages, the widening gap between rising demand and low supply led to price appreciation outpacing wage growth. The median price of existing homes reached \$245,100 in September of 2017, a 4.2 percent increase YOY (see Exhibit 2-H).

Housing price appreciation has averaged close to 6.0 percent over the past four years, while gains in employment wages increased at an annual rate slightly above 2.0 percent. Not surprisingly, the housing market has experienced declining



affordability. With demographic trends continuing to shift toward younger cohorts and supply conditions remaining tight, the affordability squeeze is expected to continue in 2018 as well, especially for first-time buyers.

INFLATION AND MONETARY POLICY

Confounding expectation set at the tail end of 2016, consumer prices continued on a moderate path during 2017. The Consumer Price Index (CPI) moved in a narrow range most of the year, around 2.0 percent, according to the BLS (see **Exhibit 2-I**). While the first quarter recorded inflation averaging 2.5 percent, prices moved below the 2.0 percent mark in the May-August period. Over the first 10 months of 2017, headline inflation averaged 2.1 percent.

Core inflation — which excludes food and energy — spent most of the year below 2.0 percent, averaging 1.9 percent over the January-October time frame, based on data from the BLS. The cost of housing — both rent and owners' equivalent rent — comprises about a third of the CPI, the main measure of inflation. Prices for shelter advanced at a faster clip during 2017, averaging 3.4 percent in the first 10 months. However, the solid gain did not push inflation much above the Fed's 2.0 percent target.

However, given the improvement in the employment picture and the unemployment rate nearing 4.0 percent, the Fed moved on its promise from 2016 to continue scaling back its quantitative easing. The FOMC voted to increase its funds target rate three times during 2017, at its March, June and December meetings (see **Exhibit 2-J**).

The other major change in monetary policy came in October, when the Fed announced the unwinding of its asset purchases. Spurred on by the financial crisis in the last decade and the ensuing recession, the Fed embarked on the unprecedented mission of propping up a failing US economy. The goal was to inject massive capital into the financial system, to stabilize failing banks, and increase liquidity so that companies and consumers could borrow money at lower rates, and revive consumption and output. The Fed's strategy involved purchasing securities from member banks and government debt. In addition, due to real estate's role in the recession and its importance to

Exhibit 2-H
Median Existing-Home Prices

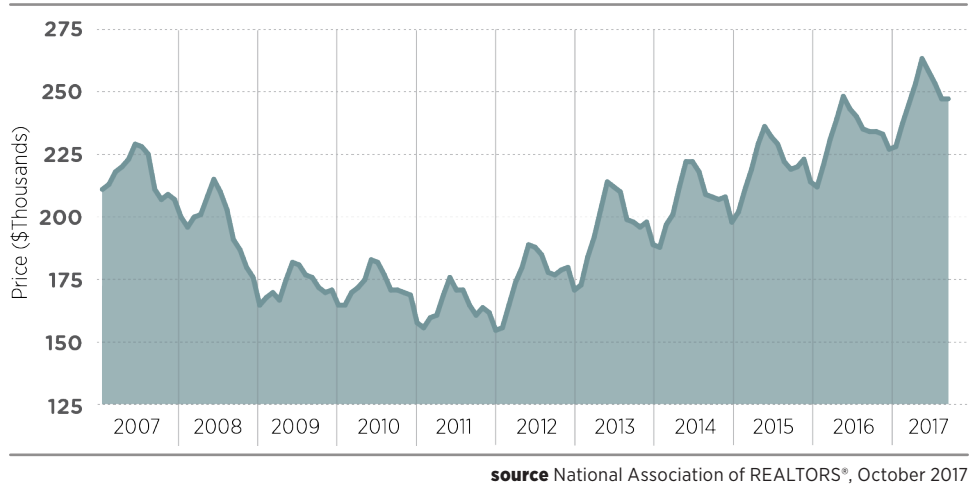
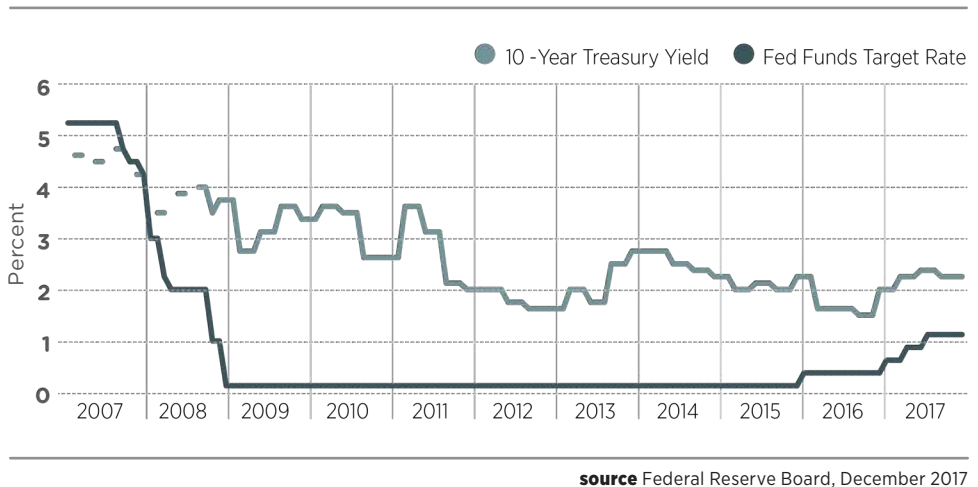


Exhibit 2-I
Consumer Price Index (CPI)



Exhibit 2-J
10-Year Treasury Note Yield and Federal Funds Rate Comparison



economic activity, the Fed also added a new strategy in its approach: it purchased long-term government notes and mortgage-backed securities (MBS), while simultaneously announcing that it would keep the funds rate with a lower bound of zero percent for an extended period.

From an average of \$900 billion in assets before the recession, and through several quantitative easing projects (nicknamed QE1, QE2, Operation Twist, QE3, and QE4), the Fed expanded its balance sheet to a stratospheric \$4.5 trillion as of the second quarter of 2017. The two major assets on its current balance sheet

are \$2.5 trillion in US Treasury securities and \$1.8 trillion in MBS. Taking a broader perspective, the Fed's move helped the US economy grow at a steady pace since the end of 2009. The unemployment rate fell from 10.0 percent in October 2009 to 4.1 percent in October 2017, while inflation has remained under 2 percent.

In October 2017, the Fed announced that it would begin divesting its assets by allowing maturing bonds to roll off its balance sheet without reinvesting the payments. The stated goal was to work toward a maturing bond volume of \$50 billion per month, leading to a decrease

in the Fed's balance sheet by 50 percent by 2021.

The Fed's move to tighten monetary policy was further underscored by the FOMC's December decision to increase the funds target rate by another 25 bps, aiming for a new range of 1.25-1.50 percent. The increase marks the third hike in 2017, and was accompanied by the FOMC's intent to continue moving the rate in an upward direction in 2018.





3

THE CAPITAL MARKETS



INTRODUCTION

In 2017, the financial markets kept rising to record highs, buoyed by positive economic indicators and hopes of broad tax reform. CRE market returns experienced a slight downtrend in returns as expected, while an upward trend in REIT returns continued through the third quarter of 2017. In September, the potential for another rate hike before the end of the year (and the Fed did raise its rate in December) drove Treasury rates higher from the YTD lows in August. Investors continue to find value in equities due to strong corporate earnings, but many uncertainties could have major effects on the equity markets and CRE.

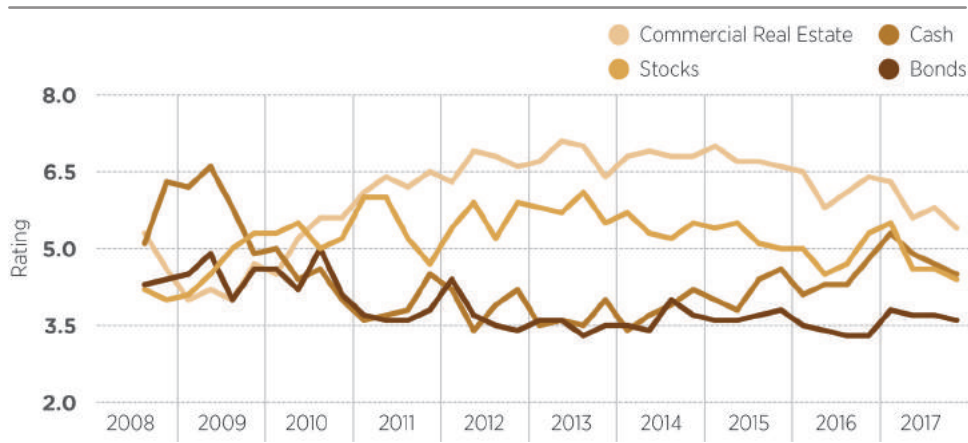
While investors still find CRE attractive, the preference for CRE relative to other asset classes has waned over the last three years, according to a survey conducted by Situs RERC. On a risk-adjusted basis, however, CRE continues to be the leading investment option compared to the alternatives of stocks, cash and bonds (as shown in Exhibit 3-A). The preference for stocks is the lowest it has been since 2009 as investors have become skittish about a possible market correction. Although stocks are at new highs, there is ongoing concern that they are overvalued and bonds face headwinds with further tightening expected by the Fed. Real estate carries a very low beta relative to stocks, which makes it an attractive alternative, while its inflation-hedging features are attractive relative to standard fixed-income investments. However, since CRE prices have been steadily rising since the Great Recession, respondents have generally been less likely to recommend buying CRE, given the fact we are so late in a very long cycle.

Nevertheless, the strength of CRE continues to be evident in the spread between CRE yields and 10-year Treasury rates, as reported by Situs RERC (see Exhibit 3-B on page 26). Although 60 bps lower than in the third quarter 2016, the third quarter 2017 spread remained at a healthy 5.6 percent. However, with the 10-year Treasury averaging 2.34 percent in mid-December 2017, and forecast to rise in 2018, the expectation is that spreads will narrow further in 2018. It is expected that cap rates for overall CRE will flatten and begin to rise for most property types.

Despite all of the monetary stimulus, inflation remains contained. While the Fed is likely to continue to raise rates in 2018, it is expected to do so at a moderate and well-communicated pace. While there are signs of a global trend of economic growth, technology, globalization and demographics are expected to keep inflation at bay. Therefore, the rate increases are not expected to be enough to deter CRE investment at this juncture. Solid CRE fundamentals have resulted in historically low CRE cap rates, despite mortgage rates being either flat or having slight increases over the last year. Both debt and equity markets are highly competitive in terms of originations. Specific asset and market performance characteristics are expected to increasingly dictate the availability of capital.

Exhibit 3-A

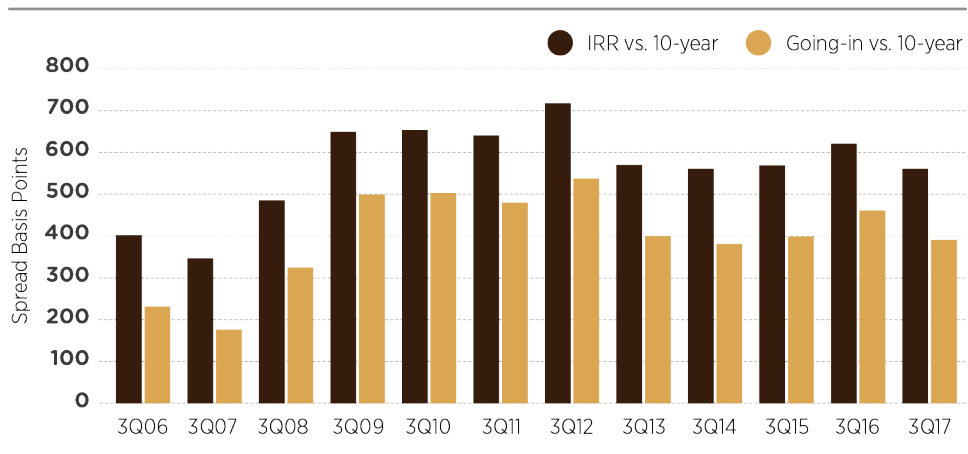
Situs RERC Historical Ratings of Investment Alternatives



source Situs RERC, 3Q 2017

Exhibit 3-B

Spread Between Commercial Real Estate Yields or Going-in Cap Rates and 10-Year Treasury Rates



sources Situs RERC, Federal Reserve, 3Q 2017

THE FED AND INFLATION

When the Great Recession began, the economy started shedding hundreds of thousands of jobs a month, and the unemployment rate soared to 10.0 percent by October 2009. In response, the Fed eventually cut its fed funds rate from above 4.0 percent to the zero to 0.25 percent range in December 2008. The Fed also initiated its quantitative easing (QE) program in an effort to stimulate the economy.

The key interest rate remained in the zero to 0.25 percent range until December 2015, when it was raised to the range of 0.25 percent to 0.5 percent as the unemployment rate had fallen to 6.0 percent and GDP was growing at a 2.6 percent annual rate. The Fed hoped to return to its ideal funds rate between 2.0 percent and

5.0 percent while keeping inflation around 2 percent. However, inflation remained stubbornly low throughout 2016 and 2017 and short-term interest rate hikes have been small and communicated to the markets in advance. The Fed increased its funds rate by 25 bps in December 2016, March 2017, June 2017 and December 2017, and it now stands in the 1.25 percent to 1.50 percent range. During this time, inflation has remained below 2 percent and the national unemployment rate fell to 4.1 percent in October 2017 and remained 4.1 percent in November and December.

Moreover, the Fed began unwinding its \$4.5 trillion balance sheet in October, which mostly contains bonds. During the first week of November, the Fed's portfolio holdings showed a decline of about \$6

billion in its holdings of Treasury securities. This was the biggest weekly decline since 2012. The Fed plans to gradually increase the amount rolled off until it reaches \$20 billion a month in October 2018. The cumulative effect of the Fed's QE program on CRE has been a significant increase in the availability of capital from banks. Currently, the CRE markets are flooded with capital and, similar to the effect of short-term interest rate increases, as long as the Fed's plan to unwind the balance sheet is clearly communicated and the withdrawal occurs gradually, the markets are unlikely to be hurt by the Fed's decision.

When the Fed announced its latest rate increase on December 13, 2017, it reiterated its plan to raise rates three times in 2018 and twice in both 2019 and 2020, barring unforeseen circumstances such as a drastic jump in inflation. It is expected to make the banking system and insurance industry more profitable. According to the Senate Banking Committee, Jerome Powell was confirmed to replace Janet Yellen as chairman of the US Federal Reserve. Powell has stated that he intends to continue the path of gradual rate hikes set by Yellen unless inflation rises suddenly.

Many believe that the anticipated rate hikes will not adversely affect CRE. Market forces have been putting downward pressure on CRE transaction volume and prices, and the rate hikes might accelerate that pressure. Because CRE is usually a long-term investment strategy, many CRE owners have incorporated future rate increases into lease agreements; as long as the rate hikes are gradual and arrive as predicted, the CRE markets are not expected to overreact.

REDUCING FINANCIAL REGULATIONS IN THE ERA OF PRESIDENT TRUMP

Since President Trump took office, he has worked to eliminate or reverse numerous federal regulations, either through executive signing orders or congressional action.

Perhaps the most significant change wouldn't have happened without Vice President Pence breaking a 50-50 tie vote in the Senate in October. The law overturns a Consumer Financial Protection Bureau (CFPB) rule designed to make it easier for consumers who believe they have been defrauded to band together in class-action lawsuits against financial institutions. The rule had been scheduled to take effect in 2019. Republicans and the Treasury De-

partment said the rule would have generated 3,000 additional class-action lawsuits over the next five years, costing businesses more than \$500 million in additional legal defense fees, \$330 million in payments to plaintiffs' lawyers and \$1.7 billion in additional settlements. In a news release, the Treasury Department said those costs would primarily be passed on to consumers through higher borrowing costs for credit card users.

In November, after Richard Cordray resigned as chairman of the agency to run for Ohio governor, President Trump appointed Mike Mulvaney, who already was director of the Office of Management and Budget, to simultaneously hold the position of acting director of the CFPB. Leandra English, who had been deputy director of the bureau, said she should properly assume the duties as acting director, but a US District judge ruled in December in favor of Trump and Mulvaney.

Mulvaney has long criticized the bureau that he is now leading. He once called the bureau a joke "in a sick, sad way," according to USA Today. During his first day on the job, Mulvaney imposed a 30-day moratorium on new regulations, froze hiring and put a temporary hold on payments to victims of illegal banking practices. Mulvaney was expected to slow down or stop impending restrictions on payday lending, debt collection and overdraft fees.

The CFPB was established as part of the Dodd-Frank law intended to limit some of the excesses blamed for causing the Great Recession. In December 2016, another provision of Dodd-Frank went into effect: risk-retention rules that require managers to hold 5 percent of their Collateralized Loan Obligation (CLO) funds. According to Reuters, many were concerned that this new requirement would put a damper on issuances of CLO funds, but that did not appear to happen in 2017.

In addition, under President Trump's direction, the administration has in many cases declined to enforce existing or impending federal regulations on education, the environment, health and safety, and at the beginning of his presidency directed federal agencies to repeal two rules for every one they issue, according to The Hill.

TAX REFORM AND CRE

With the change in Presidential administration in January 2017, and the Republican Party's majority in Congress, tax reform —



which had been a major campaign promise — contoured more precisely and picked up speed during the year. While both the Senate and the House of Representatives put forth bills outlining their respective views on reform items, the legislative negotiation process elicited a final bill that was passed and submitted to the President, who signed it into law.

INDIVIDUAL AND CORPORATE TAX CHANGES

For individuals, the act retained the existing seven marginal tax rate brackets, but lowers the top rate from 39.6 percent to 37 percent. The law increases the standard deduction to \$12,000 from \$6,350 for individuals, and to \$24,000 from \$12,700 for married couples.

