A New Economic Policy Era in the United States

The U.S. economy in 2018 arguably enters its mature phase of the business cycle, when interest rates, inflation, and corporate earnings rise. After a decade where monetary policy dominated the macroeconomic landscape of the U.S. economy, 2018 could provide a tale of two policies, where fiscal policy of the corporate and personal income tax cuts dominates the first half of 2018 and monetary policy dominates the second half, retaking control of inflation and interest rates. The tax law changes reduced the corporate rate from 35 percent to 21 percent and cut the taxes paid by most individuals as well. According to the minutes of the Federal Open Market Committee’s (FOMC’s) meeting of December 12-13, the U.S. central bank anticipated a short-term boost in the U.S. economic growth from the sweeping $1.5 trillion tax overhaul signed into law on December 22. In common with the view of the FOMC, the Center for Business and Economic Research (CBER) expects the proposed cuts in personal income tax rates to provide some boost to consumer spending and the changes in business taxes to provide a modest boost to capital spending.

Still the problem that actual or expected inflation may fail to rise to the Federal Reserve’s (Fed’s) 2 percent target or, more likely, that it may overshoot the target remains a concern and will dominate the debate in the first few months of incoming Fed Chairman Jerome Powell’s term. At its December meeting, the Fed kept its forecast for three rate rises in 2018 and 2019 unchanged, even with the anticipated short-term boost from the expansionary fiscal policy of the Trump administration. On March 21, 2018, the Fed raised rates for the sixth time since the policy-making FOMC began raising rates off near-zero in December 2015. The FOMC’s March 21 meeting was Jay Powell’s first
as new chairman. In its post-meeting statement, the FOMC justified the increase because “the economic outlook has strengthened in recent months” and “inflation shows signs of increasing to the 2 percent target.” The federal funds rate now stands at 1.75 percent. Against this background, however, stands the March and April employment reports (April 6, and May 4, 2018) with 103,000 and 164,000 jobs created versus 193,000 and 195,000 jobs expected, respectively, an indication that the growth of the economy may start to slow down. This may possibly convince the Fed to back off from the planned three interest rates rises in 2018. Evidence exists that inflation may exceed the 2 percent target, however.

The U.S. economy in 2018 faces huge and complex uncertainties. In May 2018, as this commentary is written, President Trump withdrew from the Joint Comprehensive Plan of Action (JCPOA), creating much uncertainty about the Iranian crude oil exports (see below for more comments). In March 2018, the dramatic possibility of a trade war with China, a not totally unexpected issue, surfaced, which may complicate the forecast of real GDP and the decisions of the FOMC. A trade war is an economic conflict whereby countries impose import restrictions on each other to harm each other’s trade. The opening salvos have been fired. President Trump ordered tariffs on steel and aluminum imports and plans tariffs on still more products from China in retaliation for decades of intellectual property theft. China responded in April with tariffs of her own and threatens more. Economists see a risk that the world now heads toward an all-out trade war, one to which the World Trade Organization (WTO) may be ill-equipped to respond.

One of the most notorious examples of a trade war was triggered by the Smoot-Hawley Act, passed by Congress in 1930 and often blamed for the deepening of the Great Depression. The law hiked U.S. tariffs by an average of 20 percent, initially to protect American farmers, but then broadened as other industries lobbied for protection. As demand collapsed, countries scrambled to maintain their gold reserves by devaluing their currencies or imposing even more trade barriers. Global trade fell off a cliff. If history is any guide, no one wins a trade war.

Still, President Trump on March 2 Tweeted that he was confident that trade wars are “good and easy to win.” Signs of easing tensions may one day lead to signs of escalating tensions the next. China’s President Xi renewed a pledge on April 10 to open China’s markets further for trade and investment, including its automobile sector, and said that he would also work harder to boost imports, in what analysts see as a conciliatory speech amid an escalating trade conflict with the United States.

China holds the largest amount of U.S. debt, nearly $1.2 trillion of U.S. Treasuries in January 2018. As tensions between Washington and Beijing escalate, China may pull back on U.S. bond purchases or reduce its U.S. debt holding. Under a worst-case scenario, the Federal debt would plummet in price, and U.S. interest rates would skyrocket. To make matters worse, the massive tax cuts that Congress just passed may require a sizable issuance of new government bonds to bring in the money needed to pay federal bills. The Congressional Budget Office projected on April 9, 2018, that deficits and the national debt will rise dramatically in the coming years, beyond the already daunting levels anticipated before President Trump took office. With the Fed ending its bond-buying programs, designed to keep interest rates extraordinarily low as a post-recession stimulus measure, one wonders why the Chinese would continue to buy an asset that is declining in price.
1. U.S. Economy Continues Its Steady Growth in Output

Because of the Great Recession, the Congressional Budget Office (CBO) lowered its estimates of real potential Gross Domestic Product (GDP) with each revision. While the current recovery followed a path of slow to moderate growth, the path proves consistent with the “new normal” described by the CBO’s calculation of potential real GDP. Since the Great Recession, calculated potential real GDP now follows a long-term trend growth rate of less than 2 percent, defining a new and lower long-term trend for the U.S. economy.

According to the Department of Commerce, real GDP increased by a 1.2 percent annualized growth rate in the first quarter of 2017. This slowing of growth in the first quarter of the year follows a pattern since the Great Recession. This temporary effect reversed itself in the second, third, and fourth quarters with growth rates of 3.1, 3.2, and 2.9 percent, respectively. The first quarter of 2018 came in at an annualized growth rate of 2.3 percent. (A revision in the first quarter rate will occur after this document goes to bed.) Economists at the Bureau of Economic Analysis are intent on trying to explain this “residual seasonality.” That is, this seasonality remains after the analysts’ attempts to remove the seasonality for the real GDP data series in the first place. This issue is beginning to enter the macroeconomic forecasting debates.

The current macroeconomic environment in the United States and the world continues to confront policy makers and economic analysts with much difficulty in trying to make sense out of the future path of the economy. In the global economy, any weakening of the growth in China and the implied spillover effects on the emerging market economies that rely on commodity exports to China portend a weakening of global economic activity. The decision of the United Kingdom to leave the European Union (EU) adds more uncertainty to the global macroeconomic environment. European growth is now turning the page and appears to follow an upward trend.

Our forecast of real GDP growth for the remaining quarters of 2018 are 2.5, 2.9, and 2.8 percent, respectively, and for the four quarters in 2019, the forecasts are 1.9, 3.0, 2.4, and 2.3, respectively (Figure 1). These data indicate that for 2018 and 2019, we forecast an average growth rate of 2.8 and 2.4 percent, respectively. Our forecast moves closer to the median values of the existing consensus, although still below it. These averages, albeit modest, exceed the forecast of growth rate of potential real GDP, the CBO estimate of aggregate output the economy would produce with a high rate of utilization of its capital and labor resources. Consequently, real GDP exceeded potential real GDP beginning in 2017Q3, and our forecast implies a widening of the output gap over the forecast horizon (Figure 2). As the actual real GDP rises above potential real GDP, the CBO may begin revising its estimates of potential since the Great Recession to slightly higher levels, tending to offset the pattern of lowering potential forecasts with each new update. In fact, the latest revision in potential real GDP released by the CBO in April 2018 did raise the trend by a small amount.

