by James R. DeLisle, PhD

Ahead of the Curve: A Potential Inflection

Commentary

The US economy as well as the capital and real estate markets are entering a period of uncertainty, one that will cause much consternation as the second half of the year unfolds. While recession fears remain muted, tepid economic growth is likely to continue and will be accompanied by downside risk. The real estate sector, which has been an outperformer, may actually be in a somewhat precarious position as it takes a much-needed pause from its prolonged run.

A number of indicators point to a cooling-off period for commercial real estate, the most noteworthy of which has been the dramatic decline in transaction activity during 2016 through April. In addition, income returns in the sector are at a historical low. Given the generally stable state of real estate spatial market fundamentals, the risk is more on the capital side, as recent appreciation rates are likely to moderate and are subject to a correction.

Evidence that the commercial real estate market may be approaching an inflection point can be gleaned from news headlines that suggest the industry is entering a new phase; concerns have been voiced in a variety of news sources, ranging from *The Wall Street Journal* to specialized trade publications. Such concerns are also showing up in sentiment surveys that indicate domestic and global economic woes are weighing on expectations. Given the behavioral nature of real estate and the underlying forces that are slowing the market, such expectations could become a self-fulfilling prophecy.

Before going too far down the doom and gloom path, it should be noted that there are some positive signs on the horizon and spatial market fundamentals are generally solid. In addition, capital flows to real estate are likely to continue to reflect pent-up demand for product, but perhaps not at the record-low yields that some have come to expect. Add to this the turmoil of a presidential election year, and we are in for an interesting economic situation that, even if not an inflection point, warrants careful consideration.

The Economic Environment

Economic Conditions

The US economy is at an interesting point in the cycle, with the recent slowdown disappointing but in line with the slow economic growth at home and uncertainty on the global front. According to the Federal Reserve's Beige Book, which covers the first quarter, economic activity has increased somewhat across most of the twelve Federal Reserve Bank districts. Consumers have done their part, although spending has been tempered by economic uncertainty and modest wage gains. Tourism figures have been generally positive despite a slowdown in international travel. Employment growth also has slowed, although most districts have reported an increase in jobs. In some cases, employers have had a difficult time attracting employees, especially for skilled positions. Business spending expanded across most districts as did manufacturing activity, which was a positive in light of the global economic environment. Demand for nonfinancial services also experienced some growth, especially for professional and business services. Real estate activity picked up, with some districts reporting increases in leasing activity and asking rents. There were also moderate increases in construction, with multifamily housing a strong spot in many districts. Credit conditions were fairly stable, with the lending environment remaining competitive with the exception of the Dallas district, which was dealing with spillover from problems in the energy sector.

Despite moderate growth in a number of economic indicators, the economy continues to face some downside risks. According to a *Wall Street Journal* survey of business, academic, and financial economists, the probability the United States will slip into a recession has hovered round 20% for most of the year. While not a significant risk, the figure is more than double the 2015 figures and suggests that slowing employment growth, stagnant gross domestic product (GDP) growth, and increases in political and economic uncertainty are weighing on the economic outlook. According to a recent survey, 63% of economists believe there is more downside risk than upside potential in the already scaled-back economic outlook. The biggest overall risk is the potential for a global slowdown. Also, since it is an election year, there is risk associated with political uncertainty.

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In terms of economic growth, the recent growth estimates have slipped below 2% for the year; while this is disappointing, it is still moving in the right direction. Factory orders came in ahead of expectations in March, although the pattern has been mixed and the improvement did not offset the earlier decline. Industrial production was off the pace at 2015 year-end, with the declines in durables goods and business equipment dragging down the figures. Capacity utilization has been fairly stable, although it slipped below 75% in March. Productivity has been disappointing, with declines over the last two quarters eroding the gains that were made in 2015. Wholesale inventory levels increased modestly in March, although the trend had been in negative territory for the prior six months. The inventory-to-sales ratio of 1.36 remained steady but was down on a year-over basis.

While economic conditions have been generally moderate, there are some signs that the outlook may continue to improve. For example, the Economic Cycle Research Institute (ECRI) Leading Index accelerated to 135.7 at the end of April, continuing a twenty-two-month upward run. Thus, while there are some downside risks, the economy is likely to continue on its slow-growth path.

Employment

The employment situation continues to garner attention and has been seen as one of the lynchpins to the economic recovery. Thus, the disappointment was understandable when the Labor Department reported that, on a seasonally adjusted basis, US employers only added 160,000 jobs in April and only 38,000 jobs in May. This figure was well below expectations and brought the three-month moving average to 116,000, compared to 229,000 in 2015. On a positive note, there were 5.8 million new job openings in March, which approached the record set in the 2015 second quarter. The composition of job openings varied by industry sector, with higher-paying professional, business, and health service sectors continuing to rack up strong growth and even lower-paying jobs in retail, leisure, and hospitality seeing strong job growth. On the other hand, the economic slowdown and rising uncertainty affected the manufacturing and construction sectors where job growth slowed.

The labor force participation rate fell to 62.8% in April, reversing a recent uptick after bottoming out in September 2015. A portion of the decline can be attributed to the aging workforce. The decline also suggests that more economic improvement is needed before additional workers reenter the workforce. Although wage growth continued at a disappointing 2% annualized increase, some industries and markets reported labor shortages and challenges in attracting and retaining workers. Through March, the pace of hires slowed a bit to 5.3 million compared to the pace of separations, which held at 5 million. Of the separations, voluntary departures significantly outpaced departures due to layoffs and discharges, suggesting that current employees have more job options.

Despite slowing job growth, the official unemployment rate continued to hover at 5% in April. This situation varies across the country, with a significant number of metropolitan areas reporting sub-4% unemployment rates. On a positive note, the number of unemployed workers per job opening has continued to decline, falling to 1.4 after peaking at 6.65 in mid-2009.

While this was good news, it does not provide a complete picture of the plight of underemployed workers who have been forced to take significant pay cuts. For example, the Labor Department reports that workers laid off in 2007–2009 who found jobs by 2010 experienced a 17.5% decline in average earnings. This setback was even more pronounced for the longer-term unemployed, for whom average wages losses approached 32%. Around 10% of employees are considered underemployed, as reported by the Labor Department's "Alternative Measure of Labor Utilization" rate, and the long-term impacts of underemployment on workers, their families, and the economic recovery are receiving increased attention.

While there are no easy solutions to the problem of underemployment, there are other positive signs for the workforce. For example, the pace of layoffs declined during the 2016 first quarter to the lowest number since mid-2014. Low-wage workers have benefited from increases in minimum wages in fifteen states as well as municipalities. While not all minimum wage earners will benefit from such interventions, a growing number of companies are taking a look at compensation levels as they try to retain employees and assuage public pressure for greater equity for workers. This is good news for the 2.6 million workers at the minimum wage level. Some companies have responded to increased wages by cutting back on workers and turning to automation. However, the long-term impacts are likely to be positive as the economy picks up and companies shift attention to revenue growth rather than costs.

In addition to initiatives to help lower-income workers, there has been some good news for middle-class salaried workers. In May, the Labor Department issued a regulation that will increase the threshold for overtime pay. Under the new ruling, the ceiling under which workers are eligible for overtime pay doubled from the 2004 cutoff of $23,660 to $47,476 annually. The new regulations allow employers to count up to 10% of bonuses and incentive compensation toward the ceiling. This change is scheduled to take effect December 1 and includes a provision that will automatically increase the threshold every three years. The Labor Department estimates that some 4.2 million salaried workers will join the ranks of full-time workers who are eligible for overtime. The change will also dramatically increase the percent of salaried workers receiving overtime, which had fallen to 7% from 62% in 1975. As with minimum wage legislation, the short-term employer responses may mute some of the impact, with some companies likely to adjust salaries and hours to reduce overtime compensation or cut back on bonuses and incentive pay. Regardless of how the wage changes play out, they are likely to increase the share of GDP that goes to workers, which had fallen to 52.5% in 2011, the lowest level on record. Once employers adjust to the changes and the economy gets back on firm ground, the changes should help stimulate economic activity and create a bit more parity on the salary front.

Inflation and Interest Rates

The US economy continues to operate in a low inflation environment, with little signs of any major changes over the near term. The Personal Consumption Expenditure Price Index (PCEPI) remains below the Fed's 2% targeted level. Indeed, the Core PCEPI, which excludes food and energy, slipped to a year-over change of 0.82% in the first quarter. On a rolling twelve-month basis, the Consumer Price Index (CPI) rose 1%, with a 2.25% increase in Core CPI. Import prices rose moderately in April with rising oil prices inflating the figures. Despite recent price increases, petroleum prices remain 37% lower on a year-over basis and significantly below the $100 per barrel price in 2014. There is growing uncertainty about the future of oil prices, which depend on the law of supply and demand. Saudi Arabia and some other Gulf countries are likely to increase near-term production. This would be on top of the current surplus that built-up as demand waned due to the global economic slowdown. Although the outlook for inflation is tempered, the Economic Cycle Research Institute (ECRI) Future Inflation Gauge has risen moderately, suggesting the economy may experience a slight uptick in inflation.

