ECONOMIC OUTLOOK
2015 MIDYEAR ECONOMIC UPDATE

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U.S. Economy Yet to Show Consistent Growth

Since the Great Recession, the U.S. economy has seen low and inconsistent growth. In 2010, 2011, 2012, 2013 and 2014, U.S. real Gross Domestic Product (GDP) grew at rates of –2.7 percent, 2.5 percent, 1.6 percent, 2.3 percent, 2.2 percent and 2.4 percent, respectively. For 2015 and 2016, we expect a moderate strengthening to GDP growth rates of 2.5 percent and 2.9, respectively.
After a downturn in first quarter 2014 that was mostly the result of bad winter weather, the economy showed a robust bounce back (Figure 1). In second and third quarter, we saw annualized GDP growth rates of 4.6 percent and 5.0 percent, respectively. Fourth quarter 2014 registered a disappointing 2.2 percent growth rate, which yielded a 2.4 percent average for the year.

First quarter 2015 also showed a downturn. Bad weather in the Midwest and Northeast contributed to a weakness in consumer and investment spending, but net exports and government spending also were down, which are not likely related to the weather.

Like last year, we look for a bounce back in spending during second and third quarters and then a return to more sustainable growth at a 2.8 percent annual rate in fourth quarter 2015. In the absence of another severe winter, the economy should accelerate to an average growth rate of 2.9 percent in 2016.

1.1 Contributions to U.S. Economic Growth

During 2014, U.S. real GDP grew at an annual rate of 2.4 percent (Table 1). Consumer spending and business fixed investment made the largest contributions. Government spending and net exports made negative contributions.

After the first quarter 2014 decline, the rebound in spending was evident in nearly every spending category for the next two quarters. Personal consumption, business fixed investment and government purchases increased sharply in second and third quarter 2014. Inventory accumulation was also strong in second quarter. Residential investment picked up moderately. Net exports also showed favorable trends. In fourth quarter, however, only consumer spending remained strong. For 2015, we expect the outlook for the components of GDP spending to show a pattern of recovery similar to last year (Table 2).
Consumer Spending. Consumer spending is the largest component of U.S. real GDP expenditures, accounting for 68.0 percent. From 1947 through 2012, the annual growth rate in real consumer spending averaged 3.4 percent. Real consumer spending grew at fairly anemic 2.4 percent and 2.5 percent annual rates during 2013 and 2014, respectively. After the weak showing in first quarter 2015, we expect consumer spending to grow a bit more strongly in 2015 and 2016.

Private Investment. Private investment spending is a fairly substantial component of U.S. real GDP, accounting for about 16.4 percent. From 1947 through 2012, the annual growth rate of private investment averaged 3.7 percent. Private investment grew at a 4.9 percent rate during 2013 and accelerated to a 5.8 percent growth rate in 2014. Within the private investment category, residential investment grew at a 1.6 percent annual rate, and business fixed investment grew at a 6.3 percent annual rate in 2014.

After the strong showing in 2014, continued gains in business fixed investment can be expected in 2015 and 2016. Residential investment looks ready to pick up as the housing market remains tight and house prices are rising. After a drawdown of inventories during fourth quarter 2014 and weak consumer spending in first quarter 2015, inventory investment should rebound in second and third quarters 2015 before becoming relatively normal.
**Government Spending.** Total government spending (including federal, state and local) on goods and services accounts for 18.4 percent of U.S. real GDP. From 1947 through 2012, the annual growth rate of total government spending on goods and services was 2.8 percent. During 2013, total government spending on goods and services declined by 2.0 percent. Government spending fell by only 0.2 percent in 2014. Even though an improving economy will generate increased tax revenue, we look for fiscal conservatism to slow the growth of government spending to only moderate through 2016.

**Net Exports.** Exports were a pillar of strength in the early stages of the U.S. economic recovery. A strong surge in fourth quarter prevented net exports from making a negative contribution in 2013. The same cannot be said for 2014, with a stronger U.S. economy pulling in an increasing amount of foreign investment and imports. Lower oil prices have contributed to reduced imports, but not by enough to offset the other factors at work. With weak economic activity elsewhere in the world, a gradually strengthening U.S. economy will boost foreign investment into the United States, and net exports will remain negative in 2015 and 2016.

**1.2 Employment Growth Has Remained Strong; Unemployment Ticked Upward in May**

Although GDP growth hasn't been consistently strong, job growth has been (Figure 2). During 2014, the U.S. economy added an average of 245,000 jobs per month. For the first five months of 2015, the average monthly job growth was 217,000. The growth of the U.S. economy has been uneven across the states, with oil-producing states and the West showing some of the strongest growth (Figure 3).

With job growth, the U.S. unemployment rate fell sharply from July 2014 through April 2015 (Figure 4). The unemployment rate ticked up to 5.5 percent in May, the result of a surge in labor force participation. Initial claims for unemployment also have been on a general downward trend, which means the economy has been doing more to create jobs than destroy them.

![Figure 2. Total Nonfarm Employment](Image)
2. Indicators of Economic Activity and Confidence

Everything is in place for stronger economic growth, but we have yet to see signs of an acceleration. Individuals, firms and the financial sector are all in sufficiently good shape to support the strong spending necessary to drive a strong acceleration in U.S. economic activity.

U.S. Leading Indicators. The Index of U.S. Leading Economic Indicators has been rising (Figure 5), which signals continued economic growth. One concern with this indicator is that it is being distorted by monetary ease.