Our forecast suggests that real GDP moves above potential real GDP from the end of 2017 through 2019. As such, fiscal stimulus could push the economy significantly above potential real GDP, leading to inflation and an overheating U.S. economy. With an unemployment rate recently falling under 4 percent (i.e., 3.9 percent), no good reason exists to justify implementing fiscal stimulus. The current tax proposal stands to raise the deficits going forward, and by more than the Congress has already authorized.
Figure 2 shows our forecast of real GDP through the end of 2019, along with the confidence bands on our forecast. Unlike our previous forecast, we note that the forecast exceeds potential real GDP over the entire forecast horizon and stands 2.2 percent above potential in 2019Q4. The confidence bands, however, include values of real GDP that fall below potential over the entire forecast horizon. These forecasts appear to answer, at least on a preliminary basis, questions about the future course of the U.S. economy, as they do not support the gloomy “new secular stagnationist” view put forward, for example, by Lawrence Summers.
and Paul Krugman. What we do observe in the post-Great Recession years matches the thesis of an extended cyclical phase of the regular business cycle than with the secular stagnation theory. We hope that this is not wishful thinking our part. We think not.

2. Interest Rates and Monetary Policy: "Maximum Employment and 2 Percent Inflation"

At their December 2016 meeting, the Federal Open Market Committee (FOMC) increased its federal funds rate by a quarter of a percent (25 basis points) for the second time in about eight years. At its March, June, and December 2017 meetings, the FOMC increased the funds rate further by another quarter of a percent at each meeting. Most recently, the FOMC raised the federal funds rate by a quarter of a percent at its March 2018 meeting. With inflation seemingly stuck below the Fed’s 2 percent implicit target, some question lingered about the path of the funds rate over time. Now, it appears that inflation will soon exceed the 2 percent target on a sustained basis. The market expects two or three more rate increases in 2018. We forecast that the Fed will raise the federal funds rate twice in 2018, leaving the funds rate at 2.25 percent by the end of 2018. Fed Chairman Powell continues former Chairman Yellen in linking monetary policy decisions on interest rates to the dual goals of “maximum employment and 2 percent inflation.” That is, the Fed has begun to raise interest rates because it feels that the labor markets have returned to a normal situation, and that inflation will soon exceed the target of 2 percent.

We believe that the Fed no longer feels locked into the dilemma of a “self-constructed” recession, the fear that by raising rates, the economy will enter into a recession. At the start of 2016, the Fed projected that the federal funds rate would revert to a long-term average of 3 to 4 percent sometime after 2019. Rates in that neighborhood are consistent with the growth rates that the United States experienced in past expansions, in the decades before the Great Recession and the subprime crisis. This, however, may not be fully feasible, given the CBO estimate that the United States has a potential growth rate of below 2 percent. This estimate, in itself, represents a neutral stance and simply the consequence of demographic, technological, and market forces that have reshaped the U.S. economy. Interesting questions then are: What will be the economic effect of the Trump administration plans? Could the Trump administration alter this long-run outlook? Several commentators have hinted at that possibility, but it is doubtful. Government policies can temporarily push growth rates higher or lower, but they cannot, by themselves, change the long-term trend.

In sum, the outlook for interest rates remains dominated by monetary policy. With the economy operating below potential, the FOMC has held short-term interest rates at extremely low levels (Figure 3). Our forecast puts real GDP above potential at the end of 2017 and continuing in both 2018 and 2019 with the output gap getting bigger each quarter. This forecast, if accurate, will cause the Fed to continue on its path of raising the interest rate, as the inflation rate may soon exceed the Fed’s 2-percent target.

Even with their current and anticipated tightening, interest rates will probably remain well below historical averages over the next few years. Former Pacific Investment Management Company (PIMCO) CEO, Mohamed El-Erian, quipped that the Fed’s tightening will be the “easiest tightening” on record.

The Fed’s policy of Quantitative Easing (QE) also attempted to drive long-term interest rates lower. In 2014, the Fed began tapering its QE, which led many to expect rising long-
term interest rates. Furthermore, the Fed’s decision to reduce ever so slowly its $4.5 trillion in assets as they mature will add pressure for higher interest rates. That is, when the Fed withdraws its demand to replace some assets as they mature, this will lower asset prices at the margin, which leads to higher interest rates. Weakness elsewhere in the world, as well as the adoption of QE by numerous central banks around the world, generated an influx of foreign investment to the United States, which held down long-term rates, such as those for 10-year Treasury notes and conventional mortgage rates. The yield curve documents an upward slope, a normal pattern, which is more symptomatic of inflation than recession. A shrinking of the spread between the 10-year Treasury and the 3-month Treasury has occurred and if this continues, it could produce a flashing signal of an impending recession.

3. Global Economic Activity

World economic growth equaled 3.5, 3.6, 3.5, and 3.2 percent in 2013, 2014, 2015, and 2016, respectively (Figure 4), according to the IMF World Economic Outlook. Global growth is estimated to equal 3.8, 3.9, and 3.9 percent in 2017, 2018, and 2019, respectively, according to the latest update (April 2018) of the World Economic Outlook. These estimates change only slightly from the previous estimates and projections of the April 2017 and October World Economic Outlook.

Any projection of the long-run trend in world economic growth depends greatly on the eventual outcomes in China, the emerging market economies, and the EU. Slower growth in China exerts spillover effects on those emerging market economies that export commodities to China. That is, the slowing of growth in China means reduced demand for commodities and, thus, slower growth in supplier countries. In the long-term forecast, the world growth rate is projected to equal 3.8 percent in 2020 and 3.7 percent in 2023. The longer term forecast for the advanced economies paints a gloomy picture with the growth rate falling to 1.7, 1.7, 1.5, and 1.5 percent in 2020, 2021, 2022, and 2023, respectively, the lowest among the three groups of countries displayed in Figure 4. The forecast shows that...
the rate of growth of the Asia Pacific region is 6.5 percent in 2020 and 6.2 percent in 2023, a slightly lower rate than expected. The emerging market group of countries is forecasted to grow at 5.1 percent in 2020 and 5.0 percent in 2023. The forecast for the United States is 2.5 and 2.2 percent for 2018 and 2019, but the long-term growth forecast for the United States proves extremely pessimistic. In 2023, the United States, according to the IMF, is expected to grow at a rate of 1.4 percent.

A new world impetus, however, may result from the recently announced China’s trillion-dollar effort to build a modern “Silk Road,” a lending program of unprecedented breadth in the form of “belt and road” infrastructure and massive capital injections in the global economy.

4. Indicators of Economic Activity and Confidence

As the expansion that began in July 2009 continues into its tenth year, some analysts begin to think about the possibility of a recession. While the length of an expansion does not in and of itself tell us anything about the likelihood of recession, we know that nine years extends beyond the average length of post-WWII expansions. The current expansion is the second longest on record, passing the former second place expansion of the 1960s in May 2018. In July 2019, it will become the longest. This section examines a few important indicators that can provide signals of an impending recession. The financial positions of individuals, firms, and the financial sector all seem in sufficiently good shape to support the continuation of our current expansion. Moreover, because of the tax cuts, we anticipate that the pace of the expansion will accelerate somewhat.