Import prices for non-petroleum supplies and materials increased modestly in April, which was the first increase since the end of 2014. Despite this, import prices are 5.7% lower on a year-over basis. In terms of export prices, April figures were up modestly for the first time in over two years, although they remain 5% lower on a year-over basis. On the agriculture front, excess supply has kept commodity prices down, with livestock prices 15% lower on a year-over basis.

While inflation rates remain suppressed, there are some signals that interest rates might be under upward pressure sooner than expected. This is a significant change from early May when most observers thought the combination of weak jobs reports and turmoil from abroad would force the Federal Reserve (the Fed) to postpone interest rate changes, pushing them back to fall and extending into next year. The minutes of the Federal Reserve's April meeting indicate an increase in interest rates could occur sooner. The minutes noted the Federal Open Market Committee would give serious thought to raising rates depending on economic conditions with continued emphasis on labor markets, inflation, and financial and international developments.

As might be expected, investors, business leaders, and consumers were caught off guard. This unexpected uncertainty added volatility in the markets and triggered a decline in domestic stock markets, pushing the Dow Jones Industrial Average and S&P 500 into negative territory for the year-to-date. It also caused a major shift in gold, commodities, bond markets, and thirty-day federal funds futures, which are sensitive to interest rates in particular, and uncertainty in general. Indeed, market expectations have diverged, increasing uncertainty, which will translate to greater volatility as prognosticators focus attention on breaking news and data releases and try to determine how the Fed will read them.

The Global Scene

In general, the global outlook can be characterized as somewhat gloomy. This situation is far from new, as pointed out in the International Monetary Fund (IMF) World Economic Outlook released on April 16, which is aptly titled, "Too Slow for Too Long." The report notes that while the global economic recovery is continuing, it is doing so at a gradual pace and is at risk of further erosion. Items noted as being of particular concern included renewed asset market volatility, loss of momentum in advanced economies, and challenges for emerging-market economies and lower-income nations, where there is continued capital outflow. In the global picture, special attention also continues to focus on the challenges in China as it moves toward a more sustainable state of growth that balances exports with domestic consumption and services. Despite these concerns and a tempered outlook for growth in 2016, the IMF has forecast improvement in 2017, with 3.5% growth on the horizon. It should be noted that this outlook depends on assumptions that in some cases are relatively heroic, especially in light of recent weaknesses.

The weak global economic environment and domestic issues have forced central banks to take a hard look at their policies. Indeed, in February leaders from the Group of 20 (G20) nations pledged to explore a combination of monetary, fiscal, and structural policies to avoid recession and return to sustainable economic growth. In their April meeting, G20 representatives noted that while there had been some improvement in financial markets, global growth remained modest and uneven. They followed up the meeting with a reaffirmation of their pledge to avoid currency devaluations, although they did not identify any new initiatives to maintain stability. Rather, follow-up discussions point out that there was no consensus solution and individual countries will have to decide the best mix to address their particular challenges. At the same time, the G20 noted that there were additional downside risks that would have to be factored in, such as Britain's possible exit from the European Union, increasing geopolitical risks, terrorism, and refugee challenges.

The uncertainty goes beyond Europe however. In particular, the economic challenges faced by China have been one of the bellwethers for the global economy. While it is unclear how the situation will unfold, the stakes are high and will have ripple effects. The global interdependency of economies was highlighted by recent changes in the China's yuan, which took a nosedive on hints that the Fed had put an interest rate increase back on the table.

In Japan, the surge in the yen against the dollar is renewing calls for currency devaluation. The Bank of Japan and ministry officials are exploring other interventions, including buying foreign currencies and selling yen. Such moves could rapidly ripple across the globe and have a devastating impact on the global economy as well as trading partners. The bottom line is additional uncertainty on the global front places downside risk on economic outlooks in the United States and around the world.

Confidence Levels

Consumer confidence is being impacted by the slowing economy, declines in new job growth, uncertainty about the Fed, declines in the stock market, and an increasingly rancorous political arena. These factors resulted in a modest downward trend in confidence levels as reported in the Conference Board Consumer Confidence Index in April. The overall index of 94.2 was down from 96.1 in March. Especially disappointing was the Expectations Index, which fell to 79.3 from 83.6 the previous month. In a dramatic contrast, the Present Situations Index was up, coming in at 116.4. This divergence suggests consumers believe conditions may be deteriorating, which makes confidence vulnerable to additional declines. The good news is consumers are fairly comfortable with conditions on the employment front, although the index does not capture the recent slowdown.

The University of Michigan Index of Consumer Sentiment was in line with the Conference Board index, with consumer sentiment falling to 89 in April. At the same time, the gap between expectations and current conditions remained wide in the University of Michigan index, suggesting additional downside risk that could be triggered by bad news on the domestic or international front.

The Gallup US Economic Confidence Index weekly average shows a somewhat different picture than the Conference Board and University of Michigan surveys. This is due, in part, to differences in sampling as well as the nature of questions posed to respondents. Rather than drawing on personal circumstances, the Gallup poll focuses attention on the state of the economy. With respect to current conditions, the respondents are asked whether economic conditions are "excellent," "good," "only fair," or "poor" while the forward-looking view asks the simple question of whether the respondents think the economy is "getting better or getting worse." Using those benchmark questions, the Gallup trends show fairly consistent erosion in beliefs after peaking in early 2015 when the benchmark was over +5—not great but still in positive territory. Unfortunately, the index has trended downward since then, falling into negative territory and bottoming out in September at -17. While the Gallup index has stabilized since that time, it has remained in negative territory and demonstrates a near-term weakness with a -14 reading in the May 9–15 period. As with the other measures, the rating of current conditions outpaces that of the economic outlook, although both are negative at -5 and -22, respectively.

In an election year such as this, the tenuous nature of confidence levels warrants close monitoring. While consumers will continue to focus on current conditions, expectations will become reality in the near future and thus will be an important precursor of what is to come. On a positive note, modest wage increases due to minimum wage legislation and changes in overtime pay should help improve confidence among affected groups. The recent declines in the stock market and added volatility in other economic indicators, however, may negate any positive benefits from such improvements.

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CEO and small business owner confidence levels are also of interest, and both segments are experiencing an increase in uncertainty. This pattern is evident in the latest figures in the Conference Board Measure of CEO Confidence, which improved a bit in the first quarter to 47 points but remained below the threshold of 50 points that indicates more positive than negative responses. On the small business front, the National Federation of Independent Business (NFIB) optimism index improved 1 point in April, rising to 93.6. This compares to a long-term average of 98 and a post-recession peak of 100 reached in December 2014. While the components that make up the NFIB index were mixed to positive, expectations about the outlook for the economy and earnings trends were both down. At the same time, continued problems in finding qualified workers and the political climate put a dampener on business expansion plans. Unfortunately, a prolonged period of uncertainty is probably the best-case scenario, with some added downside risk likely to be factored into confidence levels.

Retail Sales

The retail sector has been seen as a key to the economic recovery and as such, has received significant attention. While uncertain economic conditions and hyper-competition among retail formats have clouded the retail outlook, retail sales have been fairly solid and in line with the overall economy. Through April, the US Census Bureau reported that advanced retail and food service sales increased 1.3% from March and were up 3% over the prior year. Motor vehicle sales were up 4.5%, while gasoline sales were off 9.4% from 2015. Non-store retailers continued to fare well, with year-over sales increases of 10.2%. Building material and garden equipment sales, which are not as affected by non-store sales, benefited from economic conditions and were up almost 10% over the prior year, helping bolster stocks of Home Depot and Lowes. On the other hand, clothing, clothing accessories, and general merchandise sales, which are most affected by online sales, lagged the overall industry. Similarly, food services and drinking sales were up 7.4%, although online merchants and a resurgence in home delivery options continue to make inroads into food service lines.

Despite modest improvement in retail sales, the retail sector remains under pressure as various formats struggle for market share. This pressure has manifested itself in disappointing retail earnings reports that have hurt stock prices for retailers, including upscale merchants who had been able to withstand such pressures earlier in the cycle. A vivid example of this has been Macy's situation, which has turned into something of a precursor to other retailers. Indeed, based on weak first-quarter sales, Macy's stock traded at a four-year low through the first quarter on the heels of a 6% drop in same-store sales. This situation is not isolated and has affected other high-end retailers (Dillard's and Nordstrom) as well as other levels of retailers (Kohl's, Target, and Walmart).

The widespread pressure on traditional retailers has led to an increase in store closings as retailers have tried to rationalize their operations and close underperforming outlets. This has affected well-known retailers, including Office Depot/Office Max, Hancock Fabrics, Barnes & Noble, Walmart, American Eagle Outfitters, Sports Authority, Kmart, Staples, Gap, Sears, JC Penney, and a host of others domiciled in a range of shopping center formats. Unfortunately, closing stores has not proven to be a panacea for troubled retailers, suggesting that the industry will face continued pressure. While this plight may cause much consternation among investors and landlords, the trend is not new and is part of the nature of retailing, which punctuates the importance of understanding underlying market fundamentals as well as emerging trends.

