CUSHMAN & WAKEFIELD RESEARCH

U.S. Macro Forecast

January 2017

Measured Optimism

By Kevin J. Thorpe, Global Chief Economist, & Rebecca Rockey, Head of Americas Forecasting

Click to view U.S. Macro Forecast Table

- New era in Washington leads to measured optimism for near-term growth
- U.S. GDP, inflation, and interest rates are poised to go higher
- Leasing fundamentals holding firm, but vacancy nearing an inflection point
- Rising interest rates implies a mix of headwinds and tailwinds for the capital markets

U.S. Economy

The U.S. economy and property markets withstood a very turbulent 2016, and they are positioned to perform well in 2017. Even before the November election, the U.S. economy was shifting into a higher gear. Real GDP expanded at a 3.5% annual rate in the third quarter of 2016—the strongest growth rate registered in two years and more than triple the rate of growth observed in the first half of last year. Likewise, the latest data released in November and December on wage growth, confidence and consumer spending are mostly indicative of an economy that is heating up. As we tally data for the fourth quarter of 2016, property markets are on track to record another year of strengthening leasing fundamentals. Regional variations aside, most markets and product types will register declining vacancy, positive absorption and accelerating rent growth in 2016. Indeed, the latest economic data signals a strong start to the New Year.

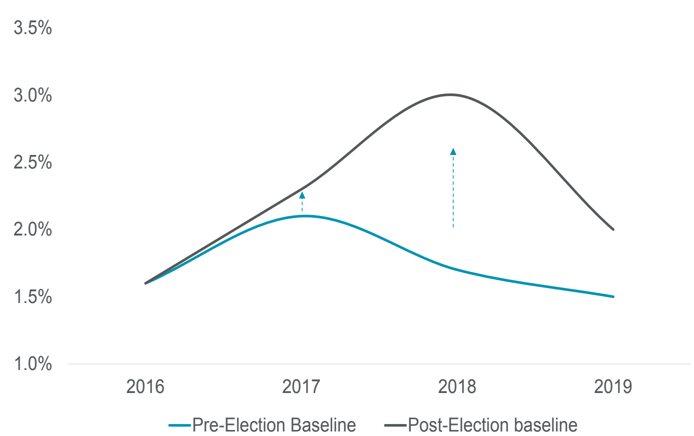
Enter President-elect Donald Trump. Given the expected policy changes from the new administration, the near-term economic and commercial real estate outlooks have been revised upwards. Although it will take time for policy to fully develop, the odds are high that a President Trump, alongside a Republican-controlled House and Senate, will deliver fiscal stimulus measures (tax cuts, spending increases, deregulation) that will infuse the U.S. economy—and property markets—with some additional juice in 2017, and more so in 2018. That said, some of the expected growth in fiscal policy will be negated by tighter monetary policy, higher interest rates, higher inflation, and more global volatility. In these areas, we also made some changes to our previous assumptions.

On net, the U.S. economic expansion just got longer and stronger in the near-term. U.S. real GDP will grow by an upwardly revised 2.3% in 2017, and register 3% in 2018. This will be enough growth to generate over 3 million net new jobs over the next 2 years, and will drive more demand for commercial real estate space than was previously assumed. Beyond 2018, the outlook becomes highly uncertain. Until we see more definitive action on the issues of trade and immigration, predicting beyond 2018 is largely guesswork.

Trump Bump

The outcome of the U.S. presidential election was certainly a shock, in the economic sense. Market reactions demonstrated most clearly the magnitude of that shock. The 10-year U.S. Treasury yield surged by almost 50 basis points (bps) within one week of the election—from 1.8% on November 7 to 2.3% on

U.S. GDP: Pre/Post Election



Source: U.S. Bureau of Economic Analysis, Cushman & Wakefield

November 16—and as of December 22, 2016, climbed another 30 bps to 2.6%. This most recent repricing reflects rising inflation expectations among market participants along with a potential higher budget deficit under a new administration. Additionally, stocks in the energy and financial sectors have rallied post-election, suggesting existing market participants' view that Trump administration policies will boost profitability. The prospect of deregulation, or changes to existing regulation, has certainly improved the outlooks of firms in these sectors.

