NEW YORK LIFE REAL ESTATE INVESTORS

Strategy & Research Group

3Q 2018 QUARTERLY REPORT[1]

AS OF SEPTEMBER 30, 2018

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U.S. ECONOMY

The U.S. economic expansion continued in a positive direction in the third quarter. Inflation-adjusted economic growth was 3.5% (see Chart 1), this follows last quarter's growth of 4.2%, the strongest consecutive quarter to quarter increases since 2014. It remains to be seen if this strong growth rate is sustainable going forward. The economy was boosted by the "Tax Cuts and Jobs Act of 2017," passed in December 2017, and benefited from continued regulatory relief.

Consumer spending, restocked inventories and government spending, contributed to the four-year high growth. Consumer spending, which accounts for about 70% of the economy, accelerated to a 4% increase – the best since 2014. The normally volatile inventory category, provided the biggest contribution since early 2015, while the drag from trade was the largest in 33 years. Government spending rose by the most since 2016.

Housing remained a weak spot, posing the third consecutive quarterly drag on GDP growth, with a contraction of 4%. Recent reports indicate the industry is slowing amid higher prices and rising mortgage rates, as well as a lack of affordable listings. Other weak components include Nonresidential Fixed Investment – which includes spending on equipment, structures and intellectual property. Consumption indicators show underlying retail sales continuing to expand at a solid rate – that may change as selective retail sectors are hit by a potential housing slowdown.

Challenges to a future GDP growth rate between 3.5% and 4.0% include the impact of the tax cuts fading, interest rates and inflation rising, the strong dollar, and tariffs that have been proposed or already implemented. In September, President Trump announced new tariffs on $200 billion in Chinese imports, prompting Beijing to retaliate with levies on $60 billion in U.S. goods. Mr. Trump then vowed to further ratchet up pressure on China by kicking in tariffs on another $257 billion of Chinese products. The short-term impact of tariffs is small with most economists estimating the global GDP impact to be less than 0.25%[2]. Longer term consequences could be far more harmful the longer the trade war continues and especially if it develops into an economic cold war with China.

> Healthy job growth and the lowest unemployment rate in 49 years have supported consumer spending.

There was some good news on the trade front in Q3 with the updated agreement to replace NAFTA with the $1.2 trillion trade pact known as USMCA. While the economic impact of the deal will not differ much from NAFTA, it does take away the significant downside risk of pact abrogation. The trade pact is scheduled to be signed on November 30th with the final agreement sent to Congress for certification most likely early next year.

Healthy job growth (see Chart 2) and the lowest unemployment rate in 49 years (see Chart 3) have supported consumer spending.