Economic Policy Uncertainty. Since the end of the Great Recession, uncertainty about U.S. economic policy has impeded business investment (Figure 6), which has slowed the recovery. Nonetheless, uncertainty about U.S. economic policy fell below its historical average in May 2015, which indicates that policy uncertainty is not much of an impediment to increased investment and accelerating economic activity during upcoming months. Other issues, such as business confidence in the economy and weak Chinese and European economies, do remain impediments to robust investment and an accelerating economy.

Global Economic Activity. In 2014, the global economy showed relatively constant growth, but at lower rates than prior to the Great Recession. Parts of Europe have remained in recession, and the Asian economies have been slowing down. These developments led to world economic growth that was only 3.4 percent in 2013 and 2014 (Figure 7). For 2015, the International Monetary Fund (IMF) expects world economic activity to expand at a slightly higher 3.5 percent rate, with a gradual acceleration thereafter driven by the developing world. Expectations of an acceleration may be wishful thinking, as nothing yet seems to indicate an acceleration of global economic activity is underway.

Figure 5. Index of U.S. Leading Economic Indicators

Source: Conference Board; National Bureau of Economic Research
Figure 6. U.S. Economic Policy Uncertainty Index


Figure 7. Global Economy Remains Weak

Source: International Monetary Fund
**Lower Oil Prices.** As the result of conservation, fuel switching, increased oil production and weakness in the Chinese and European economies, oil prices have fallen by about half since mid-summer 2014 (Figure 8). Over the 2015-2016 time period, the futures market indicates average oil prices of about 55 percent of summer 2014 high prices. If these lower oil prices are sustained, the U.S. economy should see a net stimulus that amounts to a one-time gain of 0.7 to 1.0 percent spread out over the next several years.

Lower oil prices provide U.S. consumers with what amounts to an annual increase in disposable income of $335 billion (about $2,700 for the average U.S. household). Because the United States now produces more than two-thirds of its oil consumption, only $110 billion (about $875 per household) of that increased spending power comes from foreign oil producers. The rest comes from domestic oil producers.

The effects of lower oil prices will be uneven across the United States (Figure 9). The variation depends on the energy consumption and production in each state and multiplier effects.

**U.S. Housing Market Remains Tight.** As shown in Figure 10, the U.S. housing supply is fairly tight. Based on recent sales, the current houses listed on the market provide only 5.3 months of supply, which is well 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.
Figure 9. Lower Oil Prices Will Boost Economic Activity in 42 States


Figure 10. U.S. Housing Market Remains Tight

Sources: U.S. Census Bureau; National Bureau of Economic Research
Consumer Confidence Remains Robust. As shown in Figure 11, consumer confidence and sentiment have continued on their general upward trends. These developments owe to continued recovery of the economy, growth of employment, some indication of rising wages and, perhaps, lower oil prices.

Monetary Policy and Inflation. Since the Great Recession, the Federal Open Market Committee (FOMC) has taken a number of steps to ease monetary policy. It has lowered the target rate of federal funds well below 0.25 percent. It has provided forward guidance that economic conditions are likely to require exceptionally low federal funds rates through mid-2015. It also undertook three quantitative easings to lower long-term rates, but it is now in the process of tapering off from its quantitative easing.

All of these monetary policy actions have been successful in holding interest rates below historically normal levels. They have also assured that monetary policy is not impeding economic growth. What they have not been able to do is provide the impetus to economic growth. As the Fed has boosted liquidity, the money multiplier and the velocity of money have both declined (Figure 12).

Despite considerable monetary easing since the Great Recession, we are just now seeing signs of increased inflation (Figure 13). The consumer price index (CPI) can be volatile, but more stable measures of underlying inflationary pressure, such as core CPI and trimmed mean CPI, are showing inflation just over a 2.0 percent annual growth rate. Despite recent gains, these two measures of inflation seem likely to average less than 2.0 percent in 2015 and 2016.
Figure 12. M2 Money Multiplier and M2 Velocity

Sources: Board of Governors of the Federal Reserve System; Federal Reserve Bank of St. Louis; Center for Business and Economic Research, UNLV

Figure 13. U.S. Inflation Shows Slight Signs of Rising

Sources: Board of Governors of the Federal Reserve System; Federal Reserve Bank of St. Louis
Monetary easing initially led to fears of rapid inflation, which translated into sharply higher gold prices (Figure 14). Because those fears have proved unfounded, however, gold prices have dropped downward. Further declines may result from monetary tightening later in 2015.

3. The Outlook for U.S. Economic Activity

U.S. Economic Activity Closing in on Potential. With only a moderate strengthening, U.S. output will close toward its potential by the end of 2017. At the bottom of the recession, U.S. real GDP was 7.2 percent below its potential (Figure 15). As of first quarter 2015, the gap between U.S. real GDP and its potential was 2.6 percent. The reduction is the result of economic growth and reduced growth of potential GDP. By the end of 2015, projected economic growth will close the gap to 1.3 percent. By the end of 2017, we look for a gap that is essentially zero.

Slow Growth in Potential Real GDP Spending. As is evident in Figure 15, estimates of potential U.S. real GDP show much slower growth after the Great Recession than before. The growth of potential U.S. output has slowed as the result of reduced immigration, reduced labor force participation and slower productivity gains—the latter the result of reduced business investment. These developments have led to sharper declines in the unemployment rate than might be expected on the basis of economic activity. Because we are not yet seeing signs of labor market tightness, however, the economy seems likely to be able to continue growing at a strong pace with workers returning to the labor force. We may see upward revisions of potential GDP in future years.