The general consensus is that near-term growth, particularly in the latter part of 2017 and for all of 2018, will benefit from the potential changes to policies that were proposed by the President-elect and Republican leaders of Congress during the campaign. The first round of fiscal stimulus will likely come in the form of tax cuts and increases in government spending, mainly in the areas of defense and infrastructure. President-elect Trump has proposed a series of changes to the tax law, including reducing the top corporate tax rate from 35% to 15%, lowering and simplifying personal income tax rates and advocating a one-off 10% tax rate on repatriated corporate earnings. If the Reagan and Bush tax cuts are any guide, it is possible for the President-elect and the Republican-led Congress to push such changes through by mid-2017. This suggests that the economic impact would be greatest towards the end of 2017 and would add the most significant boost to growth in 2018. By 2019, the fiscal stimulus impact of the tax cuts will have mostly faded.

U.S. Office Net Absorption: Pre/Post Election
MSF

	Pre-Election	Post-Election
2016	50.2	50.2
2017	47.6	54.9
2018	37.6	45.9
2019	31.0	40.1

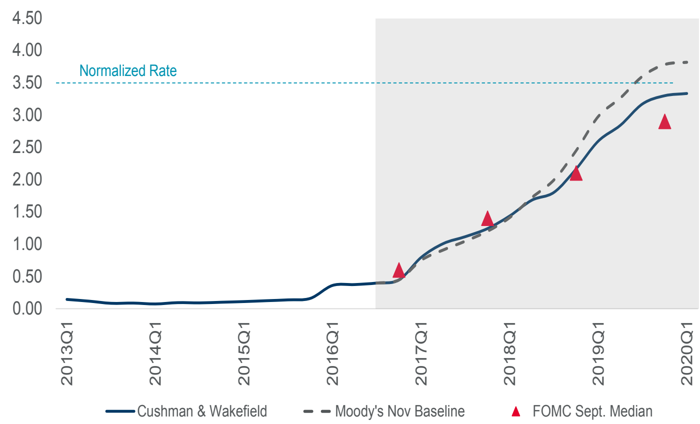
Source: Cushman & Wakefield

Government spending is also likely to receive a boost. Some of the policies mentioned by candidate Trump on the campaign trail included spending an additional $1 trillion on infrastructure projects over the next 10 years—although much of that would be private under his plan—and eliminating the sequester on defense spending which could add an additional $500 billion in discretionary spending over the next 10 years. Some of these proposals will certainly be whittled down as they are batted around by a more debt-focused Congress. But it is reasonable to assume that the federal government will be contributing more positively to economic growth from this point forward.

Monetary Policy Still Stimulating

These potential fiscal policy shifts appear to be having an impact on Federal Reserve monetary policy. When the Federal Open Market Committee (FOMC) voted to increase the federal funds target rate by 25 bps to 50-75 bps, it was a reaction to the steady improvement and current strength of the U.S. economy. But FOMC members also revised upwards their projected appropriate path for the target rate. Between its September and December meetings, the FOMC revised the federal funds target rate trajectory upwards—from two increases in 2017 to three.

Fed Turns More Aggressive
Fed Funds Rate



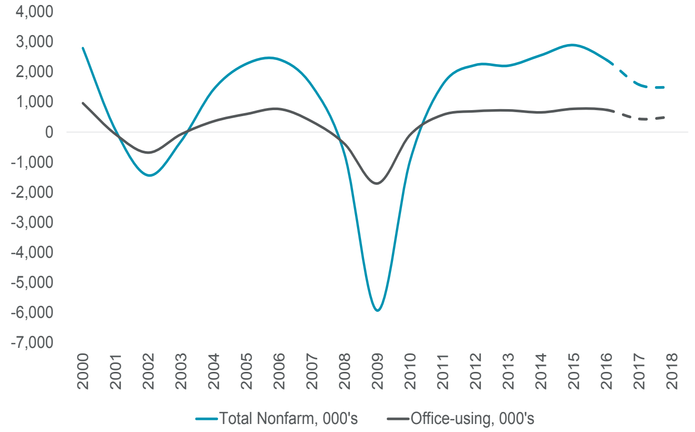
Source: BLS, U.S. Census Bureau, Federal Reserve, Cushman & Wakefield

It is worth noting that although monetary policy is now slowly being tightened, it still remains highly accommodative and supportive of further strengthening of the labor markets. A normalized federal funds rate (i.e., a rate that neither stimulates nor restricts growth) is currently viewed to be around 3.5%. The federal funds target rate has now been increased to a range between 0.50% and 0.75%. Thus, unlike a majority of the current economic cycle in which fiscal policy was actually a drag on the U.S. economy, now *both* monetary policy *and* fiscal policy will be working together to stimulate economic growth.

