

U.S. Macro Outlook, Q2 2017

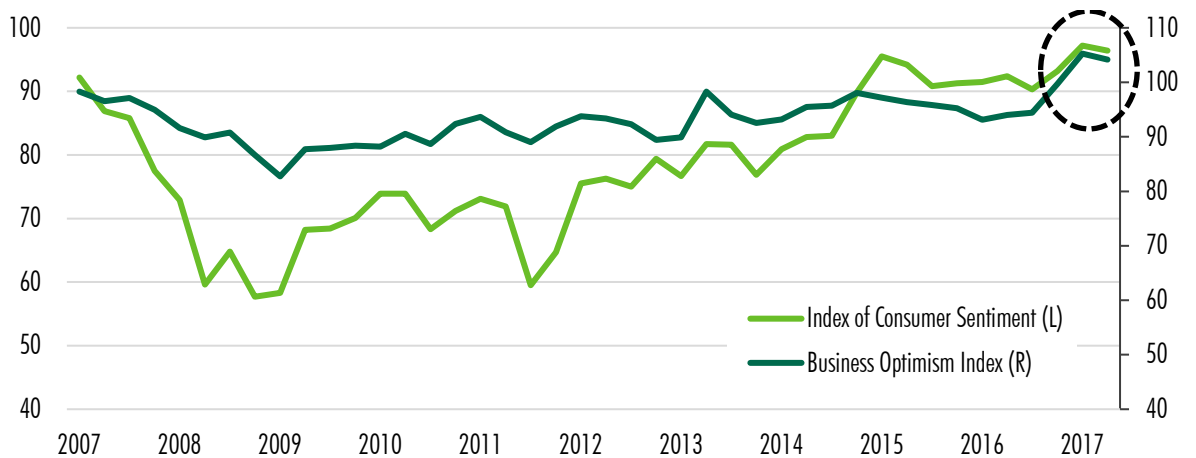
Economic assumptions behind our baseline and alternative scenario forecasts

- The economy’s apparent path is much the same as last quarter; our macro outlook has changed very little.
- The economy and CRE markets continue to grow at a steady but not particularly quick pace.
- Real economic activity has been tracking at the same pace as last year, despite business and consumer sentiment showing greater optimism since Donald Trump’s inauguration.
- President Trump’s policy agenda remains unclear and his ability to foster passage of his proposals is diminishing as Congress focuses on other matters. Some manner of tax reform is likely, but it is likely to be minor and its significance for commercial real estate will depend on the details.
- EA’s baseline outlook for employment growth—gradual slowing, before contraction in 2019—is largely the same as last quarter. We have raised GDP projections to hedge on the side of modest fiscal stimulus in 2018.
- Our upside and downside forecast scenarios have been updated to reflect a wider range of outcomes.
- The Fed is likely to raise its target rate once more this year, and to begin unwinding its balance sheet in the fall. This is expected to push longer-term interest rates up modestly.
- The U.S. CRE investment environment remains attractive, due to strong fundamentals and limited risk.

2017 U.S. OUTLOOK: KEEP CALM AND GROW 2%

We were tempted to stick to the language in last quarter’s outlook; changes to our forecast this quarter were minor. The U.S. economic expansion continues to roll forward at a steady pace. It has now entered its eighth year and is likely to reach nine without a problem. It is hard, however, to envision growth accelerating toward the 3% rate that candidate—and now President—Trump promised. Rather, we believe that 2017 will continue to bring the familiar dose of 2% GDP growth and 150,000 new jobs monthly. As uneventful as this may seem, it is exactly what the economy needs at this stage of the expansion—a calm and steady growth, absent of high inflation, overleverage and asset bubbles. This is a sustainable path that could extend growth for several years with a few lucky breaks and some wise policy choices. On the other hand, insufficient political will to do the right thing regardless of its political expedience would, along with wage pressures, push the economy into a mild and short recession starting in early 2019.

Figure 1: Consumers Talk the Talk, Even As Spending Falters



Source: CBRE Econometric Advisors, Q2 2017.

“TRUMPENOMICS”?

Initially, President Trump’s bold plans for tax reform, deregulation, capital repatriation and increased federal spending on infrastructure and the military boosted economic optimism among business leaders and U.S. consumers. That optimism has started to fade, and Congress and the administration have gotten bogged down in repealing “Obamacare” without a clear path forward. Many of the economists that upped their forecasts amid the early optimism are now significantly revising them—back to pre-election levels, in many cases—as they revisit assumptions about structural reform of the tax code and higher spending on infrastructure leading to greater growth. This is neither surprising nor unhealthy, given current demographic trends in the U.S.: Without a significant increase in productivity, it will be a challenge for the economy to grow any faster for any sustained period.