Interest Rates and Monetary Policy. The outlook for interest rates remains dominated by monetary policy. With the economy operating below potential, the FOMC has been holding short-term interest rates at extremely low levels (Figure 16). According to statements from the FOMC, they expect the economy to be strong enough in 2015 to permit a gradual increase in short-term rates—with expectations ranging from midyear to fourth quarter.

Because the economy is operating below its potential, and we are not yet seeing widespread
Figure 15. U.S. Real and Potential GDP

Sources: U.S. Bureau of Economic Analysis; Congressional Budget Office; National Bureau of Economic Research; Center for Business and Economic Research, UNLV

Figure 16. Interest Rates to Rise

Sources: Board of Governors of the Federal Reserve System; Center for Business and Economic Research, UNLV
signs of labor market tightness or sustained inflation above 2.0 percent, the FOMC is more likely to begin raising short-term rates later in the year. Even with the anticipated tightening, interest rates are likely to be well below their historical averages over the next few years.

The Fed’s policy of quantitative easing also has held long-term interest rates at relatively low levels. In 2014, the Fed began tapering off its quantitative easing, which led many to expect rising long-term interest rates. Weakness elsewhere in the world has led to an influx of foreign investment to the United States, which is holding down long-term rates, such as those for 10-year Treasury bills and conventional mortgages. Consequently, these rates are likely to rise a little less than short-term rates as the Fed begins to tighten monetary policy.

**Housing Prices to Continue Rising.** U.S. housing prices increased at a robust pace from early 2012 through March 2014—frequently hitting a double-digit annual rate (Figure 17). Those gains were largely a recovery from the collapse in housing prices that occurred during the Great Recession. Over the next six months, U.S. housing prices were relatively stagnant, showing slippage in some months and strong gains in others. In the last six months, we have seen sustained gains in housing prices.

Because the housing market remains relatively tight and residential investment has remained relatively weak, we expect housing prices to continue showing gains through 2016. The strength of those gains may be held down because credit remains tight, and millennials are not yet showing an interest in traditional suburban living.

As the economy continues its recovery, housing construction accelerates and interest rates rise over the next few years, however, we expect the gains in housing prices to gradually moderate toward annual rates of about 3.0 percent in late 2016—a little better than the expected overall rate of inflation. Regional variation will be substantial—with some areas seeing much stronger price gains.

**Industrial Production.** In the expansion prior to the Great Recession, the U.S. economy deindustrialized rapidly as the influx of foreign goods was necessitated by increased foreign capital flows to the United States. With a reduction in those capital flows after the Great Recession, imports slowed and the United States showed signs of reindustrializing.

With the United States reindustrializing and North American natural gas prices at relatively low levels in comparison to elsewhere in the world, U.S. industrial production has grown faster than overall economic activity in recent years (Figure 18). Industrial production can be expected to grow at about the same pace as the overall U.S. economy for the next few months before moderating to a more sustainable pace.
Figure 17. U.S. Housing Prices Rising

[Graph showing U.S. Housing Prices Rising with data from 1987 to 2012. The graph includes two lines: one for the Case Shiller (20-City Index) and one for the forecast. The y-axis is labeled as Index 2000 = 100, ranging from 0 to 250. The x-axis represents years from 1987 to 2012. Note: Data are seasonally adjusted.]

Sources: S&P Dow Jones; Center for Business and Economic Research, UNLV

Figure 18. U.S. Industrial Production

[Graph showing U.S. Industrial Production with data from 1990 to 2017. The graph includes a line for Industrial Production and a line for the forecast. The y-axis is labeled as Index 2007 = 100, ranging from 50 to 120. The x-axis represents years from 1990 to 2017.]

Sources: Board of Governors of the Federal Reserve System; Center for Business and Economic Research, UNLV
Employment. As shown in Figure 19, a slowly expanding economy has generated fairly robust employment growth in recent years. In 2014, we saw employment growth of nearly 245,000 jobs per month, as labor force participation increased and the unemployment rate fell. Without much investment, labor productivity grew at lackluster rates.

With improving economic conditions, we look for fairly robust employment growth of about 235,000 and 180,000 jobs per month in 2015 and 2016, respectively. Stronger employment growth may be possible if labor productivity remains lackluster and labor force participation expands rapidly.

Unemployment. As the result of new entrants to the labor force, we typically expect about 120,000 additional jobs are needed each month to hold the U.S. unemployment rate steady.\(^1\) Even though the number of labor force participants has increased over the past year, the unemployment rate has dropped sharply because hiring has been so strong (Figure 20). As of May 2015, the U.S. unemployment rate stood at 5.5 percent.

With the U.S. economy accelerating and job prospects improving, we expect more workers to return to the labor force and immigration to increase slightly, which may keep the unemployment rate from dropping as sharply as it has in the recent past. By the end of 2015, a 5.1 percent unemployment rate is likely. By the end of 2016, we look for an unemployment rate of 4.8 percent. By the end of 2017, a trajectory of sustained economic growth will further reduce the U.S. unemployment rate to 4.6 percent, which we currently calculate as the natural rate of unemployment.\(^2\)

Worker Compensation and Unit Labor Costs. With labor markets gradually tightening, we can expect a mild acceleration in worker’s hourly compensation. Since the Great Recession ended, worker’s hourly compensation has increased at an annual rate of 2.1 percent (Figure 21). Over the next two years, we expect an increase of about 2.9 percent annually, which is likely greater than our expected rate of overall inflation.