Jobs, Inflation, Interest Rates

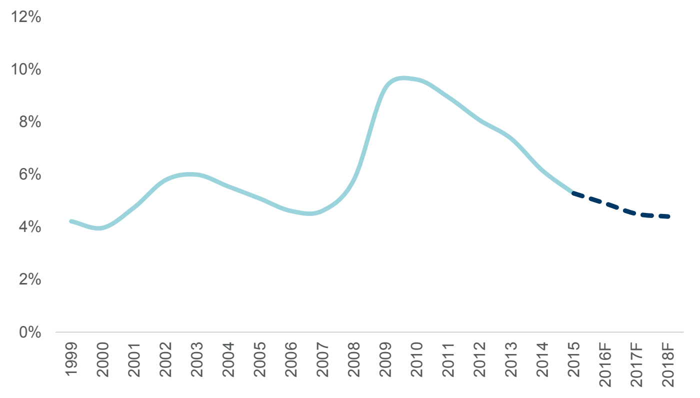
More policy stimulus will be imposed at a time when the labor markets are already tight—and tightening. The unemployment rate ticked downward to 4.6% in November 2016, its lowest reading since May 2007. The underemployment rate, which also accounts for marginally attached and discouraged workers, fell to 9.3% in November, down 60 bps from November of 2015. Even though that level is somewhat elevated by historical standards, it is compelling that the labor force participation rates for both the overall and working-age populations have remained steady throughout 2016 (on a quarterly basis), and have even increased compared to the second half of 2015. This implies that, even in the choppy environment that prevailed during much of the last 12 months—particularly in the financial markets—there were healthy undercurrents in the labor market. Remember that labor markets are directly and/or indirectly the most important driver of commercial real estate leasing fundamentals. Against such a backdrop where we are butting up against the potential of full employment, it is not surprising to see a slowing pace of job creation. Indeed, the 12-month rolling average pace of job creation peaked in February 2015 at 262,000 net new nonfarm jobs per month. As of November 2016, that pace has decelerated to a still healthy 189,000 net new nonfarm jobs per month.

Job Growth Will Decelerate



Source: BLS, Cushman & Wakefield

U.S. Unemployment Rate



Source: BLS, Cushman & Wakefield

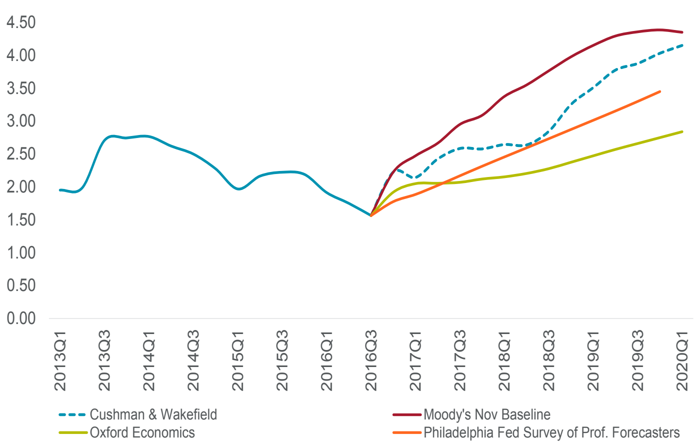
U.S. Office Net Absorption

Source: Cushman & Wakefield

Ultimately, positive job growth not only translates into improving commercial real estate fundamentals but also into an increasingly robust environment for consumers, who are also critical drivers of certain commercial real estate sectors. Wage growth has accelerated further across an array of metrics, including the Employment Cost Index for Wages and Salaries and the average hourly earnings of private sector workers—up 2.3% and 2.6% year-over-year in the third quarter, respectively. In fact, the Federal Reserve Bank of Atlanta's Wage Growth Tracker put its three-month rolling average rate of growth for median wages at 3.9% as recently as October of 2016. This reinforces our view that consumer confidence will build over the next two years and that year-over-year growth in retail sales will accelerate. Combining these pressures on wages, the recent strengthening in productivity figures and the weakening effects of both the commodity price decline (mid-2014) and the initial surge in the U.S. dollar (mid-2015), core inflation is expected to rebound towards the 2% mark over the next year.