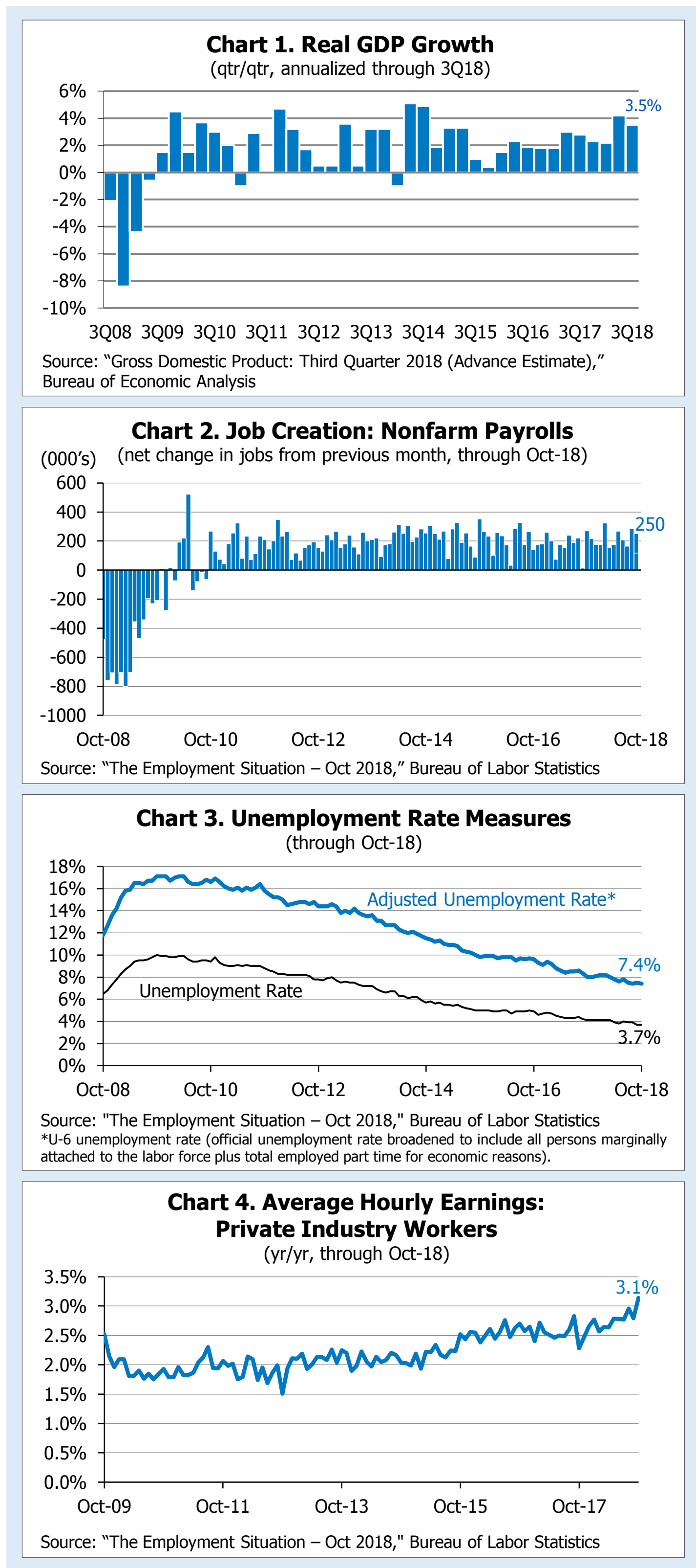


Chart 1 source: "Gross Domestic Product: Third Quarter 2018 (Advance Estimate)," Bureau of Economic Analysis

Chart 2 source: "The Employment Situation – Oct 2018," Bureau of Labor Statistics

Chart 3 source: "The Employment Situation – Oct 2018," Bureau of Labor Statistics
*U-6 unemployment rate (official unemployment rate broadened to include all persons marginally attached to the labor force plus total employed part time for economic reasons).

Chart 4 source: "The Employment Situation – Oct 2018," Bureau of Labor Statistics

There are substantially more job openings than workers available to fill them. It is hoped that the tight labor market will spur real wage growth and further drive consumer spending (see Chart 4). Hourly earnings moved above 3.0% in the year through October for the first time since 2009. Despite the most recent observation which is encouraging - both real wage and benefits growth remain below pre-crisis rates.

The Federal Open Market Committee's (FOMC) September meeting resulted in the raising of the target Federal Funds rate 25bps to a level between 2.00% - 2.25%. This marked the eighth time since December 2015 that the Federal Reserve has raised interest rates. The Fed held rates steady during the FOMC November meeting.

The unemployment rate has fallen to a level typically considered "maximum employment"; i.e., unemployment is low enough that competition for workers should put upward pressure on wages and, ultimately, prices. Evidence of rising inflation is being seen (see Chart 5). In addition, many other factors, such as the strength of the dollar and relatively high oil prices, go into the FOMC's decision making process. From near-zero interest rates in 2015, the FOMC raised interest rate targets once in 2015, once in 2016, three times in 2017, and three so far in 2018. The overall policy message contained in the minutes from the September FOMC meeting was that officials plan to gradually raise rates at least to neutral (3%) and possibly a bit into "restrictive" territory. Fed minutes point to gradual interest-rate increases justified by a strong economy. Projections released after the release show most officials expected they would need to raise rates one more time this year and around three times in 2019 if the economy performs in line with current forecasts. Nothing revealed from the November meeting dispelled any of those assumptions.