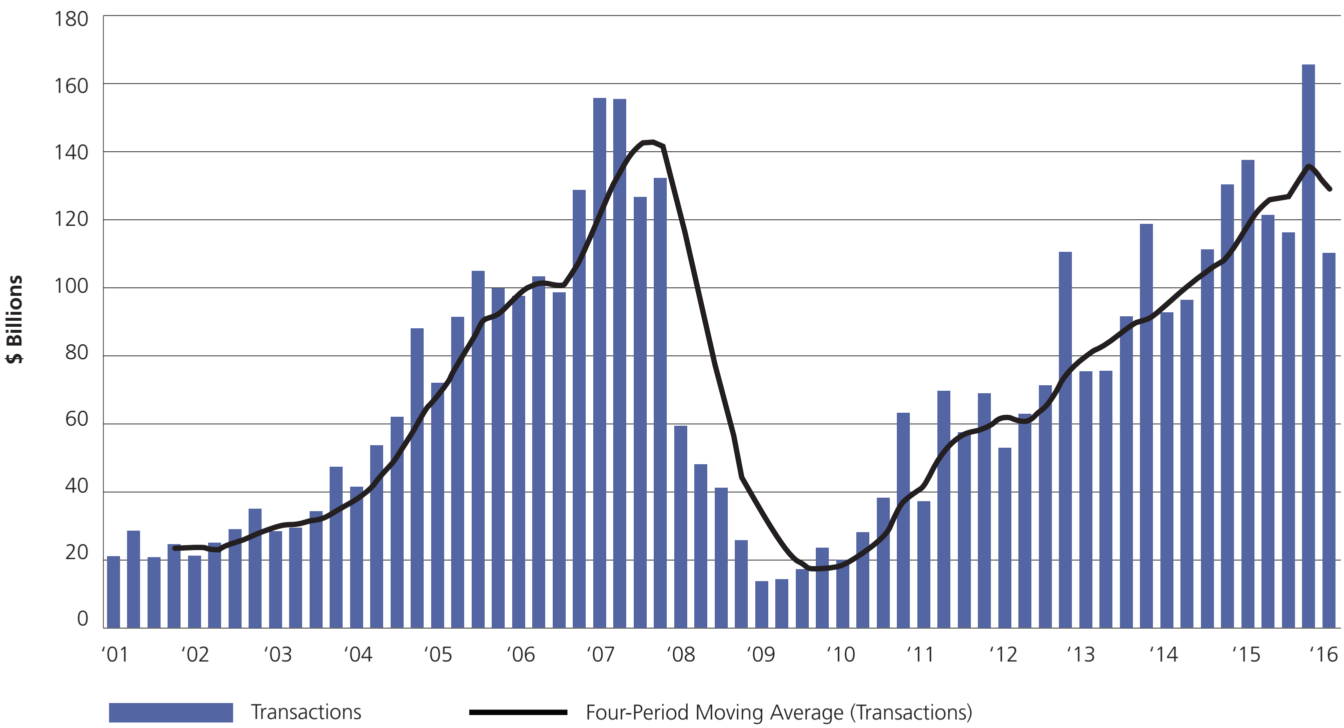
Housing Market

The housing market has experienced some improvement in 2016, although the industry still has some catching up to do. The National Association of Home Builders (NAHB) Housing Market Index leveled off at 58 in April after having fallen from 65 in fall 2015. In this index a reading of 50 suggests that prospects are positive, so the current reading suggests that homebuilders believe conditions may be stabilizing. Despite some fluctuation, the seasonally adjusted pace of new housing starts at 1.15 million units has been fairly stable over the past twelve months. Multifamily starts, which had been gaining market share, came in at 325,000 units, compared to 764,000 single-family starts. In March, overall housing starts were down 8.8% from February, with single-family starts down 9.2%, and multifamily starts down 7.9%. More telling is the decline in multifamily permits for two straight months, down 18.6% in March and down over 100,000 units from August 2015.

On a seasonally adjusted, annualized basis, existing home sales increased by 5.1% in March after declining in February. Sales were also up 1.5% over the prior year. On another positive note, the supply on the market continued to decline, falling to 4.5 months compared to 5.1 in August 2015. Median existing-home sale prices were up 5.7% over the prior year. The National Association of Realtors' Pending Home Sales Index rose 1.4% in March after rebounding 3.3% in February, and the index reached its highest level since May 2015.

On the mortgage front, the Mortgage Bankers Association (MBA) Weekly Applications Survey declined in mid-May, falling 1.6% from the prior week. The MBA Market Composite Index also fell moderately, although the Refinance Index ticked up as mortgage rates edged down and the market share of refinance activity rose to 55% of total applications. The FHA and VA market shares were fairly stable, with each accounting for some 12% of activity. The Purchase Index was also down, but it was up 12% from the same week on a year-over basis. In terms of interest rates, the average thirty-year fixed rate for conventional loans was 3.8% compared to 3.7% for jumbo loans. The average rate for fifteen-year loans was 3.13%, while 5/1 adjustable rate mortgages were 2.9% on average. On the risk side of the equation, the residential

Exhibit 1 Commercial Real Estate Transaction Volume: Monthly and Four-Period Moving Average



Source: Real Capital Analytics

market has been fairly stable. As of May, MBA delinquency rates were flat at a 4.8% seasonally adjusted rate, which was lower than the 5.4% long-term average. The rate of new foreclosures was 0.35%, the lowest since 2000.

In terms of prices, the S&P/Case-Shiller National Home Price Index increased in the first two months of the year but was relatively flat on a year-over basis. Through February, the National Composite Index was up 5.3% over the prior year, but still -4.9% from the peak in July 2006. The S&P/Case-Shiller 10-City Composite Home Index, which focuses on residential real estate in top cities, was up 4.6% on a year-over basis but was still down 13% from the peak. The S&P/Case-Shiller 20-City Composite Home Index, fared only a bit better, with increases of 5.4% year-over and the index down 11.5% from the peak.

The Federal Housing Finance Agency (FHFA) Purchase-Only Price Index trended downward in February after a brief rebound in January. Despite the decline, the index was up 5.6% from the prior year and 2% from the peak in March 2007. On the other hand, the 2.1% increase in the CoreLogic Home Price Index was the highest monthly rate in the past three years and was up some 6.7% over the prior year. The bottom line is the housing recovery still has a way to go, although the general trend has been moderately positive. The outlook for housing is for moderate improvement, although prospects depend on economic conditions, consumer confidence, and low and accessible mortgages.

Spatial and Capital Real Estate Markets

Transaction Volume

During the fourth quarter of 2015, real estate transaction volume tracked by Real Capital Analytics (RCA) hit an all-time peak of $166.4 billion. This was a 27% increase over the prior year and reversed two quarters of declining activity. In the 2016 first quarter, transaction volume slipped to $110.7 billion, which was a 20% decline over the prior year and 33% off the year-end pace (Exhibit 1). The recent pattern of transaction volume suggests that the commercial market may have reached the inflection point that has been coming since the market began is post-recession recovery in mid-2009. The decline in volume was most pronounced in larger transactions over $100 million, although transactions under $50 million also slipped.

In terms of market size, transaction volume in the first quarter declined across the board, with tertiary market sales of $6.4 billion down 52% from the prior year. This trend continued in April, with sales of significant properties falling to $22 billion, a 34% decline on a year-over basis. In the first quarter, major market transactions were down 23%, falling to $31.9 billion, while secondary market sales fell to $23.3 billion, a 17% decline. Transaction volume was also down across the board in terms of property type (Exhibit 2). With respect to style, value-added transactions fell to $11.8 billion, a 38% year-over decline, suggesting that some opportunistic players may be working the market-timing angle. At the same time, it appeared that core investors may also be pulling back and trying to catch the peak of the market with core/stabilized asset sales falling to $42.8 billion, a 27% decline.

The decline in transaction volume has affected both the private and public side of the market. On the public front, NAREIT transaction volume has trended down since peaking in the second quarter of 2015. This trend continued into the 2016 first quarter, marking the first time since 2009 that net REIT transaction levels have been in negative territory. REIT returns, however, have moved back into positive territory, with 3.5% total returns and 3.94% dividend yields through April. Despite a brief setback in mid-May, REITs reported 7.23% total returns on a trailing twelve-month basis.

While it is too early to tell if the decline in transactions is a trend that will continue, there is some evidence the market may have peaked in terms of price appreciation. For example, analysis of the Moody's/RCA CPPI, which is based on repeat-sales transactions, reveals that the implicit appreciation in sold properties has recently tapered off (Exhibit 3). After a dramatic recovery from the Great Recession, repeat-sales transaction prices trended upward through mid-2015. Since that point, average price changes have diminished, with industrial price changes flat and office properties trending into negative territory.