Other provisions for individuals include:

- The deduction for state and local and income, property and sales taxes, previously unlimited, was capped at \$10,000. This change would affect people who live in high-tax states, such as New York, New Jersey, California and Illinois.
- The current Child Tax Credit of \$1,000 per child was increased to \$2,000 per child for families making up to \$400,000 a year. People who don't earn enough to pay federal income tax can collect a credit up to \$1,400 per child.
- The exemption for the 35 percent estate tax, which affects fewer than 5,000 individuals and corporations a year or about 0.2 percent of Americans, was doubled from \$5.5 million to \$11 million for individuals and \$22 million for married couples.

However, the centerpiece of the plan is cutting the federal tax rate for corporations from 35 percent to 21 percent and eliminating the 20 percent corporate alternative minimum tax. Businesses will be allowed to immediately write off, or expense, the full value of investments in new tangible personal property for five years. The law gradually eliminates this 100 percent expensing beginning in the sixth year. It also makes changes to allow more expensing by small businesses. The conservative Tax Foundation estimated that full expensing could do more to propel

economic growth than a cut in corporate rates would.

The law also exempts US corporations from US taxes on most future foreign profits; previously, they were taxed on their profits wherever they were earned. This so-called territorial or partial exemption system aligns the US tax code with most other industrialized nations and is designed to reduce tax-dodging. The law sets a one-time mandatory tax of 8 percent on

THE CRE SECTIONS OF THE TAX BILL LEFT MANY OF THE PRIOR PROVISIONS MOSTLY UNCHANGED, SUCH AS SECTION 1031 LIKE-KIND EXCHANGE RULES FOR REAL PROPERTY.

illiquid assets and 15.5 percent on cash and cash equivalents for about \$2.6 trillion in US business profits now held overseas.

The bill makes the business tax changes permanent but the cuts expire for individuals in 2025, returning them to the existing rates and setting the stage for a sharp tax increase for many millions of households, according to estimates by the Congressional Budget Office and the Joint Committee on Taxation. Personal income taxes would shoot up \$430 billion between 2025 and 2027.

Those most affected would be those with incomes between \$54,700 and \$93,200. Nearly two-thirds of this group would pay on average \$140 more than they currently do, according to an analysis by the non-partisan Tax Policy Center. Not only would their tax rates return to higher levels, they would also lose the increase to the standard deduction and the child tax credit that congressional Republicans have been touting as needed relief.

REAL ESTATE TAX CHANGES

For residential real estate, the tax act offered a few new provisions, including a cap on deductible mortgage debt of \$750,000, and a cap \$10,000 on the deduction for state and local property taxes and income or sales taxes. The CRE sections of the tax bill left many of the prior provisions mostly unchanged, such as Section 1031 Like-Kind Exchange rules for real property (but not personal property). Although there is a

new limitation on business interest deductions, that limitation does not apply to an electing “real property trade or business.” A business making the election out of the interest limitation as a “real property trade or business” is required to use slightly longer depreciation lives for all existing and newly acquired real property and certain qualified interior improvement property.

Pass-through businesses can take a 20 percent deduction for qualified business income they receive from the entity, according to the Washington Post and the US House of Representatives Conference Report. Income for such entities pass through to the owners' individual returns where it is currently taxed at ordinary income tax rates. In addition, the 20 percent deduction applies to dividends paid by REITs.

There are limitations and exceptions to this deduction, but in general it will reduce the tax burden on owners of pass-through entities and REITs and because most CRE companies are structured as pass-through businesses or REITs, this deduction will be of great benefit to the CRE industry.

While the full implications of tax reform are unknown at this point, we do not expect the real estate industry to be damaged by the changes. The National Association of REALTORS® expects the Tax Act to provide short-term economic stimulus in 2018, with a possible long-term productivity boost assuming that companies employ the tax cuts for capital investments and worker training. However, given that the Tax Act's \$1.5 trillion price tag may lead to larger budget deficits, interest rates may increase at a slightly faster pace.

CAPITAL ORIGINATIONS

Situs RERC estimates the investment market for CRE in the US was \$3.974 trillion in debt-based institutional investment properties and an estimated \$3.971 trillion in equity-based institutional investment properties. As shown in **Exhibit 3-C**, key investors in the debt market included US-chartered depository institutions (banks and savings institutions), government-sponsored entities (GSEs), CMBS, collateralized debt obligations (CDOs) and other asset-backed securities (ABS), life insurance companies, and foreign banking offices among others. Equity investors included private investors, REITs, pension

funds, foreign investors, life insurance companies, commercial banks, GSEs and others as shown in **Exhibit 3-D**.

The Fed indicated that originations grew roughly 5.8 percent, to \$3.97 trillion, in third quarter 2017 compared to the previous year. The US-chartered depository institutions, which constituted roughly 51 percent of the total debt, grew 6.59 percent YOY in originations in third quarter 2017. While foreign banking offices in US accounted for only around 2 percent of total debt, the category grew 13.16 percent YOY in third quarter 2017. The CMBS, CDO and other ABS category strengthened, as its proportion of the debt market rose to 16 percent in third quarter 2017 from 10 percent in third quarter 2016. The originations by this category increased by 4.53 percent YOY in third quarter 2017. GSE totaled 13 percent of the debt market, and gained 6.69 percent YOY in debt levels in third quarter 2017.

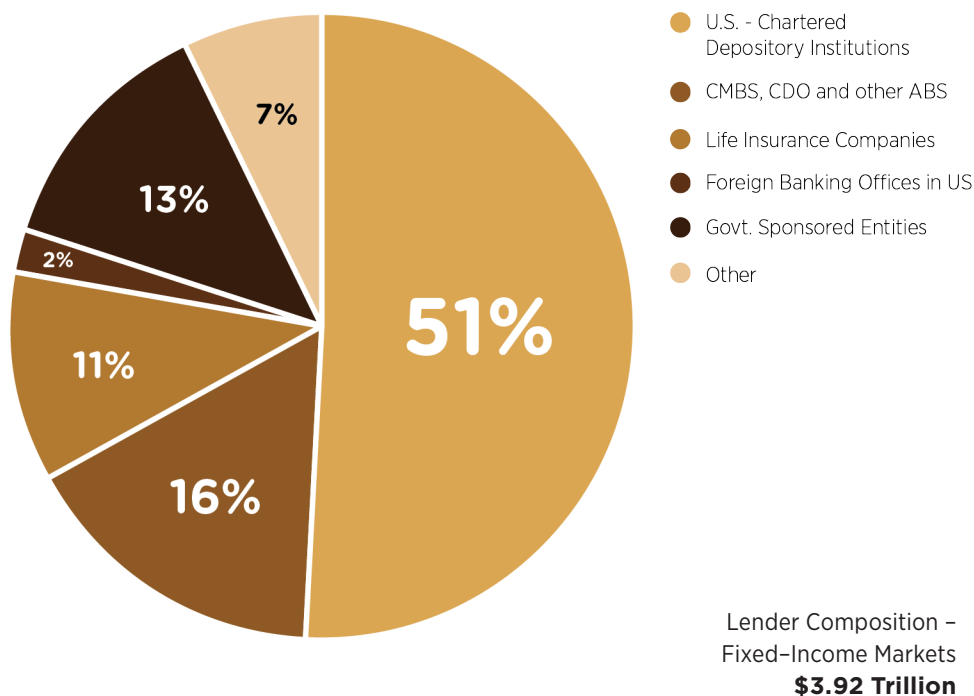
Situs RERC estimates that the total institutional equity market was roughly \$3.971 trillion as of third quarter 2017. At 56 percent, private equity continued to hold the majority of equity-based CRE, and was on par with 2016. REIT investment continued to account for the next largest piece of the investor universe, at roughly 24 percent of total equity. The remaining equity investment was held by pension funds (10 percent), corporations (5 percent), life insurers (2 percent), foreign investors (1 percent), commercial banks (1 percent), and government, GSEs and others (1 percent).

DEBT MARKETS REVIEW AND OUTLOOK

According to RCA, the loan-to-value (LTV) ratio for the apartment sector hovered between 67 percent and 68 percent throughout 2017, staying at 67 percent at the end of third quarter 2017. The LTV ratio for commercial (office, industrial and retail) was volatile throughout 2017. After falling to 53 percent in July, the LTV ratio reached 64 percent in September 2017.

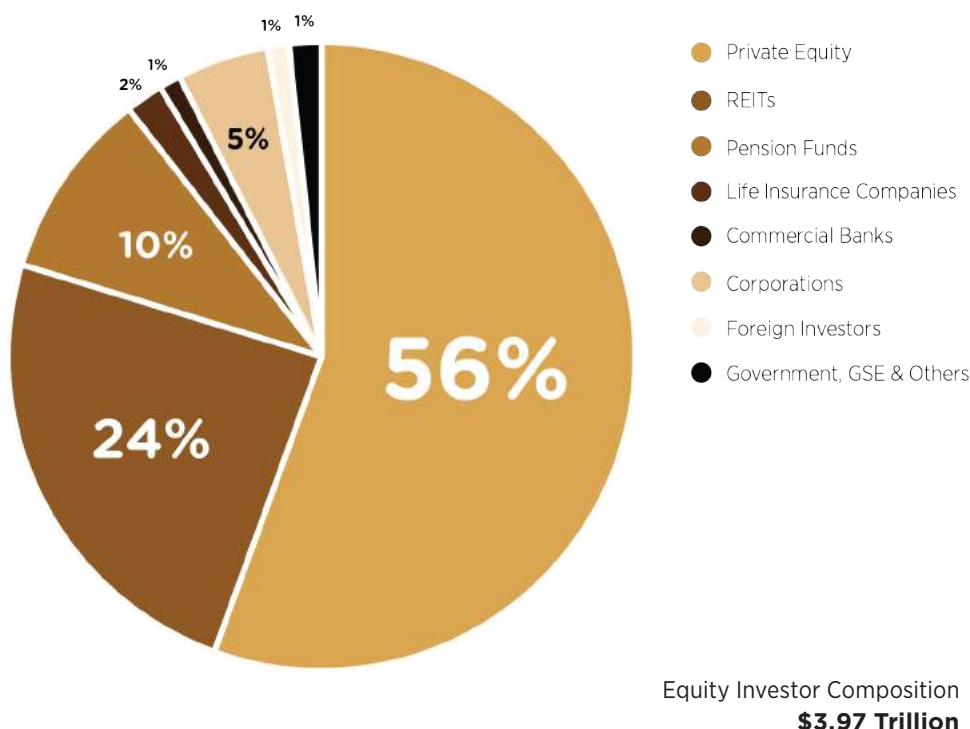
The third quarter **2017 Situs RERC Real Estate Report** shows that while institutional investors believe that the availability of debt capital is very good, perceptions are that it is significantly below what it was a few years ago. On a scale from 1 to 10, with 10 being excellent, respondents rated the availability of debt capital 7.1 in third quarter 2017, compared to 8.3 in third quarter 2014. The availability of debt capital rating has been relatively stable

Exhibit 3-C
Commercial Real Estate Debt Universe



source Federal Reserve Board, 3Q 2017

Exhibit 3-D
Institutional Commercial Real Estate Equity Investments



sources NAREIT, NCREIF, RCA, compiled by Situs RERC, 3Q 2017

since fourth quarter 2015. Underwriting standards appear to be trending upward since fourth quarter 2015 (indicating increased discipline). The discipline of debt capital rating declined to 6.8 from 6.9 the previous quarter, but is still one of the highest ratings since second quarter 2014, when Situs RERC began collecting these data. The third quarter 2017 rating is a half point higher YOY. Underwriting standards appear to be moving in tandem with the availability of capital, suggesting stability in the debt capital markets. The spread between the availability and discipline of debt capital index has remained tight since fourth quarter 2016.

Data on debt yields was provided by RCA. Debt yields have remained steady throughout 2017, reaching 10.4 percent for the retail, industrial and office sectors combined, which was an increase of just less than 1 percentage point YOY in third quarter 2017. Debt yields for the apartment sector bounced around 9 percent throughout the year, ending at 9.1 percent in September 2017. However, debt yields were below the high of 15 percent in 2010 for the retail, industrial and office sectors, and 10.5 percent for the apartment sector seen in 2004. In today's environment, property investors are focused more on debt yield than cap rate compression. Borrowers are willing to put more equity into a given transaction, keeping LTV ratios modest, providing less risk and attracting more institutional investor interest.

RCA provided trends analysis regarding the debt service coverage ratio (DSCR). According to RCA's methodology, DSCR is provided through CMBS tapes and only

includes ratios between 1 and 2.5. The commercial DSCR was on an increasing trend early in 2017, reaching 1.8 percent in May. However, it began a downward trend in the latter half of the year, sliding to 1.66 percent in September, compared to 1.67 percent in September 2016. The DSCR for the apartment sector has been steadily increasing over 2017, reaching 1.72 percent in September, up from 1.66 percent the same time last year. These trends indicate steady or improving cash flows for investors, but there may be some headwinds for 2018 DSCR levels due to further interest rate hikes and policy uncertainty.

Of particular interest in refinancing is delinquencies. Although the pace of new delinquencies is slowing, the sector most at risk is retail. Fitch Ratings reports that retail outweighs the other property types in current delinquency rate, at 6.12 percent. Trepp reports that approximately \$35 billion in CMBS debt is made up of retailers that filed for bankruptcy protection in 2017.

The CMBS lending market declined after the financial crisis due to the stagnant CRE fundamentals. Throughout 2016 and the beginning of 2017, CMBS lending declined due to an increase in the yields demanded by investors. According to Commercial Mortgage Alert (CMA), spreads have narrowed in 2017. Spreads on AAA conduits were S+78 as of mid-December 2017, which is down from the previous week's spread of S+79 and the 52-week average of 89. Spreads on BBB- conduits were S+345 as of mid-December, lower than both the week prior (S+350) and the 52-week average of 400. Going into 2017, the

main concern for the CMBS market was on how the new risk retention rules would impact the market. It appears this market is beginning to overcome those obstacles, with an overall increase in CMBS originations in third quarter 2017, reversing a multi-quarter trend of falling market share.

Another obstacle for 2017 was the large amount of 2007-era maturing debt, and the manner in which it would be refinanced. According to the CRE Finance Council (CREFC), approximately \$28.8 billion of CMBS loans are set to mature in 2018, which will drive refinancing activity in the new year. However, this is down considerably from the \$100 billion that matured in 2017, signifying that the market appears to be past the worst of the legacy CMBS hump. The CMBS market ended the first three quarters of 2017 with approximately \$67 billion in CMBS deals, roughly \$17 billion less than the same time period in 2016, according to CMA.

Looking into 2018, the credit quality of newly originated and outstanding US CMBS loans is expected to remain near 2017 levels, according to Moody's Investors Service. As we near the end of this real estate cycle, the CMBS market will face some challenges through rising interest rates and new supply, particularly in the office and hotel sectors. However, these should be somewhat mitigated by increasing debt service coverage in conduit loans, declining leverage and declining delinquency rate.

EQUITY MARKETS REVIEW







AND OUTLOOK

Roughly \$336 billion in CRE acquisitions occurred through the first three quarters of 2017, according to RCA. However, this is less than the roughly \$355 billion in acquisitions during the same period in 2016. Private investors and REITs contributed the bulk of positive net capital flows (acquisitions less dispositions) in the first three quarters of 2017, while foreign investors and institutional investors contributed to the decline compared to the first three quarters of 2016. The YOY decrease is not surprising given the cyclically high prices; most market participants did not expect to reach the record-high transaction volumes seen in the past two years.

With acquisition activity down, investors are finding another way to insert capital into the sector through new construction. REITs, in particular, saw positive net capital flows largely due to capital committed to new construction. Conversely, institutional investors' pace of new construction has not been large enough to offset their disposition activity, contributing to that sector's net decrease. Capital volume is expected to remain active, but tempered, due to a gap in pricing expectations between buyers and sellers, tax policy uncertainty, and new supply possibly dampening income growth.

Foreign investment in the US CRE market was over \$45 billion as of November 2017, down roughly 31 percent YOY, according to RCA. This is consistent with the slowdown seen in transaction volumes across all property sectors. In 2017, Canada, Singapore and China were the top countries investing in the US, and the majority of

Exhibit 3-E
Real Estate Transactions

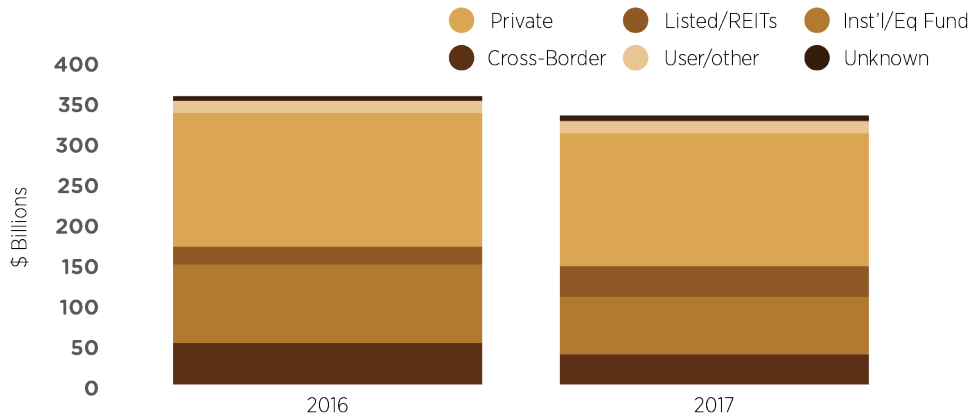
 office	\$2.21 billion	name 245 Park Avenue	place New York, NY
		buyer HNA Group	date March 2017
		seller Brookfield Prop Partners, Clarion Partners, NYSTRS	sf/units 1,723,993
 office	\$1.95 billion	name One Astor Plaza	place New York, NY
		buyer Allianz RE of America	date December 2017
		seller SL Green	sf/units 1,750,000
 office	\$1.73 billion	name Worldwide Plaza	place New York, NY
		buyer SL Green RXR Realty	date October 2017
		seller NY REIT	sf/units 2,049,553
 office	\$1.52 billion	name One Liberty Plaza	place New York, NY
		buyer Blackstone	date December 2017
		seller Brookfield Prop Partners,	sf/units 2,346,000
 industrial	\$1.07 billion	name Unknown	place Unknown
		buyer Medina Capital, BC Partners	date March 2017
		seller CenturyLink	sf/units 2,470,433

sources Real Capital Analytics, 2018.