For the first time since the central bank introduced its 2.0% inflation objective in 2012, both the headline and core measures of year-on-year price moves hit their target last month. With Core PCE inflation at 2.0% and unemployment at 3.7%, the Fed should have ample leeway to continue raising interest rates at a measured pace.

Interest rates moved higher during the month of October and the curve moved slightly wider with two-year notes rising 5 basis points while 10-year notes were 6 basis points higher. In October, equity markets experienced their greatest monthly dip since 2011 with the DJIA, S&P 500, and Nasdaq down 5.8%, 7.0%, and 9.1% respectively. Equity markets have since rallied, but market volatility maybe a reflection of rising rates. Rising borrowing costs are weighing on rate-sensitive sectors of the economy, in particular the housing market.

If the Fed is successful at tightening monetary policy and keeping inflation within a healthy range, and if today's aggressive fiscal policy is successful at stimulating the economy without causing it to overheat, then the economic environment should remain one in which commercial real estate has historically performed well relative to other asset classes.

For the remainder of 2018, we expect primary risks to the U.S. economic outlook to include:

- Higher-than-normal domestic policy risk under President Trump. While Trump succeeded in getting the large tax cut passed, its passage increased the projected federal budget deficit and the likelihood of higher inflation followed by a more aggressive monetary policy tightening response. President Trump's economic policy decisions have been hard to predict, and with equity market price-to-earnings multiples toward the upper part of their typical historical cyclical range, it would seem the economy and the financial markets are susceptible to a policy misstep;
- A lack of ability of the Federal Reserve to tighten monetary policy and shrink its balance sheet through asset sales without triggering a recession;
- Efforts in the U.S. and across the globe to introduce tariffs and other barriers to international trade; and
- Continued weak wage growth and increased income concentration resulting in political change and a less business friendly government policy. Flat wages may also negatively impact consumer spending.

REAL ESTATE EQUITY MARKETS

In the third quarter, investments in U.S. commercial real estate produced a 1.7% total return, consisting of 1.1% income and 0.6% appreciation, as measured by the performance of the approximately 7,800 properties in the NCREIF Property Index.[3] The commercial real estate market has now generated a positive appreciation return for 34 consecutive quarters, although the rate of appreciation has slowed in recent years compared to the 2010-2015 period (see Chart 6).

As an asset class, U.S. commercial real estate continues to offer an attractive mix of benefits relative to other asset classes.

As an asset class, U.S. commercial real estate continues to offer an attractive mix of benefits relative to other asset classes. In the event of an economic slowdown, U.S. commercial real estate has historically performed relatively well during challenging times in large part due to its steady cash flow yield; if healthy economic growth continues, U.S. commercial real estate offers inflation-hedging qualities and exposure to one of the world's strongest-performing economies; and, no matter the economic outlook, all investors stand to benefit from commercial real estate's ability to provide increased diversification and the promise of higher risk-adjusted returns to a mixed asset class portfolio.

Total returns were positive for all property types during the quarter, with rising occupancy rates and rent growth that suggest an appropriate balance between supply and demand in the market (see Tables 1-3). Thanks to solid fundamentals, net operating income has grown at a healthy 3.0% year-over-year.[4] Once again, industrial was the best performing property type by a wide margin, producing a quarterly total return of 3.4% and a trailing 12-month total return of 14.2%. Office was the next best performer with a quarterly total return of 1.7% (6.9% over 12 months), and apartments followed with a quarterly total return of 1.5% (6.3% over 12 months). Finally, retail produced the lowest quarterly total return of 0.6% – its weakest quarter in nine years – and a trailing 12-month total return of 4.6%. Retail has continued to struggle in 2018, although there is substantial variation among the retail sub-property types and quality grades.