One of the factors behind the slowdown in property appreciation rates has been a plateauing in capitalization rates, which are showing signs of bottoming out (Exhibit 4). This trend has appeared in data provided by a number of sources reflecting the full spectrum of real estate investment and market monitoring, including NCREIF, NAREIT, and Real Capital Analytics.

Investment Performance

During the 2016 first quarter, the private NCREIF Property Index reported 2.2% total return comprised of 1.17% income and 1.04% appreciation. The quarterly return was the lowest since in the fourth quarter of 2009, offering additional evidence that the market may be peaking. In the 2016 first quarter, total return was 27% lower than the average quarterly value over the rolling six years, with a 37% decline in appreciation. The 1.17% income return was the lowest quarterly figure in the history of NCREIF. Similarly, the rolling four-quarter income return of 4.9% was the lowest on record, with the next-lowest figure occurring in 2008. Despite the decline in quarterly returns, on an annualized basis the NCREIF Property Index generated an 11.8% total return.

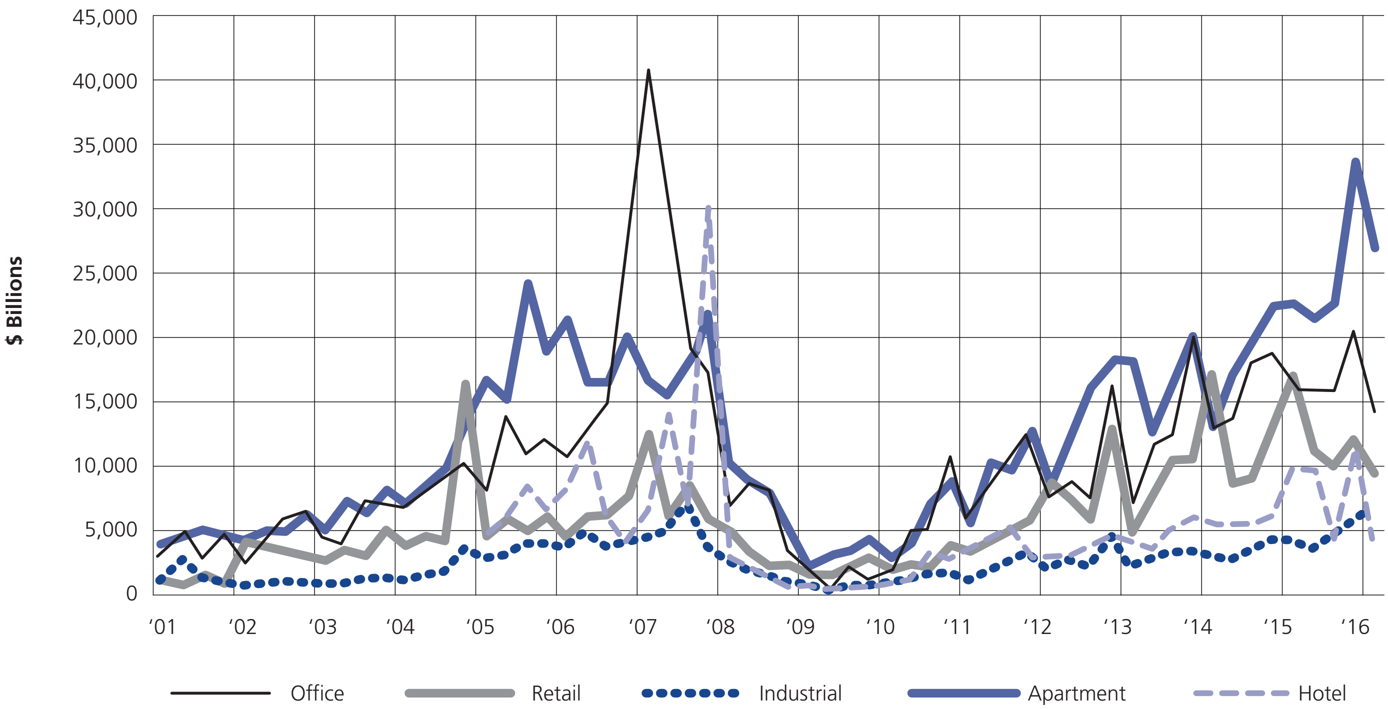
On the public side of the market, total returns on a rolling twelve-month basis in the FTSE NAREIT All Equity REIT Index came in at 8.1%, which was equally split between price and dividends. In comparing the private and public income figures, it should be noted that REIT dividends are actually paid out, while the majority of private investors let the income returns roll back into the underlying funds. Furthermore, while the private appraisal-based numbers are relatively stable from quarter to quarter, the public figures are more volatile on a monthly basis. This pattern was clear in early 2016, with NAREIT returns in negative territory until March when 10% returns pushed the year-to-date figures into positive territory. In the second quarter, the volatility continued but the net result was positive.

Spatial Market Fundamentals

Over the past several years, the real estate market has continued to improve, with tempered construction and moderate increases in demand leading to improved fundamentals. At a national level, there has been continued positive absorption, improvement in vacancy rates, and increases in asking rents in some markets.

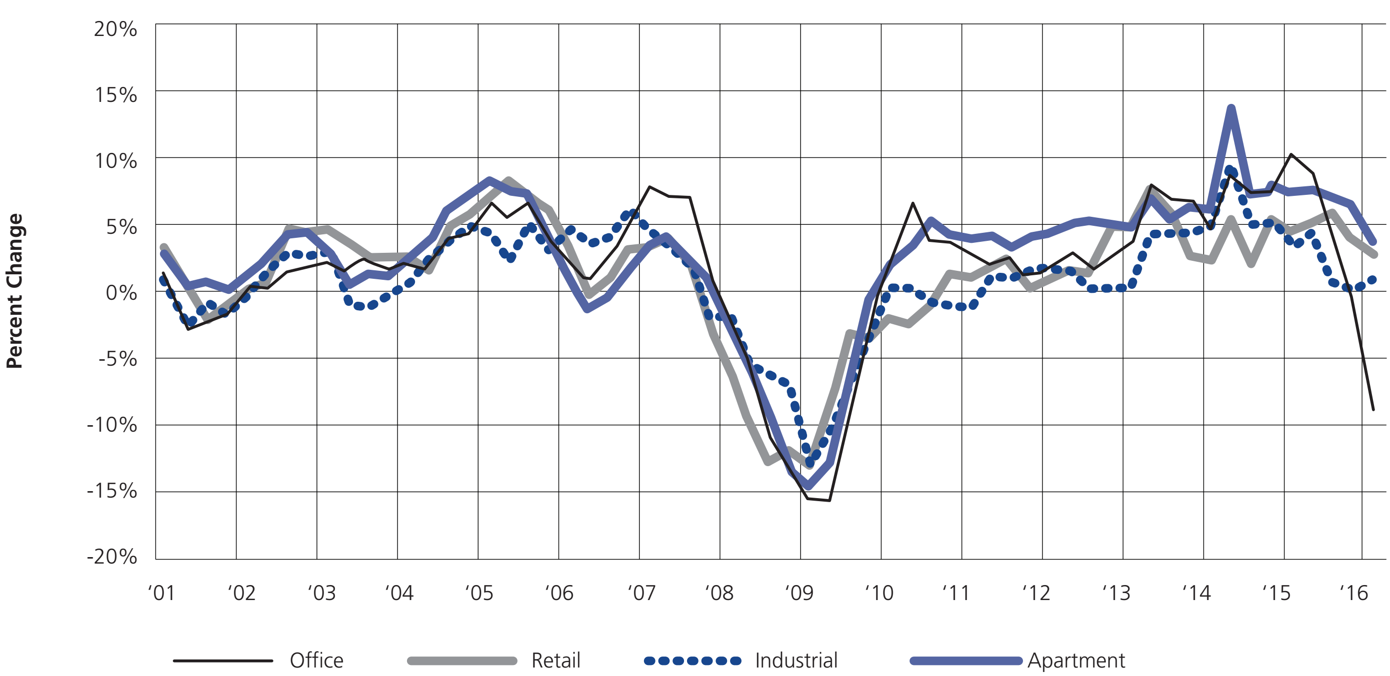
At this point in the cycle, there are signs that the improvement in fundamentals has started to taper off. For example, the trend in imputed vacancy rates reported by NAREIT has flattened