U.S. Leading Index. The U.S. Leading Economic Index provides a signal about the future path of the macroeconomy. Usually, it turns down months ahead of the drop into recession. Not all signals prove accurate, however. Until most recently, the leading index produced by the staff of the Philadelphia Federal Reserve Bank has been fluctuating in the range of 1 to 2 percent (Figure 5), which signals continued economic growth. While this indicator does
not yet provide any signal of a recession in the near future, we do see, however, that the index as represented by the black line tends to fall into recessionary periods as seen by the grey bars. Thus, if the leading index tanks and falls, then we need to become more watchful as a recession may occur within a few months. Note that the recession sometimes occurs before the index falls below zero, making the recession call more difficult. Given its most recent movements, we do not see a cause for concern. Nevertheless, we need to watch this index carefully going forward.

![Figure 5. U.S. Leading Economic Index](image)

Sources: Philadelphia Federal Reserve Bank; National Bureau of Economic Research; National Bureau of Economic Research

**Institute for Supply Management (ISM) Manufacturing: Purchasing Manager’s Index (PMI©).** Many analysts follow the PMI© as a signal about the current and future state of the economy. Numbers above 50 indicate a positive outlook for manufacturing. Since the Great Recession, this index fell below 50 on two occasions, most recently in late 2015 and early 2016 (Figure 6). But, since it moved above 50 in March 2016, it fell below 50 only in August at 49.4. Since the election of President Trump, the Purchasing Manager’s Index has moved upward sharply and stood at 60.8 in September 2017 and February 2018 after rising to around 57 from January through July in 2017. The April 2018 number fell to 57.3, still a strong positive signal.

**Term Structure of Interest Rates.** The term structure of interest rates, which considers the differences in interest rates at a point in time for different maturities of U.S. Treasury issues (bills, notes, and bonds), provides a strong indicator of recession. Figure 7 shows the time-series properties of the term structure of nominal interest rates (i.e., not adjusted for inflation), plotting the 3-month and 1-year Treasury bills, the 3-, 5-, and 10-year Treasury notes, and the 20- and 30-year Treasury bonds. We note that prior to recessions, the short-term interest rates rise and the spread between the short-term and long-term interest rates disappears, or even reverses itself. This is called an inverted term structure (yield
curve), when the short-term interest rate exceeds the long-term interest rate. This typically happens when the inflation rate is high, causing the nominal interest rate to go up. High inflation usually associates with the Fed taking away the “punch bowl” from the “economic party” and creating a recession. But, when the current inflation rate is “high,” the markets do not expect the inflation rate to continue at a high level. Thus, long-term interest rates incorporate a lower inflation premium into their rate, leading to an inverted term structure. Currently, the long-term interest rates exceed the short-term interest rates, suggesting
that a recession is not in the immediate future, although the spread between the 10-year Treasury note and 3-month Treasury bill has narrowed from 2.83 percent in December 2013 to 1.98 percent in December 2016 and then to 1.29 percent in February 2018. Most recently, it fell to 1.11 percent in April 2018. In sum, as the Fed raises the federal funds rate, we see an increase in the three-month Treasury bill rate. That increase in the funds rate has occurred along with a smaller increase in the 10-year Treasury note rate, tending to reduce the spread between these two rates. This trend deserves careful attention. If the spread continues to narrow, we should also become watchful, as a recession may emerge in the near future.

**Economic Policy Uncertainty.** Since the end of the Great Recession, many analysts argue that uncertainty about U.S. economic policy has impeded business investment (Figure 8), which, in turn, has slowed the recovery. Nonetheless, uncertainty about U.S. economic policy fell below its historical average in November 2013 and remained below this average until 2015. This suggested that policy uncertainty was not much of an impediment to increased investment and accelerating economic activity during those months. The index jumped back and forth since mid-2015, currently falling below the long-term average in April 2018. Other issues, such as business confidence in the economy and weak Chinese and European economies, continue to pose impediments to robust investment and an accelerating economy. The election of Donald Trump was associated with a jump in the policy uncertainty index from 92.5 in October 2016 to 169.4 in November 2016. Now, the index hovers just below its average over the sample period.

**Consumer Sentiment (Confidence) Index.** The University of Michigan measure of consumer sentiment (confidence) has followed a bumpy upward path since the Great Recession. It nearly returned to a level of 100 in January 2015, posting 98.1, but then it tracked a generally downward path, reaching 87.2 in October 2016, just before the election. Since the election of President Trump, it generally rose to 97.0 in April 2017 and popped to just over 100 in October 2017. It then drifted a bit lower until returning to 101.4 in March 2018, ending at 98.8 in April 2018. We inverted the economic policy uncertainty index and plotted it on the same graph as the consumer confidence index (Figure 9). The consumer confidence index and the inverted economic policy uncertainty index track each other with a correlation of 0.60.

In sum, the various indicators that could signal a future recession do not flash strong signals of an impending recession. The leading index oscillates in a narrow range between 1.0 and 2.0. In addition, while the economic policy uncertainty index did move higher on the election of President Trump, it has now fallen back to its mean soon after the election. In addition, the ISM Manufacturing Index lies well above the critical value of 50, and consumer and business confidence have moved in a positive direction since the election. In sum, the odds favor continued expansion now.

In CBER’s quarterly business confidence survey conducted in March 2018, we asked Southern Nevada business leaders to indicate when the next national recession would occur. The survey respondents do not expect a recession in the near future (Figure 10). Just

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1 This measure of policy uncertainty incorporates three components. The first component quantifies newspaper coverage of policy-related economic uncertainty. The second component includes the number of federal tax code provisions set to expire in future years. The third component uses disagreement among economic forecasters as a proxy for uncertainty.

2 President Trump would call this jump in uncertainty “fake news” as a large component of the index comes from the print media.
Figure 8. U.S. Economic Policy Uncertainty Index

Sources: University of Michigan Survey Research Center; Economic Policy Uncertainty <http://www.policyuncertainty.com/>; National Bureau of Economic Research

Figure 9. Consumer Sentiment and U.S. Economic Policy Uncertainty Index (inverted)

Sources: University of Michigan Survey Research Center; Economic Policy Uncertainty <http://www.policyuncertainty.com/>; National Bureau of Economic Research
over 51 percent of the respondents expect a national recession after 2020. Only 1.1 percent think that a recession will occur in 2018 and only 20.7 percent think a recession will occur in 2018 or 2019.

5. Indicators of Economic Performance

As noted when discussing the Fed's policy, the employment sector remains strong. The unemployment rate fell to 3.9 percent in April 2018, its lowest level since 2000. Crude oil prices began increasing in recent months breaking out of the $40 to $60 range that it had remained within for a number of years and jumping above $70. Finally, the housing sector continues its recovery from the Great Recession with renewed concerns about bubbles in some metro areas.

Employment Remains Strong. With job growth, the U.S. unemployment rate fell sharply from 10.0 percent in October 2009 to 3.9 percent in April 2018 (Figure 11). Initial claims for unemployment also followed a downward trend, which means the economy has been doing more to create jobs than to destroy them.