In the third quarter, transaction volume increased 17% year-over-year as measured by dollar volume and decreased -2% year-over-year as measured by count (see Chart 7).[5] The composition of deal volume has shifted at this stage of the cycle. Nearly 20% of third quarter volume was attributed to entity-level deals – as opposed to portfolio-level deals or property-level deals – compared to 10% during the same period one year ago. In fact, there has never been more transaction activity tied up in entity-level deals in another third quarter period than the third quarter of 2018. Segmenting recent transaction dollar volume by property type, retail saw another sharp increase this quarter, increasing 90% year-over-year. However, the increase was driven, in part, from one entity transaction: Brookfield's $9+ billion purchase of GGP.[6] Excluding all retail entity-level transactions, total retail volume saw a -7% decline as buyers exercise caution towards the property type.

The NCREIF Market Value Index (MVI), which is not adjusted for inflation, indicates that overall commercial property market values stand 24% above their early-2008 peak (see Chart 8). Over the past year, industrial market values are up 9.4%, while office, apartments, and retail trail at 4.7%, 3.4%, and 1.7%, respectively. As a result of rising market values, property income yields ("cap rates") have continued their downward trend: NCREIF's 3Q18 cap rate of 4.79% is down from 2Q18's value of 4.94%. Thanks in part to rising interest rates, as of the end of 3Q18, commercial real estate cap rates were 1.7 percentage points above the 10-year Treasury yield (see Chart 9).

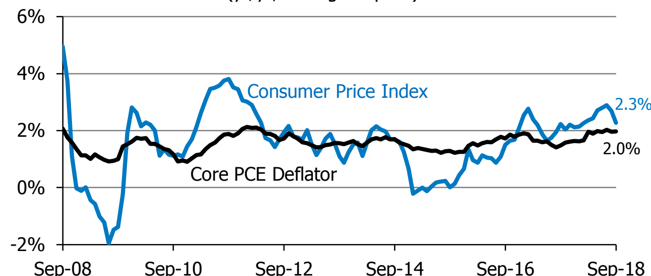
While this "yield premium" spread of 1.7 percentage points is lower than the 20-year average spread of 2.9 percentage points, this may not necessarily indicate mispricing. For example, a below-average spread may be justified as most commercial buildings have in-place rents that are below current market levels, providing "built-in" income upside when expiring spaces are re-leased at market. However, if the current trend of rising 10-year Treasury rates continues, it is likely that at least some of that increase in interest rates will be matched by an increase in cap rates, limiting future market value appreciation or putting downward pressure on market values. At this point, we have yet to see an increase in cap rates or a decrease in market values among the four major property types as a whole. However, within each property type, there are a small number of metros experiencing market value declines.

REAL ESTATE DEBT MARKETS

The borrowing environment for commercial real estate investors remains sound, with loans widely available to qualified borrowers. While third quarter data is not yet available, in the second quarter, healthy loan production volumes and low credit spreads persisted despite an increase in financial market volatility. With benchmark rates increasing in the quarter, mortgage rates moved up. However, loan spreads remained tight, reflecting overall strong demand for commercial and apartment mortgages from a variety of lenders. Consistent with this, the most recent U.S. Federal Reserve survey on bank lending practices revealed that while there has been a modest net trend of lender tightening over the past 11 or 12 quarters depending on loan type, most banks have kept lending standards unchanged (see Table 4).

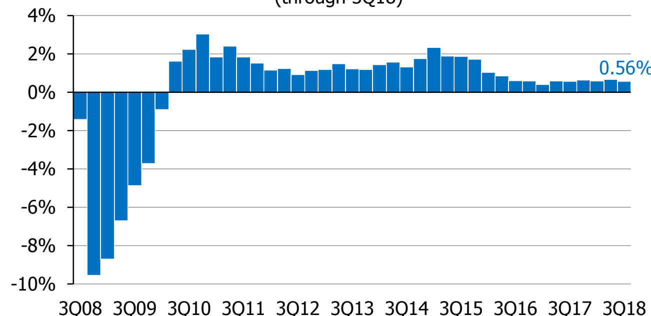
CMBS, bank and thrift loan, and life company loan delinquency rates are slightly below the 10-year average. Rates have declined steadily since the global financial crisis and show no signs of stress