Job openings remain at a near-record level; that portends favorably for future job creation. Although a tighter labor market will cause job growth to taper off somewhat, we expect the U.S. economy to continue to produce a healthy number of jobs around the 1.5 million mark in 2017 and 2018. Labor markets will continue to tighten, which will place greater upward pressure on wages and inflation. The Fed will likely respond by setting the federal funds target rate on a more aggressive path upwards, which will also influence the long-end of the yield curve. As a result, the U.S. will generally be operating in a higher interest rate environment from this point forward—albeit one that is still low by historical standards. In our baseline scenario, the 10-year Treasury yield will average 2.6% in 2017, up from 1.9% in 2016, and will climb to 3.1% in 2018.

10-Year Treasury Yield



Source: Cushman & Wakefield, Oxford Economics, Moody's, Philadelphia Federal Survey of Professional Forecasters

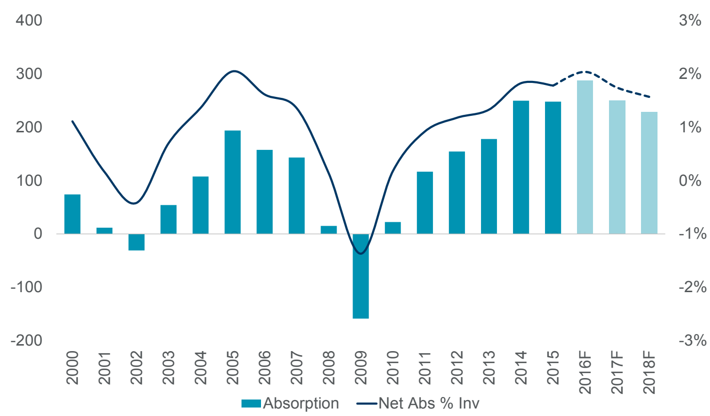
Implications for Commercial Real Estate

Office: The overarching driver of demand in the office sector is the labor market. With 737,000 net new office-using jobs expected by the end of 2016, and an additional 438,000 and 508,000 throughout 2017 and 2018 (respectively), there is still room for the office market to grow. More than four-fifths of the office-using gains in 2016 were attributable to growth in the business and professional services sector, and these firms will continue to account for more than three-quarters of office-using job gains over the next two years. That said, given labor market tightness, we continue to forecast decelerating demand. Total U.S. net absorption is forecast to end 2016 at 50.2 million square feet (MSF), down from 81.9 MSF in 2015. Although a slowdown was anticipated, the 2016 absorption figure is surprisingly weak given the strong office-using job growth observed last year. But it is not uncommon for absorption to lag job growth. We believe this was the case in 2016 and so we anticipate some of the absorption from the jobs created in 2016 will spill over into 2017. Overall, absorption is projected to improve slightly in 2017 to 54.9 MSF, and begin to decelerate after that as the economy nears full employment.

Against this slower pace of demand growth, many markets face a rising pipeline of new supply. The development pipeline has been gaining momentum and we forecast the construction cycle to peak in 2018. While slowing demand will be a theme over the next two years, it's worth noting that nearly 40% of all construction and deliveries are taking place in five markets: New York City, Dallas, Seattle, Silicon Valley and San Francisco. These markets are also some of strongest job-producing markets in the country, indicating that developers are in tune with market conditions and are delivering new supply where it is needed most. Subsequently, the combination of slowing demand growth and rising supply is expected to lead to a bottoming-out of vacancy rates over the forecast period. Indeed, vacancy has been falling for nearly seven consecutive years since peaking at 17.4% at the start of 2010. Since then, it has fallen 410 bps and will average 13.2% in 2016, ending the year even lower at 13.1%. We expect vacancy to hover around the 13% mark through the first half of 2017 before it starts to make a slight upturn mid-year due to increased levels of construction in the face of decelerating demand. We forecast a modest uptick in vacancy in 2018—to 13.4%. Growth in asking rents should also temper from its peak in 2016—rent growth is estimated to register 5.5% in 2016—and slow to a more moderate 3.6% and 1.7% in 2017 and 2018, respectively.