Several potential policy changes could have an outsized effect on commercial real estate. Repealing the 1031 “like-kind” exchange that allows owners to defer tax on capital gains when they reinvest it in other properties would have a huge impact on pricing, for instance. Similarly, the EB-5 program plays a large role in financing real estate development with foreign capital. Any reduction to that program could raise the cost of capital and impact future development. Carried interest, mortgage interest deductibility, and expensed depreciation are also hot topics that directly impact real estate—not to mention the indirect effects from immigration, border taxes, and broader tax reform. Needless to say, there is quite a bit of policy uncertainty.

Abstracting from the range of possible policy changes, the economy is poised to slow. We are confident that a number of factors will contribute to softer growth this year and next:

- **Labor shortage.** With the economy at (or near) “full employment,” there is a scarcity of available labor. Job openings are at a record high, but although some people remain out of work, it is challenging to find workers with the appropriate skills to fill these open positions. Although wage growth usually accelerates during full employment conditions, that has yet to occur, with wage growth having remained at 2.5% - 2.9% over the past several years. There are indications that a change is to come, however. Wage growth acceleration benefits all sectors except office, which is dependent on new hiring.
- **The strong U.S. dollar.** When it peaked early this year, the trade-weighted dollar had appreciated nearly 30%. Since then, it has come back about 5%, with the President’s comments on weakening the dollar having had their desired impact. In the long term, the dollar’s strength is outside of the President’s control, for the most part. The Fed has said it will raise rates once more this year and begin unwinding its balance sheet. This could push the dollar back up—especially as Britain’s economy slows and the European Central Bank moves cautiously with its rate increases.
- **Higher interest rates.** Having raised rates twice this year, the Fed is likely to do so again in December. It was strongly hinted at the most recent meeting that September would be the start date for unwinding the balance sheet. The unwinding will proceed slowly, gradually diminishing the reinvestment of dividends. These movements should put upward pressure on interest rates. Despite three moves over the past eight months at the short end of the curve, the 10-year Treasury was lower in July than it was in February.
- **Fewer car sales.** U.S. auto sales were almost 18 million in 2016. The figure is expected to fall 5% in 2017 and an additional 5% in 2018. Despite the slowing, several foreign manufacturers have opened plants in the southeastern portion of the U.S. The glut of new cars—it is cars, and not trucks or

SUVs—has put a huge supply on dealer lots. Meanwhile, a record number of cars is coming off lease, weakening prices in the used car market. Combine that with rising auto loan rates—which are tied to the Fed’s actions—and you have significant softness in the auto industry. We have already seen some response from auto manufacturers: layoffs and longer down time for workers during the summer plant changeover season.

- **A sluggish housing market.** The overbuilt market that contributed to the Great Recession has been replaced by an underbuilt one, especially at the entry level. New and used home sales are up, relative to 2015 and 2016, but the gains are more modest than one would expect, given our position in the economic cycle. Housing construction, particularly of new single-family homes, has a tremendous spillover impact on the economy. While the supply side has its problems, demand for housing is likely to be restrained as mortgage rates rise with interest rates. This will limit economic growth relative to trend, though it will still add to economic growth.

EA BASELINE FORECAST

Our baseline forecast has changed little from Q1 2017. The GDP growth forecast for 2017 has been raised slightly, due to stronger global growth that should lead to slightly more exports. Our expectations for employment in 2017 remain unchanged: 1.8 million new hires, equating to 150,000 jobs per month. The inflation and 10-year Treasury forecasts have been lowered slightly, given the recent inflation numbers. We do expect the yield curve to steepen as the Fed begins to unwind its balance sheet.