Chart 5. Two Measures of Consumer Price Inflation
(yr/yr, through Sep-18)



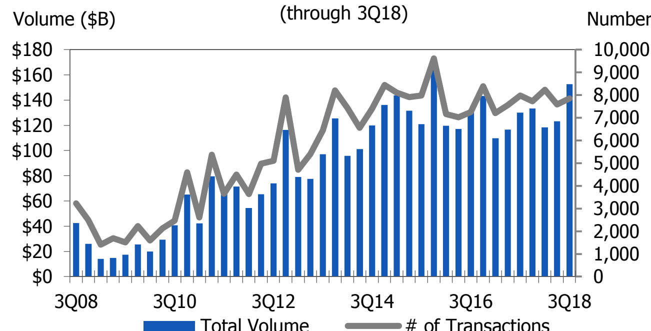
Source: "Personal Income and Outlays, Sept 2018," Bureau of Economic Analysis; "Consumer Price Index – Sept 2018," Bureau of Labor Statistics

Chart 6. Commercial Real Estate Appreciation Returns
(through 3Q18)



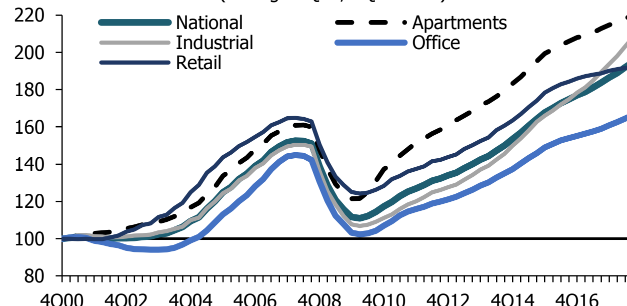
Source: NCREIF Property Index

Chart 7. Commercial Real Estate Transaction Volume
(through 3Q18)



Source: Real Capital Analytics

Chart 8. Market Value Indices
(through 3Q18, 4Q00=100)



Source: NCREIF MVI Indices

(see Chart 10). Additionally, relatively low loan to value ratios (LTV) indicate lenders are currently more cautious than they were before the peak of the crisis; the current average LTV of 59.8% among life insurance companies is lower than the pre-financial crisis high of 65.5% (see Chart 11).

Meanwhile, securitized real estate debt's share of the market has continued to decline. The share of the outstanding commercial real estate debt universe securitized via CMBS, CDOs, and other issues declined from 27% in 2009 to 14% in 2018. The slack has been picked up by banks and thrifts which increased their share from 33% to 40%, life insurance companies which increased their share from 13% to 15%, and agency and government-sponsored enterprise portfolios which increased their share from 13% to 19% (see Charts 12 and 13).

PROPERTY TYPE FOCUS

Industrial: The industrial sector continued to outperform the other major property types in total return and rent growth, and vacancies remain at historic lows (see Tables 1, 2, and 3). Industrial demand growth is tracking 1.5 times higher than overall GDP growth, unlike previous cycles, supporting the notion the industrial sector is undergoing a fundamental transformation driven by e-commerce growth. Select industrial markets well-located to serve entire regions have seen strong rent and price growth. "Last-mile" distribution centers serving local communities have seen demand growth across markets nationally. Unlike in previous cycles, household e-commerce consumption is a substantial contributing force for industrial demand. In 2018, e-commerce has constituted almost half of all new net absorption of industrial space. Overall, market factors remain a tailwind for stable rent and price growth going forward.