Exhibit 2 Commercial Transactions by Property Type



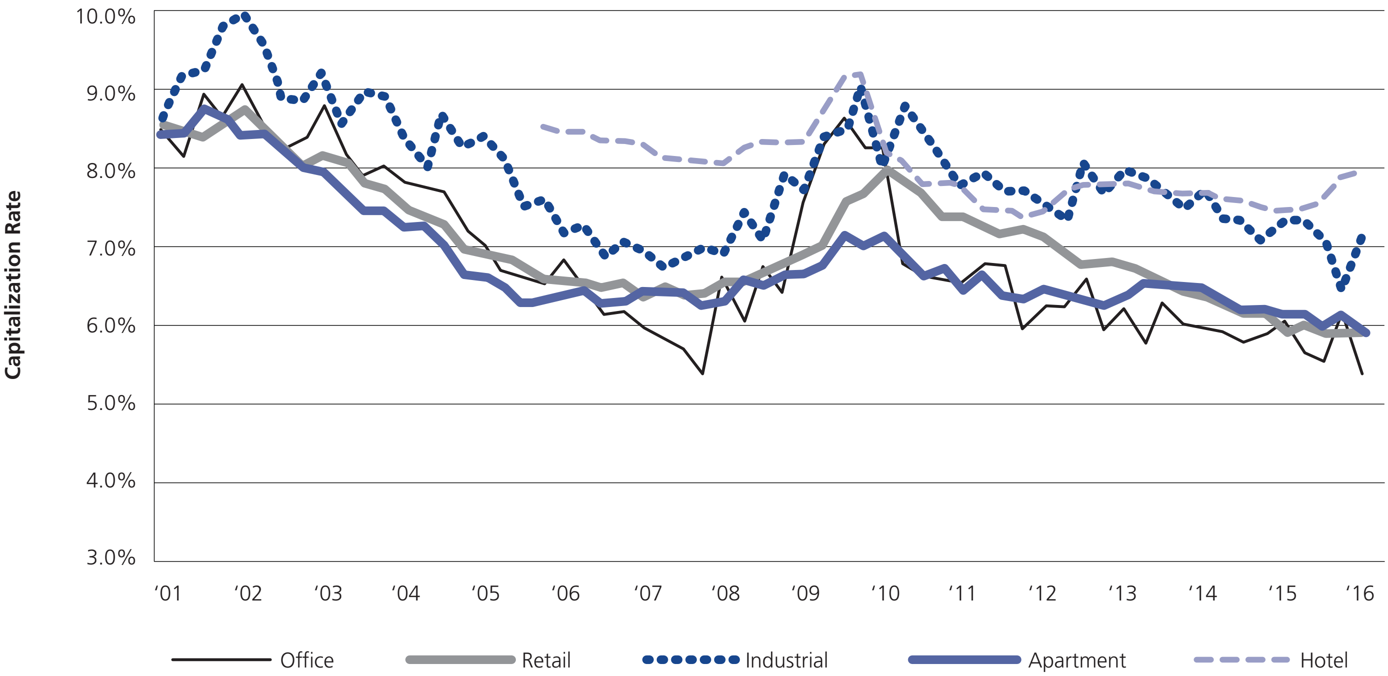
Source: Real Capital Analytics

Exhibit 3 Three-Month Moving Average Price Changes by Property Type



Source: Moody's/Real Capital Analytics

Exhibit 4 Commercial Capitalization Rates by Property Type



Source: Real Capital Analytics

out. Indeed, office and apartment vacancy rates have started to fluctuate, indicating that the generalized improvement in market fundamentals may have reached a plateau. While not suggesting that the market is in for a correction, the data does suggest that spatial market fundamentals are becoming more closely aligned with the broader economy. This is especially true for the office sector, although central business districts and walkable suburban locations have fared better than the overall averages.

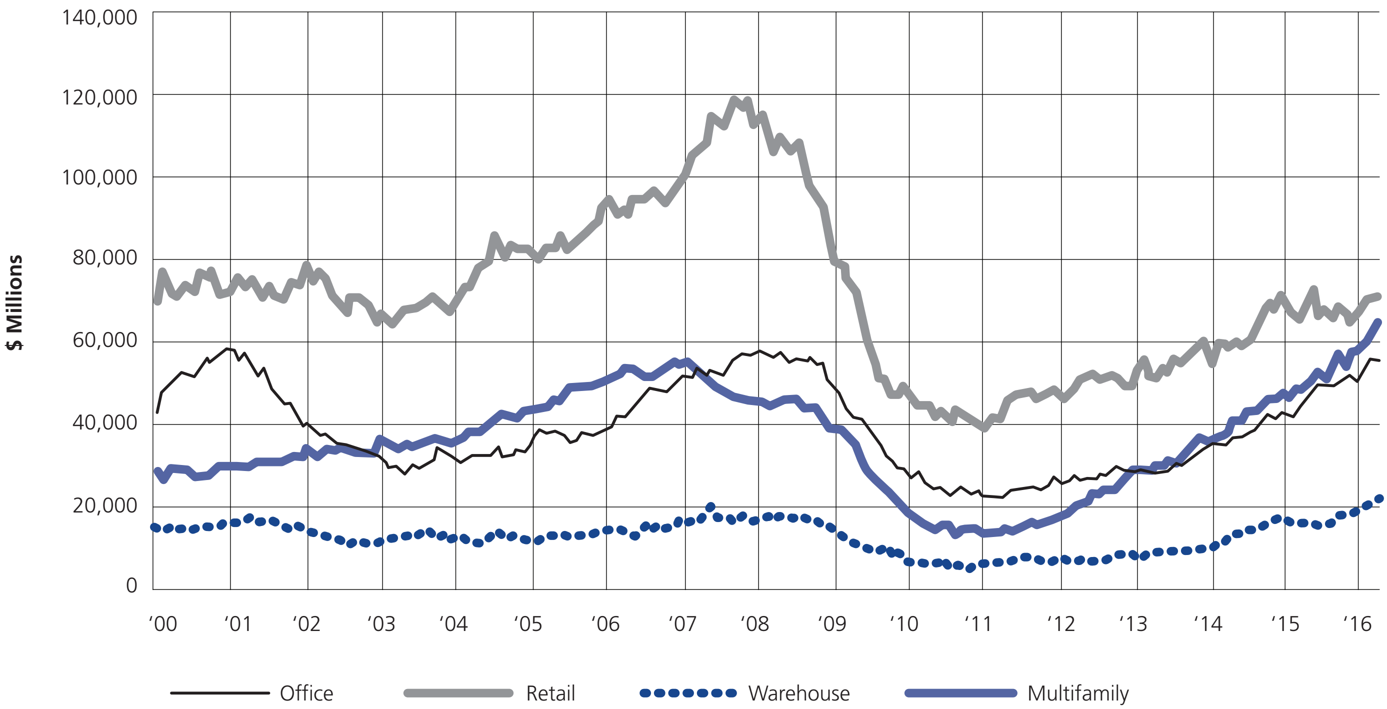
Construction activity, measured by the value of "construction put it place" returned to prerecession levels with the exception of the retail sector (Exhibit 5). During the 2016 first quarter, the average level of annualized multifamily construction put in place was $61 billion, a 30% increase over the prior year. This compared to office construction at $54 billion (27% increase) and industrial construction at $19.8 billion (26% increase), with retail remaining rather flat ($69.6 billion, 5% increase). At this point in the cycle, underlying fundamentals are likely to weigh more heavily on construction activity, with some downward pressure due to the slowing economy and rising economic and political uncertainty. New housing permits for privately owned housing units slowed in March, with a -7.7% decline from February but still 5% above the prior years. In March, permit activity for apartments with five units or more was down significantly (-21%) from the prior month and from the prior year (-12%)—suggesting the apartment market may be cooling. Construction of apartments with five or more units also was off (-8.5% monthly) but on par with 2015. On the commercial front, construction has remained relatively tempered, although some markets and property types are beginning to experience an uptick in speculative construction activity.

Capital Market Fundamentals

Over the past several years, real estate has benefited from a competitive environment for debt and equity positions. While the capital markets continue to look favorably on the asset class, there are some signs that lenders are stepping back and taking a hard look at underlying market fundamentals of real estate. This attention has been particularly focused on two sectors: apartments and hotels.