Exhibit 3-F

Commercial Real Estate Acquisitions



source Real Capital Analytics, 3Q 2017
note Data reflect first three quarters of each year

investment, based on transaction volumes, went to the Manhattan, Washington, D.C., and Boston markets. Foreign investment in US CRE has declined faster than overall investment; however, it fits the marketwide trend of waning investment activity after record years, and is more about reverting to the norm. Also of note is the decline in Chinese investment volume. China had been the leader among cross-border investors in 2016, but now trails Canada and Singapore in the face of more stringent Chinese regulations.

According to RCA, the 2018 outlook for foreign investment is encouraging. With ongoing quantitative easing programs occurring in Europe and Japan, many investors abroad are finding it harder to fulfill return requirements through domestic investment. That, coupled with an increase in Asian capital into the market, should account for a continuation of foreign capital



into US CRE in spite of the higher cost. The RCA Commercial Property Price Index (CPPI) National All-Property Index rose 1.2 percent in October from a month earlier. The index is up 8.4 percent from a year ago. Since June, the index has registered monthly gains of 1.0 percent or higher. Deal volume in the US has fallen in four of the past five months even though prices have risen steadily. Transaction volume declined 23 percent YOY for all property types. Refer to **Exhibit 3-E on page 31** to see a list of top transactions by price in 2017.

Situs RERC collects survey data from institutional investors that uses a scale of 1 to 10 (with 10 indicating that value greatly outweighs price) to measure the relative relationship between CRE value and price. Situs RERC's value vs. price rating for overall CRE decreased in third quarter 2017 to 4.6 from 4.9 the previous quarter.

This is the lowest rating since third quarter 2009 and indicates that respondents believe that the market is overpriced relative to value. In general, the value vs. price rating for overall CRE has been trending downward since 2014. Among the property types, the industrial sector offered the most value relative to price, which has been the case in every quarter since fourth quarter 2011. With its 5.6 rating in third quarter 2017, the industrial sector's value vs. price rose from 5.3 in second quarter 2017 but was down from 6.1 YOY. All the other property types were rated as overpriced in third quarter 2017, as was the case in the previous quarter. CRE equity flows were depressed by a pullback of institutional capital between 2016 and 2017 (**as seen in Exhibit 3-F**). After six years of increasing investment, institutional investors reduced acquisitions by 30 percent through the first half of 2017, according to RCA. The decrease was

prominent in the pricey gateway markets such as Manhattan, San Francisco and Boston, while secondary markets like Dallas, Houston and Charlotte attracted more institutional investors seeking higher yields. CRE equity capital flows also declined





4

THE PROPERTY MARKETS



INTRODUCTION

RCA reported that total transaction volume increased to approximately \$114.2 billion in third quarter 2017 from approximately \$110.6 billion in second quarter 2017. As shown in **Exhibit 4-A**, volumes increased for the industrial and apartment property sectors quarter to quarter, but dropped for the office, retail and hotel sectors. YOY, total transaction volume declined 9 percent during third quarter 2017. Transaction volume for the hotel, retail and office sectors fell precipitously from a year ago — 45 percent, 32 percent and 18 percent, respectively. In contrast, industrial transaction volume soared 36 percent and apartment transaction volume rose 5 percent YOY.

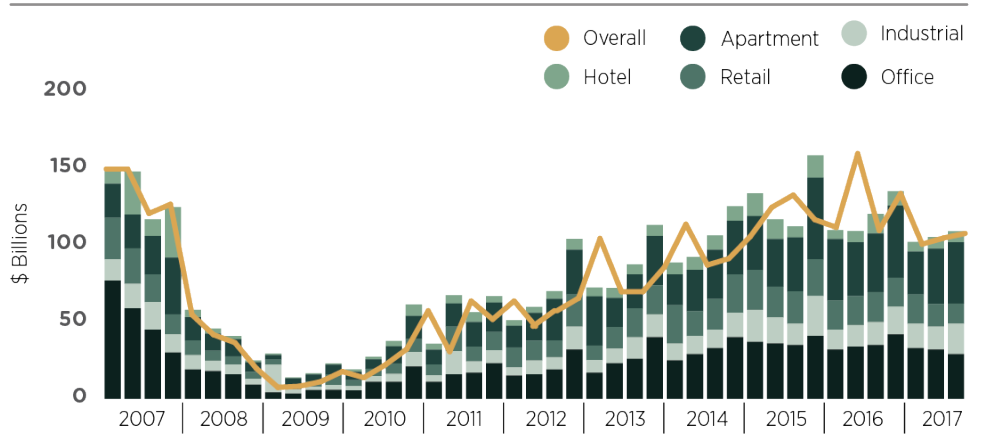
According to the RCA CPPI, the apartment sector gained momentum after a slow start in 2017, growing over 1.0 percent each month from May through August (**see Exhibit 4-B**). The pace slowed to 0.9 percent in September and 0.7 percent in October. The industrial index topped apartments in October with the fastest YOY growth among the sectors. Industrial index is up 9.9 percent YOY followed by apartment with its index up 9.8 percent YOY. The industrial sector has continued to push the market forward with strong growth while other core types start to cool. In third quarter 2017, RCA data showed that cap rates for the office sector increased YOY, cap rates were relatively stable for the retail sector and cap rates declined for the industrial and apartment sectors (**see Exhibit 4-C**).

On a quarterly basis, the average price per square foot/unit (PPSF/PPU) decreased for the office, retail and hotel property sectors, but increased for the industrial and apartment sectors in third quarter 2017, according to RCA. The office sector experienced its second straight quarterly decline; retail and hotel fell back after rising in the second quarter. Industrial had been flat in second quarter 2017 while the apartment price per unit increased for the second consecutive quarter. Compared to a year ago, the retail sector average PPSF declined approximately 21 percent during third quarter 2017. This was the most significant YOY decline during the past four quarters. While the hotel sector average PPU declined about 8 percent YOY (the second straight YOY decline over the past four quarters), the office saw no change from a year ago and the apartment sector prices increased 8 percent. Prices for the industrial sector increased 9 percent compared to a year ago.

Situs RERC's value vs. price rating for the office sector slightly dipped to 4.7 from 4.9 the previous quarter, indicating that the sector is overpriced. Though ratings have been volatile, the office sector value vs. price has generally trended downward since fourth quarter 2014. Throughout 2017, the retail sector has been considered overpriced. The current rating, which declined from 4.7 to 4.4, is the lowest for the property type since the height of the recession and is currently the most overpriced sector among the major property types. The apartment sector, after falling in second quarter 2017 to a 4.3 rating (nearly its lowest value since the surveys began in 2008), moved back toward equilibrium at 4.8 in third quarter 2017, according to respondents. The hotel sector dipped slightly to 4.7 in third quarter 2017 from 4.8 in the previous quarter.



Exhibit 4-A
Commercial Property Volume



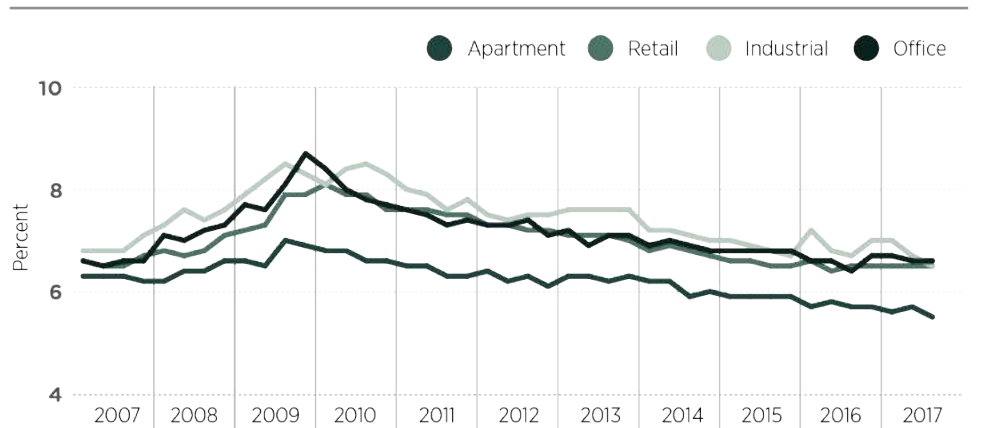
source Real Capital Analytics, 3Q 2017

Exhibit 4-B
Real Capital Analytics CPPI



source Real Capital Analytics, October 2017

Exhibit 4-C
Commercial Property Cap Rates



source Real Capital Analytics, October 2017

THE OFFICE MARKET

MARKET OVERVIEW¹

One of the greatest predictors of office sector demand is typically employment. The unemployment rate was 4.1 percent in third quarter 2017, the lowest since 2001. However, the office sector experienced a stark decline in investment sales during the third quarter of 2017. According to RCA, investment sales in the office sector totaled \$28.4 billion during the third quarter of 2017, a 19 percent YOY decline (see Exhibit 4-D). The nine-month total in 2017 came to \$93.5 billion, representing about a 7 percent decline compared to the same time last year. CBD office properties had a weak third quarter with \$7.8 billion in sales, down 46.4 percent YOY. CBD properties captured only \$34.9 billion during the first nine months of 2017, compared to \$46.1 billion during the same time in 2016. On the other hand, the sales of suburban properties increased 7 percent during the first nine months of 2017, compared to the same time in 2016.

Despite a substantial bump in entity sales in third quarter 2017, entity volume declined by 51 percent over the first three quarters of 2017 compared to the same period in 2016. YOY individual sales were down by 8 percent for the first three quarters of 2017, but portfolio sales buoyed the sector with a 12 increase YOY over the first three months of 2017. The major US markets attracted most of the office investment with \$49.4 billion in the first three quarters of 2017. Non-major market volume was \$40.7 billion in the first three quarters of 2017. Transaction volume differences between the major and non-major markets was the greatest in first quarter 2017, but differences between the markets have declined substantially in the second and third quarters, likely due to the increased competition in major markets pushing investors into other markets in the search for yield. Transaction volume for both major and non-major metros decreased YOY, by \$4.3 billion and \$2.1 billion, respectively.

Despite declines in sales, office fundamentals improved, leading to rising rents and expectations of stronger cash flows. According to RCA, the average price for office properties grew a modest 2 percent YOY during the third quarter of 2017, reaching \$255 per square foot at the end of September. Prices for CBD properties declined 1.5 percent YOY in third quarter 2017, while the prices for suburban offices increased 10.5 percent YOY during the same time reaching an average of \$210 per square foot.

RCA reported a slight uptick in the CBD cap rate, reaching 5.7 percent during the third quarter of 2017 from 5.5 percent in the first quarter. The suburban cap rate stayed at 6.9 percent. The average cap rate for the overall office sector increased slightly to 6.7 percent in third quarter from 6.6 percent in the first quarter of 2017 (see Exhibit 4-E).

Manhattan retained the top spot for office investment, with \$14.8 billion in sales during the first three quarters, but with a 36 percent decline compared to the same time in 2016. Los Angeles and San Francisco ranked second and third during third quarter 2017. The transaction volume in the Los Angeles metro was up 68 percent YOY, while the San Francisco metro transaction volume was down 9 percent YOY during third quarter 2017.

Private buyers and institutional investors/equity funds were the most active buyers in the market during the first three quarters of 2017. REITs increased their buying during the three quarters of 2017 compared to the same time in 2016, while cross-border investors retreated their level of investments during the same time period.

MARKET FUNDAMENTALS²

While national office fundamentals continued on a positive trend line during 2017, hints of slower growth were seen over the first nine months of the year. National office asking rents in the third quarter averaged \$29.77 per square foot, up from \$29.69 and \$29.60 in 2Q17 and 1Q17, respectively, according to data from CoStar (see Exhibit 4-F). Compared to the 4 percent growth in office rents of 2016, the national average office rent rose just 1.5 percent YOY in 2017. Office using employment is growing at a slower pace, seeing a 1.9 percent increase in new jobs added to the market year-over-year in 2017, compared to 2.6 percent and 2.9 percent year-over-year in 2016 and 2015, respectively. Office vacancy was almost entirely flat YOY and registered 10.2 percent in the third quarter, still below the historical average of 10.9 percent. Annualized net absorption has declined this year compared to the previous year, and was just over 10 million square feet in the third quarter. CoStar notes that demand for four- and five-star space had the highest vacancy and availability rates of the three asset classes, yet demand for nicer space is growing at more than double the pace of lesser-quality space. Office space under construction has been near a market cycle peak of just under 150 million square feet since 2015. New completions added approximately 60 million square feet of space to the market in 2016, a number that had already been reached as the fourth quarter of 2017 opened.

OUTLOOK

National employment growth, especially in office-using occupations such as business and professional services, has remained strong through 2017, despite being more subdued compared to the

¹Unless otherwise noted, the source for the data in this section is Real Capital Analytics.

²Market fundamentals data for all property types is provided by CoStar Market Analytics (www.costar.com), 3Q 2017. The information is provided "As Is" and without any representations, warranties or guarantees.

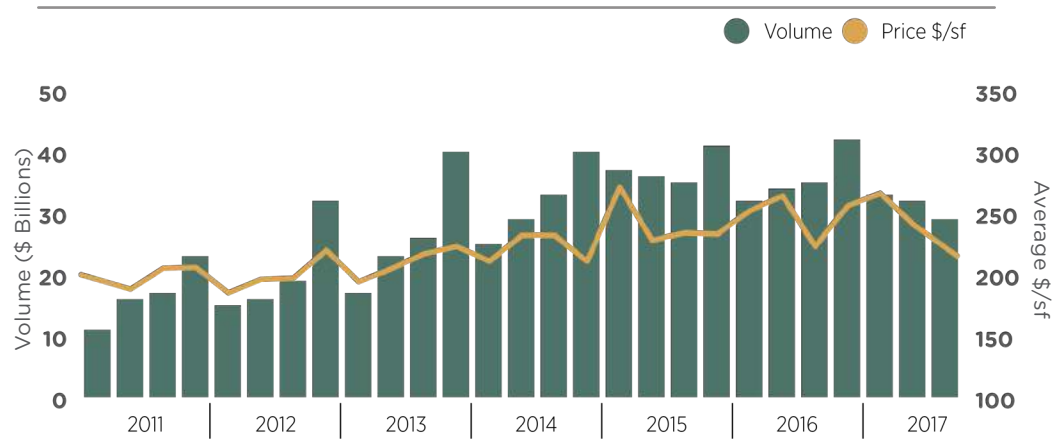
previous year. As the economy reaches full employment, the employment growth rate is expected to continue declining in 2018 and the office sector will remain a top investment destination because of the stability of the sector. This stability will be most important for international investors looking for safe-haven investments amid ongoing geopolitical unrest.

The office sector faces many headwinds, however. The combination of low interest rates and investor demand for the safety of Class A properties in prime markets has led to a flood of capital, both foreign and domestic, which has driven up prices in gateway markets. Also, many institutional investors are holding onto top properties in core markets, resulting in a lack of available product and further driving up prices. Eventually, there will likely be a tipping point when institutional investors flock to secondary and tertiary markets in the quest for yield. Positive economic conditions in a number of secondary markets, including Atlanta, Minneapolis and Phoenix, will likely add to the safety of investments in the smaller markets.

The office sector is expected to continue to face changing consumer preferences from technology requirements, innovative floor plans and flexible work spaces. As automation and the ability to work remotely continue to evolve, the need for traditional office space may be replaced by more versatile spaces that decrease the required number of square feet per employee. Also, new construction is expected to flood the market in 2018, furthering a slowing of growth in office fundamentals.

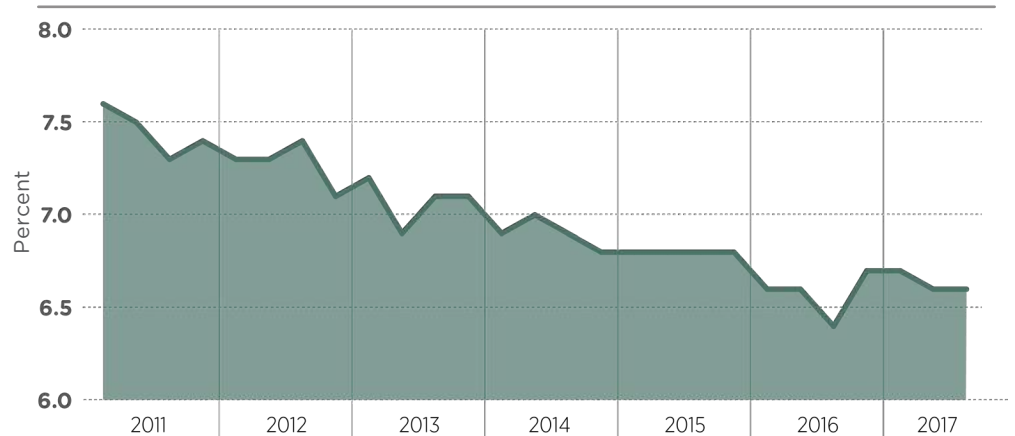
From a risk-adjusted return perspective, suburban office has outperformed CBD office over the last year, according to Situs RERC estimates. Tenant demand for technology-driven innovative office designs will remain high and older established offices (such as those in the CBD) are more likely to have increased structural constraints in meeting these demands rather than newer suburban offices, which likely have a more easily adaptable infrastructure. As rents rise in the already high-priced CBD market, a greater share of tenants are expected to expand into suburban areas, fostering further demand for the suburban office sector.