Higher Crude Oil Prices. As the result of fracking, conservation, fuel switching, increased oil production, and weakness in the Chinese and European economies, oil prices fell dramatically since mid-summer 2014 (Figure 12). The fall in the crude oil price to the $30 and then the rise back to the $45-$55 range made some of this investment no longer economically viable. The most recent run-up in crude oil prices into the $70 plus range due to stronger demand and production cuts by Russia and Saudi Arabia puts much of this prior investment back to work, boosting the United States to soon become the world’s leader in crude oil production. While higher crude oil prices could slow world growth, this event stands to boost economic activity in the U.S. oil sector. The recent exit of the United States from JCPOA makes the future path of crude oil prices more uncertain.
Figure 11. Unemployment Rate and Initial Claims for Unemployment

Figure 12. Brent Crude Oil Price

U.S. Housing Market Remains Somewhat Tight. As shown in Figure 13, the U.S. housing supply remains somewhat tight. Based on recent sales, the current houses listed on the market provide only 5.2 months of supply in March 2018, which is below the historical average of 6.1 months. As long as supply remains below average, prices can be expected to continue rising, and home construction will be stimulated. The housing market is much tighter in Southern Nevada with less than a two-month’s supply of housing on the market.

6. Risks to the Outlook

As we noted in this report, our forecast lies on the pessimistic side of the distribution of forecasts that currently exist, but moved closer to the consensus view over our past several outlook and update events. While President Trump got his tax cut bill through Congress, residual uncertainty as to the effect of fiscal budget deficits and growing public debt on the current expansion remains. The tax cuts should stimulate economic activity, but the unknown factor is by how much. Strengthening economic activity in China, Europe, and emerging market economies will further boost U.S. economic growth. A trade war, however, would affect the U.S. economy negatively, especially if President Trump decides to impose large tariffs to retaliate against dumping by China and other countries into the U.S. economy.

Higher economic activity in the United States and in the rest of the world could lead to the need for monetary tightening. The future path of crude oil prices will determine the activity of oil producers in the United States, especially in the fracking industry. Increasing commodity prices could necessitate tighter monetary policy sooner than expected. The newly announced Silk Road is something to keep an eye on, as it could inject new strength into the global economy.
The natural rate of unemployment—the rate at which the economy operates at full capacity—varies over time and cannot be precisely estimated. Once unemployment falls below the natural rate, however, economic activity will move above capacity and inflation will begin increasing. Because the natural rate of unemployment is uncertain, the Fed must make a judgment call about when to begin monetary tightening. Our forecast suggests that real GDP moves above potential real GDP from the third quarter of 2017 through 2019. As such, fiscal stimulus could push the economy significantly above potential real GDP, leading to inflation and an overheating U.S. economy. With an unemployment rate around 4.0 percent, no reason existed, in our view, to implement fiscal stimulus.

As already noted, the FOMC began increasing interest rates at its December 2015 meeting. At its December 2016 meeting, it increased the federal funds rate by a quarter of a point for the second time in about eight years. At its March, June, and December 2017 meetings, the FOMC increased the funds rate further by another 25 basis points at each meeting. Most recently, the FOMC raised the federal funds rate by a quarter of a percent at its March 2018 meeting. The path of the funds rate over time remains a point of much discussion. The market expects two or three more rate increases in 2018. We forecast that the Fed will raise the federal funds rate twice in 2018, leaving the funds rate at 2.25 percent by the end of 2018. If the Fed acts too quickly, it will risk weakening economic activity. If too slowly, inflation could erupt. Which risk would you rather take?
Nevada Continues Its Recovery

On October 1, Las Vegas suffered a tragedy, but it’s rapidly getting back on its feet. It did it after September 11, it did it during the Great Recession, and it will do it again now. The tragedy may affect the fourth quarter economic performance to some extent, but the future does not remain uncertain. The financial markets expressed the resilience of the Las Vegas economy when the shares of MGM Resorts International dropped 3 percent on October 2 before rallying back the following week. The shares of Wynn Resorts, Boyd Gaming, Las Vegas Sands, and Caesars Entertainment exhibited similar dynamics and remained close to their highs for the year.

The Nevada economy continues its steady progress towards recovery from the financial crisis and the Great Recession. In September 2016, employment in the Silver State rose above its prerecession peak. The distribution of employment, however, differs in important ways from the distribution just before the crash. That is, construction employment is recovering, but lies far below its peak level in the boom. Service sector employment grew as a fraction of total employment. During the recovery, Nevada has experienced among the fastest employment growth among states in recent years.

The Governor’s Office of Economic Development (GOED) has pursued an aggressive policy of attracting high-tech and other firms to Nevada, giving tax abatements to firms as an incentive to locate in Nevada. In the north, the Tahoe-Reno Industrial Center (TRIC) has grown significantly with major players including Tesla and Switch. In the south, the Apex Industrial Park in North Las Vegas shows promise for significant economic activity, but the failure of Faraday Future to deliver on its promises proved a major disappointment. The future development of Apex will aid the continued diversification of the Nevada economy.
1. Tracking the Nevada Economy

This section reports information from the CBER Nevada Coincident and Leading Indexes. The CBER Nevada Coincident Index combines monthly information on Nevada taxable sales, Nevada gross gaming revenue, and Nevada nonfarm employment, measuring the ups and downs of the Nevada economy. The coincident index provides the benchmark series that defines the business cycle or reference cycle in Nevada.\(^1\)

The coincident index spans three full recessions and the bulk of a fourth recession in the early 1980s (Figure 1). The Great Recession generated the longest and deepest of these four recession episodes. The index peaked in February 2007 and then fell dramatically through June 2010 (for comparison, the national recession dates cover December 2007 through June 2009), almost three-and-one-half years. Currently, the index has recovered to above its prior peak before the Great Recession. It took seven years to achieve this level of recovery.

The CBER Nevada Leading Index combines information on Nevada initial claims for unemployment insurance, the 10-year inflation-adjusted (real) Treasury interest rate, the Standard & Poor’s stock market index, Nevada housing permits, Nevada commercial permits, and Nevada airport passengers. The Nevada Leading Index also measures the ups and downs of the Nevada economy, providing a signal about the future direction of the Nevada Coincident Index. The Leading Index tracks the economy relative to that reference cycle. A good leading index will provide signals about the future path of the reference cycle or the coincident index.

The Nevada leading index peaked in November 2005, 14 months before the Nevada coincident index peaked (Figure 2). Then the Nevada leading index troughed in May 2009, 13 months before the Nevada coincident index troughed. In the two earlier, much milder recessions in the early 1990s and early 2000s, the leading index did not turn much before the coincident index at either the peaks or troughs of the cycle. For the first cycle in the early 1980s, the leading index peaked in February 1980, 11 months before the Nevada coincident index peaked in December 1980. Then the leading index troughed in August 1982, three months before the Nevada coincident index troughed in November 1982. Today, the leading index displays continued upward momentum.

2. Economic Growth Widespread Across Nevada Economy

Prior to the Great Recession, Nevadans had grown accustomed to strong economic growth. From January 1990 to December 2007, the latter date being when the U.S. economy peaked prior to the Great Recession, Nevada employment grew at a 4.3 percent annual rate. In contrast, U.S. employment grew at a 1.3 percent annual rate. In fact, Nevada was the fastest-growing state during the 18 years prior to the Great Recession. Arizona and Utah ranked second and third, respectively, behind Nevada. In general, U.S. growth was strongest in the Intermountain West, Texas, and the Southeast.