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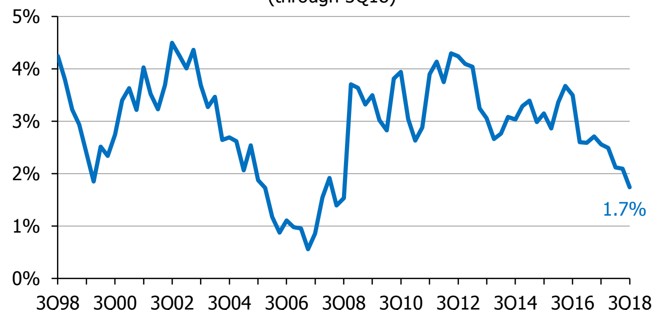
Over the last year, markets with the strongest net leasing activity as measured by square footage were Inland Empire (+26.5M), Dallas (+22.5M), and Atlanta (+18.7M), while the weakest markets were East Bay (-1.6M), Los Angeles (-0.7M), and Pittsburgh (-0.6M). Markets with the largest declines in vacancy rates over the last year were Jacksonville (-2.0%), Richmond (-2.0%), and Sacramento (-1.9%), while markets with the largest increase in vacancy were Fort Myers (+1.5%), East Bay (+1.0%), and Portland (+0.6%).

Office: As the economy nears full-employment and job growth is slowing, demand for office space may have peaked for the cycle. The "Millennial" generation has largely entered the workforce in full, and the "Baby Boomer" generation has begun retiring and exiting the workforce. Moreover, densification trends in the form of increased office efficiency and co-working utilization provide further headwinds for the office sector. As a result, rent growth in most markets has been decelerating. With the tight labor market, tenants are opting for high-quality, well-located office space to remain competitive in attracting talent. Thus, Class A office

Chart 9. Spread of Cap Rates Over 10-Year Treasury
(through 3Q18)



Source: NCREIF and Board of Governors of the Federal Reserve

Table 1. Total Return by Property Type

	4Q17	1Q18	2Q18	3Q18	1-Yr
Apartments	1.6%	1.5%	1.5%	1.5%	6.3%
Industrial	3.3%	3.3%	3.6%	3.4%	14.2%
Office	1.7%	1.8%	1.5%	1.7%	6.9%
Retail	1.3%	0.7%	1.3%	0.6%	3.9%
All	**1.8%**	**1.7%**	**1.8%**	**1.7%**	**7.2%**

Source: NCREIF Property Index

Table 2. Occupancy by Property Type

	4Q17	1Q18	2Q18	3Q18	1-Yr Change
Apartments	93.5%	93.7%	94.1%	94.2%	0.7%
Industrial	95.0%	95.1%	95.1%	95.2%	0.2%
Office	89.8%	89.8%	89.8%	90.0%	0.2%
Retail	95.5%	95.5%	95.4%	95.5%	0.0%

Source: CoStar Portfolio Strategy

Table 3. Rent Growth (yr/yr) by Property Type

	3Q14	3Q15	3Q16	3Q17	3Q18
Apartments	2.7%	5.0%	2.5%	2.4%	3.4%
Industrial	4.5%	5.7%	6.3%	6.3%	5.9%
Office	4.9%	6.0%	3.6%	2.2%	2.2%
Retail	2.7%	2.7%	2.6%	2.6%	1.6%

Source: CoStar Portfolio Strategy

Table 4. Trends in Commercial Real Estate Bank Lending
(through 2Q18)

Type of Loan	% of Banks Easing vs. Prior Quarter	% of Banks Unchanged vs. Prior Quarter	% of Banks Tightening vs. Prior Quarter	Net Tightening Trend?[18]
Commercial	7%	89%	4%	0 quarters in a row
Apartments	6%	81%	13%	11 quarters in a row
Construction/ Land Dev.	7%	84%	9%	12 quarters in a row

Source: "July 2018 Senior Loan Officer Opinion Survey on Bank Lending Practices," Board of Governors of the Federal Reserve System

properties have been driving demand in many markets, a trend likely to continue throughout this cycle.

New office construction is lower this cycle relative to the previous two cycles. Additionally, select markets, especially in sunbelt states, with stronger than average demographic, educational attainment, and job growth characteristics are better-positioned to weather headwinds facing the office sector.