Unit labor costs—which take into account labor compensation and offsetting gains in productivity—are also likely to show an acceleration in 2015 and 2016. Since the Great Recession ended, unit labor costs have increased at an annual rate of 0.9 percent. Over the next two years, we expect an increase of about 1.6 percent annually. Fortunately, the latter figure is about the same as our expected rate of overall inflation.

\(^1\) During a period of normal economic growth about 120,000 new job market entrants are expected.

\(^2\) The natural rate of unemployment occurs when the economy is operating at full capacity. An unemployment rate below the natural rate would mean that the economy is operating beyond full capacity and that inflation is or will begin accelerating. Consequently, the natural rate of unemployment is also known as the non-accelerating inflation rate of unemployment (NAIRU).

The Congressional Budget Office currently estimates the natural rate of unemployment at 5.16 percent. Their estimate is inconsistent with Okun’s law (which relates unemployment to the gap between real GDP and its potential) and the current gap between real GDP and its potential (the latter also estimated by the Congressional Budget Office).
Figure 19. U.S. Nonfarm Employment

Sources: U.S. Bureau of Labor Statistics; Center for Business and Economic Research, UNLV

Figure 20. U.S. Unemployment Rate

Sources: U.S. Bureau of Labor Statistics; Center for Business and Economic Research, UNLV
will fall more quickly than we have forecast, but employment, real GDP and potential GDP will grow more slowly. The Fed will be forced to raise interest rates to head off incipient inflation. The natural rate of unemployment—the rate which the economy is operating at full capacity—varies over time and cannot be estimated precisely. Once unemployment is reduced below the natural rate, however, economic activity will be above capacity and inflation will begin rising. Because the natural rate of unemployment is uncertain, the Fed will have to make a judgment call about when to begin monetary tightening to head off inflationary pressure. If the Fed acts too early, it will weaken economic activity. If the Fed acts too late, inflation could erupt.

In the wake of the Great Recession, the Fed greatly increased financial liquidity through quantitative easing. The Fed will have a sizable and delicate job of reducing that liquidity as the economy improves. A misstep could lead to a sharp uptick in inflation or weaker economic activity.

4. Risks to the Outlook

The outlook assumes that the economy is entering a phase in the business cycle where the considerable strength of private balance sheets will allow an increase in consumer and business confidence to feed a gradual acceleration of spending and GDP growth. If continued concern about the economy continues to hinder investment, however, sluggish economic growth can be expected to continue. Weak economic activity abroad will likely have little direct effect on the U.S. economy because the U.S. economy is not highly exposed to international trade.

Weak economic activity in China and Europe could lead to further declines in commodity prices (such as oil), allowing for stronger economic growth and possibly postponing the need for monetary tightening. In the event of a quick reversal of this global economic weakness, commodity prices could begin rising, which might necessitate tighter monetary policy sooner than expected.

If workers are slow to return to the labor force as the economy accelerates, the unemployment rate will fall more quickly than we have forecast, but employment, real GDP and potential GDP will grow more slowly. The Fed will be forced to raise interest rates to head off incipient inflation.

The natural rate of unemployment—the rate which the economy is operating at full capacity—varies over time and cannot be estimated precisely. Once unemployment is reduced below the natural rate, however, economic activity will be above capacity and inflation will begin rising. Because the natural rate of unemployment is uncertain, the Fed will have to make a judgment call about when to begin monetary tightening to head off inflationary pressure. If the Fed acts too early, it will weaken economic activity. If the Fed acts too late, inflation could erupt.

In the wake of the Great Recession, the Fed greatly increased financial liquidity through quantitative easing. The Fed will have a sizable and delicate job of reducing that liquidity as the economy improves. A misstep could lead to a sharp uptick in inflation or weaker economic activity.
Nevada among the Fastest-Growing States

The Nevada economy has not yet fully recovered from the Great Recession. As of April 2015, employment in the Silver State was 3.7 percent below its prerecession peak. Yet, recovery is underway, and Nevada has been among the fastest-growing states in recent years.
1. A Reemergence of Old Patterns

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 (Figure 1). 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 (Figure 2). Arizona was second with an annual growth rate of 3.4 percent, and Utah was third with an annual growth rate of 3.3 percent. In general, U.S. growth was strongest in the Intermountain West, Texas and the Southeast.

In 2014, we see a reemergence of the patterns established from 1990-2007 (Figure 3). Growth is the fastest in North Dakota, Texas, the West and the Southeast. For 2014, U.S. employment has grown at a rate of 2.3 percent, and Nevada is sixth with an annualized rate of 3.5 percent. Only West Virginia saw job losses.
Figure 2. Nevada #1 in Growth Rate: January 1990 – December 2007

Figure 3. 49 States Added Jobs in 2014: Nevada #5 in Growth Rate

Sources: U.S. Bureau of Labor Statistics; Center for Business and Economic Research, UNLV
2. Economic Growth Widespread Across Nevada Economy

As shown in Figure 4, Nevada employment has been accelerating. In 2010, the state lost 7,400 jobs (0.7 percent). In 2011, 2012 and 2013, Nevada saw job gains of 12,500 (1.1 percent), 23,200 (2.1 percent) and 34,700 (3.0 percent), respectively. Growth was even stronger in 2014, with a gain of 41,200 jobs (3.5 percent). In the first four months of 2015, the state saw job gains of 18,400 (4.6 percent annualized rate).