As shown in Figure 3, Nevada employment growth began to reaccelerate in recent years. In 2010, the state lost 8,400 jobs (-0.7 percent). In 2011, 2012, and 2013, Nevada saw job gains of 12,600 (1.1 percent), 23,400 (2.1 percent), and 34,300 (3.0 percent), respectively. Growth

\(^1\) All series are initially not seasonally adjusted and then seasonally adjusted using Census X12.
Figure 1. CBER Nevada Coincident Index

Sources: Nevada Department of Taxation; Nevada Gaming Control Board; Nevada Department of Employment, Training and Rehabilitation; U.S. Bureau of Labor Statistics; Center for Business and Economic Research, UNLV

Figure 2. CBER Nevada Leading Index

Sources: Nevada Department of Employment, Training and Rehabilitation; U.S. Bureau of Labor Statistics; Various Permitting Agencies; Center for Business and Economic Research, UNLV
was even stronger in 2014, with a gain of 48,800 jobs (4.1 percent). Growth slowed in 2015, with job gains of 44,400 (3.6 percent), then slowed further in 2016 with job gains of 36,800 (2.9 percent). Finally, growth increased in 2017, with job gains of 41,600 (3.2 percent). We topped the prior peak that occurred in March 2007 in July 2016, and employment growth continues unabated.

How does the movement in Nevada's employment compare to the movement in employment in other western states? Figure 4 plots the employment in Arizona, California, Colorado, Nevada, New Mexico, Oregon, Utah, and Washington. Since the size of the employment sector in each state differs, we normalize employment in January 1990 to 100. Thus, we can compare the relative movements in employment after 1990. If we had chosen a different year to normalize, say January 2000, the movements would appear differently, although the relative movements would be the same.

Since 1990, Nevada leads the pack in the growth of employment. Arizona and Utah fall slightly behind Nevada, whereas California falls in last place. Since the Great Recession that we identify by the trough in Nevada’s employment in September 2010, New Mexico shows the slowest growth with even California exhibiting much faster growth, so that convergence between California and New Mexico occurs. Utah saw the fastest growth with Nevada and Colorado following closely behind in that order. Then Washington, California, Oregon, and Arizona follow in that order with slightly lower growth rates. Finally, New Mexico lags significantly behind the pack.

Because of the gains in employment, the Nevada unemployment rate has fallen (Figure 5). The seasonally adjusted Nevada unemployment rate peaked at 13.7 percent in late 2010 before entering a long phase of declining rates that stabilized at 4.9 percent from August 2017 through March 2018. Thus, we still experience an unemployment rate nearly 1 percent

Figure 3. Nevada Employment

Sources: U.S. Bureau of Labor Statistics; Nevada Department of Employment, Training and Rehabilitation
Figure 4. Non-Farm Employment - Selected Western States (SA)

Sources: Nevada Department of Employment, Training and Rehabilitation; U.S. Bureau of Labor Statistics; Federal Reserve Bank of St. Louis

Figure 5. Nevada Unemployment Rate

Sources: U.S. Bureau of Labor Statistics; Nevada Department of Employment, Training and Rehabilitation
higher than the national rate. As a comparison, Nevada nonfarm employment troughed in September 2010 at 1,112,600 jobs and then rose consistently to 1,373,700 jobs in March 2018, or a gain of 261,100 jobs or 23.5 percent.

We also compare the unemployment rate in Nevada to the same western states for which we compared employment. Figure 6 shows the unemployment rates in Arizona, California, Colorado, Nevada, New Mexico, Oregon, Utah, and Washington. We do not need to normalize the unemployment rate as we had to normalize the employment levels across states because the unemployment rate is a percentage.

Nevada experienced the highest unemployment rate after the Great Recession and began with the lowest unemployment rate along with Utah in the early 1990s. Utah exhibited the peak with the lowest unemployment rate after the Great Recession. Now, the worst unemployment rate occurs in New Mexico with Nevada, Arizona, and Washington all converging to a similar rate. The lowest unemployment rates are in Colorado followed closely by Utah. Finally, Oregon ranks as the third best (lowest) unemployment rate.

3. Housing Market Still Recovering

The Great Recession saw 69.9 percent of Nevada home mortgages underwater at its peak. While much progress has been made as home prices have risen in recent years, Nevada until recently faced a substantial issue with underwater mortgages, leading the nation in the percentage of mortgages with negative equity. Now, Nevada ranks fifth worst in underwater mortgages (Figure 7). In the most current observation (2017Q4), Nevada’s negative equity mortgages equal 8.0 percent of total mortgages. Louisiana leads the nation.
Figure 7. Percent Negative Equity Mortgages by State

Sources: CORE Logic; Center for Business and Economic Research, UNLV

Figure 8. Percent Negative Equity Mortgages in Nevada

Sources: CORE Logic; Center for Business and Economic Research, UNLV
with 10.4 percent negative equity mortgages, followed by Illinois, Florida, and Connecticut at 8.9, 8.5, and 8.5 percent underwater mortgages, respectively. Examining Nevada's history since 2010Q1 (Figure 8), we see that the negative equity mortgages fell from 69.9 percent in 2010Q1 to 8.0 percent in 2017Q4.

4. Nevada Economic Outlook

We have seen generally favorable economic trends in Nevada. We expect most of those trends to continue in 2018 and 2019.

4.1 Nevada Economic Outlook for 2018-2019

We believe that the Nevada economy will continue to see improvement in its economy in 2018 and 2019 (Figure 9). After experiencing generally positive movements in 2016 and 2017, we see continued improvements in gaming revenue, housing permits, employment, personal income, and population in 2018 and 2019. The improvements in housing permits, employment, and personal income tend to attenuate in 2018 and 2019 as compared to 2017. Visitor volume is predicted to decrease slightly in 2018, as it did in 2017, but recover with small growth in 2019.

To summarize, because the Nevada economy heavily depends on tourism, its outlook ties to the growth of the U.S. and western states’ economies. While Nevada continues to get help from real estate and construction, a wide range of sectors also exhibit growth.

4.2 Risks to the Nevada Outlook

The main risks to the Nevada forecast arise from short-term fluctuations in both international and U.S. economic conditions. Based on our assessment of the international and national trends, we believe that the Nevada economy will continue to see improvements in 2018 and 2019. In addition, we anticipate that the economic growth in the Nevada economy will generally outperform the national economy, since we started our local recovery later and from a much deeper hole than faced at the national level. Nevertheless, the health of the Nevada economy still depends on national and international economic activity.

The future path of the national economy remains uncertain. On the positive side, business and consumer confidence signal a bullish outlook for future developments. On the negative side, the potential for political roadblocks to action on the Trump economic agenda as well as the on-again, off-again approach to policy making signal a bearish outlook. Given the strength of the national economy with output above potential and the unemployment rate at low levels, the tax cut legislation should cause a further increase in aggregate demand, and the national economy will probably overheat in the short run.