Industrial: As a sector with users from very different segments of the economy, the industrial outlook is nuanced by product type. Our upbeat near-term outlook for consumer spending will ultimately result in robust demand for warehouse and distribution space, especially as the eCommerce engine continues to grow rapidly. As a share of retail sales, excluding automobile sales, eCommerce has grown from 1% in the first quarter of 2000 to 9.3% in the third quarter of 2016. We expect that share to increase by another 1% by the end of 2018. This means that the current rate of $100 billion eCommerce sales per month will increase by roughly 25% to nearly $125 billion per month in the fourth quarter of 2018. Given the large footprint that warehouse/distribution space has—accounting for 60% of all industrial inventory—these trends suggest similar, if not more, robust absorption for this product type going forward. Additionally, with year-over-year growth in manufacturing production set to rebound into positive territory in the first quarter of 2017 and with auto sales expected to remain in the 17-18 million units per year range for the next two years, the outlook for the overall industrial sector remains bright.

U.S. Industrial Net Absorption
MSF



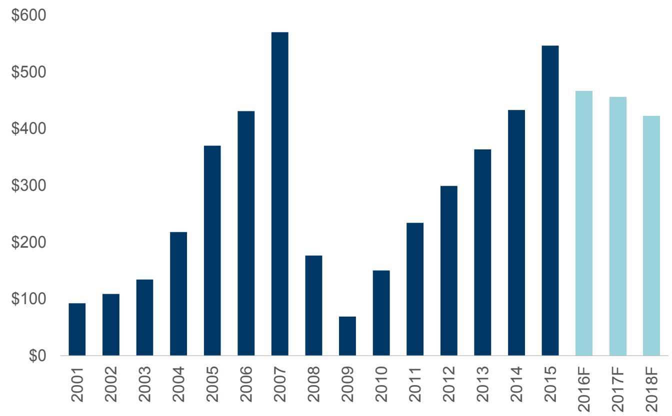
Source: Cushman & Wakefield

Demand for industrial space has not diminished at all in the face of the headwinds that occurred throughout 2016. In total, net absorption is expected to surpass 280 MSF in 2016 and will hit nearly 250 MSF in 2017. This robust level of demand is being increasingly met with new construction seeking to alleviate incredibly tight markets. Deliveries in 2016 will surpass 200 MSF for the first time this cycle—hitting 222 MSF by year-end, up from last year's 176 MSF. The construction pipeline will remain exceedingly strong over the next several years, with deliveries as a share of inventory peaking in 2018. The new space will be welcome, as the national vacancy rate—at 5.8% in the third quarter of 2016—will continue to decline through the second quarter of 2017. Only then do we forecast that it will start to turn up from its low-point of 5.5%. The increases in the vacancy rate in the second half of 2017 and throughout 2018 will remain modest, however. This should help alleviate some of the pressure on asking rents which will grow by 4.2% and 2.9% in 2017 and 2018, respectively, after peaking in 2015 (at 5.7%).

Retail: Although consumer spending growth will remain strong—with a larger share of that spending going to eCommerce—industrial real estate will continue to benefit more from this growth than will traditional bricks-and-mortar stores. A number of major retail categories will be in contraction mode, while other sectors that have been in growth mode will increasingly face issues of market saturation that will slow expansion. Contraction from high-profile apparel and department store chains in 2017 will mostly impact mall and lifestyle center properties. However, the anticipated atmosphere of uncertainty may negatively impact publicly traded brands beyond those categories. On the whole, neighborhood/ community and power centers will perform best with the least exposure to contraction, while the impact of these trends on mall and lifestyle centers will be disproportionately felt by Class B and C properties, particularly those in secondary or tertiary markets.