Of the major areas in the state, only Las Vegas mirrored the overall state pattern of gains each year (Figure 5). Reno/Sparks saw employment losses in 2011 but strengthening economic activity in 2012, 2013 and 2014. Carson City saw declining employment in 2011 and 2012 but employment gains in 2013 and 2014. For 2015 so far, Las Vegas and Reno are showing strong gains, while Carson City employment is down. Based on past revisions, by the end of 2015, we should expect the Las Vegas and Carson City rates to rise and Reno’s rate to fall.

Nevada saw a steady improvement from low growth in 2011 to strong growth in early 2015, but no industry mirrored the overall state pattern (Figure 6). Nonetheless, employment growth was widespread across the state’s industries in 2014 and so far in 2015. In 2014, all industries except financial activities saw employment gains. Construction and Professional and Business Services were particularly strong. In the first four months of 2015, all industries except manufacturing saw employment gains. Construction; Trade, Transportation, and Utilities; Leisure and Hospitality; and Other Services were particularly strong.

Figure 4. Nevada Employment

Sources: U.S. Bureau of Labor Statistics; Nevada Department of Employment, Training and Rehabilitation
Figure 5. Nevada Employment by Region, 2011-2015

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

Figure 6. Nevada Employment by Industry, 2011-2015

Sources: U.S. Bureau of Labor Statistics; Nevada Department of Employment, Training and Rehabilitation; Center for Business and Economic Research, UNLV
As the result of these gains, the Nevada unemployment rate has fallen. The seasonally adjusted Nevada unemployment rate is 7.1 percent (Figure 7), which is 1.0 percentage point below last year’s April unemployment rate. Some of the decline is due to a shrinking labor force.

3. Nevada Reemerges as a Leader in Economic Growth

Over a nearly 25-year period from January 1990 through September 2014, including the Great Recession, the United States saw job gains at a 1.01 percent average annual rate. Nevada employment grew nearly three times faster with an average annual rate of 2.84 percent, the highest average rate of any state in the nation during that time period.

Recessions often bring about new patterns of economic growth. Yet, for Nevada, other parts of the West and the Southeast the current pictures are substantially similar to those before the recession. The Great Recession brought about a substantial departure from Nevada’s normal high growth rate, but the Silver State has reemerged as one of the fastest-growing states in the nation. Moreover, Nevada’s economic growth is now widespread across its industries and regions.

4. Nevada Economic Outlook

We have seen generally favorable economic trends in Nevada and the West. We expect those trends to continue in 2015 and 2016.

4.1 Recovery Accelerating in the West

Most of the western states experienced equal or weaker economic conditions in 2011 than the nation as a whole. In 2012 and 2013, most western states saw employment gains at a faster rate than the nation as a whole (Figure 8). In 2014, the United States saw an employment gain of 2.1 percent; Arizona, 2.3 percent; California, 3.1 percent; Colorado, 3.3 percent; New Mexico, 1.5 percent; Oregon, 3.2 percent; Utah, 3.5 percent; Washington, 3.1 percent and Nevada, 3.5 percent.

In 2015 and 2016 economic conditions are generally expected to remain stronger throughout the West than the country as a whole. According
to the Western Blue Chip Economic Forecast, a survey of experts conducted by the W. P. Carey School of Business at Arizona State University, Arizona will see employment growth of 2.3 and 2.4 percent in 2015 and 2016, respectively; California will see 2.4 and 2.2 percent in 2015 and 2016, respectively; Colorado will see 3.0 and 3.5 percent in 2015 and 2016, respectively; New Mexico will see 1.0 and 1.1 percent in 2015 and 2016, respectively; Oregon will see 3.1 and 2.7 percent in 2015 and 2016, respectively; Utah will see 3.4 and 3.1 percent in 2015 and 2016, respectively; Washington will see 2.5 and 2.3 percent in 2015 and 2016, respectively and Nevada will see 2.7 and 2.9 percent, respectively.

Both CBER and the Western Blue Chip Forecast (the latter incorporates CBER’s outlook for Nevada) see Nevada’s economic conditions improving in 2015 and 2016 (Table). Compared to the Western Blue Chip Forecast, the CBER forecast is somewhat more optimistic about the Nevada economy, expecting an acceleration that builds on gains in previous years.

4.3 Risks to the Nevada Outlook

Our outlook for the Nevada economy is based on the idea that improving economic conditions in the United States, particularly in the West, will benefit the Nevada economy. We also look for continued growth in mining. As the growth of the U.S. economy accelerates, the Nevada economy will further strengthen. The Nevada economy could see slower growth if the U.S. economy proves weaker than we have forecast.
Figure 9. Nevada Economic Outlook

Table. Western Blue Chip Forecast for Nevada Economic Growth (Percent Change)

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<th>Year</th>
<th>Personal Income</th>
<th>Gross Gaming Revenue</th>
<th>Employment</th>
<th>Population</th>
<th>Single-Family Housing Permits</th>
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Sources: U.S. Bureau of Labor Statistics; State of Nevada Gaming Control Board; U.S. Census Bureau; Federal Reserve Bank of St. Louis; Western Blue Chip Forecast; Center for Business and Economic Research, UNLV.
Southern Nevada Economy to Continue Strengthening

The Southern Nevada economy is continuing to experience growth (Figure 1). Although the annualized growth rate for 2015 is slightly lower than the growth rate for 2014, it may be revised upward next March, as it has been the last few years. In addition to strong employment gains, financial conditions also are improving, and visitor volume is still rising after a strong 2014.
Las Vegas still has a ways to go before it reaches its prerecession level of economic activity, but that gap is closing. As far as employment is concerned, that goal is within sight; we can expect Las Vegas to reach its prerecession levels of employment in early 2016.