Exhibit 4-D
Office Property Volume and Pricing



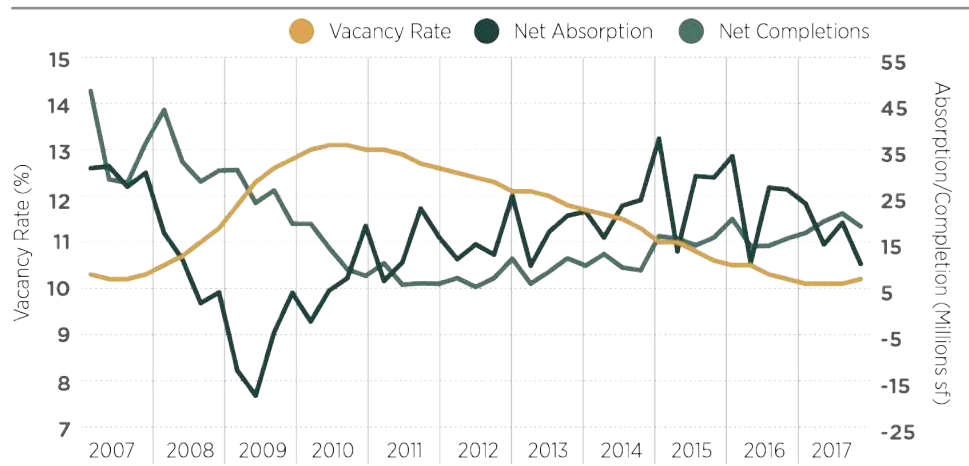
source Real Capital Analytics, 3Q 2017

Exhibit 4-E
Average Office Property Cap Rate



source Real Capital Analytics, 3Q 2017

Exhibit 4-F
Office Property Vacancy, Net Absorption and Net Completions



source CoStar Market Analytics (www.costar.com), 3Q 2017

note The information is provided "As Is" and without any representations, warranties or guarantees.

THE INDUSTRIAL MARKET

MARKET OVERVIEW³

Industrial assets have been booming, thanks in large part to the growth in e-commerce and manufacturing activity, which have sparked a surge in warehouses, fulfillment centers and delivery services. According to RCA, the transaction volume of industrial assets during the first three quarters of 2017 was \$54.7 billion, a 29 percent increase from the same period in 2016 (**see Exhibit 4-G**). The portfolio- and entity-level transaction volumes were up 92 percent and 41 percent, respectively, during the first three quarters of 2017 compared to the same time in 2016. The single-asset transaction volume was weaker, showing only a 9 percent rise compared to 2016 during the same period. Regarding industrial subtypes, warehouse and flex recorded an increase of 31 percent and 18 percent, respectively, during the first three quarters of 2017 compared to the same time in 2016.

Transaction volume in non-major markets outpaced investment in major markets by about \$6 billion in the first three quarters of 2017. Industrial investment in the major markets topped \$22 billion and industrial investment in non-major markets was over \$28 billion. Industrial investment in both market segments nearly doubled between second and third quarter 2017. YOY, transaction volume also increased for major and non-major markets by \$4.6 billion and \$3.6 billion, respectively. Based on these data from RCA, we conclude that e-commerce will likely continue to eat up a larger share of retail and demand for industrial properties is likely to continue rising into the foreseeable future.

Industrial prices kept pace with the increase in transaction volume. The average price for industrial assets rose about 7 percent during the first three quarters of 2017 compared to the same period during 2016, based on data from RCA. The national average for industrial assets reached \$81 per square foot by the end of September 2018. Flex properties traded at \$120 per square foot, up 11 percent from third quarter 2016, while warehouse properties traded at \$72 per square foot, up 6 percent from third quarter 2016.

The Los Angeles and Washington, D.C., metros were the most active markets in third quarter 2017 with transaction volumes of \$3.7 billion and \$2.4 billion, respectively. Chicago, San Francisco and Manhattan rounded out the top five, each with transaction volumes of more than \$1 billion.

The industrial sector cap rate remained at 6.9 percent during the first and second quarters of 2017, but declined to 6.8 percent in the third quarter (**see Exhibit 4-H**). In general, cap rates have been steadily decreasing over the past six years. The warehouse and flex subsectors' cap rates averaged 6.9 percent during the first three quarters of 2017.

REITs and cross-border investors were considerably more active during the first three quarters of 2017, compared to the same time in 2016. Acquisitions by REIT and cross-border investors went up 171 percent and 114 percent, respectively. The institutional investors retreated, with deal volume declining by 3 percent during the first three quarters of 2017 compared to the same period in 2016, according to RCA.

MARKET FUNDAMENTALS

Industrial fundamentals continued to trend upward throughout the first nine months of 2017. Based on data from CoStar, demand for industrial space remained strong with industrial sales totaling \$32.4 billion. In addition, the first three quarters showed positive net absorption for industrial space, indicating strong tenant demand in the sector. According to CoStar data, net absorption totaled 49.1 million square feet in the third quarter, marking 30 consecutive quarters of positive net absorption (**see Exhibit 4-I**). Net completions for the industrial sector totaled 146.8 million square feet, 10.7 million square feet higher than completions recorded in the first three quarters of 2016.

Vacancy rates declined to a national average of 4.9 percent in the industrial sector, 20 bps lower than the average vacancy rate recorded in 2016. Nationally, average industrial rents rose 1.7 percent and 1.5 percent, respectively, in the first and second quarters of the year. At the end of the third quarter, industrial spaces were renting for an average of \$7.29 per square foot, 6.1 percent higher YOY, according to CoStar.

OUTLOOK

Based on our experience in the market, we expect that demand for industrial space is likely to keep rising throughout 2018, with e-commerce and an increase in domestic manufacturing providing tailwinds. With supply lagging in most

³Unless otherwise noted, the source for the data in this section is Real Capital Analytics.

markets, particularly in urban infill locations, prices surpassed pre-recession highs for the sector in 2017 (based on RCA's CPPI). With decreasing vacancy and increasing rent growth, the industrial market is stronger than ever. This is reflected in the 2017 annual total return for the NCREIF NPI, which at almost 13 percent, is more than double the return of any of the other property types. The main driver behind the strong returns is the healthy mix of appreciation and income return. A long-awaited increase in supply is expected to arrive in the near future, but this supply is not expected to satiate investor demand for industrial properties.

Old industrial properties also are appealing to investors who want to convert them into condos and apartments. This will likely be most appealing for markets that have housing supply constraints, including parts of the Miami and New York City markets. Other markets that are expected to remain strong for the industrial sector in 2018 include Los Angeles, the Inland Empire and Chicago.

Trends in 2018 will likely focus on the role of technology in fulfillment centers. Industrial properties will have to meet the growing space needs for robots and other automation. Technology in the trucking industry, such as partially self-driving trucks, may require special loading docks and other accommodations. As the burgeoning e-commerce trend requires more storage space, expect that users of industrial space may demand taller buildings to maximize their property's footprint.

Exhibit 4-G
Industrial Property Volume and Pricing

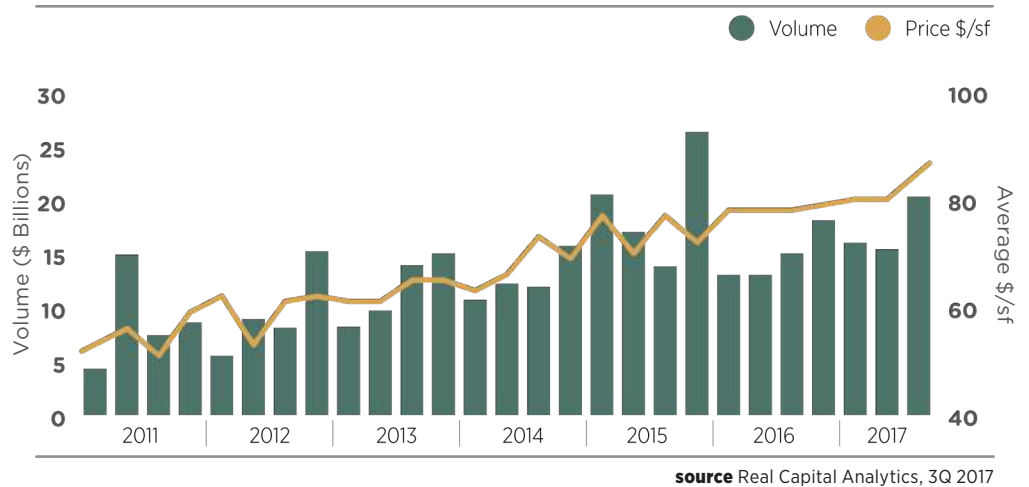


Exhibit 4-H
Average Industrial Property Cap Rate

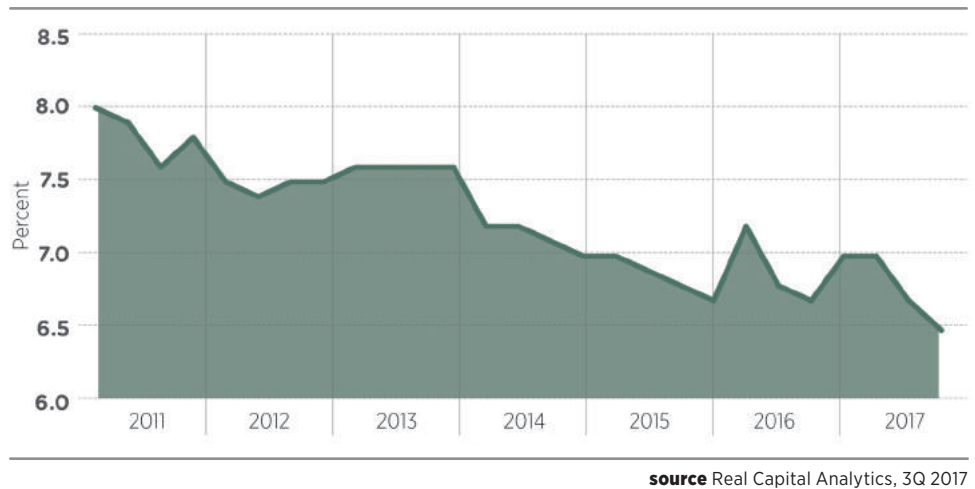
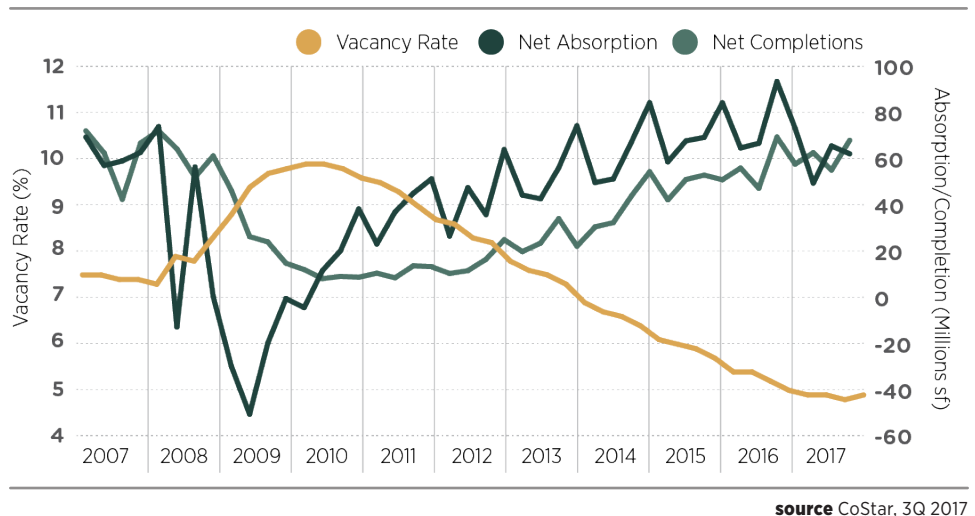


Exhibit 4-I
Industrial Property Vacancy, Net Absorption and Net Completions



THE RETAIL MARKET

INTRODUCTION

According to the August 2017 US Census Bureau report, sales in the retail and food service industry are up 3.8 percent since 2016. Notable percent changes found in this report support the narrative we are seeing in the retail real estate market today, with increases of 3.9 percent, 7.1 percent, and 10.5 percent in motor vehicle & parts dealers, building material & garden equipment supplies dealers, and non-store retailers categories, respectively. Decreases were seen for industries that typically have physical stores: sporting goods, hobby, book, and music stores and department stores categories at 4.6 percent and 3.3 percent, respectively. There is a bifurcation occurring in the retail sector with certain subtypes performing well and others being hard hit.

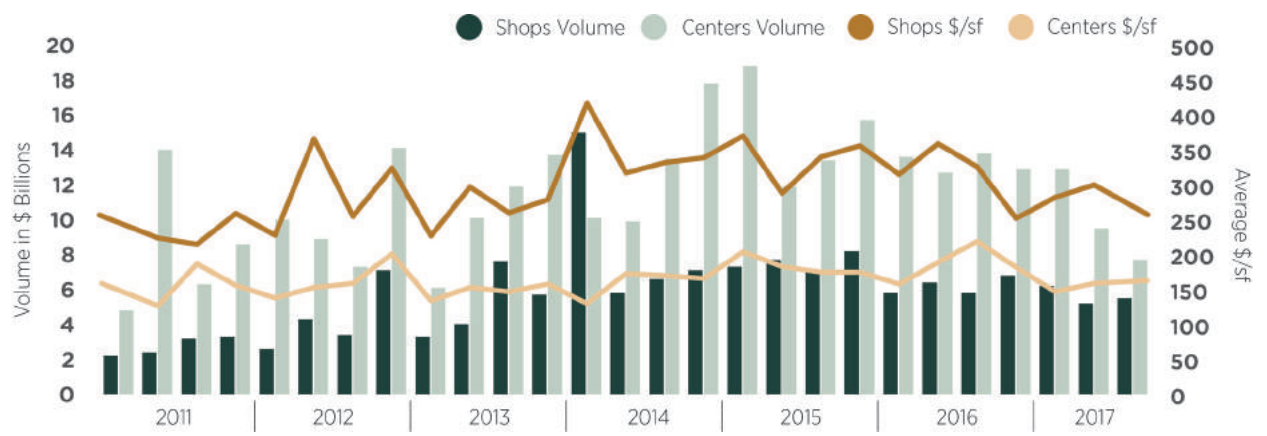
The fate of the shopping mall has been a hot topic in the industry for the last few years. CNBC research published in September 2017 indicates that many specialty soft-goods tenants are struggling and even filing for bankruptcy, with apparel tenants finding themselves in the most trouble due to the popularity of online shopping. In addition, many department stores continue to struggle, which has been observed with the closure of a significant number of locations in 2016 and 2017. This is clearly an issue, as department stores or anchors occupy approximately 50 to 70 percent of gross leasable area in US shopping malls, according to International Council of Shopping Centers (ICSC) classification and characteristics and CoStar Realty Information, Inc. While the future of mall retailers is up for debate, the future of the physical retail space appears bright as malls continue to be redeveloped. Some of the largest mall owners and managers are implementing several impressive revamps, generally falling into two main camps: entertainment-driven centers and mixed-use developments. Anchors at entertainment-driven centers include movie theaters, gyms and party-like concepts, such as bowling alleys, indoor mini-golf, or a place with karaoke rooms. Mixed-use developments feature grocery stores, apartments, office buildings and even access to the city's public transportation system, according to an August BisNow.com article, which details five notable mall redevelopments occurring in the US. While it appears

that malls will likely continue to close in the near future, because not every mall is suitable for a dramatic evolution; one can be confident that the shopping mall is not yet dead because e-commerce sales in the third quarter 2017 accounted for only 9.1 percent of total retail sales, according to the US Census Bureau.

Additionally, a large department store operator has recently announced that it will open "experience stores": retail stores with no items to purchase, according to a September 2017 article from CNBC. These stores will boast a significantly smaller footprint and will offer personal services ranging from hair and makeup appointments, wardrobe styling and providing beverages for shoppers to enjoy while they get to touch, feel and try on merchandise in-store that they can then order online.

The retail industry has been dealing with the impact of e-commerce increasingly for the past decade; however, a new retailing approach called M-commerce has emerged in the marketing world that is helping to keep brick-and-mortar retail alive. M-commerce involves retailers attracting customers and selling products to customers through their smartphones, which, according to the Pew Research Center, are owned by 77 percent of Americans. Retailers are using mobile advertising in their favor by

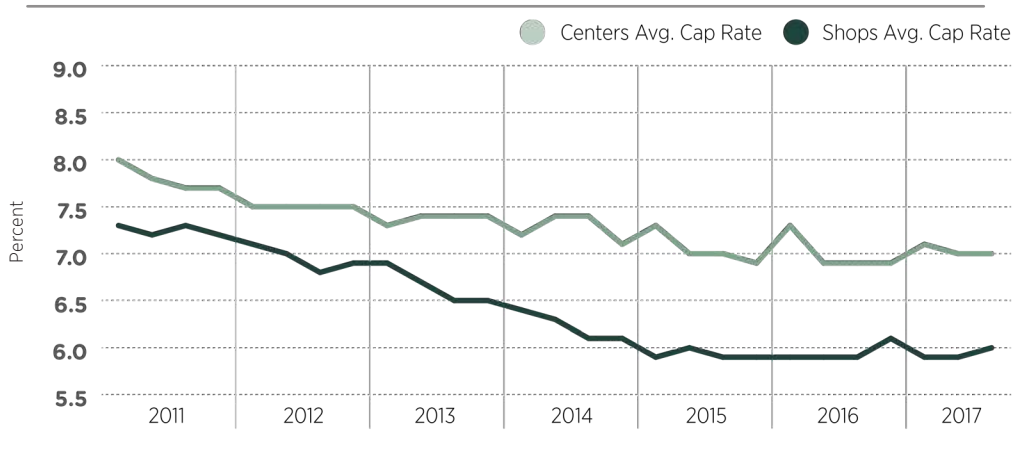
Exhibit 4-J
Retail (Shops and Strip Centers) Property Volume and Pricing



source Real Capital Analytics, 3Q 2017

Exhibit 4-K

Average Retail Property Cap Rate



source Real Capital Analytics, 3Q 2017

offering coupons via text or email to use in-store, sending proximity-based push notifications of sales in apps or the home screen, allowing customers to check in-store availability before arriving in person, creating shopping lists, ordering products online and picking up in-store, and providing ease of access for product information and reviews. According to a survey from RetailNext, 56 percent of people favor mobile devices over other devices for browsing and shopping at home and 95 percent of customers from a survey population make purchases in-store based on mobile ads. In addition, an article in *The Atlantic* indicates mobile shopping accounted for a 20 percent share of total digital dollars spent in the third quarter of 2016. By offering the personalization that consumers crave, retailers are using people's dependence on their mobile phones to draw them into their physical stores.