In line with the fact that the velocity of demand is slowing, we have also seen net absorption in retail slow from its 2015 figure of 28 MSF. In 2016, we forecast demand to hit 23 MSF before falling further in 2017, to 18 MSF. Given the pipeline of new construction, we estimate that vacancy will start to rise in 2017.

U.S. Transaction Volume
All Property Types (including land), Billions



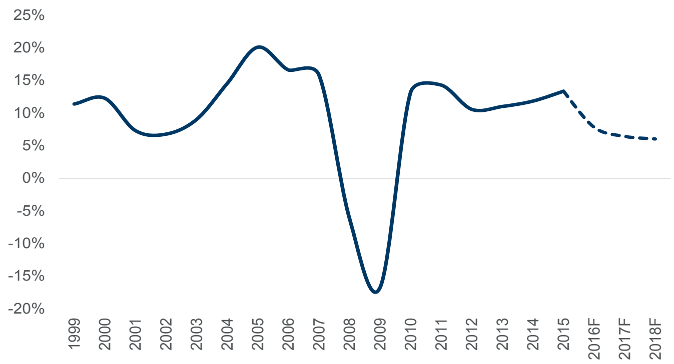
Source: RCA, Cushman & Wakefield

After declining 40 bps from 8.6% in 2015 to 8.2% in 2016, we forecast that vacancy will tick upward to 8.3% in 2017 and to 8.4% in 2018. Pressure on rents has already abated; overall average rents fell for the first time this cycle in the third quarter of 2016. While we had anticipated a significant slowdown in rental appreciation, our revised forecast shows a growth rate of only 0.5% for 2016 to $19.94 from $19.84 in 2015, and a decline of -3.6% in 2017 (to $19.23). Though we expect weaker fundamentals to persist into 2018, the main hit to rents should dissipate and rents should start to rebound by then.

Transaction Volume: As the year started out on a soft foot, many adjusted their expectations for 2016 to be a strong, but less promising year. That is turning out to be about right. While the peak year of sales activity in this cycle was 2015 (at $546.3 billion), it never surpassed the previous peak year of 2007 ($569.9 billion). We expect investment sales to decline year-over-year in 2016, by 15%, to $466.0 billion. This is still well above the average of $279.7 billion over the 15 years for which there is consistent transaction data. We did see a pickup in trading during the third quarter of 2016, however, the typical seasonal bump usually observed in the fourth quarter did not occur. This was a function of many factors, including pre-election jitters along with a sharp move upwards in Treasury yields which had many investors pausing and recalibrating. We forecast a quarter-over-quarter decline in sales volume in the fourth quarter, the first time for such a decline to occur since the fourth quarter of 2008. While we forecast investment sales volume to decline modestly over the next two years (-2.2% in 2017 and -8.0% in 2018), we still anticipate solid activity (with yearly totals still registering $455.7 billion and $422.0 billion, respectively).

The largest players in the market—private equity and institutional investors—grew their investments in commercial real estate modestly in 2016. These two types of buyers accounted for more than 70% of asset purchases, and both saw first-through-third-quarter increases (compared to the same time period one year

U.S. NCREIF Returns
Annualized Average Quarterly Total Return, %



Source: NCREIF, Moody's, Cushman & Wakefield

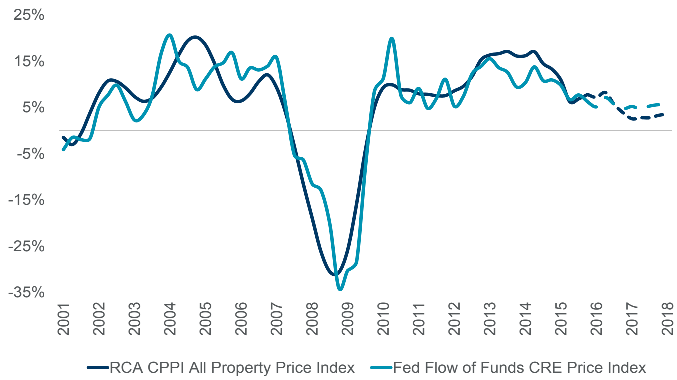
ago) of about 2.5-3.0%. Foreign buyers remained very active as well, making up just under 15% of sales in the first three quarters of the year. Over that same time frame, REIT activity was materially down (more than 50%). Similarly, CMBS issuance will likely come in below $70 billion in 2016, the lowest level in three years.