On the apartment front, the Fed's Senior Loan

Exhibit 5 Value of Private Construction Put in Place, Seasonally Adjusted



Source: Department of Commerce

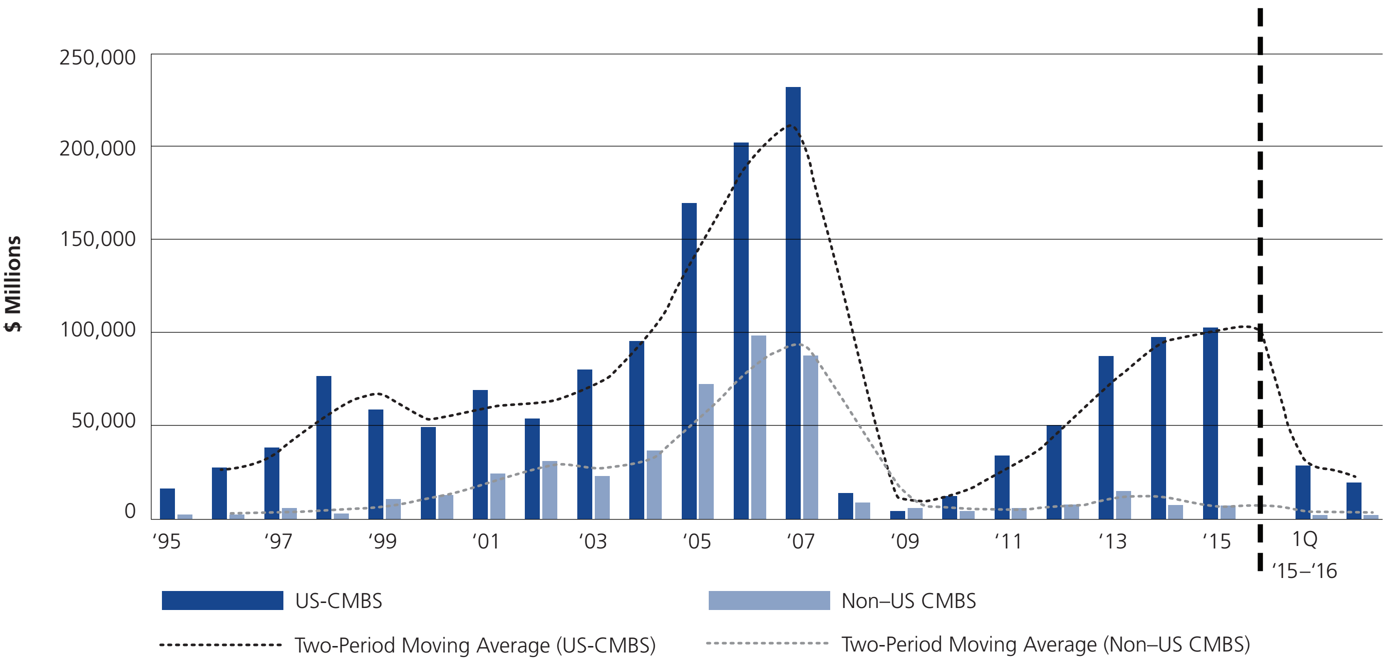
Officer Opinion Survey revealed that 36% of reporting banks tightened lending standards for multifamily loans in the 2016 second quarter, up from 23% in the first quarter. On the hotel front, Fitch Ratings pointed out that hotel owners face a "more challenging debt financing environment" in 2016, with lenders paying renewed attention to the risk side of the equation. In addition, increased reserve requirements under Basel III for highly leveraged/high-volatility commercial loans may cause some commercial banks to pull back from hotel development loans.

While multifamily borrowers may face higher underwriting standards from commercial banks, the sector did receive some respite from tightening loan requirements. This relief came when the FHFA announced that it increased the multifamily lending caps for both Fannie Mae and Freddie Mac by $4 billion to $35 billion for 2016. When the uncapped business activity is factored into the equation, the two agencies could account for some $100 billion in multifamily loans for the year. In terms of market share, the agencies could account for almost a third of multifamily loans, which is on par with long-term averages but significantly below the approximately 75% share during the Great Recession. Mortgage financing for commercial properties is expected to remain competitive, although lenders will pay attention to the slowing transaction market as well as prices that may be cooling off.

CMBS Activity

During the first quarter, the volume of commercial mortgage-backed securities (CMBS) exhibited a downward trend (Exhibit 6) similar to the declined in transaction volume. According to data provided by Commercial Mortgage Alert, CMBS issuances fell from $27 billion to $19 billion, a 30% decline in volume. This compared to a 7% annualized increase for 2015, which had been the seventh straight year of increasing volume in the United States. Interestingly, while the domestic CMBS industry was on an upward path through 2015, the non-US market failed to gain any traction. Other than moderation in issuance volume, the mix of deals has been fairly stable with conduit/fusion deals accounting for 61% of volume, followed by some 30% in single-borrower deals.

Exhibit 6 Commercial Mortgage-Backed Securities Issuance Volume



Source: Commerical Mortgage Alert

In looking at the CMBS market, it is important to recognize that the industry has helped the commercial real estate market navigate through the clouds that have been hanging over the CMBS industry. In particular, the industry has been able to work through the first wave of maturing bullet loans that some feared would create a new wave of delinquencies. Despite this risk, the industry has been able to weather the storm to this point in the cycle. For example, Trepp CRE Research reports that through the end of the first quarter, the CMBS and commercial real estate markets had worked through a quarter of the $300 billion of 2005–2007 vintage loan maturities due to hit in the 2015–2017 window. Trepp reports that 94% of the $81 billion loans maturing in 2015 through February 2016 were paid off with 0.29% in losses. This was a significant improvement over the summer of 2012 when $50 billion matured ahead of the market's recovery. In addition to improvement in underlying real estate market fundamentals, CMBS issuances absorbed the refinancing of $80 billion of maturing loans. The Fed will play an important role in determining whether the bullet loans that mature over the next eigh teen months can be refinanced. If capitalization rates begin to rise along with interest rates, a correction in the currently elevated market values could put the industry under added pressure.

There are signs that the CMBS industry may be in for some turbulence. For example, according to Fitch, new delinquencies of $494 million outpaced resolutions by about $140 million. Of some concern was the increase in transfer to special services of loans with balances over $100 million. In terms of property types, retail had the highest delinquency rate in April (4.4%), followed closely by office (4.2%), industrial (3.5%), mixed-use (3.25%), and hotel (3.2%). To this point in the cycle, multifamily delinquency rates have been fairly low, coming in at a nominal 0.9% through April. Other factors that may contribute to volatility include spillover from the Basil III accord as well as a growing sense of uncertainty surrounding economic and political conditions at home and abroad.

There are also warning signs that the CMBS market may be in for a pause. For example, spreads have widened across the spectrum of CMBS tranches. In addition, in some cases investors have not been willing to step up in risk. This has been especially true for the B-rated pieces, which issuers have struggled to place and which have commanded significant premiums in returns. The shortage of investors in B pieces has allowed them to be more selective and has made satisfying their demands a more important component of getting deals done. The result has been upward pressure on loan rates, which has made CBMS less competitive and has contributed to the decline in issuances.

Changes in Equity Real Estate Capital Drivers

While real estate transaction volume has slowed and capitalization rates appear to be bottoming out, the real estate asset class continues to draw attention from the usual investors that have fueled the market for the past several years. These investor classes, which were involved in the top transactions that occurred in the first quarter, include domestic pension funds, global funds and global investors, private equity funds, REITs, sovereign wealth funds, and real estate funds. In terms of style, core investments remain the sweet spot for institutional investors, although some have moved up the risk spectrum to include value-add and opportunistic plays. At the same time, some traditional investors are expected to try to monetize parts of their current holdings. This is especially true if some components of the market are reaching an inflection point.

Given the importance of investor behavior on the market, a shift in sentiment and expectations could create some unexpected waves that translate to negative appreciation rates. Private institutional players have not experienced declines in value since the Great Recession, and a correction may especially affect mark-to-market investors who must report quarterly returns.

There is some risk to net capital flows due to the cyclical nature of real estate, but the potential downside risk may be dampened by increases in capital flows to real estate related to recent changes to the Foreign Investment in Real Property Tax Act (FIRPTA), and the pending shift of real estate from the financial sector to its own real estate sector in the S&P Dow Jones Indices and MSCI. On the private side, the changes to FIRPTA may attract additional foreign capital to the US real estate market. For example, a provision increases the share a foreign shareholder can own in a publicly traded stock (e.g., REITS) to 10% before triggering withholding and capital gains that are due on the sale of stock. In addition, the changes exempt "qualified foreign pension funds" from FIRPTA taxation, which applies to direct (i.e., privately held) and indirect (i.e., public) investment formats. The FIRPTA changes also open the door to added investments in "regulated investment companies" (RICS) that primarily hold real estate. Finally, REITs are now allowed to assume that investors with less than 5% positions are US residents, which count toward the 50% threshold that determines if a REIT is a domestically controlled entity.

If the FIRPTA changes have the intended impact, the legislation will bolster foreign capital flows that are already robust. For example, during 2015 foreign investors accounted for $91 billion in US transaction volume and a 17% market share. This was more than double the prior year and was one of the major factors behind the year-end surge in transaction volume. It will also level the playing field between debt and equity investments, which may skew more foreign investment to ownership positions. While the long-term impact of the FIRPTA reform is difficult to quantify, over the near term it should help support transaction activity and pricing. This is especially true since many foreign investors tend to adopt a long-term buy and hold strategy. While foreign investment has been concentrated in major markets, foreign investors are likely to expand their investment horizons, which may bring additional capital to secondary and tertiary markets.

The Rise of REITs. Another equity market change, the elevation of real estate to a distinct sector, may also have a material impact on capital flows to real estate. To understand how the recognition of real estate as a distinct sector affects the public markets, it is useful to look at how the industry has evolved. The modern REIT industry can trace its success to the resurgence of the real estate industry in 1992 with Taubman's UPREIT IPO. After a number of other property owners jumped onto the bandwagon, REIT market capitalization grew at dramatic pace—more like a growth stock than the passive income play that had been envisioned when enabling legislation passed.