1. Southern Nevada Economic Indicators

CBER’s Southern Nevada Index of Coincident Indicators shows general gains for 2015 so far (Figure 2). CBER’s Southern Nevada Index of Leading Economic Indicators, which provides a four- to six-month lead on economic activity, shows that the Southern Nevada economy can be expected to continue growing through third quarter 2015.

CBER’s Clark County Business Activity Index generally shows gains for 2015 as well (Figure 3). The index is a composite of gaming revenues, employment and taxable sales.

2. Southern Nevada Economic Conditions Improving

In 2014, the Las Vegas metropolitan area saw an increase in employment of 34,900 jobs (3.8 percent) over the previous year (Figure 4). In the first four months of 2014, the Las Vegas metropolitan area saw another increase in employment of 9,000 jobs (at a 1.0 percent annual rate).

The gains in employment for 2014 were broad based (Figure 5). Construction, manufacturing, education and health services, and professional and business services were particularly strong. For 2015, the annualized growth rates for each industry are extremely volatile and don’t provide useful information at this time.

As the result of these gains, the Las Vegas unemployment rate has fallen sharply. The seasonally adjusted Las Vegas unemployment rate is 7.0 percent (Figure 6), which is 2.2 percentage points below last year’s December unemployment rate. Some of the decline is due to a shrinking labor force.

![Figure 1. Nevada and Las Vegas Job Growth](image)

Sources: Nevada Department of Employment, Training and Rehabilitation; U.S. Bureau of Labor Statistics; Center for Business and Economic Research, UNLV
Figure 2. Southern Nevada Leading and Coincident Indexes

Source: Center for Business and Economic Research, UNLV

Figure 3. Clark County Business Activity Index

Source: Center for Business and Economic Research, UNLV
Figure 4. Nevada and Las Vegas Employment

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

Figure 5. Las Vegas Employment Growth by Industry

Sources: Nevada Department of Employment, Training and Rehabilitation; U.S. Bureau of Labor Statistics
Taxable sales continue to be strong (Figure 7). Clark County taxable sales were 6.2 percent higher in the first three months of 2015 than in the same period in 2014. Increased visitor spending and rising personal income in Las Vegas are two factors contributing to the strong gains in taxable sales.

One piece of evidence of improving economic conditions in Nevada and Las Vegas is the continued growth in sales of automobiles and parts. There is still considerable room for improvement as automobile sales in Nevada and Las Vegas are still well below prerecession levels (Figure 8).

3. What Drives the Southern Nevada Economy?

A region’s economic base is determined by which of its sectors export goods or services to other parts of the country. Tourism is a little different in that the industry brings its customers into a region to provide them with services.

Economists typically measure the sectors forming a region’s economic base by using location quotients. A location quotient provides information about whether the region has more or less of a particular industry than is the national average.\(^1\) With the idea that people across the country generally consume similar items, industries that are present in a region above the national average are expected to export to the rest of the country. These industries have a location quotient greater than one and form the region’s economic base.

As shown in Table 1, the industry that most stands out in Southern Nevada is leisure and hospitality.

\(^1\) A location quotient for a given industry in a region is calculated as \(L_{ij} = (E_{ij}/E_j)/(E_{ij,US}/E_{US})\) where \(E_{ij}\) represents employment in industry \(i\) in region \(j\), \(E_j\) is total employment in region \(j\) and \(US\) refers to U.S. employment.
Figure 7. Nevada and Clark County Taxable Sales

Sources: Nevada Department of Taxation; Center for Business and Economic Research, UNLV

Figure 8. Automobile and Part Sales

Sources: Nevada Department of Taxation; U.S. Census Bureau; Center for Business and Economic Research, UNLV
Various aspects of the transportation industry—the result of tourism—also stand out.

After tourism-related activities, next come real estate and construction. In 2006, the construction industry also stood out with location quotients of 1.88 and 1.96 in Nevada and Clark County, respectively. Now, both location quotients are closer to one.

What is striking about location quotients greater than one for construction and real estate is that construction cannot be exported. To an economist, construction is the result of economic growth rather than the driver. High location quotients in construction and real estate result from building fueled by strong population growth. High location quotients for construction can only be sustained when the population is growing at a relatively rapid pace.

Over the past 50 years, the United States has seen a general trend of the population moving to the West. As the U.S. economy regains its footing, the resumption of that trend should benefit Southern Nevada construction.

Another sector that stands out is management of companies and enterprises. This sector captures corporate headquarters—that is, the brains of interstate and international operations. Employment in this sector includes headquarters for the gaming industry, energy companies, bank-holding companies and other similar activities. As shown in Figure 9, this sector has contributed to the growth of the Las Vegas economy. It has increased by an annual rate of 8.3 percent since 1990, while total employment increased at a 3.7 percent annual rate.

After stagnating from mid-2013 to mid-2014, employment in the management of companies and enterprises has started to pick up in Las Vegas. To some extent that rise in employment reflects trends in the United States and California.
4. Tourism and Gaming

Activity in the tourism sector, as measured by CBER’s Clark County Tourism Index, shows a slight upward trend for 2015 thus far (Figure 10). The index is composed of three components—Clark County gross gaming revenues, the Las Vegas hotel/motel occupancy rate and total passengers enplaned/deplaned at McCarran International Airport.

In 2014, Clark County visitor volume was 4.0 percent higher than in 2013 (Figure 11). For the first four months of 2015, Clark County visitor volume averaged 4.0 percent higher than for the same time period in 2014. With continued growth, Clark County visitor volume for 2015 could exceed the previous year’s high-water mark of 44,326,203 total visitors.