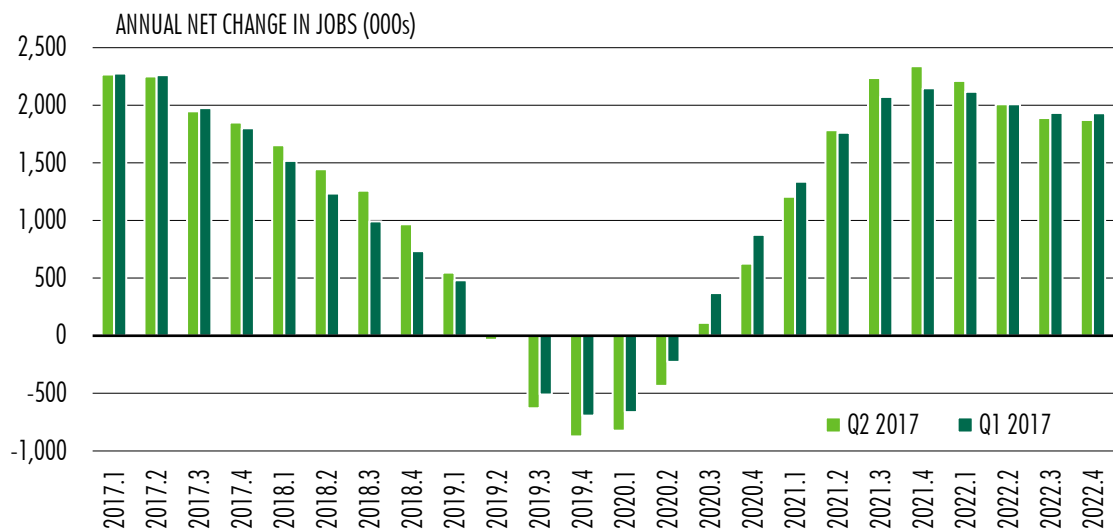
Figure 2: We Expect Economic Growth to Moderate

| CBRE EA BASELINE FORECAST | | | | | |
|---------------------------|------|------|------|------|------|
| | 2017 | 2018 | 2019 | 2020 | 2021 |
| GDP, % | 2.4 | 2.4 | 0.1 | 1.7 | 2.5 |
| Employment, mil. | 1.8 | 1.0 | -0.9 | 0.6 | 2.3 |
| CPI, % | 1.5 | 2.2 | 1.1 | 1.7 | 2.1 |
| 10-yr Treasury, % | 2.9 | 3.3 | 1.6 | 2.2 | 3.0 |

Note: Figures are Q4/Q4 change—except the 10-year, which is Q4 % yield.

Source: BEA, BLS, Federal Reserve, CBRE Econometric Advisors, Q2 2017.

Figure 3: Baseline Employment Forecast: A Slight Timing Shift



Source: CBRE Econometric Advisors, Q2 2017.

We have raised our 2018 employment forecast slightly, to 1 million jobs—up from 700,000. This doesn't change our forecast for GDP growth, which remains at 2.4%. Under our baseline scenario, a relatively mild recession hits in 2019, comprising three quarters of negative GDP growth. That three-quarter decline is roughly equal to growth during Q1 of that year, so GDP for 2019 remains barely positive. The recession does bring negative job growth for the duration of 2019—900,000 job losses in all for the calendar year.

The Fed responds to the recession by lowering interest rates, and the 10-year drops from 3.3% in 2018 to 1.6% in 2019. Inflation also declines with the slowing economy. We see a rebound in 2020 and 2021 as the economy recovers, but like the past three recessions, jobs grow more slowly than GDP.

EA UPSIDE SCENARIO

We have adjusted our upside scenario slightly as well, lowering our forecasts for employment growth, inflation and the 10-year Treasury. Our expectations for GDP growth are unchanged from last quarter. Our upside scenario sees Congress and the President enacting tax reform that enhances growth, while initiating an infrastructure program that increases productivity and capital repatriation that leads to business investment and economic growth raising the labor force participation rate.

All of these factors lead to an economic expansion of record length that never gets so hot that the Fed is forced to raise interest rates to curtail inflation. This is a “goldilocks” scenario in which growth is neither too hot nor too cold.

EA DOWNSIDE SCENARIO

Our downside scenario has taken a turn for the worse, with GDP growth much weaker in 2017 and then negative in 2018 and 2019. Employment is slightly less negative in 2018, but slightly worse in 2019. There are plenty of risks for investors to be concerned about; this scenario assumes that some combination of shocks sinks the economy into a recession by year's end. Some amount of financial market turbulence is our downside scenario's single prerequisite—the source of such volatility might be uncertainty about monetary and fiscal policy, geopolitical events, or the popping of an unexpected asset bubble. Recessions are always accompanied by a stock market correction, even if the reverse is not always true.

A domestic policy misstep is a greater risk than it was a few months ago. The merit of President Trump's agenda items aside, it is clear that he is less willing to adhere to political norms, which raises the surprise factor. Bouts of uncertainty can cause financial markets to whipsaw in an instant. Once business and

Figure 4: Upside Scenario: Economic Growth to Increase Slightly

| CBRE EA UPSIDE FORECAST | | | | | |
|-------------------------|------|------|------|------|------|
| | 2017 | 2018 | 2019 | 2020 | 2021 |
| GDP, % | 2.5 | 3.3 | 2.5 | 1.7 | 2.6 |
| Employment, mil. | 2.4 | 3.5 | 3.1 | 2.4 | 2.6 |
| CPI, % | 2.1 | 2.3 | 2.2 | 2.2 | 2.2 |
| 10-yr Treasury, % | 3.5 | 3.7 | 3.5 | 3.5 | 3.5 |

Note: Figures are Q4/Q4 change—except the 10-year, which is Q4 % yield.