A large part of that growth spurt was attributed to the fact that the private market was forced to stay on the sidelines as managers struggled to regain investor confidence amid weak trailing five-year returns. Due to the lack of competition for deals, most REIT acquisitions were accretive and contributed to positive earnings. That is, REITS were able to buy properties at capitalization rates significantly lower than dividend payouts, which created arbitrage opportunities that rewarded investment. This situation changed when private investment activity came back around 1997. While growth in REIT market capitalization slowed, the industry continued to benefit from the momentum it had established. As a result, the nature of the industry changed, shifting from a relatively small capitalization, thinly traded industry to a legitimate asset class that could compete for allocations in a mixed-asset portfolio.

The outlook for the office sector is for moderate improvement, although the pace of activity is likely to slow, which creates some downside risk for the sector.

Since that point, regulatory changes have bolstered the industry. The legitimacy of investing in REITs was punctuated by the addition of Equity Office Properties to the S&P 500 Index in 2001. Since that time, a significant number of REITs have been added to S&P Indices. When coupled with competitive performance and dividends for fixed-income investors, REIT market capitalization has continued to grow, with the FTSE NAREIT All Equity REIT universe rising to over $914 billion through April 2016. Some of the increase in market capitalization of REITs can be attributed to the increase of REITs in index funds and exchange-traded funds (ETFs). Indeed, index funds accounted for some 20% of REIT investments by the end of 2015. This upward trend has continued in 2016, with data from April indicating real estate index funds experienced some $2 billion in net inflows.

Going forward, the impending change in the classification of REITs may lead to another surge in growth that exceeds natural growth based on REIT performance. This surge may occur due to the sector's increase in visibility. Despite being included in various indices, real estate has been lumped in with the broader financial sector. This second-class treatment will end on August 31, 2016, when the S&P Dow Jones Indices and MSCI stock exchange–listed real estate companies and equity REITs are moved from the financial sector to a distinct real estate sector. This change will occur in the Global Industry Classification Standard (GICS), which is one of the key classification systems for stock exchange–listed equities. The change reaffirms real estate as a distinct asset class, increases its visibility, and sets the stage for improving the markets' understanding of its fit in a mixed-asset portfolio as well as its role in index funds and ETFs. The change will also likely catch the eye of individual investors attracted by the dividend payment history of REITs, which may be compelling to individual investors as they reposition their 401(k)s for retirement planning. While the impact of the reclassification and elevation of real estate investments is unknown, the influx of capital could be dramatic and propel REIT market capitalization to over a trillion dollars.

Office Market

During the 2016 first quarter, office fundamentals continued to improve despite headwinds from the slowing recovery. While net absorption fell from the second half of 2015, net office absorption rates were positive in most markets due to tempered construction and modest improvement in demand. At a national level, office vacancy rates fell modestly, with asking rents up slightly on a year-over basis. Central business district (CBD) office properties continued to outperform their suburban counterparts, although some strategically located suburban markets beat out urban locations. The outlook for the office sector is for moderate improvement, although the pace of activity is likely to slow, which creates some downside risk for the sector.

Real Capital Analytics data revealed the office sector in the 2016 first quarter saw a 15% decline over the prior year. Transaction volume continued to decline in April, with a 53% drop from the prior year. The decline in activity was highest in suburban markets, which fell 60% from the prior year. While these declines naturally cause concern (and suggest the market is cooling off), it should be noted that the figures are coming off an unusually active period with unsustainable transaction volume. Also, although volume is down, prices have been fairly stable, with overall capitalization rates slightly down from the prior year. In a testament to the aggressive activity in core CBD markets, capitalization rates fell 70 basis points to 5.4%

compared to a steady 7% in suburban markets. With respect to pricing, average CBD offices traded at $393 per square foot, while suburban assets averaged $260 per square foot.

In terms of investment performance, the office sector has been relatively competitive compared to overall averages. For example, on the private front, office properties were the most significant portion of the $490 billion NCREIF Property Index (NPI), accounting for 37% of market value. The average value of office investments in the NPI led all property types at $128.9 million compared to the overall average of $67 million. In terms of performance, office investments in 2016 slightly trailed the NCREIF Property Index, with annualized total returns of 10.8%. Income returns were slightly below par, while appreciation returns of 5.9% lagged the 6.7% return for the overall average. CBD offices slightly outpaced suburban offices, with 10.96% versus 10.5% total returns, respectively. Reflecting aggressive pricing, CBD income returns of 4.3% were almost 100 basis points below that of their suburban counterparts. On the public market front, office REITs slightly trailed the overall REIT index, with total returns of 3.26% through April. This was a significant improvement over 2015, when office REITs lagged other major property types with 0.29% total returns.

Retail Market

The turmoil that has plagued the retail sector for some time has created understandable concern among investors and has become a fact of life in competitive markets. While creating downside risk for passive players, the challenges can offer opportunities for those who are able to generate value through disciplined, creative approaches to problem solving. One example of such creativity is Staples, which has announced a partnership with Workbar to explore the opening of communal workspace in several Boston stores. Other retailers are expected to launch similar efforts to drive traffic, reduce footprints, and improve bottom-line performance.

On a similar note, value-oriented players have moved into the retail arena, filling the void left by those who have moved away from second-tier malls in favor of upscale opportunities. The success of such ventures will be closely watched as pressure is expected to increase due to a combination of new competition, technological innovations, and demographic trends. Many existing retail properties remain beyond hope, however, and will be repurposed.

In the 2016 first quarter, retail transaction volume mirrored that of the office sector, with $17.89 billion in transactions representing a 31% decline over the prior year. The downward trend continued in April, with transaction volume off 19% from the prior year. Through April, the biggest driver of declining transactions was falloff in portfolio and entity-level deals. Capitalization rates have been fairly stable at 6.6% overall, with mall properties trading at 5.9% compared to 7.3% for strip centers. Investor appetites continued to spill over into secondary and tertiary markets, with year-over increases in single-asset sales rising 9% and 27%, respectively. In April, average mall prices were $277 per square foot compared with $163 per square foot for strip centers.

On the private market front, retail investments in the first quarter provided 2.96% total returns. On an annualized basis, the retail component of the NPI generated a solid 13.1% total return with a 5.1% income component. In terms of subproperty types, single-tenant property types provided the highest annualize returns, racking up 14.6% total returns through the first quarter despite reporting the lowest income returns (3.8% annualized). Neighborhood shopping centers also fared well, with total returns of 14.5% and income returns of 5.5%. Superregional malls had 13.6% annualized returns compared with 12.2% returns for regional malls. Despite relatively strong retail sales for upscale products, fashion/specialty retail centers came in with 11.7% total returns, while power centers trailed the sector with 11.1% total returns. With the exception of industrial REITs, retail REITs led all property types with 5.37% returns through April. At a subtype level, freestanding retail REITs led the pack with total returns of 14.9%, following by small/medium shopping centers (6.3%) and regional malls (2.4%).

Industrial Market

At a national level, industrial market fundamentals continued to improve during the first quarter, with vacancy rates declining toward 6% and asking rents increasing. According to Newmark Grubb Knight Frank, absorption has exceeded 50 million square feet for five of the last six quarters. Traditional and Internet retailers were some of the more active players in the market, as illustrated by Amazon's leasing of 1.1 million square feet in San Bernardino and 822,000 square feet in Kansas City. The demand for bulk warehouse facilities represents the continued evolution in supply-chain management and fulfillment. This trend is expected to continue as Walmart and other traditional retailers try to regain market share lost to Amazon and explore new ways to expedite home delivery. Changes in demand are also occurring among manufacturers, wholesalers, and logistics and delivery services as competition increases and technological advances ripple through the industry.

On the construction front, the industrial sector slowed in the first quarter, which should help stabilize vacancy rates and asking rents, which have plateaued. At the same time, tenants continue to show interest in new facilities that meet new standards, creating some churn that will put functionally and locationally obsolescent facilities at a disadvantage.

In terms of transaction volume, industrial activity showed a similar pattern to that of other core property types, with significant transactions falling to $12.6 billion—a 38% year-over decline. As with other property types, much of the decline was due to a fall in portfolio and entity-level transactions, which were off 60% over the prior year. The decline in transaction volume in the first quarter continued through April, falling 14% over 2015. Despite the decline in activity, industrial capitalization rates remained relatively stable, averaging 6.9% and leading other property types. With respect to pricing, flex properties traded at an average of $96 per square foot compared to $74 per square foot for warehouse investments.

From a performance perspective, industrial investments led all property types in terms of total returns for private investments, with 14.3% annualized returns through the 2016 first quarter. With the exception of hotels, industrial investments had the highest income returns of the major property types, reporting 5.4% on an annualized basis. With respect to subtypes, warehouse investments, which dominate institutional investments in the industrial category, led all property types with 14.7% annualized returns. On the other hand, riskier industrial segments trailed the broader sector, with higher-risk flex space at 11.6% total returns and R&D facilities at 11.4% total returns. On the REIT front, industrial properties led other property types through April with total returns of 7.7% and dividends of 3.8%.