The visitor picture is similar for Las Vegas. In 2012, Las Vegas visitor volume hit a new high of 39,668,221 (surpassing the 2007 figure). In 2013, Las Vegas visitor volume dropped by 0.1 percent. For 2014 total visitors grew by 3.8 percent and set a new all-time high record of 41,126,512 (Figure 12). For the first four months of 2015, Las Vegas visitor volume averaged 0.4 percent higher when compared to the same time period last year.

As shown in Figure 13, gaming revenues are not back to prerecession levels. As of April 2015, Nevada, Clark County and Las Vegas Strip gaming revenues were 14.5, 12.6 and 7.9 percent below their respective peaks.

Las Vegas gaming revenues saw greater percentage losses than U.S. real gross domestic product (GDP), U.S. personal income and U.S. gambling during the Great Recession (Figure 14). Since its trough in 2009, however, Las Vegas Strip gross gaming revenue has increased by 14.8 percent, which is the same rate that U.S. gambling has increased by over the same period. U.S. GDP and personal income have increased by 20.8 percent and 18.7 percent, respectively. Despite recent gains, Las Vegas gaming is lagging well behind its national counterpart. U.S. gambling is above
Figure 10. Clark County Tourism Index

Source: Center for Business and Economic Research, UNLV

Figure 11. Clark County Visitor Volume

Sources: Las Vegas Convention and Visitors Authority; Center for Business and Economic Research, UNLV
Figure 12. Las Vegas Visitor Volume

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

Figure 13. Gross Gaming Revenue

Sources: Nevada Gaming Control Board; Center for Business and Economic Research, UNLV
its prerecession peak, but Las Vegas Strip gross gaming revenue is still well below its prerecession peak.

Visitor spending on nongaming activities in Las Vegas is more than three times that of gaming revenue. During the Great Recession, visitor spending on nongaming activities in Las Vegas dropped much more sharply than U.S. GDP, U.S. personal income and U.S. spending on food and accommodations (Figure 15). Since reaching bottom in 2009, U.S. spending on food and accommodations has risen by 25.9 percent and is above its prerecession peak. Las Vegas visitor nongaming spending increased by 41.2 percent over the same period and recently eclipsed its prerecession peak.

5. Southern Nevada Real Estate and Construction

According to the Case-Shiller index, housing prices in the Las Vegas metropolitan area and the United States both hit bottom in January 2012 (Figure 16). Las Vegas house prices have risen by 54.7 percent since then. U.S. housing prices have risen by 29.8 percent during that same time period.

Of course, the big difference was in the decline. Las Vegas housing prices fell by 61.1 percent from January 2007 to January 2012. During that period, U.S. housing prices fell by only 32.9 percent.

As shown in Figure 17, redeemed drivers’ licenses from other states (a proxy measure for population growth in the Las Vegas metropolitan area) have outpaced new home sales, which suggests upward pressure on housing prices, although now the gap is closing.

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2 The Case-Shiller index is considered one of the better measures of housing prices because it uses prices from repeat sales, which more accurately captures quality than a more commonly used measure, such as median home prices.
Figure 15. U.S. Consumer Spending and Las Vegas Nongaming Spending

Figure 16. Case-Shiller Home Price Indexes

Sources: U.S. Bureau of Economic Analysis; Center for Business and Economic Research, UNLV

Source: Standard and Poor's
In fact, a lack of available supply is pushing up prices for single-family homes in Las Vegas (Figure 18). For listed homes, the months of supply is now about 4.4. In addition, only 42.8 percent of the listings are vacant.

In 2006, prices didn’t begin slipping until months of supply rose above 7.3. Probably, the built-up momentum carried Las Vegas home prices upward even after excess supplies were becoming evident.

Prices began rising in Las Vegas when the months of listed supply fell below 6.2, with prices showing strong gains in late 2012 and early 2013. Price increases slowed in late 2013, when the months of listed supply reached the vicinity of 6.2.

Estimates that combine past due mortgages, foreclosures and homeowners with negative equity show about 12 months of shadow inventory. Undoubtedly, some of this shadow inventory is listed. Moreover, we see little evidence that this shadow inventory is affecting the recent movement in house prices.

As of fourth quarter 2014, 24.2 percent of the homeowners in Nevada had negative equity (Figure 19). Another 3.1 percent were close to a negative equity position. These developments represent a slight improvement over the previous year. In fourth quarter 2013, 30.4 percent of the homeowners in Nevada had negative equity, and another 3.3 percent were close to a negative equity position.

Nevada remains the state with the highest percentage of homeowners in a negative equity position (Figure 20). Other states rounding out the top eight include Florida, Arizona, Illinois, Maryland, Ohio, Rhode Island and Georgia.

Las Vegas housing remains affordable when compared to the rest of the United States, according to the Housing Opportunity Index (Figure 21). The Housing Opportunity Index takes into account incomes and housing prices within a region. In the 1990s and early 2000s, Las Vegas had housing that was quite affordable by national standards—which helped propel its growth. By 2006, Las Vegas lost that advantage.

Although we tend to think of low housing prices as indicative of a depressed market, low housing
Figure 18. Las Vegas Months of Supply and House Prices

Sources: Standard & Poor’s; Greater Las Vegas Association of Realtors; Residential Resources; Home Builders Research, Inc.; Center for Business and Economic Research, UNLV

Figure 19. Nevada Homeowners with Negative Equity

Source: CoreLogic
Figure 20. Negative Equity Mortgages: Top Eight States (Fourth Quarter 2014)

Source: CoreLogic

Figure 21. Housing Opportunity Indexes

Source: Wells Fargo/National Association of Home Builders
prices will help the Nevada economy grow. That is one of the primary reasons that many long-term forecasts show strong population gains for the region, some of which are driven by projected retirements.