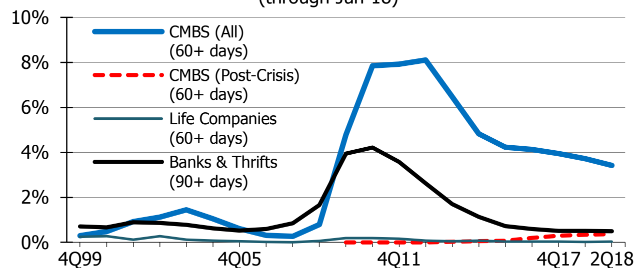
Over the last year, markets with the strongest net leasing activity as measured by square footage were New York (+7.7M SF), Dallas (+5.8M SF), and Washington, DC (+5.2M SF), while the weakest markets were New Orleans (-0.3M SF), Jacksonville (-0.2M SF), and Nashville (-0.2M SF). Markets with the largest declines in vacancy rates over the last year were New Orleans (-2.3%), Phoenix (-2.0%), and Inland Empire (-1.4%), while markets with the largest increase in vacancy were Orange County (+1.2%), Fort Lauderdale (+0.8%), and Jacksonville (+0.8%).

Apartment: The apartment sector remains healthy, with total return unchanged from the previous two quarters at 1.5% and rent growth climbing from 3.1% to 3.4% year-over-year this quarter. Shifting housing preferences among the "Millennial" and aging "Baby Boomer" generations continue to drive demand for apartments this cycle. Although oversupply of Class A, luxury apartment properties in certain urban cores remains a concern, supply of Class B and C properties have not kept up with strong demand nationally. Apartment demand is even more pronounced within sunbelt markets with superior demographic growth. Rising mortgage rates that increase the cost of homeownership are likely to be a positive force for apartment demand in the near-term. Additionally, changes in the U.S. tax code in late 2017 stripped away many of the tax advantages of homeownership. Overall, multiple factors contribute to sustained tailwinds for the apartment sector going forward.

Over the last year, markets with the strongest net leasing activity as measured by square footage were Dallas (+5.3M), Houston (+4.6M), and Phoenix (+3.9M), while the weakest markets were Oklahoma City (-0.5M), Norfolk (-0.4M), and Lehigh Valley (-0.3M). Markets with the largest declines in vacancy rates over the last year were Columbus (-1.3%), Las Vegas (-1.2%), and Phoenix (-1.1%), while markets with the largest increase in vacancy were Oklahoma City (+1.2%), Lehigh Valley (+0.8%), and Honolulu (+0.8%).

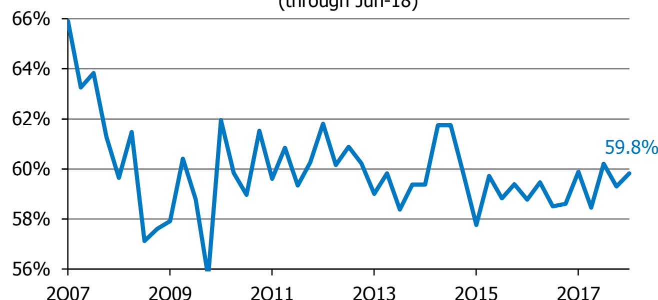
Retail: Market fundamentals remain largely unchanged from the previous quarter, with retail trailing other major property types in both total return and rent growth at 0.6% and 1.6%, respectively. Announced store closures in 2018 have outpaced 2017, continuing record highs, dominated by headline closures of Toys R Us, Sears, and Kmart stores, the majority of which are concentrated in power centers and malls. Recently closed big-box anchor space already seeing re-leasing activity are led by food and beverage, sporting goods and fitness tenants, in line with trends seen across the retail sector. The viability of retail locations continues to be driven by shopping center size and tenant quality. Mid-sized shopping centers have fared better, especially in locations with strong demographic and income characteristics. Grocery-anchored centers have become more competitive in recent years, but tenants that bring strong brand value are likely to be well-positioned for long-term performance. Markets with the highest level of new construction as a percentage of total inventory are Miami (11.4%),