Economic growth in the rest of the world may also influence U.S. economic growth, which, in turn, will influence the Nevada economy. China has become an important player in the world economy based on her aggregate size. Moreover, China purchases a large share of commodities on international markets, which are the major exports from many emerging market economies. Thus, slower or faster growth in China leads to slower or faster growth, respectively, in emerging market economies. European countries also play an important
The Federal Reserve System’s (Fed) Board of Governors ended quantitative easing (QE) and instituted its first interest rate increase since the Great Recession of 25 basis points in December 2015, December 2016, and March, June, and December 2017. Finally, observers anticipate three or four interest rate increases from the FOMC in 2018, one which already occurred in March 2018. But, the FOMC’s ultimate decision on the number of interest rate increases over the next two years will depend on what the data tell the FOMC about the state of the U.S. economy. Fewer interest rate increases could lead to higher inflation, whereas more interest rate increases may lead to slower growth. At the international level, many other countries started QE much later than the United States and those policies continue with some slowing of the pace of asset purchases. If foreign central banks continue to hold their interest rates at low levels, including some negative rates, as the FOMC considers increasing U.S. rates, a widening interest rate differential will strengthen the dollar. And, a stronger dollar means that our exports are more expensive and our imports are cheaper. Thus, the trade balance will deteriorate as exports fall and imports rise, tending to weaken U.S. economic growth.

role in the future path of the U.S. economy. The International Monetary Fund (IMF) is mildly optimistic about the future growth of European countries. Should China falter in its growth or the European countries fail to meet the expectations of the IMF, spillover effects will slow the U.S. expansion.

Figure 9. Nevada Economic Outlook

Sources: Nevada Commission on Tourism; Nevada Gaming Control Board; U.S. Census Bureau; Nevada Department of Employment, Training and Rehabilitation; U.S. Bureau of Labor Statistics; U.S. Bureau of Economic Analysis; Center for Business and Economic Research, UNLV
Southern Nevada Economy to Continue Strengthening

On October 1, Las Vegas suffered a tragedy, but it’s rapidly getting back on its feet. It did it after September 11, it did it during the Great Recession, and it will do it again now. The tragedy affected the fourth quarter economic performance to some extent, but the future does not remain uncertain. As noted previously, the financial markets expressed the resilience of the Las Vegas economy when the shares of MGM Resorts International dropped 3 percent on October 2 before rallying back the following week. The shares of Wynn Resorts, Boyd Gaming, Las Vegas Sands, and Caesars Entertainment exhibited similar dynamics and remained close to their highs for the year. The national and international economies are doing well, and the future of gaming and tourism in Southern Nevada remains bright.

The Las Vegas economy remains #VegasStrong.

The Southern Nevada economy continues to make steady progress towards recovery from the financial crisis and Great Recession. Employment in Southern Nevada peaked before the Great Recession in May 2007 at 931,900 jobs, fell to 797,500 jobs at the trough in September 2010, and regained this number of jobs in November 2015. Jobs stood at 998,200 jobs in March 2017. Recovery continues, and Southern Nevada has been among the fastest-growing metropolitan areas in recent years.

1. Tracking the Southern Nevada Economy

This section reports information from the CBER Southern Nevada Coincident and Leading Indexes. The CBER Southern Nevada Coincident Index uses the Department of Commerce index
construction method to combine monthly information on Southern Nevada taxable sales, Southern Nevada gross gaming revenue, and Southern Nevada nonfarm employment, as done for the Nevada Coincident Index. The CBER Southern Nevada Coincident Index measures the ups and downs of the Southern Nevada economy. The coincident index provides the benchmark series that defines the business cycle or reference cycle in Southern Nevada.\(^1\)

The coincident index spans three full recessions and the bulk of a fourth recession in the early 1980s (Figure 1). The Great Recession generated the longest and deepest of these four recession episodes. The index peaked in February 2007 and then fell dramatically through June 2010, an almost three-and-one-half year period of decline. These dates match exactly the peak to trough in the Great Recession in the CBER Nevada Coincident Index. Currently, the index has recovered all of its decline during the Great Recession and stands over 5.9 percent higher than this prior peak. It took just over seven years to achieve this level of recovery.

The CBER Southern Nevada Leading Index combines information on Nevada initial claims for unemployment insurance, the 10-year inflation-adjusted (real) Treasury interest rate, the Standard & Poor’s stock market index, Southern Nevada housing permits, Southern Nevada commercial permits, and Southern Nevada airport passengers (McCarran). The CBER Southern Nevada Leading Index also measures the ups and downs of the Southern Nevada economy, providing a signal about the future direction of the coincident index. The leading index then tracks the economy relative to that reference cycle. A good leading index will provide signals about the future path of the reference cycle.

\(^1\) All series are initially not seasonally adjusted and then seasonally adjusted using Census X12.
The Southern Nevada leading index peaked in September 2005, 17 months before the Southern Nevada coincident index peaked (Figure 2). Then the Southern Nevada leading index troughed in May 2009, 13 months before the Southern Nevada coincident index troughed. For the two earlier recessions in the early 1990s and early 2000s, the leading index did turn before the coincident index at both the peaks and troughs of the cycle. Finally, for the first cycle in the early 1980s, the leading index peaked in January 1980, 19 months before the Southern Nevada coincident index peaked in August 1981. Then the leading index troughed in April 1982, seven months before the Southern Nevada coincident index troughed in November 1982. The leading index still appears to follow an upward trajectory, having exceeded its prior peak.

2. Southern Nevada Economic Conditions Improving

The Southern Nevada economy continues to experience employment growth (Figure 3). In 2010, nonfarm employment fell by 1.3 percent December-to-December, but then in 2011, 2012, 2013, and 2014 employment grew by 1.5, 2.7, 3.2, and 4.6 percent, respectively. The annual December-to-December growth rate for 2015 fell slightly to 4.0 percent, and then fell again to 2.7 and 2.6 percent in 2016 and 2017, respectively. As a comparison, the national December-to-December growth rate of nonfarm employment averaged 1.6 percent from 2010 to 2017, whereas in Southern Nevada, it averaged 2.5 percent.

As we did for the Nevada outlook, we also compare Las Vegas employment to employment in Western metropolitan areas—Albuquerque, Denver, Los Angeles, Phoenix, Portland, Seattle, and Salt Lake City. Once again, we normalize the employment series to 100 in January 1990. Figure 4 presents the normalized employment series for these Western
Figure 3. Las Vegas Employment (SA)

Sources: Nevada Department of Employment, Training and Rehabilitation; U.S. Bureau of Labor Statistics

Figure 4. Non-Farm Employment – Selected Western Metropolitan Areas (SA)

Sources: Nevada Department of Employment, Training and Rehabilitation; U.S. Bureau of Labor Statistics; Federal Reserve Bank of St. Louis
metropolitan areas. We see that Las Vegas leads the pack in terms of employment growth over the period with Los Angeles trailing in last place. Since the Great Recession that we measure from September 2010 when Las Vegas hit its trough, Las Vegas again shows the fastest growth followed by Denver, Salt Lake City, Phoenix, Seattle, and Portland. Albuquerque exhibits the slowest growth since the Great Recession. Las Vegas also clearly took the biggest hit during the Great Recession.

Taxable sales continue to exhibit a strong upward movement (Figure 5). Clark County taxable sales in 2015 were 5.7 percent higher than in 2014. Increased visitor spending and rising personal income in Las Vegas contribute to the strong gains in taxable sales. Nonetheless, the most recent trend of 5.9 percent annual growth rate in taxable sales in the post-Great Recession falls below the trend in the 1980s of 9.7 percent, the 1990s of 10.8 percent, and the 2000s before the Great Recession of 8.4 percent. In February 2018, taxable sales exceeded their prior peak by 12.1 percent.