The changing ways of how Americans consume has kept real estate owners on their toes. However, by getting to know their customers, certain retailers have learned how to accommodate to changing consumer preferences. Retailers are taking steps to ensure physical stores will not be going away completely as some may have previously believed. CRE owners can adapt by finding quality tenants to occupy pre-existing large spaces and developing new store concepts.

RETAIL PROPERTY VOLUME AND PRICING

According to RCA, volume of US retail property sales totaled approximately

\$41.5 billion from January through August 2017, a 20.2 percent decrease compared to sales of \$51.9 billion for the same time period in 2016. The shops and centers submarkets⁴ decreased \$14.4 billion in sales for shop space, or 9.7 percent, compared to 2016, and sales for center space decreased \$36.0 billion or 24.8 percent (see Exhibit 4-J). Average price per square foot has decreased significantly in 2017 as well, falling to an average price of \$184 per square foot for general retail space as of August 2017, compared to \$217 per square foot as of August 2016, and \$220 per square foot as of August 2015. According to RCA, this may indicate a normalizing market, as the average price per square foot values from 2015 and 2016 appear to have been at their high marks in those years, compared to lower or more similar values in 2013 and 2014.

AVERAGE RETAIL PROPERTY CAP RATES

Average cap rates remain stable, showing no change since Q1 2016, according to RCA, which shows cap rates remaining at 6.5 percent for the general retail market since that time. Cap rates for the shops and centers submarkets follow this trend, with shops cap rates remaining stable at 5.9 percent since Q4 2015, and cap rates for centers remaining at 7.0 percent since 2016 for the majority of 2017, dropping 10 bps to 6.9 percent in August 2017 (see Exhibit 4-K). All three retail categories are representative of their lowest average cap rates in the past five years, down 80 bps (general retail), 110 bps (shops) and

60 bps (centers) from their five-year high marks.

INVESTOR COMPOSITION

The lender pool remains relatively consistent for this property type, with regional/local banks making up the majority of the pool again, according to the August 2017 RCA Trends Report. At 33 percent and 24 percent, regional/local banks and commercial mortgage-backed securities (CMBS) respectively, make up over half of the lender pool. It is important to note that regional/local banks have gradually increased their dominance in the lender pool over the past five years, growing steadily from 12 percent in 2013 to 33 percent in 2017. National banks at 15 percent and insurance agencies at 13 percent make up the mid-range of market share, while financial agencies, international banks and private/other investors combined comprise the remaining 16 percent of the lender pool. In addition, a similar pattern can be seen in the RCA report for the lender composition by submarkets, with regional/local banks making up the majority of the lender pool for the centers (29 percent), shops (42 percent), single-tenant retail (46 percent) and unanchored retail (52 percent) submarkets, while CMBS makes up the majority of the remaining anchored retail (33 percent) and mall (56 percent) submarkets.

Private investors continue to own the majority of the buyer pool at 53 percent, according to the August 2017 RCA Trends Report, which has remained consistent over the past five years. However, listed REITs have taken over the second largest share from institutional funds, with each category making up 23 percent and 16 percent of the pool, respectively, versus representing 10 percent and 27 percent in 2016. Cross-border investors' market share continues to shrink as it has since its high mark of 10 percent 2015, down to 5 percent of the buyer pool, while investors in the user/other category make up another steady 3 percent of the pool.

RETAIL PROPERTY FUNDAMENTALS

According to a Market Analysis and Forecast Report from CoStar, vacancy rates have remained stable year over year, currently at 4.9 percent for the market overall which is a 12-month change of -0.1 percentage points. Malls have the lowest vacancy rates at 3.7 percent, followed by power centers at 4.7 percent and neighborhood centers at 7.7 percent. According to the CoStar report, vacancy

⁴RCA's definitions for retail submarkets are:

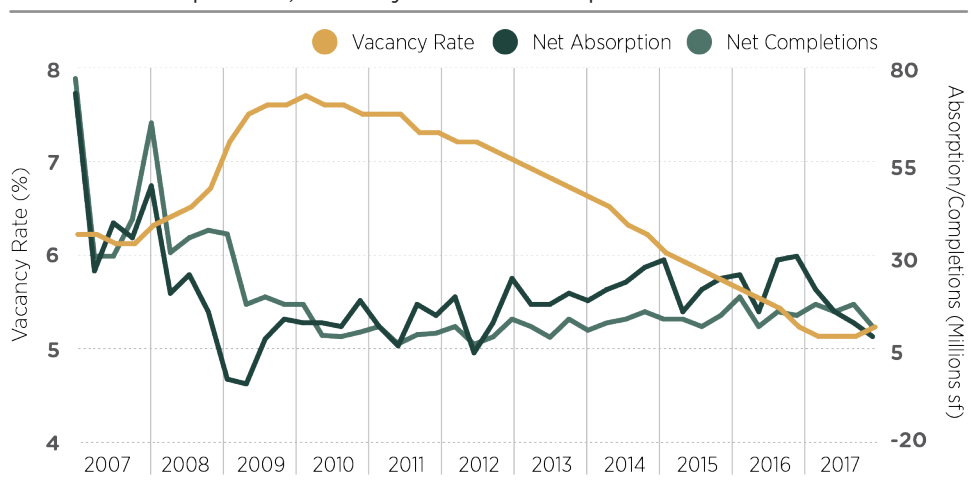
Shops: Retail space usually occupied by a single tenant and/or under 30k sf
Centers: Retail space consisting of multiple tenants and 30k sf or more

will continue to decline into 2018, dipping to 4.8 percent before increasing over the following four years reaching above 5 percent. It appears the increase in vacancy is due to a greater supply coming online than annual absorption.

In 2017, more than 65 million square feet of retail space was absorbed compared to over 57 million square feet of space delivered, according to CoStar (see Exhibit 4-L). Both of these estimates are down from the historical averages of 110 million square feet and 109 million square feet respectively for absorption and deliveries. Further, the current metrics are a fraction of absorption and delivery figures from the market's peak in 2006 when both were greater than 200 million square feet. With 2018 inventory to be even less than 2017 and absorption expected to increase slightly, CoStar is forecasting a further reduction in vacancy. However, the gain from positive absorption is still small compared to the 400 million square feet currently vacant.

Net asking rents for malls, power centers and neighborhood shopping centers averaged \$27.83, \$22.35 and \$20.07 per square foot respectively, according to CoStar. This represents approximately a 2.8, 2.6 and 2.3 percent increase over net asking rents for the same quarter in 2016 for malls, power centers and neighborhood shopping centers, respectively. According to the Market Analysis and Forecast Report from CoStar, rent growth is forecast to be 2.1 percent for malls, 1.9 percent for power centers and 1.7 percent for neighborhood centers in 2018.

Exhibit 4-L
Retail Net Completions, Vacancy and Net Absorption Rate



source CoStar, 3Q 2017

OUTLOOK

The panic seems to have dissipated among the retail real estate industry this year, despite news about store closures and brand bankruptcies. However, as IHL Group points out, the US retail market is extremely overbuilt compared to the rest of the world. IHL Group states that malls have been developed at a rate of four times the population growth in the US since 1975, with cheap money and the availability of land serving as contributing factors. An article in The Atlantic points out that the US has 40 percent more shopping space per capita than Canada, 10 percent more than Germany, and 5 percent more than the UK. With this in mind, the closures we are seeing may not be leading to a bottoming-out of the brick-and-mortar retail industry, but rather could be helping in bringing

us back to normalized levels. As retailers combine physical store experiences with e-commerce and m-commerce strategies, the outlook for the future appears moderately promising.



THE APARTMENT MARKET

INTRODUCTION

After a long run as the dominant performer among the major property types, the apartment market is finally beginning to show signs of cooling down. US apartment volume has increased every year since 2009, but 2016 growth was just marginally positive YOY at 4 percent, based on RCA data. A total of \$103.9 billion of significant apartment properties were sold in the first three quarters of 2017, representing a YOY decrease of 8.6 percent (see Exhibit 4-M). At its current pace, the YOY volume change for the 2017 calendar year will fall well short of the prior year. This is notable considering the seven consecutive years of growth and may signal changes in this property sector, which has been favored by investors for many years. Then again, volume in CRE is down overall with just one of the other major property sectors (industrial) experiencing a positive YOY volume change in the first three quarters of 2017, indicating an overall slowdown in the CRE investment class.

Among apartment types, both garden-style and mid/high-rise apartment properties observed very similar overall declines in volume in the first three quarters of 2017. Consistent with 2016, garden-style apartments accounted for approximately 70 percent of the total sales volume over this time period.

“... THE APARTMENT MARKET IS BEGINNING TO SHOW SIGNS OF COOLING DOWN.”

Investors are continuing to focus outside of the major urban areas, with YOY sales volume declines of just 4 percent and 5 percent for secondary and tertiary markets, respectively, compared to 18 percent for major metro markets. While all of these geographic market trends are negative, the data appear to indicate that opportunities for reasonable yields in urban mid/high-rise apartments have further diminished in recent years in favor of higher-yielding opportunities in garden-style apartments in non-core markets.

Based on the RCA CPPI, pricing for apartment properties nationally has increased approximately 10 percent YOY through August 2017. The average PPU has increased marginally, averaging \$143,045 in 2016 compared to \$142,317 in the first three quarters of the prior year, per RCA.

As presented in Exhibit 4-N, average cap rates for the apartment sector have remained relatively stable over the last year, decreasing slightly to an average of 5.6 percent in the first three quarters of 2017 from an average of 5.7 percent over the same period in the prior year.

Cap rates for mid/high-rise properties dipped into sub-5 percent territory in the fourth quarter of 2016 (at 4.9 percent), but have increased back to 5 percent as of third quarter 2017. For garden-style properties, cap rates have dropped from an average of 5.9 percent in the first three quarters of 2016 to an average of 5.7 percent over the same time period in the current year. In both cases, the rates are well below historical levels, reflecting the availability of capital, low interest rates and the high demand for this property type. However, it does appear that demand and pricing for mid/high-rise apartments may have met some upward resistance as reflected in both the volume and cap rate trends for this apartment type.

With the potential for rising interest rates and a greater proportion of transactions occurring in secondary and tertiary markets from investors seeking opportunities for higher yields, it appears that overall average cap rates may continue to stabilize or possibly increase in 2018.

INVESTOR COMPOSITION

Private investors have overwhelmingly dominated the market in the first half of 2017, representing 64 percent of all transaction activity, based on RCA data. This is an increase from 62 percent in 2016. The second largest group of buyers has been institutions/funds at 24 percent, a decrease from 26 percent in 2016.

Greystar Real Estate Partners, which acquired luxury apartment developer Monogram Residential Trust Inc. (MORE) in the third quarter of 2017 for approximately \$4.4 billion (including the PGGM JV and debt assumed or refinanced), was the second most active buyer (in terms of investment volume), according to RCA. Other notable buyers were GIC and APG Group (both investors in the MORE acquisition), Starwood Capital and Caisse de Depot. After MORE, Milestone Apartments REIT, Starwood Capital and JP Morgan were the top sellers during the period.

Through the first three quarters of 2017, the geographic areas leading in terms of transaction sales volume for apartment properties include Dallas, Los Angeles, Atlanta and Denver, according to RCA. However, markets exhibiting the biggest YOY increases include Washington, D.C., and San Antonio. Notably, Manhattan has experienced the biggest YOY decline and is outside the top 10 most active markets through the first three quarters of 2017. For comparison, Manhattan was the second most active market in 2016, and the most active market in 2015.

Strong sector fundamentals and intense competition has led to a significant pipeline of new apartment projects. According to Axiometrics, a RealPage company, 365,158 apartment units are expected to be delivered in 2017, followed by 376,221 and 307,950 more units in 2018 and 2019, respectively. These figures are significant compared to the average annual new supply built in 2010 through 2012 of just 132,632 units. As noted by the data above, new supply is projected to peak in 2018. The total apartment stock as of third quarter 2017 was approximately 25 million units.

APARTMENT PROPERTY FUNDAMENTALS

Continuing upon a trend that started in 2016, property fundamentals in the apartment sector have weakened through 2017. According to Axiometrics, annual effective rent growth was 2.4 percent in third quarter 2017, a decline from 3.8 percent in the prior year and less than half of the rate of growth of 4.9 percent in the same quarter of 2015 (see Exhibit 4-O). Annual effective rent growth is forecast to remain under 3 percent over the next two years, according to Axiometrics.

Since the apartment recovery began in late 2009, the vacancy rate fell in 27 consecutive quarters from 8.1 percent to 4.9 percent in third quarter 2016 (see Exhibit 4-O). However, since then the vacancy rate has inched up slightly in 2017 to 5.2 percent in the third quarter. The vacancy rate is expected to remain in the 5 percent territory over the next several years, per Axiometrics.

OUTLOOK

Trends in transaction volume and fundamentals appear to suggest potential challenges for the darling of the major property types in the current real estate cycle.

Exhibit 4-M
Apartment Property Volume and Pricing

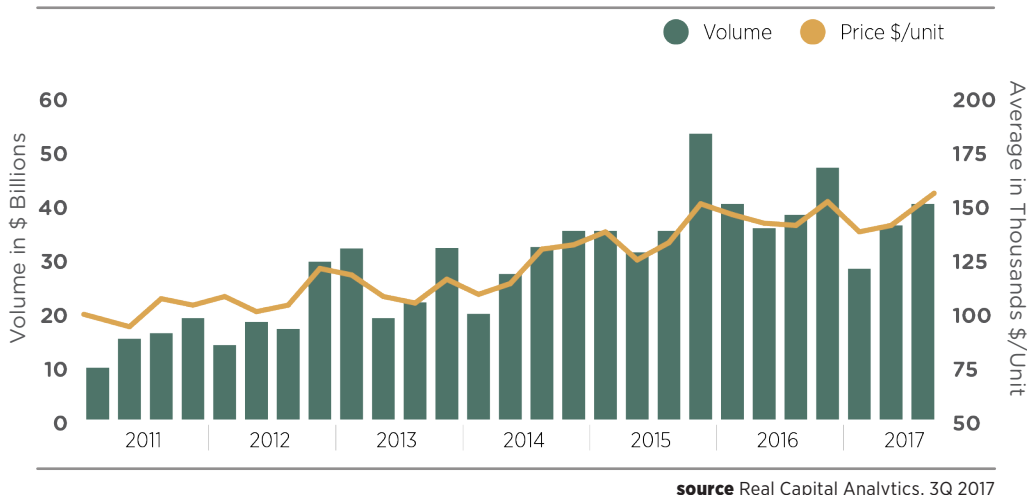


Exhibit 4-N
Average Apartment Property Cap Rate

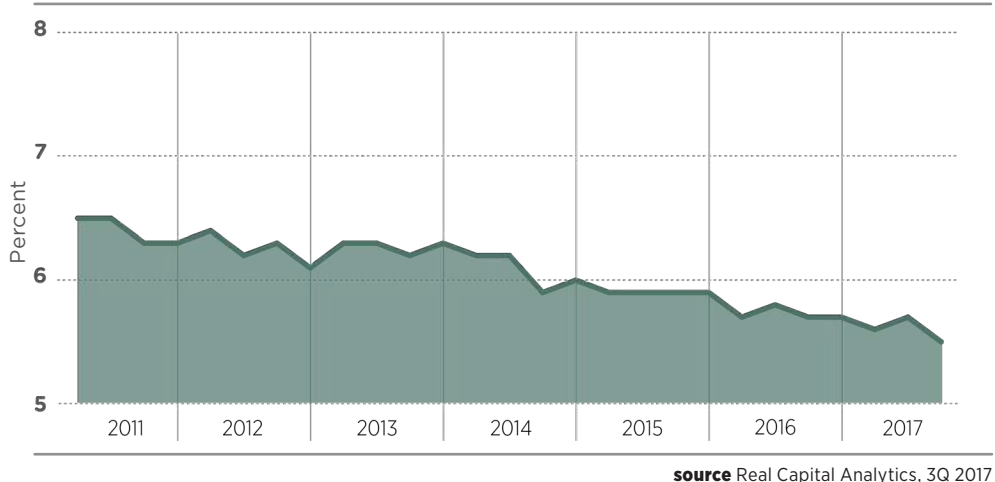
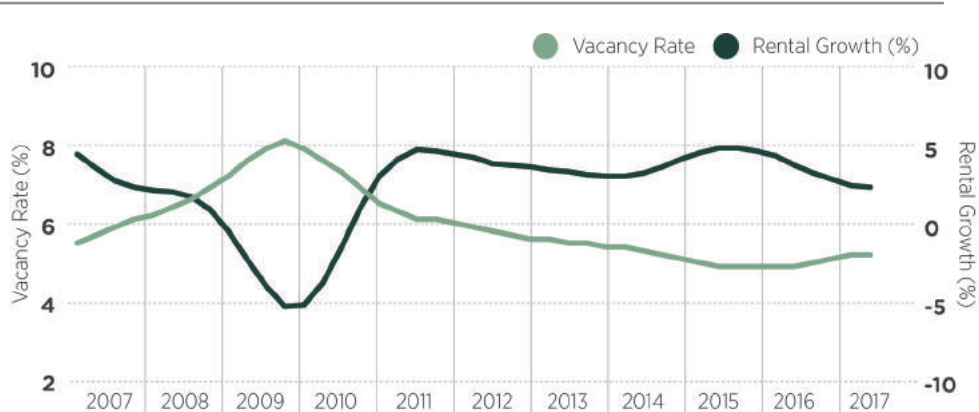


Exhibit 4-O
Apartment Market Vacancy and Effective Rental Rate Growth





The homeownership rate, which has been in sharp decline throughout the current real estate cycle and a major driver behind the strength of the apartment market, appears to have bottomed out in 2016 and has increased slightly in 2017. This is notable considering that the homeownership rate has been a major driver behind the strength of the apartment market after dropping from over 69 percent in 2004 to under 63 percent in 2016. Households under age 35 (i.e., the millennials) were the only age group to experience an increase in homeownership rate over the last quarter. Although a small proportion of the total population, this may provide some indication of a change of own vs. rent preferences of a key segment of the population and could pose future headwinds to the apartment sector.