Apartment rents are also quite affordable in Las Vegas (Figure 22). The affordability index is calculated by comparing the rental rates with per capita personal income.

Since bottoming out in late 2012, CBER’s Clark County Construction Index has been on a general upward trend (Figure 23). The index is composed of Clark County construction employment, residential permits and commercial permits.

Despite rising home prices, construction activity remains low in Clark County (Figure 24). Housing permits for Clark County reached a peak in mid-2006, averaging 3,613 permits per month. After that point, the number of permits per month fell drastically due to the collapse of the housing market. The series bottomed out in mid-2011, falling by about 90 percent in the five-year period. Since the trough, Clark County housing permits have increased by 110.1 percent. Although these gains are encouraging, residential construction is still far below its prerecession peak.

Prices on existing homes are not yet high enough to stimulate much construction (Figure 25). Currently, they are 42.3 percent lower than new home prices. From 2000 to 2005, existing home prices averaged 15.0 percent lower than new home prices. A low supply of lots also is contributing to the lack of new home construction.

Figure 22. Las Vegas Apartment Vacancies and Affordability

Source: Center for Business and Economic Research, UNLV
Figure 23. Clark County Construction Index

Source: Center for Business and Economic Research, UNLV

Figure 24. Clark County Housing Permits

Sources: Various Permitting Agencies; Center for Business and Economic Research, UNLV
6. Southern Nevada Economy Shows Continuing Growth

The U.S., Nevada and Southern Nevada indexes of leading economic indicators all have upward trends (Figure 26). These indexes show that Southern Nevada economic conditions can be expected to continue improving at a steady rate.

CBER’s Southern Nevada Business Confidence Index also provides a favorable picture (Figure 27). Although there is some seasonality in the index, the index has reached a post-recession high of 148. Any value above 100 means that more respondents are optimistic about the outlook for business conditions than are pessimistic.

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 second quarter 2015, all five components were above 100.

Credit conditions in Southern Nevada are lagging when compared to the United States as a whole. As shown in Figure 28, U.S. small business credit conditions have improved since 2010, when they were at their worst. In second quarter 2015, 35 percent of U.S. small businesses were seeking credit. Of those seeking credit in second quarter 2015, 89 percent found their credit needs satisfied.

In Southern Nevada, 28 percent of small businesses report that they are seeking credit, which is up 4 percentage points from 2010. Of those seeking credit in Southern Nevada, only 54 percent found their credit needs satisfied in second quarter 2015.
Figure 26. Leading Indexes of Economic Activity

Sources: The Conference Board; Nevada Department of Employment, Training and Rehabilitation; Center for Business and Economic Research, UNLV

Figure 27. CBER Southern Nevada Business Confidence Index

Source: Center for Business and Economic Research, UNLV
6.1 Southern Nevada Economic Outlook for 2015 and 2016

Based on our assessment of national and regional trends, we believe that the Southern Nevada economy will continue to see improvement in 2015 and 2016 (Figure 29). The gains will be stronger in 2015 than in 2014 and stronger in 2016 than in 2015.

Tourism and Hospitality. We expect Clark County visitor volume and gross gaming revenue to continue rising. Visitor volume has experienced robust growth in 2015 thus far. We expect gains in 2016 as well. Gains in gaming revenue are likely to be a little weaker than the growth of visitor volume in 2015 and 2016.

As visitor volume continues to grow, the hospitality industry will gradually shake off the effects of its excess capacity. Southern Nevada hotel/motel capacity has increased very slightly in 2014. The scheduled opening of several properties in Las Vegas will add more rooms in 2015 and 2016.

Real Estate and Construction. The residential real estate market has been characterized by relatively little available supply and rising prices. With housing prices well below replacement costs and relatively few developed lots on which to build, we expect housing prices to continue rising.

The number of housing units permitted increased in 2014, at a rate similar to 2013. Permitting is likely to show continued gains in 2015 and 2016 at rates similar to those in 2014.

Employment and Unemployment. Consistent with our expectations for growth in leisure and hospitality and construction, we expect robust gains in employment for 2015 and 2016.

With increased employment, we will see a falling unemployment rate. We are likely to see an unemployment rate around 6 percent by the end of 2016.

Population. We expect population growth to strengthen with employment. With relatively affordable housing in Las Vegas, we also expect employment gains to continue driving population growth. Over the next few years, we may see a transition to population growth returning as a driver of economic growth that it was throughout much of Las Vegas’ history.

Table 2 provides the details of our forecast in levels.
To summarize, the Southern Nevada economy is in its fourth year of an accelerating recovery. Because the Southern Nevada economy is heavily dependent on tourism, its outlook is tied to the growth of the U.S. and western states’ economies. Southern Nevada is getting some help from real estate and construction. A wide range of industries are also growing.

### 6.2 Risks to the Southern Nevada Economic Outlook

Our outlook for the Southern Nevada economy is based on the idea that improving economic conditions in the United States, particularly in the West, will benefit the Southern Nevada economy. As the growth of the U.S. economy accelerates, the Southern Nevada economy will further strengthen. The Southern Nevada economy could see slower growth if the U.S. economy proves weaker than we have forecast.
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