Gross gaming revenue always shows volatility, but the volatility increases sharply after the Great Recession (Figure 6). Note that even though we seasonally adjust gross gaming revenue, it still experiences high volatility. In addition, the drop in gross gaming revenue during the Great Recession dwarfs the prior recessions in the chart. Gross gaming revenue rose by an average of 8.8 percent per year in the 1980s, 7.9 percent in the 1990s, and 5.3 percent in the 2000s before the Great Recession. Since the Great Recession, gross gaming revenue increased by only 1.5 percent per year through 2016.

Figure 5: Clark County Taxable Sales

![Figure 5: Clark County Taxable Sales](image)

Sources: Nevada Department of Taxation; Center for Business and Economic Research, UNLV
As the result of employment growth, the Las Vegas unemployment rate fell sharply. The seasonally adjusted Las Vegas unemployment rate rose above 5.0 percent (Figure 7) in recent months. But, the unemployment rate fell significantly from the peak unemployment rate of 14.0 percent in late 2010. In other words, the unemployment rate has improved dramatically from the depths of the Great Recession, but has stabilized at just over 5 percent throughout 2017 into 2018, which matches a similar occurrence for Nevada. And, this rate stalls about 1 percent above the national unemployment rate at 5.2 percent in March 2018.

We also compare the Las Vegas unemployment rate to the rates in Albuquerque, Denver, Los Angeles, Phoenix, Portland, Salt Lake City, and Seattle. Figure 8 shows the various Western metropolitan areas’ unemployment rates. Las Vegas began the sample period just behind Salt Lake City at the lowest unemployment rate of these metropolitan areas. The Las Vegas unemployment rate peaked at 14 percent after the Great Recession, the highest unemployment rate of these metro areas. Recently, Las Vegas still holds the highest unemployment rate among these Western metro areas at 5.2 percent. Following closely behind with a similarly high, but slightly lower, rate at 4.9 percent is Albuquerque. While Salt Lake City consistently experienced the lowest or nearly the lowest unemployment rate over the sample period, Denver now has converged to and then fell below Salt Lake City’s level at the end of the sample period with 2.6 percent versus 3.0 percent unemployment rates. Finally, the lowest unemployment rates occur in Portland, Seattle, Los Angeles, and Phoenix in that order.
Figure 7. Las Vegas Unemployment Rate (SA)

Sources: Nevada Department of Employment, Training and Rehabilitation; U.S. Bureau of Labor Statistics; Federal Reserve Bank of St. Louis

Figure 8. Unemployment Rate – Selected Metropolitan Areas (SA)

Sources: Nevada Department of Employment, Training and Rehabilitation; U.S. Bureau of Labor Statistics; Federal Reserve Bank of St. Louis
3. Tourism and Gaming

Activity in the tourism sector, as measured by CBER’s Clark County Tourism Index, shows a slow upward trend since the Great Recession (Figure 9). The index is composed of three components—Clark County gross gaming revenue, the Las Vegas hotel/motel occupancy rate, and total passengers enplaned/deplaned at McCarran International Airport. As we did for the Southern Nevada coincident and leading indexes, we also employ the Department of Commerce method to construct this and the other indexes that follow in this section. The recessions correspond to the benchmark series for Las Vegas, the Southern Nevada Coincident Index. That is, the recession bars match those shown in Figure 1 above for the Southern Nevada Coincident Index. Compared to the other recessions in Las Vegas, with the exception of the 9/11 drop, the Great Recession caused a sharp drop in the Clark County Tourism Index. The recovery from the bottom of the Great Recession has been slow but steady. The index has yet to surpass its previous peak, although that should occur in the not too distant future. To date, the tourism index has recovered 98.8 percent of its loss from the Great Recession.

McCarran Airport passenger volume grew recently at a brisk pace (Figure 10), generating a 7.3 percent increase year over year in September 2016. Since then, however, the growth has slowed dramatically, leaving monthly McCarran Airport passengers almost unchanged. The growth rate of McCarran passengers equaled—0.5, 0.4, 2.5, 5.8, 4.6, and 2.2 percent in 2012, 2013, 2014, 2015, 2016, and 2017, respectively, using annual totals. McCarran Airport surpassed its prior monthly peak in passengers in September 2016, but fell back below that previous peak in every month since then until July 2017. The new peak is February 2018, and the year-over-year growth rate using monthly data equals 4.0 percent.

Sources: Nevada Gaming Control Board; Las Vegas Convention and Visitors Authority; McCarran International Airport; Center for Business and Economic Research, UNLV
As shown in Figure 11, the Clark County hotel occupancy rate steadily increased since the end of the Great Recession. Since January 2014, it has run between 85 and 90 percent, rising slowly from 85 toward 90 percent, and ending in July 2017 at just over 90 percent. Since then, the occupancy rate slipped into the upper 80s. The October 1 tragedy exerted some effect, which becomes more important as one drills down from the Southern Nevada market eventually to the Mandalay property itself. Renovation of hotel rooms also affected the occupancy rate negatively.
Clark County visitor volume continues to grow to new records (Figure 12), although the pace began to slow in 2015. Since its bottom on January 2009, visitor volume has risen by 20.3 percent through July 2017. Moreover, visitor volume is 3.6 percent higher than its peak before the Great Recession. Visitor volume rose by 11.0, 2.6, 1.8, and -1.0 percent in 2012, 2013, 2014, 2015, 2016, and 2017, respectively, using annual totals. The year-over-year growth rate using monthly data in February 2018 equaled -5.9 percent.

![Figure 12. Clark County Visitor Volume](image)

Sources: Las Vegas Convention and Visitors Authority; Center for Business and Economic Research, UNLV

4. Construction Activity

Activity in the construction sector, as measured by CBER’s Clark County Construction Index, shows a significant upward trend since its trough in April 2012 (Figure 13), rising by a total of 17.1 percent. The index is composed of three components—Clark County residential permits, Clark County commercial permits, and Clark County construction employment. The recessions, once again, correspond to the benchmark series for Las Vegas, the Southern Nevada Coincident Index. Compared to the other recessions in Las Vegas, the Great Recession caused a dramatic drop in the Clark County Construction Index. The recovery from the bottom of the Great Recession was delayed for some time but has taken off since its trough. Of course, we do not see a return to the heights of the index during the boom in construction activity, leading up to the financial crisis and Great Recession.

Clark County housing permits fell dramatically during the financial crisis and Great Recession (Figure 14), dropping to levels not seen since the early 1980s. The decline went from around 4,000 permits per month to about 500 permits per month. Since the end of the Great Recession, housing permits have rebounded at a pace similar to the early 1980s, now averaging somewhat more than 1,200 permits per month over the last 12 months.
Figure 13. Clark County Construction Index

Sources: Various Permitting Agencies; Nevada Department of Employment, Training and Rehabilitation; U.S. Bureau of Labor; Center for Business and Economic Research, UNLV

Figure 14. Clark County Housing Permits

Sources: Various Permitting Agencies; Center for Business and Economic Research, UNLV
Clark County commercial permits also took a deep dive during the financial crisis and Great Recession (Figure 15), falling to levels even lower than in the early 1980s. The drop went from around 125 permits per month to about 25 permits per month. Since the end of the Great Recession, commercial permits in Clark County have risen ever so slightly to average about 35 per month over the last 12 months.