It remains to be seen if the homeownership rate will stabilize or begin to reverse course. However, with the supply of apartment units projected to remain at a high level over the next several years, a shift on the demand side with renters turning into homebuyers could have a major impact on this sector. It remains to be seen whether the new tax act will impact homeownership rates. The cap on deductible mortgage interest and limitation on deduction of property taxes may lead to consumer preference for renting instead of buying.

Given the considerations above, the apartment sector overall appears to be experiencing early signs of a slowdown and it appears likely that this trend may continue into 2018. However, relative to the other major property types, apartments still appear to be a popular choice among investors given the level of transaction volume and pricing.

THE HOTEL MARKET

INTRODUCTION

The current hotel market expansion is on a historic run, but despite the impressive performance, deal volume has sharply declined and cap rates are rising. Of greatest concern is the flat to declining deal volume and the first YOY decrease in US hotel construction since 2011. The data signal concern that future market fundamentals and current pricing may be moderating. In the near term, a temporary slowdown in volume and pricing can be expected as investors realign risk and return assumptions.

TRANSACTION TRENDS

The current market cycle for hotel investment has been slowing in breadth and depth. As of third quarter 2017, the YTD transaction volume for all hotels was \$21.5 billion, according to RCA (see **Exhibit 4-P**). In comparison, the same YTD transaction volume recorded for 2015 and 2016 was 78 percent and 44 percent higher, respectively, supporting a deceleration trend. It is important to note that in previous years, megadeal and full-service transactions buoyed deal volume; however, such transactions faded in 2017. Access to capital does not appear to be the issue; rather, investors are likely uncertain about future performance. With over 340,000 rooms added since 2007⁵, transaction volume continues to lag behind previous highs recorded in 2006.

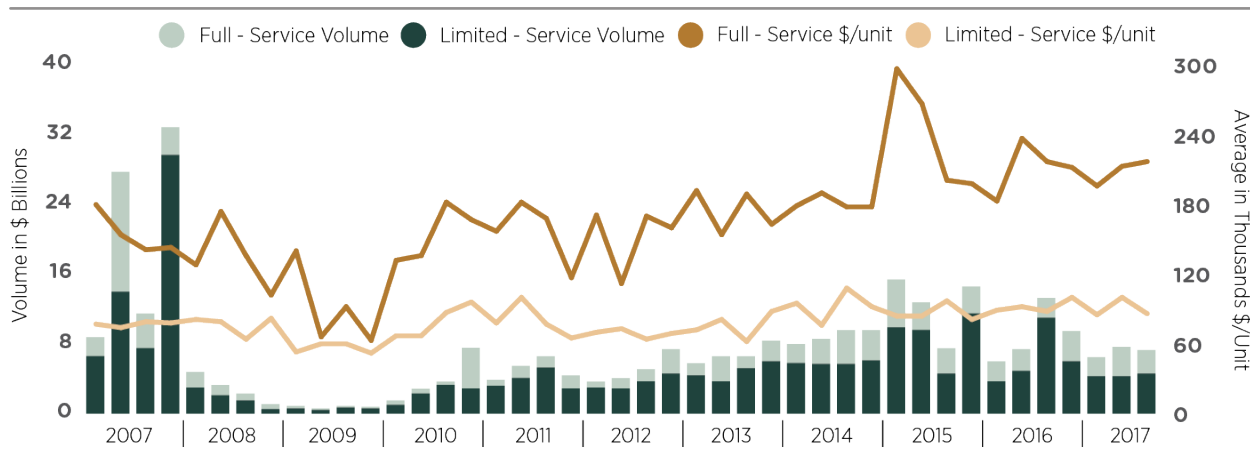
The sales volume shift in the current cycle marks a change in geographic preference. Hotel transaction volume has slowed dramatically in five out of the six top major markets⁶. Manhattan, a perennial top sale volume market, slipped to number three, whereas Los Angeles (44 percent volume increase) assumed the top position followed by Atlanta (6 percent volume increase), both primarily supported by single-asset sales. Charlotte reported 1,124 percent sale volume growth; however, two sales, Marriott City Center and a portfolio of four hotels, represented half of the deal volume reported. Other markets, such as Dallas, Philadelphia, Houston and Baltimore, recorded strong growth, as well, primarily due to investor interest in the limited-service segment.

While transaction volume continues to slow, there has been focused attention from investors on non-major metro markets and the limited service segment. For the first three quarters of 2017, full-service recorded a 0.5 percent increase in average PPU, but a 38 percent decrease in volume compared to the same three-quarter span in 2016 and limited-service a 5.4 percent increase in PPU and a 15 percent increase in volume⁷.

Although full-service hotel deals dominated transaction volume in both markets, the non-major metro markets continue to be more dominant in limited-service hotel deal volume. Contrary to the relatively flat deal volume for full-service hotels, transaction volume for limited-service hotels reversed the 2016 trend and is up in both major and non-major metro locations —by approximately 15 percent and 19 percent, respectively YOY. PPU for non-major metro, limited-service hotels was \$78,437, up by approximately 6 percent from our previous report⁸. The outlook for the subsector appears to be favorable, as demand growth has outpaced supply YTD through September⁹.

These data are well-reflected in RCA's transaction-based cap rate trends, as shown in **Exhibit 4-Q**. Although hotel fundamentals are generally stable and at historical records, the industry is dealing

Exhibit 4-P
Hotel Property Volume and Pricing



source Real Capital Analytics, 3Q 2017

⁵CBRE, Historical Database, 1Q2007 to 2Q2017

⁶Manhattan, San Francisco, Chicago, Los Angeles, Boston and Washington, D.C.

⁷Trend Tracker, Real Capital Analytics, trailing 12-month average, data as of October 24, 2017

⁸Ibid

⁹STR, Inc., US Industry Performance-Steve Hood, September 2017

with competitive disruptions, new supply primarily impacting luxury and upper-upscale segments, and generally increasing cap rates. After a meaningful increase in full-service and limited-service hotel cap rates, the trend slowed over the last two quarters of 2016. Based on a trailing 12-month cap rate average, only major metro full-service segment cap rates compressed (-12 bps), whereas major and non-major metro limited service increased (27 to 74 bps) and non-major metro full service segment increased (4 bps) as well¹⁰.

Comparatively, nationwide full-service hotel cap rates were 15 bps lower and limited-service hotel cap rates were 39 bps higher in third quarter 2017 from same period last year. For both subtypes, the cause may be directly related to slowing demand, quality of the asset, supply additions and interest rate pressure.

Foreign capital investment in the hotel sector slowed after record investment in 2016. With approximately \$6.1 billion in acquisitions on a 12-month trailing basis, third-quarter data from RCA show that cross-border investors completed 20 percent of total hotel acquisitions, down from approximately 28 percent for the same period last year. Cross-border investors appear to be out of the market, likely digesting the \$13.1 billion in acquisitions completed in 2016, more than double 2017 totals. YTD, the cross-border group represented only 4 percent of total hotel dispositions, which is characteristic of their long-term hold strategy.

In 2017, the change in acquisition composition has been dominated by private investors. During the trailing 12 months, private investors acquired \$15 billion, or 48 percent of total hotel sales, per RCA. Although the recent transactions continue to be unique, prices are at acceptable levels to allow a clean exit for many of those who had purchased properties during previous cycles. As of third quarter 2017, private investors have sold \$13 billion, or 42 percent, of hotel dispositions during the past 12 months. For a historical comparison of investor composition, refer to **Exhibit 4-R**.

FUNDAMENTALS

With occupancy at all-time highs, hotel average daily rate (ADR) is playing a significant part in maintaining fundamentals. As expected, occupancy rates leveled off

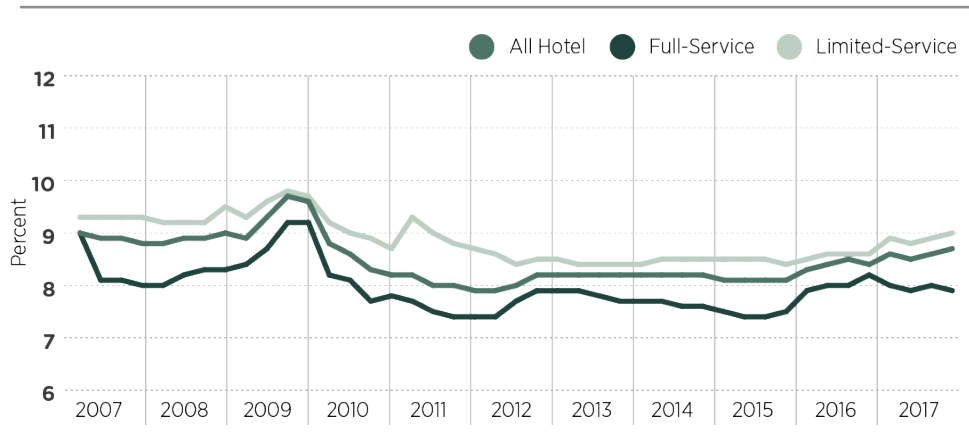
by the end of 2016, but never decreased. Furthermore, occupancy growth increased slightly through third quarter 2017, primarily supported by leisure and corporate travelers. ADR increases have been averaging over than 4 percent over the past five years, but the increase has slowed most recently to approximately 2.1 percent¹¹. There continues to be a lack of demand in the group segment, but group ADR increases have outpaced transient ADR increases. Despite historically high occupancy for the hotel sector, ADR growth remains measured.

CBRE Hotels' Americas Research reported that occupancy remained relatively flat in the mid-60 percent range through the first three quarters of 2017, with the ADR increase trending at about

2.0 percent during the same period (**see Exhibit 4-S**). Occupancy levels are still expected to remain above the long-run average of 62 percent¹². Overall, hotel fundamentals are expected to remain relatively stable, with limited changes in occupancy, slight ADR increases and fading demand.

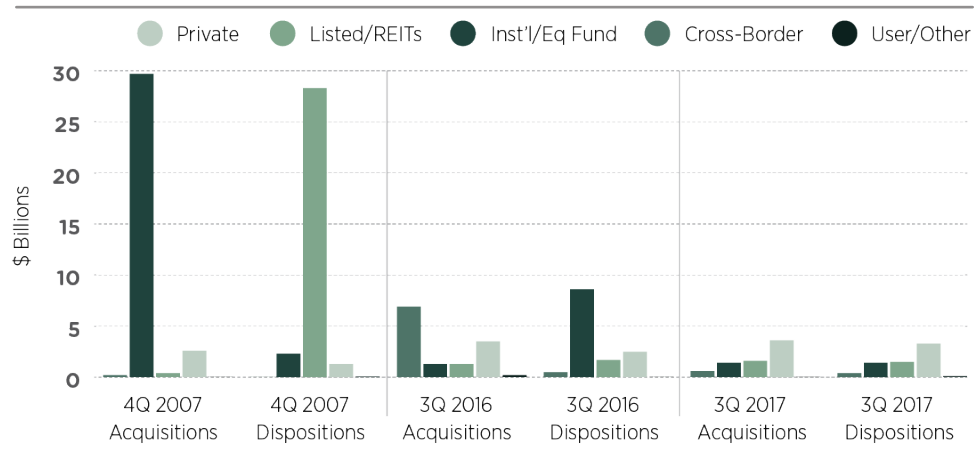
As of October 2017, approximately 584,052 rooms in 4,869 hotels projects were under contract in the US, representing a 5.4 percent increase compared to October 2016¹³. Of the under-contract announcements, 1,407 hotel projects are currently under construction, representing 183,187 rooms and a 0.1 percent decrease in YOY comparisons. During the last four quarters, CBRE Hotels' Americas Research reported that hotel supply

Exhibit 4-Q
Average Cap Rates for Hotel Sector



source Real Capital Analytics, 3Q 2017

Exhibit 4-R
Composition of Hotel Acquisitions and Dispositions



source Real Capital Analytics, 3Q 2017

¹⁰Trend Tracker, Real Capital Analytics, data as of October 24, 2017

¹¹STR, Inc., Total US, ADR & OCC % Change, 12 MMA as of September 2017

¹²Hotel Horizons, Volume XI - Issue IV, CBRE Hotels' Americas Research, December 2017

¹³STR, Inc., US Hotel Pipeline for October 2017

increased by a soft 1.8 percent of the existing hotel room base, while demand increased by 2.4 percent of the existing hotel room base. In previous years, demand growth dominated, reflecting net supply/demand differentials in excess of 3.5 percent in some years. In 2017 and into 2018, the supply and demand are expected to be in near-equilibrium and very much in line with long-term averages. New supply is projected to be 1.8 percent to 2.0 percent in 2018, 2019 and 2021 annually, as shown in **Exhibit 4-T**.

Hotel fundamentals were positive through the first three quarters of 2017; however, the future is somewhat uncertain. CBRE Hotels' Americas Research reports that ADR is likely to finish 2017 with an increase by 2.5 percent year over year,

down from 3.1 percent in the previous year. Revenue growth for hotel owners should continue in 2018, however, but at a slower pace. With occupancy expected to remain at current levels, it is expected that ADR will continue its expansion, but below long-term averages. In general, the outlook appears to be mixed for hotels, with stable fundamentals but slowing transaction activity and rising cap rates. Strength and stability in profitability forecasts should balance a slight momentary lapse in growth and disruption from new supply.

OUTLOOK

The demand for US lodging continued to increase through the first half of 2017. Per STR, lodging demand grew by 2.5 percent during the first half of the year. This marks

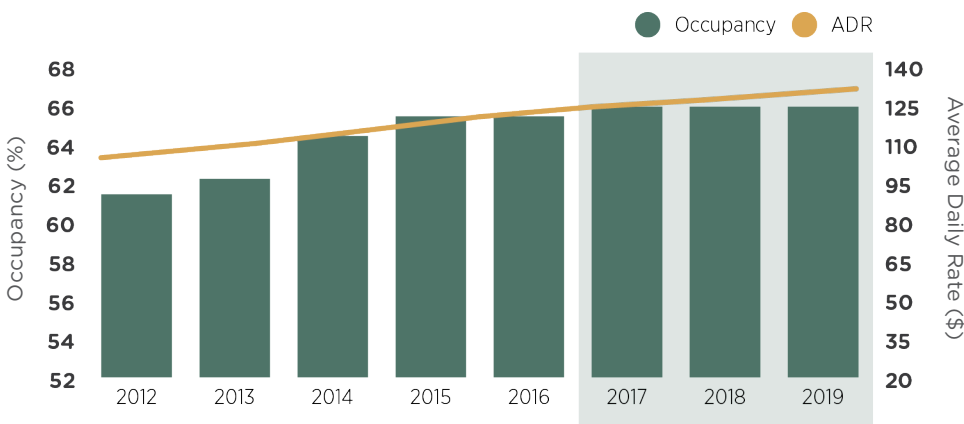
30 consecutive quarters of growth in lodging demand since the fourth quarter of 2009. CBRE Hotels' Americas Research predicts continued demand growth outpacing new supply until 2020, when a supply overrun results in occupancy levels decreasing less than 1 percent. Upscale hotel segments will continue to lead all hotel segments in demand, but demand benefits may be muted by high supply additions in this segment.

Despite high occupancy levels, the pace of ADR growth is expected to continue. CBRE Hotels' Americas Research projects that room rates will grow by 2.2 percent in 2017, followed by another 2.5 percent in 2018, but record less than 2 percent growth for 2019 and 2021. Because they lagged during the initial stages of the CRE market recovery, economy properties, along with those in secondary or tertiary markets, are now projected to achieve the greatest gains in ADR and revenue per available room (RevPAR).

On the other end of the spectrum, luxury and upper-upscale properties are forecast to attain the highest occupancy levels. Given the modest forecast for RevPAR growth over the next few years, management's ability to control costs will determine continued profit growth.

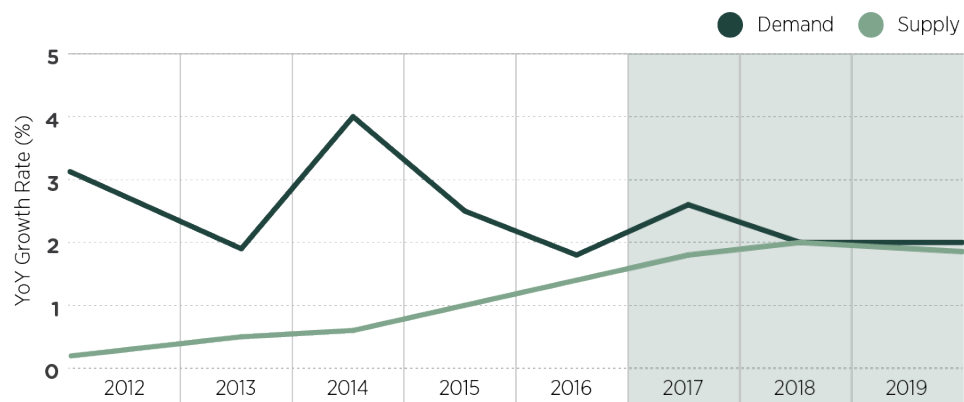
Hotel cap rates have been trending up over the past two years, more in part due to changes in target markets/segments and buyer types rather than a pervasive trend across the industry. Cap rates for the overall hotel sector are likely to increase in the long term; however, top metro properties, trophy and upper-tier properties may lag due to strong demand for quality and long-term security. Rising interest rates will certainly impact the tightening of the equity spread and may accelerate pressure on additional cap rate increases. In this circumstance, continued sluggish transaction volume can be expected as investors pause to evaluate their risk and return assumptions.

Exhibit 4-S
Hotel ADR and Occupancy



source CBRE Hotels' Americas Research, STR, 3Q 2017
note Shaded area reflects forecast rates

Exhibit 4-T
Hotel Supply vs. Demand Growth



source CBRE Hotels' Americas Research, STR, 3Q 2017

5

SUMMARY & OUTLOOK



INTRODUCTION

2017 might reasonably be considered one of the most chaotic years in a long time. Some of the events included the nationwide women's march on the day after President Trump's inauguration, the WannaCry ransomware attack, terror attacks around the world, a sarin gas attack in Syria (followed by the US's retaliatory missile strikes), tensions with Russia, bellicose threats between North Korea and the US, catastrophic hurricanes, California wildfires, and the US pullout from the Paris Agreement on climate change.