Source: BEA, BLS, Federal Reserve, CBRE Econometric Advisors, Q2 2017.

Figure 5: Downside Scenario: Recession in 2017

| CBRE EA DOWNSIDE FORECAST | | | | | |
|---------------------------|------|------|------|------|------|
| | 2017 | 2018 | 2019 | 2020 | 2021 |
| GDP, % | 1.4 | -0.3 | -1.3 | 1.8 | 2.5 |
| Employment, mil. | 1.5 | -0.6 | -2.7 | 0.2 | 2.3 |
| CPI, % | 1.5 | 1.0 | 1.1 | 1.7 | 2.1 |
| 10-yr Treasury, % | 2.4 | 1.4 | 1.6 | 2.2 | 3.0 |

*Figures are Q4/Q4 change—except the 10-year, which is Q4 % yield.

Source: BEA, BLS, Federal Reserve, CBRE Econometric Advisors, Q2 2017.

consumer confidence are undermined, it can be difficult for the economy to right itself before slipping into recession.

Confidence is an important factor, but the actual policies matter as well. While our baseline scenario assumes that stimulative fiscal policies are put in place, our downside scenario assumes that none are, or that policy changes are watered-down or misguided. Many Republican leaders are not eager to increase government spending and lower taxes without offsetting reductions elsewhere. President Trump has vowed to protect Social Security and Medicare, which leaves less room to make any stimulus deficit-neutral. Additionally, economic research shows that fiscal multipliers—the “bang for the buck” of government spending and tax cuts—are much lower when the economy is running near full capacity, as it is today. This implies that any stimulus may not be that stimulative at all, meaning the economy would get higher inflation and interest rates without the benefit of stronger growth. The downside scenario is the extreme version of this, accompanied by other downside policies such as a trade war, large-scale deportations, and otherwise anti-growth legislation.

A realistic downside scenario more closely resembles the dot-com bust than the Great Recession, in terms of overall damage to the economy. Our model predicts a net loss of more than 3 million jobs at its worst, before a cyclical recovery takes hold. The Fed’s aggressive response—along with foreign capital flows into the U.S.—would likely keep the 10-year yield well below 2% until late 2020.

EA SEVERE DOWNSIDE SCENARIO

Our severe downside scenario is intended to be a proxy for the Federal Reserve’s “Severely Adverse” supervisory scenario under its Comprehensive Capital Analysis and Review (CCAR) program. CCAR is meant to evaluate the capital planning processes and capital adequacy of U.S. banks under stressful macroeconomic scenarios. This scenario is certainly stressful; the Fed assumes the unemployment rate to hit 10%—equal to its 2009 peak. Under this scenario, the peak-to-trough GDP decline is on par with the drop recorded during the Great Recession.

Since the Fed does not provide guidance on payroll employment growth, we use the change in GDP and the unemployment rate to approximate the impact. The scenario’s supposed recession occurs immediately and wipes out more than 7 million jobs by the end of 2018. Although the Fed is quiet on what might cause such a severe recession, we can safely assume that financial markets would suffer some sort of systemic failure, likely leading to government intervention. The Federal Reserve does not discuss a hypothetical reaction in terms of monetary policy either, but history tells us it would use everything in its toolbox to stop the bleeding. This could mean negative interest rates, quantitative easing, and even helicopter money. The severe downside scenario has an extremely low probability, but it offers a useful guide to capital planning under the direst macroeconomic situations.

Figure 6: Severe Downside Scenario: Stress Test

| CBRE EA SEVERE DOWNSIDE FORECAST | | | | | |
|----------------------------------|------|------|------|------|------|
| | 2017 | 2018 | 2019 | 2020 | 2021 |
| GDP | -0.2 | -5.4 | 1.7 | 2.1 | 2.7 |
| Employment | -1.5 | -5.7 | 3.0 | 1.8 | 2.3 |
| CPI | 1.2 | 0.9 | 1.0 | 2.1 | 2.3 |
| 10-yr Treasury | 0.8 | 1.1 | 1.5 | 2.7 | 3.5 |

Note: Figures are Q4/Q4 change—except the 10-year, which is Q4 % yield.

Source: BEA, BLS, Federal Reserve, CBRE Econometric Advisors, Q2 2017.

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