![Figure 15. Clark County Commercial Permits](image)

Sources: Various Permitting Agencies; Center for Business and Economic Research, UNLV

Clark County construction employment also declined significantly during the financial crisis and Great Recession (Figure 16), falling from around 110,000 workers in early 2006 to nearly 35,000 workers in early 2012. Unlike housing and commercial permits, the fall did not take construction employment back to levels in the early 1980s but rather back to levels in the early 1990s. Since then, construction employment has recovered to just over 63,000 workers in February 2018, which still leaves us 42.9 percent below the pre-Great Recession peak.

The Southern Nevada housing market experienced extreme stress after the Great Recession. For the longest time, Southern Nevada led other major metropolitan areas in the percentage of negative equity mortgages. Figure 17 plots the time-series movement in negative equity mortgages as a percentage of total mortgages. Starting at 77.7 percent, an unbelievably high number, in 2010Q1, the percentage declined to 9.2 percent in 2017Q4, which still nearly doubles the national rate.

The “good news” is that Southern Nevada no longer occupies the number one slot, falling to third place behind Miami and Chicago in this ignominious distinction (Figure 18).
Figure 16. Clark County Construction Employment

Sources: Nevada Department of Employment, Training and Rehabilitation; U.S. Bureau of Labor Statistics; Center for Business and Economic Research, UNLV

Figure 17. Percent Negative Equity Mortgages in Las Vegas

Sources: CORE Logic; Center for Business and Economic Research, UNLV
The bursting of the housing bubble, which began in late 2006, led to the Great Recession. The declining home prices after the collapse of the bubble made homes more affordable. The housing opportunity index measures the affordability of homes. The index captures the percentage of homes sold that are affordable at the median income. If the housing market is balanced in terms of affordability, then the median income household should be able to purchase the median-priced home in the market. Thus, the index would equal 50 percent.

The housing opportunity index (Figure 19) shows that the Albuquerque, Denver, Las Vegas, Phoenix, and Salt Lake City housing markets have tracked closely to the U.S. index since late 2012. Currently, in 2018Q1, the Phoenix and Salt Lake City indices lie in the middle between the Albuquerque and Denver indices with Las Vegas at 58.8 percent just below the Salt Lake City and national indices of 62.1 and 61.6 percent, respectively. The California market, as represented by Los Angeles, trended downward more quickly than the U.S. index. Los Angeles stands at an opportunity index of 9.5 percent in 2018Q1, much below the U.S. index of 61.6 percent. During the end of the bubble in 2006, San Francisco averaged 4.9 percent on the opportunity index. Las Vegas and Phoenix averaged 15.6 and 28.8 percent, respectively, in 2006. The U.S. average was 41.0 percent.

In sum, the Albuquerque, Denver, Las Vegas, Phoenix, and Salt Lake City housing markets remain relatively affordable when compared to California.

The Las Vegas commercial vacancy rates show a dramatic rise during and after the Great Recession (Figure 20). Moreover, the Great Recession may have caused permanent changes in the normal vacancy rates in some categories. The office market vacancy rate remains the highest across the three categories, lingering well above the 20 percent level until breaking through that barrier in 2016Q4 and now standing at 18.3 percent in 2018Q1.
The retail market vacancy rate popped up during the Great Recession and has fallen slowly since the end of that recession. Do new normal vacancy rates exist in the office, retail, and industrial markets? Only time will tell. The industrial market vacancy rate has seen the most significant decline in vacancy rates since the Great Recession, reaching 6.7 percent in 2015Q3, but has slowly risen since then. Currently, the retail and industrial vacancy rates equal 7.8 and 7.9 percent, respectively.

Source: Myresearcher.com, Applied Analysis
5. Southern Nevada Business Confidence Index

CBER’s Southern Nevada Business Confidence Index also provides a favorable picture (Figure 21). Although some seasonality appears to exist in the index, the index reached a post-recession high of 148.1 in the first quarter of 2015. Then, the index fell for three consecutive quarters, finishing in the fourth quarter of 2015 at 122.6. In 2016, this index tracked upward to 130.7 in 2016Q1 and to 135.1 in 2016Q2 before falling to 118.6 in 2016Q4. In 2017, the index rose again to 135.5 and 137.2 in 2017Q1 and 2017Q2, respectively. It drifted down over the last two quarters of 2017 to 134.7. Finally, the index rose in the first two quarters of 2018, ending at 147.1. Any value above 100 means that more respondents are optimistic about the outlook for business conditions than are pessimistic. Thus, the index still scores well above the dividing line between optimism and pessimism.

The index consists of five components—business expectations for sales, profits, hiring, capital investment, and overall economic conditions—all of which are measured by a survey of Southern Nevada business leaders. For the second quarter 2018, all five components were well above 100.

We also asked the business leaders in our most recent survey what they faced as their most important challenge in the current economy (Figure 22). The top item at 28.3 percent of respondents was “finding qualified employees” followed by at 22.8 percent of respondents “economic uncertainty.”

Based on our assessment of current national and Nevada trends, we believe that the Southern Nevada economy will continue to see improvement in 2018 and 2019 (Figure 23).

6.1 Southern Nevada Economic Outlook for 2018-2019

As we noted in the Nevada economic outlook, we see continued improvement in the Nevada economy. Since Southern Nevada comprises such a large share of the Nevada economy, we also see continued improvement in the Southern Nevada economy in 2018 and 2019. And, as for the Nevada economy, we also see attenuation in the improvement in 2018 and 2019 as compared to 2017.

To summarize, because the Southern Nevada economy depends heavily on tourism, its outlook ties to the growth of the United States, western states’ economies as well as the international economy. Southern Nevada continues to get help from real estate and construction. A wide range of industries are also growing.

6.2 Risks to the Southern Nevada Economic Outlook

The main risks to the Southern Nevada forecast arise from short-term fluctuations in both international and U.S. economic conditions. Based on our assessment of the international and national trends, we believe that the Southern Nevada economy will continue to see improvements in 2018 and 2019. In addition, we anticipate that the economic growth in the Southern Nevada economy will generally outperform the national economy, since we started our local recovery later and from a much deeper hole than faced at the national level. Nevertheless, the health of the Southern Nevada economy still depends on national and international economic activity.

The future path of the national economy remains uncertain. On the positive side, business and consumer confidence signal a bullish outlook for future developments. On the negative side, the potential for political roadblocks to action on the Trump economic agenda as well as the on-again, off-again approach to policy making signal a bearish outlook. Given the strength of the national economy with output above potential and the unemployment rate at low levels, the tax cut legislation should cause a further increase in aggregate demand, and the national economy will probably overheat in the short run.

Economic growth in the rest of the world may also influence U.S. economic growth and indirectly the Nevada and Southern Nevada economies. China has become an important player in the world economy based on her aggregate size. Moreover, China purchases a large share of commodities on international markets, which are the major exports from many emerging market economies. Thus, slower or faster growth in China leads to slower or faster growth, respectively, in emerging market economies. European countries also play an
important role in the future path of the U.S. economy. The International Monetary Fund (IMF) is mildly optimistic about the future growth of European countries. Should China falter in its growth or the European countries fail to meet the expectations of the IMF, spillover effects will slow the U.S. expansion.

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The views expressed are those of the authors and do not necessarily represent those of the University of Nevada, Las Vegas or the Nevada System of Higher Education.