But none of this appeared to have too much effect on the economy. The stock market reached a record high, with the Dow spiking almost 8,000 points — about 42 percent — from President Trump's election in November 2016 to the third week of 2018. According to a CNBC report, hedge fund managers' equity exposure is at the highest level since 2006 as the possibility of market downturn has fallen to its lowest level since 2013. The same report stated that the exchange-traded funds attracted more than \$16.5 billion in cash the first two weeks of 2018. While the optimism in the equity market is fueled by strong earnings, the hopes of synchronized global growth and the US tax reform, the exuberance in the stock market may mean that a crash is looming.

The bigger risk may be in the bond market. The 10-year Treasury yields have been rising since the tax reform bill was passed in December 2017. Further rate hikes and shrinkage of the Fed's balance sheet will likely put more upward pressure on bond yields. Rising yields means lower prices, which translates to lower capital appreciation for fixed-income investors. Reduced bond purchases from global central banks, and stronger inflation and higher budget deficits powered by the new US tax code, inspire a bearish forecast for the bond market.

As both the stock and bond markets face headwinds, it is no wonder that investors are nervous. When you add in the geopolitical situation, investors are questioning how best to position their portfolios. CRE could be a source of stability in this frenzied environment. CRE fundamentals are still strong, with low vacancy rates and stable rents, and the lending standards are conservative, based on data from CoStar and Situs RERC.

The new US tax code is expected to be a boon for the CRE sector, and that should make investors more confident. Most of the tax breaks for real estate investors remain intact or improved in the new tax code. Perhaps the biggest win will be for the individuals and family offices investing in real estate through partnership entities and the way pass-through income is taxed under the new code. Owners of pass-through businesses will be taxed at individual rates less a deduction of up to 20 percent, cutting the effective tax rate for many filers. Moreover, the corporate tax cuts are expected to spur business investments and hiring. Job growth has always been a critical driver of real estate demand. If job growth is supported by

higher wages, the demand for CRE will be even stronger.

In addition to providing some **stability in a risk environment**, investors should be attracted to CRE as they provide regular cash flow in the form of rent, which can sometimes serve as a hedge against inflation. Likewise, CRE performance has low correlation with financial market performance. Investments in assets such as multifamily and health care properties provide downside protection to portfolios as people will always need health care and a place to live. Most importantly, CRE provides the diversification that is essential to any investor's portfolio.

OUTLOOK FOR 2018: ECONOMY

Steady economic growth is predicted for the US in 2018, continuing the historically long expansion and boosted by the package of tax cuts passed by Congress at the end of 2017. The US unemployment rate, which fell during 2017 from 4.8 percent to 4.1 percent, will likely stay low in 2018 and may drop below 4.0 percent if faster economic growth and moderate wage growth occur. Interest rates are predicted to keep rising, as the Fed has signaled that there will be three more hikes in increments of 25 bps in 2018; however, an increase in the federal deficit brought on by the tax cuts might spur the Fed to raise interest rates further to prevent an outbreak of inflation, which has remained in the 2 percent range or lower for several years. The federal deficit will continue to grow unless Congress cuts spending or the tax cuts pay for themselves through higher growth that brings in more revenue to offset the tax reductions.

Under the most likely economic scenario, consumer and business spending are expected to continue to grow in 2018, thanks to higher wages, lower corporate tax rates and more consumer confidence. We predict that there will be an improved balance of trade with growth in the manufacturing sector spurring an increase in imports.

However, the affordability squeeze in residential real estate is expected to continue in 2018 due to an imbalance

between solid demand and insufficient supply, leading to price growth outpacing wage growth. Low unemployment and rising wages are expected to make homeownership increasingly attractive, but as the tight inventory of new and existing homes continues — at the same time as more young buyers enter the market — housing prices are expected to outpace wage growth.

LEGISLATION

In 2017, President Trump aggressively worked to eliminate or reverse numerous federal regulations, saying the rules were stifling economic growth. Perhaps his most significant action in this area was convincing Congress to overturn a Consumer Financial Protection Bureau (CFPB) rule designed to make it easier for consumers to file class-action lawsuits against financial institutions. More finan-

“IF JOB GROWTH IS SUPPORTED BY HIGHER WAGES, DEMAND FOR CRE WILL BE EVEN STRONGER.”

cial regulations are expected to go by the wayside in 2018; the CFPB is now run by acting director Mike Mulvaney, who is also director of the Office of Management and Budget. Mulvaney is a long-time critic of the agency he now heads, and is expected to slow down or stop impending restrictions on payday lending, debt collection and overdraft fees.

CRE can expect changes in 2018, many due to the new tax reform law — but not as dramatic as some feared because many proposals that were opposed by people in the industry did not make the final draft. For real estate investors, the new law offers only modest changes for how they do business regarding 1031 tax-deferred exchanges, mortgage interest deductibility and asset depreciation. The real estate industry is exempt from some new limits on deductions for interest payments, and on the ability to defer taxes on the exchange of similar kinds of property. Real estate investors will be able to use a more generous depreciation timetable, allowing owners to shelter more income. Rental and mortgage-interest income will qualify for a lower tax rate, the kind of

special treatment traditionally reserved for long-term capital gains and certain qualified dividends.

SITUS RERC 10-YEAR TREASURY FORECAST

Interest rates, and what is going to happen to them, have been a major focus for investors since the end of the Great Recession. Over the past nine years of forecasting rates, we have learned that our belief that rates would return to historical levels has not panned out. Considering today's compressed cap rates and, more importantly, expected total long-term returns (IRRs and discount rates), the direction of interest rates is a crucial factor that could quickly change the dynamics of all mainstream asset classes, including CRE. Higher interest rates are a mixed bag for CRE investors, signaling confidence in the economy but raising the cost of capital. The Fed raised short-term interest rates three times in 2017 and began shrinking its balance sheet, which peaked at about \$4.5 trillion. The 10-year Treasury rate was 2.24 percent for third quarter 2017. Situs RERC forecasts the 10-year Treasury because of its critical importance for the CRE market. The three

scenarios below describe Situs RERC's 10-year Treasury rate forecast as of third quarter 2017 (**see Exhibit 5-A**).

- The base case scenario reflects the most probable economic situation over the next two years, with rates increasing steadily throughout 2018 and 2019. This assumes that the FOMC will continue to increase short-term rates in 2018 and the historic wind-down of the \$4.5 trillion balance sheet will be gradual enough to avoid disrupting markets. The tight labor market will provide additional boost to the economy. The base case scenario sees the 10-year Treasury rate increasing to 2.80 percent by fourth quarter 2018 and reaching 3.20 percent by the end of 2019.
- The lower case scenario reflects a more pessimistic, and less likely, economic situation. In this scenario, Situs RERC predicts that the 10-year Treasury declines to 2.10 percent by fourth quarter 2018 and to 1.62 percent by the end of 2019. This scenario assumes a failure of the

current administration to reach an agreement on policies. In this scenario, the economy cools off sooner than expected. As a result, the FOMC delays additional rate increases and slows its reversal of quantitative easing. Global political and economic uncertainties push investors out of other asset classes to Treasuries in a flight to safety.

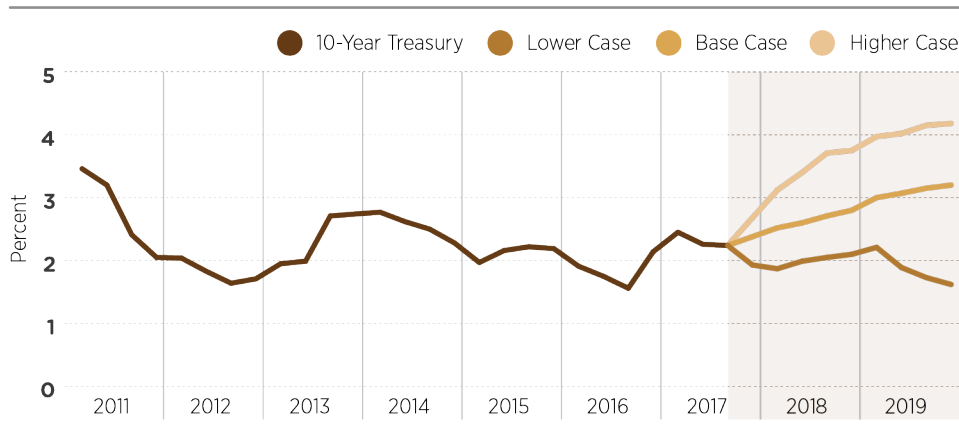
- The higher case scenario assumes strong economic growth but has a lower probability of happening than the base case scenario. In this scenario, Situs RERC predicts the 10-year Treasury increasing from 2.24 percent in third quarter 2017 to 3.75 percent in fourth quarter 2018 and swelling to 4.18 percent by the end of 2019. The upside scenario assumes the tax reform bill achieves its goals, which will fuel growth throughout the year and drive the Treasury rate higher. The 10-year Treasury will keep trending up in 2019 as the Fed’s balance sheet reduction plan goes into high gear. This scenario also assumes that new Fed Chairman Jerome Powell will pursue a reasonably more aggressive path of monetary tightening.

The most likely prediction is that the Treasury rate will increase over the next two years. The concern for the CRE market is not just that short-term and long-term rate increases are anticipated, but that they are expected to rise at the same time that CRE capital returns are likely to flatten and decline in some cases. Property types such as office and retail have the potential to be hit hardest by rising rates because of locked-in leases. As uncertainty in the CRE market over the timing of the next correction increases, the potential increases for rising interest rates to tip the scale in favor of safer long-term bonds. However, interest rates still remain far below historical averages and spreads between CRE yields and the 10-year Treasury are commensurate with spreads seen in previous recovery periods, with yields supporting the risk premium. The interpretation is that the CRE market is likely to be stable for at least the next year.

CAPITAL MARKETS

Regarding debt capital markets, underwriting standards appear to be moving in tandem with the availability of capital, suggesting stability for the near future. LTV ratios are expected to remain

Exhibit 5-A
Situs RERC 10-Year Treasury Forecast



source Federal Reserve, compiled and forecasted by Situs RERC, 3Q 2017
note Shaded area reflects forecast rates





modest, providing less risk and attracting more institutional investor interest. For the DSCR, steady or improving cash flows are expected for investors, but there might be some headwinds in 2018 because of rising interest rates and general policy uncertainty. The credit quality of newly originated and outstanding US CMBS loans is expected to remain near 2017 levels, according to Moody's Investors Service. The CMBS market is expected to face some challenges through rising interest rates and new supply, particularly in the office and hotel sectors, but it could be offset by increasing debt service coverage in conduit loans, declining leverage and declining delinquency rate.

REITs have proven to be an attractive investment with positive net capital flows thanks in large part to capital committed to new construction. Capital volume is expected to remain active in the near future but might be tempered by a gap in pricing expectations between sellers and buyers, some tax policy uncertainty and enough new supply to dampen income growth.

CRE FUNDAMENTALS

In today's environment, investing can be a risky business. Many asset classes, such as stocks, may be reaching new highs but come with an element of volatility as they are also highly susceptible to changes in the political and economic climate. As an asset class, CRE is less vulnerable to these changes, providing more stable returns for investors even as cap rate compression begins to stall. As we near the end of one of the longest economic expansions in US history, CRE investing can continue to be a secure way to build wealth by carefully considering the space market fundamentals. CoStar data show that overall, CRE fundamentals are sturdy, with vacancy near or below their Great Recession levels across most property types. Although increased supply across the sectors will begin to tilt vacancies higher, rents should remain relatively stable as demand for space is expected to remain solid throughout 2018.

Nationally, office vacancy is at its lowest level since 2007, according to CoStar. Rents in the sector have been rising, driven by job growth in business and professional services and increasing demand for tech-ready and co-working segmented space. The retail sector continues to face challenges from the

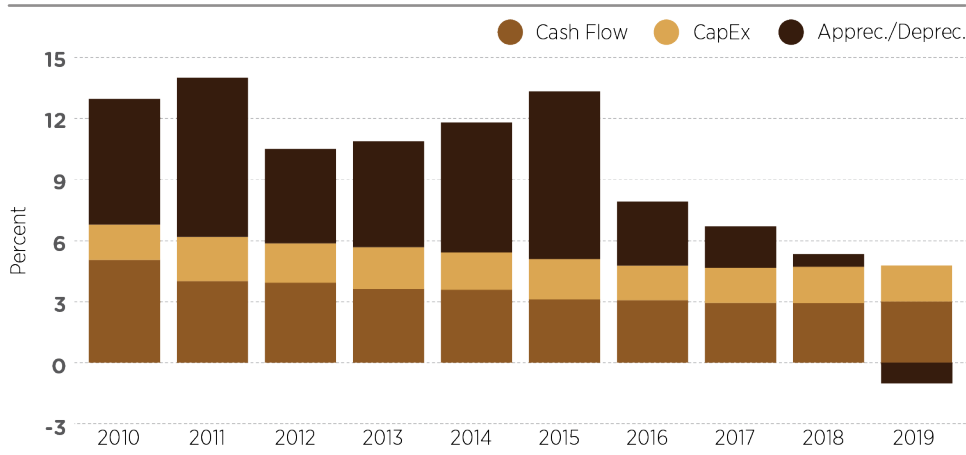
rise in e-commerce and will remain the most volatile property type in 2018. Store closings and bankruptcies have shaken investor confidence in this property type. However, some brick-and-mortar stores will be able to withstand the pressures from e-commerce by repositioning themselves to provide experiential shopping to consumers. Also, what has been the bane for the retail sector has been a boon for the industrial sector. Energized by e-commerce, a reinvented supply chain and solid retail sales, the industrial sector remains the darling of CRE. Vacancy continues to reach record lows, even as rents keep rising. Construction has boomed as operators work to keep up with the ever-changing supply chain and online delivery of goods. Although the rate of increase in industrial asking rents will slow as new supply hits the market, industrial will continue to be the sector investors flock to. Because the hotel sector is closely tied to economic performance, the sector suffered from the effects of hurricanes and political turmoil in late 2017, and is also working through a large amount of supply. However, in its key metrics, the hotel sector is performing well compared to one year ago. US occupancy recorded monthly highs in 2017, the ADR is steady, and RevPAR has been increasing YOY since the Great Recession. Multifamily is the only sector to see a rise in vacancy, as new apartments continue to become ready for occupancy. The abundance of new apartment construction has kept rents mostly flat, despite solid absorption. Demand in the multifamily market could see an increase due to the new tax laws cutting some of the benefits of homeownership, making renting more attractive.

SITUS RERC TOTAL RETURN FORECAST

Situs RERC forecasts total returns for the NCREIF NPI as well as the income components and capital components of total returns. All of Situs RERC's forecasts incorporate data from the NCREIF NPI and are for unleveraged, institutional-grade properties. We present forecasts for cash flow and cap rates (income components) and capital appreciation. At the end of this section, we present the Situs RERC total return forecast for the NCREIF NPI.

Exhibit 5-B

Situs RERC Cash Flow, Capital Appreciation and Capital Expenditures Forecasts (Base Case Scenario)



sources Situs RERC, NCREIF, 3Q 2017

note These forecasts are Situs RERC’s proprietary models based on Situs RERC data and data from the NCREIF Property Index (NPI) and are for unleveraged, institutional-grade properties. The price change is calculated by adding capital expenditures to capital appreciation/depreciation. Shaded area reflects Situs RERC’s outlook for the base case scenario for 2018 and 2019.

THE INCOME COMPONENT OF TOTAL RETURNS: FREE CASH FLOW YIELD (FCFY) FORECAST

Per NCREIF, the FCFY is the quarterly net operating income (NOI) minus ordinary or routine capital expenses, divided by the beginning market value in the quarter. It focuses on quarterly net cash flow from operations, which accounts for ordinary or routine capital expenditures. This measure represents additional income beyond rent that investors can expect to receive from investing in the properties at a particular time and is comparable to stock dividend yield after capital expenditures have been paid.

The 1-year trailing FCFY as of third quarter 2017 was 2.89 percent, considerably lower than FCFY’s historical performance, which has been around 4.90 percent since its inception in 1977. FCFY has been trending downward over recent quarters, and this trend is expected to continue (see Exhibit 5-B.) The base case scenario calls for the downward trend to continue reaching just below 3.00 percent at the end of 2017. We expect FCFY to remain stable in 2018. The lower case scenario has FCFY returns increasing in 2018, reaching slightly above 3.00 percent by the end of 2018. The higher case scenario sees FCFY decreasing slightly in 2018 to roughly 2.80 percent. The higher case scenario assumes that returns are driven

by capital appreciation and increasing prices, while the lower case scenario sees returns being generated primarily from income. Because future total returns are expected to be driven primarily by the income component, we expect greater FCFY in the higher case scenario than the lower case scenario.

INCOME COMPONENT: CAP RATE FORECAST

NCREIF implied cap rates can be interpreted as the current quarter NOI divided by the current quarter ending market value. This result is then multiplied by 4 to get an annual rate. After reaching a low of 4.46 percent in fourth quarter 2016, the NCREIF implied cap rate increased in the first half of 2017 but compressed by 10 bps in third quarter 2017. Situs RERC’s base case scenario sees the third quarter’s slight compression as a blip, with cap rates increasing to 4.70 percent by the end of 2018. The lower case scenario sees the cap rate at almost 5.00 percent by the end of 2018. The higher case scenario has the implied cap rate at 4.55 percent by the end of 2018.