The prior peak in CMBS issuance was in 2007, at $228.6 billion. Many analysts have anticipated the coming "wall of maturities," as the 10-year loans underlying these assets (loans which were issued during a time of aggressive underwriting) mature or borrowers seek to refinance. It is worth noting that the height of that "wall" has already been lowered. Of the $300 billion of CMBS loans maturing between 2015 and 2018, nearly $190 billion has already been paid off or liquidated, according to Trepp. Our view is that the bulk of the remaining loans set to mature will be able to achieve refinancing as property incomes have improved dramatically over the last several years. Still, certain office and retail assets may find it difficult to refinance (particularly in markets where vacancy rates have soared and have yet to recover). However, our forecast for sales activity reflects our view that the uptick in CMBS delinquencies will be manageable. We also anticipate a choppy start to the year, as both uncertainty related to the sharp move-up in Treasuries and adjustment to risk-retention take the front seat in the first quarter of 2017. The rest of the year should remain active, particularly as the stronger economic backdrop begins to translate into improving investor confidence.

Total Returns: The theme of decelerating growth continues when it comes to total (unlevered) NCREIF returns. After the six-year span from 2010-2015 of double-digit returns, our estimate for 2016 has been revised downwards to 7.8%. Income returns have softened, but they have also remained steady for the past three quarters, with most of the downward revision coming from slower capital appreciation. We forecast this trend to continue—relatively stable income returns (as occupancy peaks and rent growth slows) coupled with a deceleration in capital growth. Our forecast calls for NCREIF returns to average 6.4% in 2017. Despite some of the continued and newly forming headwinds in financial markets (global volatility earlier in the year and more recently a rise in the cost of capital), the amount of dry powder targeted at U.S. commercial real estate is still growing and will buttress pricing in some markets and asset classes.

Prices: We continue to forecast a dampening in prices, both as a result of less trading activity and of tighter financial market conditions—reflected most obviously in the long-end of the yield curve. Year-over-year growth in the RCA/Moody's CPPI All Commercial Property Price Index averaged 14.1% in 2015 and will end 2016 averaging a more reasonable 7.2%. The rise in interest rates will likely impact pricing before the effects of stronger economic growth drive NOI higher. As a result, values will continue to grow at a decelerating rate in 2017 and 2018, but certain assets in certain markets will see price declines in the near-term. Eventually the stronger economic growth scenario will strengthen NOI, likely offsetting the discounting impact of higher interest rates, which we anticipate beginning in the second half of 2018.

CRE Prices: Fed Index vs. RCA PPI Index
Yr/Yr % Change



Source: Federal Reserve Flow of Funds, Real Capital Analytics, Moody's Analytics, Cushman & Wakefield (forecast only)

Cautious Optimism

The outlook for the U.S. economy over the next few years remains positive. Although headwinds have come, gone, and come again, the major force driving growth—the consumer—is still gaining momentum. Of course, we are ushering in a new era of fiscal and monetary policy and that will continue to generate uncertainty. Near-term trends in investment, and perhaps trade, are the biggest question marks, and the impacts of all fiscal policy on medium-term growth will ultimately depend on the specifics of any policy changes, which are still unknown. However, we believe that there will be a net positive impact on economic growth as well as on property markets in 2017 and 2018.

It is important to also keep in mind that the U.S. economy and property markets remain very attractive compared to those of other advanced nations around the world. In all probability, global headwinds will continue into 2017. With the invocation of Article 50 to formally initiate Brexit, upcoming elections in several key EU countries and general lackluster growth across most first world economies, we anticipate strong demand for U.S. Treasuries (which will temper the path of the 10-year yield) and a slightly stronger path for the U.S. dollar. Diverging monetary policy and further stimulus abroad will also provide for a flow of capital from abroad into the U.S. Against this backdrop, even considering the fact that key policy issues remains in flux, the overall picture for the U.S. economy and commercial real estate is one of measured optimism.