Apartment Market

After a prolonged bull run of some five years, apartment fundamentals are showing signs that demand is catching up with the wave of new construction. According to MPF Research, apartment absorption softened in the first quarter, triggering a *Wall Street Journal* headline announcing the apartment sector "Shows Signs of Losing Steam." While this outlook caught some proponents off guard, it was consistent with the expectations of those who realized development activity had reached unsustainable levels. Granted, softening has not occurred across the board and some fast-growing and hot markets are still struggling to keep up with demand (e.g., New York, San Francisco, Denver, and Houston).

In addition to moderate increases in vacancy rates, rent growth has slowed and some markets are beginning to offer concessions. The softness that is emerging in some markets has been exacerbated by the concentration of new construction activity at the top end of the market, which is the preferred segment for institutional investors and, by extension, developers. Thus, the outlook for the apartment sector contains some downside risk that is more pronounced in some markets. At a national level, however, the sector is in for more of a reality check than a major correction.

Many markets are facing a crisis in terms of housing affordability. This has occurred in some infill locations that have undergone gentrification that priced moderate-income households out of the market. This has also occurred in some prime CBD markets where there is an increasing shortage of affordable and workforce housing. This situation is likely to get worse as lockout periods for affordable housing begin to burn off and existing stock is converted to market-rate housing. There are no easy solutions to this emerging problem as low-income housing tax credit programs and other governmental interventions lack the financial wherewithal to fully address the problem. The industry and local municipalities will continue to struggle with the affordable housing issue.

Bucking the trend in other property types, apartment sales volume increased in the 2016 first quarter with the $38.6 billion representing a 12% increase over the prior year. With respect to subtypes, garden apartments were the most active, accounting for over two-thirds of volume and increasing 19% over the prior year. The sector lost a bit of momentum in April, with volume falling to $5.7 billion, which was off 32% from 2015. Despite the recent slowdown, significant apartment transactions for the year-to-date are still up. Capitalization rates have held steady for garden apartments, which traded around 5.8% overall, while mid/high-rise properties fell to 4.6%, a 50-basis-point decline over 2015. In terms of pricing, garden apartments averaged $116,719 per unit in April, while mid/high-rise apartments averaged $264,483 per unit.

Apartment investments continue to be highly regarded by institutional investors and transaction volume has held up in spite of a general decline among commercial property types. However, investment performance on the private side of the market suggests that the sector may be approaching an inflection point in the market cycle. This is evidenced by the fact apartment investments in the NPI lagged all other property types except office properties, with annualized returns of 10.9% through the first quarter. Income returns for apartments are at the bottom of the property-type mix, with annualized income returns of 4.7% trailing all major property types. Within the sector, high-rise apartments, which dominate the sector in terms of market capitalization, had the lowest annualized returns (9.3%), with income returns a paltry 4.3% and appreciation returns of 4.8%, annualized. Garden apartments offered the highest total returns (13.9%) and income returns (5.4%), suggesting the sector has not been under the same pricing pressure as its urban counterparts. Apartment REITs slipped through April, with total returns coming in a disappointing -3% and dividends trailing other property types at 3.2%.

Conclusion

The national economy is struggling to gain some momentum to catapult it out of the doldrums. While recession fears are relatively muted, it appears that the economy is in for a prolonged period of below-par economic growth. The employment situation continues to improve, although job growth has slowed along with the broader economy. While unemployment has leveled off at around 5%, the aggregate figures do not accurately reflect underemployment that is likely to continue. There has been some good news for workers on the wage front, with increases in the minimum wage in some locations and national changes in overtime pay. Inflation continues to be in check, helping cushion the lack of wage growth. Interest rates remain low and credit is fairly accessible, although there is some risk the Fed will move more quickly than expected on its next interest hike.

Apartment investments continue to be highly regarded by institutional investors and transaction volume has held up in spite of a general decline among commercial property types.

At the global level, a number of issues cloud the economic outlook. These range from nagging concerns over how China will deal with its economic slowdown to how Japan and other countries will react in the face of pressure to devalue their currencies. Until now, central bankers and finance ministers have resisted devaluing currencies, but the lack of progress on the economic front is amplifying currency risk, which could quickly spill over to other countries. The UK referendum on Brexit has raised concerns across the eurozone and other countries and punctuates the interconnectedness of the global economy.

Confidence levels have been tested recently, with declines in both consumer and CEO confidence as a result of the growing uncertainty surrounding the domestic economy as well as prospects for global growth. Retail sales have been somewhat disappointing, although in line with economic conditions and consumer confidence levels. Beneath headline sales figures, the retail industry continues to undergo change as traditional retailers respond to online competitors and online retailers seek competitive advantage in dealing with an increasingly fickle and demanding consumer.

The housing market has shown some signs of improvement, although the recovery has been muted. Housing starts have declined for both single-family and multi-family residential properties in line with economic uncertainty, although housing sales have improved. Housing appreciation rates have moderated but still are improving.

On the real estate investment front, there are some signs that the prolonged bull market has started to cool off. This is evidenced by factors such as a slowdown in CMBS issuances and some tightening in underwriting standards. Despite these changes, the mortgage market remains competitive and should not be a major drag on the industry. In terms of transactions, sales volume declined through April, a trend that that has received much attention. The decline in transactions affected both the private and public markets as well as most property types. The apartment sector appears to be nearing the end of its own bull cycle. Investment performance has been mixed, with the NCREIF Property Index still reporting low double-digit returns on a rolling four-quarter basis through the 2016 first quarter. It should be noted that these total returns include record-low income returns, which suggest some correction may be on the horizon. The public market has been somewhat volatile in line with the overall economy, but even after a rocky 2016 start it has moved into positive territory for the year to date.

Going forward, the real estate industry should benefit from increased exposure of REITs and real estate as the S&P Dow Jones Indices and MSCI stock exchange elevates real estate companies and equity REITs to the status of a distinct real estate sector. At the same time, changes to the Foreign Investment in Real Property Tax Act should act as a catalyst to foreign investment. On the property front, real estate fundamentals continue to improve, albeit at a slower rate than throughout 2015. All in all, as 2016 unfolds the commercial real estate market is approaching the real possibility of an inflection point and this bears close monitoring. This situation, plus a contentious presidential election, guarantee an interesting year.

About the Author

James R. DeLisle, PhD, is associate professor of real estate and director of the Lewis White Real Estate Center at the University of Missouri–Kansas City Bloch School of Management. His charge is to help build a preeminent real estate program that strikes a balance between academic rigor and state-of-the art industry practices. Drawing on this foundation, students are trained in critical thinking and the spirit of entrepreneurship necessary to take on the complex real estate problems that the next generation of industry leaders must be able to solve. He comes to the Bloch School from the University of Washington where he was Runstad Professor of Real Estate and director of the graduate real estate studies. DeLisle has spent almost half of his forty-year career in real estate as a professional with specializations in applied investment research and strategic portfolio management. Before returning to academia in 1999, he was an executive vice president and head of strategic planning for Lend Lease Real Estate Investments, a global company and the successor firm to Equitable Real Estate, where he founded the Investment Research Department. He has published widely in academic and professional journals. DeLisle received his BBA in real estate and MS in marketing from the University of Wisconsin. He received his PhD in real estate and urban land economics from the University of Wisconsin under his mentor, the late Dr. James A. Graaskamp, one of the leading academic proponents of applied real estate research. To increase industry connections, DeLisle has created a personal website, http://jrdelisle.com. **Contact: delislej@umkc.edu**

Additional Resources

Internet resources for additional reading

Bureau of Labor Statistics

- **Local Area Unemployment (LAU) Statistics**
  http://www.bls.gov/lau/home.htm
- **LAU Alternative Measures of Labor Underutilization for States**
  http://www.bls.gov/lau/stalt.htm

Conference Board

- **Business Cycle Indicators**
  https://www.conference-board.org/data/bci.cfm

Economic Cycle Research Institute (ECRI)

- **All Indexes**
  https://www.businesscycle.com/ecri-reports-indexes/all-indexes#

Federal Reserve

- **Chicago Fed National Activity Index (CNAI)**
  https://www.chicagofed.org/publications/cfnai/index
- **Federal Reserve Economic Data (FRED)**
  https://research.stlouisfed.org/fred2/

Institute for Supply Management (ISM)

- **Report on Business**
  https://www.instituteforsupplymanagement.org/ISMReport/

International Monetary Fund (IMF)

http://www.imf.org/external/index.htm

MSCI

https://www.msci.com/

National Association of Home Builders (NAHB)

- **Housing Indexes**
  http://www.nahb.org/en/research/housing-economics/housing-indexes.aspx

National Council of Real Estate Investment Fiduciaries (NCREIF)

- **Data and Products**
  https://www.ncreif.org/data.aspx

National Federation of Independent Business (NFIB)

- **Economic Trends**
  http://www.nfib.com/surveys/small-business-economic-trends/

University of Michigan

- **Survey of Consumers**
  http://www.sca.isr.umich.edu/