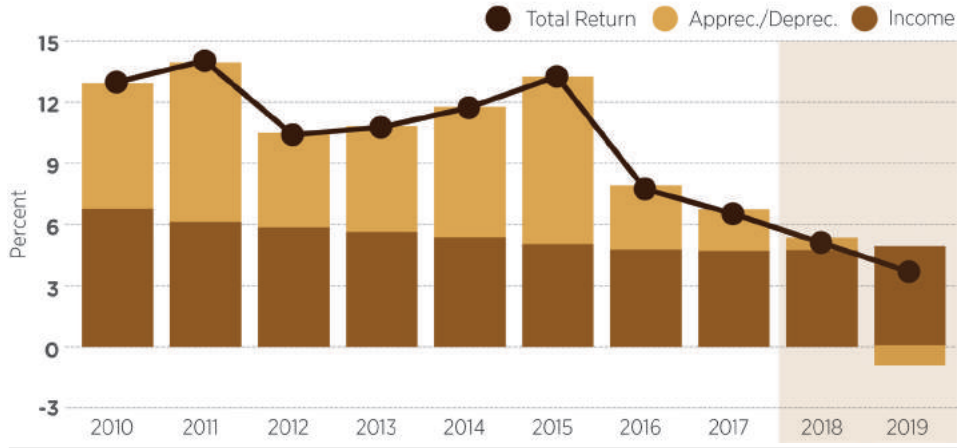
THE CAPITAL COMPONENT OF TOTAL RETURNS: CAPITAL APPRECIATION FORECAST

CRE value can be described in terms of a price change, which combines capital expenditures and capital returns, or capital appreciation only. Situs RERC’s capital appreciation forecast provides an alternative way to examine prices, because a significant portion of the run-up in CRE prices are due to capital improvement projects (including leasing activity). Capital appreciation has been a primary driver



Exhibit 5-C

Situs RERC Total Return Forecast (Base Case Scenario)



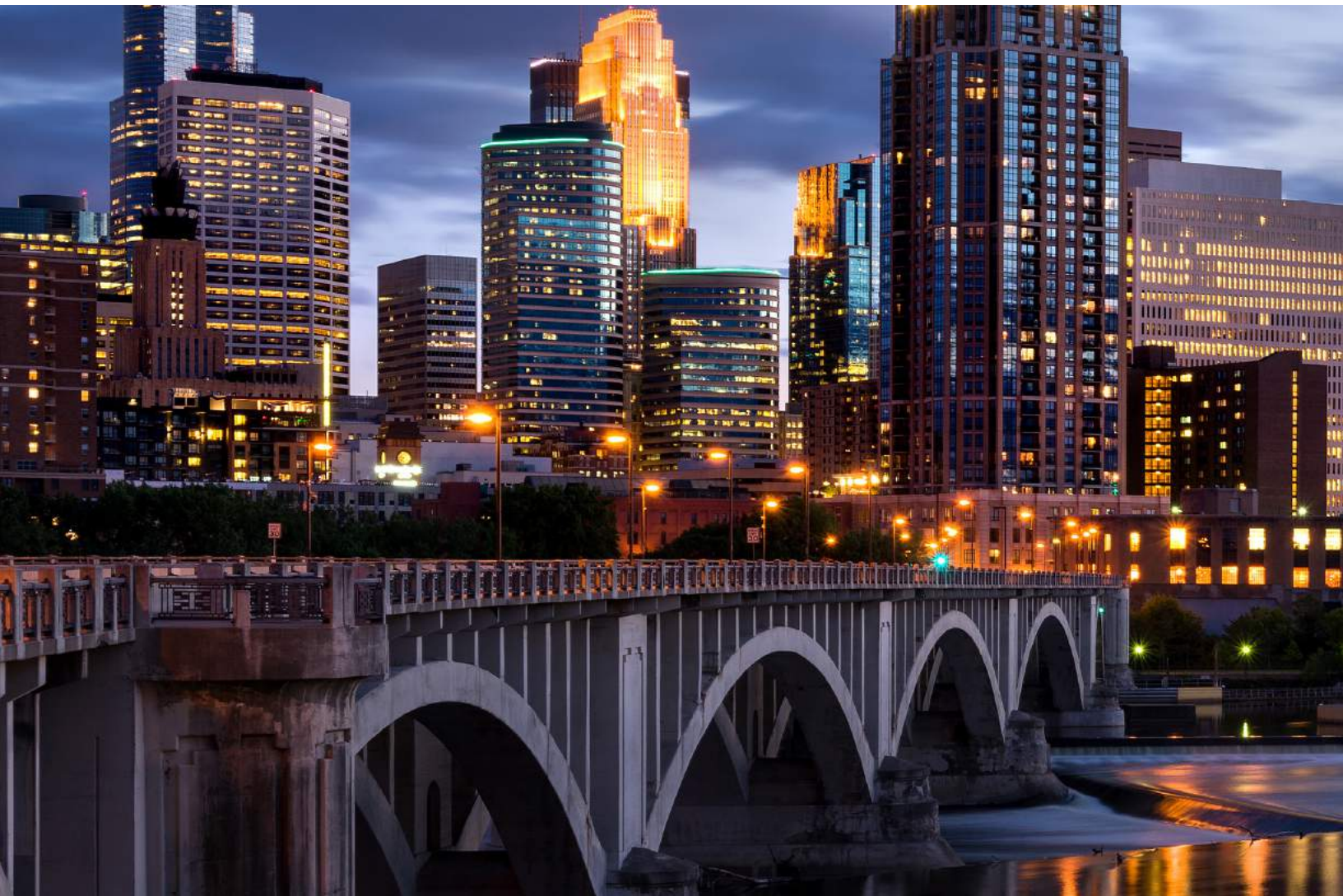
sources Situs RERC, NCREIF, 3Q 2017

note The Total Return Forecast is Situs RERC's proprietary model based on Situs RERC data and data from the NCREIF Property Index (NPI) and is for unleveraged, institutional-grade properties. Total returns are derived from an income component and a capital appreciation/depreciation component. Shaded area reflects Situs RERC's outlook for the base case scenario for 2018 and 2019.

of returns post-recession. With cap rates expected to increase, prices are likely to start pulling back in the CRE market. Situs RERC's base case scenario has capital appreciation declining to near 0.60 percent by the end of 2018. The lower case scenario sees capital appreciation falling to -4.70 percent by the end of 2018. The higher case scenario sees capital appreciation increasing, reaching approximately 3.90 percent by the end of 2018.

SITUS RERC TOTAL RETURN FORECAST-CONCLUSION

NCREIF NPI total returns decreased to 1.70 percent in third quarter 2017 from 1.75 percent in second quarter 2017 due to slight declines in both the income and capital components. Although NCREIF NPI returns have been strong over recent years, it is important to note that annual returns have been decreasing since 2015. The 1-year trailing NCREIF NPI total return fell to approximately 8.00 percent in 2016



from roughly 13.50 percent in 2015. While market fundamentals remain strong, high prices are causing investors to broaden their searches for quality investments that offer strong yield. Situs RERC's base case scenario has the NCREIF NPI annual total return decreasing to near 5.40 percent by the end of 2018 (see Exhibit 5-C) as income returns drive the majority of total returns. The lower case scenario has total returns reaching near zero percent (or slightly negative) by the end of 2018. The higher case scenario predicts total returns to increase to near 8.70 percent by the end of 2018.

Capital appreciation has been a primary catalyst of cap rate compression since the recession. However, it is important to note that much of this growth in capital appreciation can be attributed to capital expenditures. Strength in market fundamentals, such as rent growth, vacancy and employment, have also contributed



to CRE's recovery. Situs RERC's conclusions regarding the income component of total returns have not changed much from first quarter 2017. Income is expected to continue being the greatest driver of total return over the coming periods. As market prices begin retreating from their highs, cash flow will continue to stabilize and capital appreciation will continue to decrease. On the surface, the US economy seems to be chugging along and cautious optimism over potential tax reform has boosted investment in the capital markets. However, the CRE market may be beginning to slow from its peak. Market participants should look to take advantage of high prices and strategically shift their portfolio allocations to better capture market potential.

PROPERTY TYPES

The office market is expected to remain a top investment in 2018 because of its stability, especially for international investors seeking safe places to put their money. Those foreign investors, however, have created a flood of capital and driven up prices of top properties in core markets. Many investors who already own office real estate have been holding onto their assets, making available properties that much more attractive – and expensive. On a risk-return basis, suburban office properties can be expected to outperform their CBD counterparts because it's easier to adapt suburban space to the changing needs of consumers and employees. E-commerce is likely to continue to be a major disruptor in the retail sector in 2018, but this uncertainty does not necessarily translate into troubles for all property owners or private equity investors. Bifurcation in the retail real estate market is expected to be more pronounced over the next year, with many Class B and Class C malls becoming obsolete while mixed-use retail space, experiential retail and grocery-anchored neighborhood/community retail are expected to perform well. However, the shedding of stores reflects a natural cyclical shift for the sector, helping to correct the vast oversupply of retail in the US (as compared to other countries and discussed in chapter four). Retail space that can attract high-quality tenants is expected to survive and thrive in the Darwinian environment.

The increasing growth in e-commerce, while a mixed blessing at best for retail real estate, should continue to bring good news to the industrial sector in 2018,

spurring renewed growth in domestic manufacturing and warehouse space that will continue to outpace supply. Prices are expected to keep rising for industrial space for at least the near future.

The apartment sector, which enjoyed a long run as the dominant performer among major property types, is showing signs of cooling down, as fundamentals are weakening. After the vacancy rate dropped for 27 straight quarters, it finally rose slightly in third quarter 2017 and is expected to keep inching back up or remain flat in the coming year. A major cause of the apartment sector's strength has been the drop in the homeownership rate, which is finally showing signs of bottoming out and moving back up. This would, of course, lead to fewer people needing to rent apartments.

In the hotel sector, which is in the midst of a historic expansion, we expect demand to outpace supply, ADR growth to stagnate and cap rates to increase. Foreign investment is slowing down as investors are starting to wonder how long the expansion will last.

FINAL CONCLUSIONS¹

As a historically long CRE cycle reaches its peak, fundamentals have endured. Additionally, a tight labor market that is supporting higher wages and increased consumer spending will help drive demand for all commercial property types and support the income component of total returns. Domestic and foreign policy uncertainty is likely to remain at the forefront of investors' minds, leading them to be more concerned about protecting the value of their assets from external forces. Despite the expected decline in total returns over the next year, CRE is likely to continue to be a preferred asset class because of its favorable return vs. risk profile, offering investors **stability in the risk environment**.

¹We present a detailed description of our 2018 economic and real estate expectations in Exhibit 5-D.

Exhibit 5-D

Alternative Economic Scenarios

	LOWER CASE SCENARIO: DECELERATING GROWTH	BASE CASE SCENARIO: CONTINUED SLOW GROWTH	HIGHER CASE SCENARIO: BETTER GROWTH
US GDP Real Growth	Less than 2.0 percent	2.0 percent to 3.0 percent	3.0 - 4.0 percent or greater
Probability	Slightly Likely	Most Likely	Reasonably Likely
Employment	Job growth slows as demand for labor decreases and discouraged job seekers leave the workforce or take jobs for which they are overqualified. Long-term unemployment and wage stagnation increase as the labor participation rate flattens or declines moderately.	Faster growth from tax reform enhances job creation further, lowering the unemployment rate and causing moderate wage growth. Optimism about economic conditions fueled employment gains, higher wages.	Persistent gains in jobs push economy to operate beyond full employment. Discouraged workers re-enter the workforce resulting in significant workforce.
Housing Market	A slowing housing market is not buoyed by a strong economy or higher wage growth. Housing affordability becomes an issue for all buyers, particularly with rising interest rates and high home prices. In absence of demand, home prices start to spiral downward.	Momentum in the housing market slows, but a strong economy, employment, and wage growth coupled with low interest rates will continue to be positive factors for the housing market. Affordability becomes an issue as home prices continue to climb up especially for first-time buyers.	With a stronger job market and increasing wage growth, home buyers have enough accumulated wealth to purchase homes and the housing market accelerates further. Although new construction increases, supply is unable to meet demand, pushing prices up even higher and further increasing new home starts.
Consumer Spending	Consumer sentiment falls in 2018 causing a decrease in consumer spending. Wage growth becomes stagnant, and real disposable incomes fall, at the same time inflation causes prices to increase. Consumers spend less, especially on durable goods. Consumers increase their demand for cheaper imported goods.	Consumer confidence continues to grow in 2018. Benefiting from higher wages, as well as increased tenure for homeowners, consumers continue increasing their spending, in line with newly passed tax reform and low energy costs.	Consumers enjoy even further wage growth and begin to spend freely. Personal savings falls as consumer confidence rises.
Business Spending	Businesses struggle to keep up with increasing interest rates, and expenses are cut. New hiring ceases and wage growth stays flat.	Buoyed by increased demand for goods and services, along with lower corporate tax rates, business investment increases. Companies make capital investments through higher spending on information processing and equipment, as well as intellectual property products.	The stock market continues to reach new highs, signaling improved business sentiment on the back of the Trump administration's corporate tax cuts.
Government Spending	In the wake of substantial tax cuts, the government fails to curb spending to make up for lost tax revenue. Increased government deficit has negative impact on the economy.	Tax cuts contribute to an increase in the federal deficit, but not to the extent to which growth is hurt. Government spending declines in 2018, as nondefense expenditures continue to be scaled back and significant infrastructure spending does not materialize.	Tax cuts increase federal deficit, but are offset by a revised budget that reduces costs of government programs.
Trade Balance	Protectionist US policy damages global confidence and weakens international trade. The strong dollar limits exports among a global economic slowdown, while US consumers rely on cheaper imports, causing a trade deficit.	International trade continues as a mainstay of economic activity. US manufacturers continue to see favorable conditions. Imports grow more slowly than exports in 2018, leading to an improvement in the balance of trade.	Policies of the administration propel faster growth without triggering a trade war. The trade deficit narrows as global economies strengthen.
Inflation	Prices, including energy and oil prices, rise as a result of an inflationary environment.	Inflation is driven by the tight labor market and wage growth. Inflation remains slightly above the FOMC's 2.0 percent target.	The economy heats up, and inflation nears 3.0 percent. Bonds become less appealing, as their prices decrease, interest rates go up.
Interest Rates	Current administration fails to reach agreement on policies. Global political and economic uncertainties push investors out of other asset classes to Treasuries in flight to safety. The FOMC delays additional rate increases and slows its reversal of QE. The 10-year Treasury Yield rate declines to around 2 percent.	Rates increase steadily through 2018 and 2019. FOMC will continue winding down the balance sheet gradually enough to avoid disrupting markets. The tight labor market will provide additional boost to the economy. The 10-year Treasury yield rate rises gradually to high-2 percent range.	The US economy accelerates more than expected. Successful tax reform fuels growth pushing up inflation. The FOMC pursues more aggressive path of monetary tightening driving the Treasury rate to upper 3 percent.
Commercial Real Estate	The 10-year Treasury rate increases to combat rising inflation. Financing becomes very challenging and defaults rise at faster pace. Sales volume and property prices drop significantly, and cap rates increase at a faster pace. The retail sector in particular suffers due to a decline in consumer spending. Vacancy rates start to increase across most property types, specifically in the retail sector, with additional mall/store closings.	Cap rates flatten or reverse course, as CRE returns rely more heavily on the income component and less on appreciation. Commercial real estate investment volume continues to decline, which provides reasons for concern about the current real estate cycle's timing and duration. Markets with strong fundamentals that can support income growth preserve value for investors. Tax reform and interest rate hikes do not have a large harmful effect on real estate, given the point in the cycle and already being baked into the market calculus for pricing. E-commerce continues to be a boon to the industrial sector but also a source of volatility for the retail sector. The office sector continues its transformation, as the apartment sector tries to shake off the excess supply.	Fundamentals improve for all property types. Space in all sectors particularly suburban office, malls, and obsolete in-fill warehouses, are renovated and converted to become more desirable. Transaction volume exceeds 2015 levels, with pricing reaching new highs. Prices in most markets reach or surpass pre-recession era high. Cap rates continue to compress. Although unlikely, the risk of forming another CRE bubble increases.

sources BLS, BEA, The Conference Board, RCA, NCREIF, NAR, Situs RERC, Deloitte, January 2018.

note These are not the only scenarios that are possible, and there will usually be differences between the forecasted and actual results because events and circumstances frequently do not occur as expected, and those differences may be material.

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LEADERSHIP

Steven J. Powel
Situs CEO
713.328.4403
Steve.Powel@Situs.com

Nick Rudenstine
Situs President and COO
212.294.1316
Nick.Rudentine@Situs.com

Kenneth Riggs, Jr.
CFA, CRE, MAI, FRICS
Situs RERC President
312.587.1900
riggs@rerc.com

Brian Velky
CFA, CRE
Managing Director
515.309.7600
bvelky@rerc.com

Del Kendall
CRE, MAI, FRICS
Managing Director
713.661.8880
dkendall@rerc.com

Taco Brink
CRE, MAI, MRICS
Managing Director
Head of Europe
+44 (0) 207 220 1874
Taco.Brink@Situs.com

Andrew Phillips
Managing Director
212.294.1340
Andrew.Phillips@Situs.com

Situs
713.328.4400
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Sources NAREIT (May 2016); Fortune 2016, ENR (4/16-12/16), Builder Online 2016, NAREIT (5/16), P&I (May-December 2016), Prequin (December 2016), PERE Fifty (2016), Fortune 500 (2016), NREI (2016)

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CONTACTS

Robert O'Brien

Partner
Global Real Estate Leader
Deloitte & Touche LLP
312.486.2717
robrien@deloitte.com

Jim Berry

Partner
US Real Estate Leader
Deloitte & Touche LLP
214.840.7360
jiberry@deloitte.com

Matt Kimmel

Principal
Real Estate
Deloitte Transactions and Business
Analytics LLP
312.486.3327
mkimmel@deloitte.com

Ken Meyer

Principal
Real Estate
Deloitte Consulting LLP
973.602.5237
kenmeyer@deloitte.com

Jim Brock

Partner
Real Estate
Deloitte Tax LLP
404.220.1375
jbrock@deloitte.com

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CONTACTS

Lawrence Yun, PhD
Sr. Vice President,
Chief Economist
lyun@realtors.org

George Ratiu
Managing Director,
Housing & Commercial Research
gratiu@realtors.org

NATIONAL ASSOCIATION
OF REALTORS®
Headquarters
430 North Michigan Ave.
Chicago, IL 60611

DC Office
500 New Jersey Ave., NW
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