CUSHMAN & WAKEFIELD RESEARCH

U.S. Macro Forecast

CUSHMAN & WAKEFIELD

January 2017

U.S. Macro Forecast Table

	2016				2017			Annual			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	2015	2016	2017	2018
US Economy											
Real GDP, % (AR)	0.8	1.4	3.5	1.7	1.6	2.5	2.9	2.6	1.6	2.3	3.0
Chg. in Nonfarm Employment, ths.	659	452	627	663	348	337	434	2,775	2,402	1,574	1,482
Chg. in Office-using Employment, ths.	137	171	230	198	89	100	109	812	737	438	508
Unemployment Rate, %	4.9	4.9	4.9	4.8	4.6	4.5	4.5	5.3	4.9	4.5	4.4
Retail Sales & Food Services, % (SAAR)	2.7	2.7	2.6	4.0	5.3	5.3	5.6	2.3	3.0	5.3	4.5
CPI Inflation, % (AR)	1.1	1.1	1.1	1.6	2.4	2.5	2.7	0.1	1.2	2.6	2.6
Consumer Confidence Index	96	95	101	104	104	105	106	98	99	106	107
Federal Funds Rate, %	0.4	0.4	0.4	0.4	0.8	1.0	1.1	0.1	0.4	1.0	1.8
10-year U.S. Treasury note, %	1.9	1.8	1.6	2.2	2.4	2.6	2.8	2.1	1.9	2.6	3.1
ISM Manufacturing Index	49.8	51.8	51.2	51.5	50.5	52.3	51.7	51.3	51.1	51.6	51.9
West Texas Intermediate, $/bbl	34	46	45	49	48	50	50	49	43	50	49
Office Sector*											
Net Absorption, msf	11.1	17.9	16.2	5.0	13.3	15.5	14.9	81.9	50.2	54.9	45.9
Vacancy Rate	13.4%	13.3%	13.2%	13.1%	13.1%	13.1%	13.0%	13.8%	13.2%	13.1%	13.4%
Asking Rent	$28.62	$29.06	$29.47	$29.66	$30.01	$30.21	$30.35	$27.67	$29.20	$30.25	$30.77
Industrial Sector*											
Net Absorption, msf	63.7	77.1	79.9	59.3	71.3	71.3	55.1	247.8	280.0	249.6	231.1
Vacancy Rate	6.2%	6.1%	5.8%	5.7%	5.6%	5.5%	5.5%	6.7%	6.0%	5.5%	5.6%
Asking Rent	$5.47	$5.52	$5.57	$5.65	$5.71	$5.77	$5.82	$5.24	$5.55	$5.79	$5.95
Retail Sector**											
Net Absorption, msf	3.8	7.8	7.6	3.7	3.6	3.5	4.6	28.3	23.2	18.0	20.7
Vacancy Rate	8.4%	8.3%	8.1%	8.2%	8.2%	8.3%	8.3%	8.6%	8.2%	8.3%	8.4%
Asking Rent	$20.58	$20.66	$19.29	$19.24	$19.21	$19.18	$19.22	$19.84	$19.94	$19.23	$19.52
Capital Markets***											
Total Investment Sales, $ Bil.	$115.3	$113.2	$123.8	$113.7	$103.1	$115.1	$110.4	$546.3	$466.0	$455.7	$422.0
NCREIF Unlevered Total Returns, Qtrly % Chg.	9.1%	8.4%	7.3%	6.6%	5.9%	7.0%	6.0%	13.3%	7.8%	6.4%	6.0%
Moody's/RCA CPPI (All Property Types), Yr/Yr % Chg.	6.3%	7.6%	7.8%	7.2%	8.2%	5.6%	3.8%	14.0%	7.2%	5.0%	3.1%

**Annual rents and vacancy rates are averages, not year-end*
***Historical series based on CoStar; neighborhood/community statistics only*
****RCA, NCREIF, Moody's Analytics*
****Total Investment Sales includes office, industrial, retail, multifamily, hotel, and land sales*

About Cushman & Wakefield

Cushman & Wakefield is a leading global real estate services firm that helps clients transform the way people work, shop, and live. Our 43,000 employees in more than 60 countries help investors and occupiers optimize the value of their real estate by combining our global perspective and deep local knowledge with an impressive platform of real estate solutions. To learn more, visit www.cushmanwakefield.com or follow @CushWake on Twitter