Chart 10. Commercial Mortgage Delinquency Rates Among Major Investor Groups
(through Jun-18)



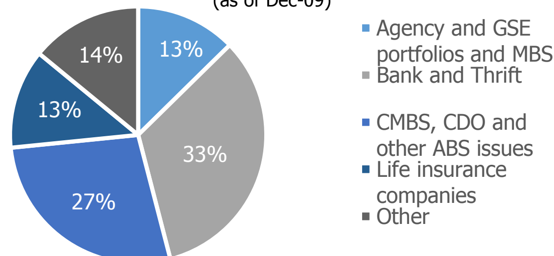
Source: MBA, Wells Fargo Securities, LLC, Intex Solutions, Inc., American Council of Life Insurers, OFHEO, and Federal Deposit Insurance Corporation

Chart 11. Average LTV of Fixed-Rate Commercial Mortgage Commitments
(through Jun-18)



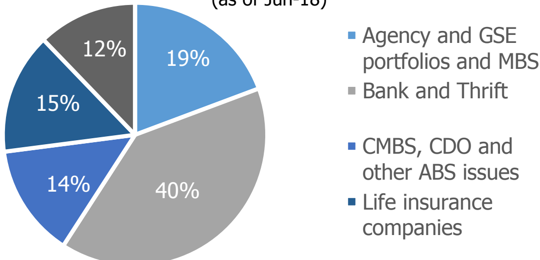
Source: American Council of Life Insurers

Chart 12. Commercial and Apartment Debt Outstanding
(as of Dec-09)



Source: MBA, Flow of Funds Accounts, Federal Reserve Board of Governors, FDIC, Wells Fargo Securities

Chart 13. Commercial and Apartment Debt Outstanding
(as of Jun-18)



Source: MBA, Flow of Funds Accounts, Federal Reserve Board of Governors, FDIC, Wells Fargo Securities

Salt Lake City (9.8%), and Nashville (8.6%), while markets with the lowest relative construction activity are Cleveland (1.1%), Birmingham (1.2%), and Cincinnati (1.3%). Markets with the largest declines in vacancy rates over the last year were Pittsburgh (-1.6%), Kansas City (-1.4%), and Austin (-1.4%), while markets with the largest increase in vacancy were Honolulu (+1.2%), Grand Rapids (+0.6%), and Fort Myers (+0.4%).

ENDNOTES

1. The comments, opinions, and estimates contained herein are based on and/or derived from publicly available information from sources that NYL Investors LLC believes to be reliable. We do the guarantee the accuracy of such sources or information. This outlook set forth our views as of the date noted. The underlying assumptions and our views are subject to change. This may not be copied or redistributed without prior written consent from NYL Investors LLC. The information presented herein is for information purposes only and does not constitute a recommendation to buy and sell or solicitation of an offer to purchase shares in any securities in any jurisdiction. No inference should be drawn that managed accounts will be profitable in the future or that the Investment Team will be able to achieve its objectives. Investing involves risk, you may experience a profit or a loss and investment results may vary substantially from year to year. References to market benchmarks or other measures of relative market performance over a specified period of time are provided for comparison and information purposes only and do not imply that a client account will achieve returns, volatility or other results similar to those shown. Past performance is not a guarantee of future performance results. Real Estate Investors is an investment group within NYL Investors LLC. NYL Investors LLC is a direct wholly-owned subsidiary of New York Life Insurance Company.
2. https://www.jpmorgan.com/global/research/trade-2018.
3. Unlevered property-level returns as of 3Q18.
4. NCREIF Property Index "Operational Benchmarks Report" through 3Q18. Net operating income growth is on a "same property" basis.
5. Real Capital Analytics Transaction Volume Data, 3Q18.
6. US Capital Trends + The Big Picture, 3Q18, Real Capital Analytics.

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