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Economic Outlook Symposium: Summary of 2015 results and 2016 forecasts

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According to participants in the Chicago Fed's annual Economic Outlook Symposium, the U.S. economy is forecasted to grow at a pace slightly above average in 2016, with inflation moving higher and the unemployment rate edging lower.

The Federal Reserve Bank of Chicago held its 29th annual Economic Outlook Symposium (EOS) on December 4, 2015. More than 100 economists and analysts from business, academia, and government attended the conference. This *Chicago Fed Letter* reviews the forecasts for 2015 from the previous EOS, and then analyzes the forecasts for 2016 (see figure 1) and summarizes the presentations from the most recent EOS.[1]

1. Median forecast of GDP and related items

	2014 (Actual)	2015 (Forecast)	2016 (Forecast)
Real gross domestic product[a]	2.5	**2.2**	**2.6**
Real personal consumption expenditures[a]	3.2	**2.9**	**2.7**
Real business fixed investment[a]	5.5	**3.0**	**3.5**
Real residential investment[a]	5.1	**8.0**	**7.7**
Change in private inventories[b]	78.2	**56.0**	**58.1**
Net exports of goods and services[b]	–463.6	**–550.0**	**–610.2**
Real government consumption expenditures and gross investment[a]	0.4	**1.3**	**1.4**
Industrial production[a]	4.4	**0.0**	**2.0**
Car and light truck sales (millions of units)	16.4	**17.4**	**17.6**
Housing starts (millions of units)	1.00	**1.13**	**1.24**
Unemployment rate[c]	5.7	**5.0**	**4.9**
Consumer Price Index[a]	1.2	**0.4**	**1.9**
One-year Treasury rate (constant maturity)[c]	0.15	**0.39**	**1.04**
Ten-year Treasury rate (constant maturity)[c]	2.28	**2.25**	**2.70**
J. P. Morgan trade-weighted dollar index[a]	6.2	**10.6**	**2.5**
Oil price (dollars per barrel of West Texas Intermediate)[c]	73.16	**45.00**	**53.25**

[a]Percent change, fourth quarter over fourth quarter.
[b]Billions of chained (2009) dollars in the fourth quarter at a seasonally adjusted annual rate.
[c]Fourth quarter average.
Note: These values reflect forecasts made in November 2015.
Sources: Actual data from authors' calculations and Haver Analytics; median forecast from Economic Outlook Symposium participants.

The U.S. economy entered the seventh year of its expansion in the third quarter of 2015. While the nation's real gross domestic product (GDP) is at its highest level in history, the rate of economic growth since the end of the Great Recession in mid-2009 has been very restrained. During the 25 quarters following the second quarter of 2009, the annualized rate of real GDP growth was 2.2%—roughly in line with the long-term rate of growth for the U.S. economy. Additionally, the annualized rate of real GDP growth over the first three quarters of 2015 matched that of the overall current expansion.

Two large shocks affected the growth rate of the U.S. economy in 2015. The first shock was the collapse in energy prices, which generally had a positive impact on the overall economy. The average price of oil (West Texas Intermediate crude oil) began falling in mid-2014: It dropped from nearly $106 per barrel in June 2014 to just under $76 per barrel in November 2014 (right before the 2014 EOS). Oil prices continued to tumble throughout 2015, and by December of last year, they had averaged just over $37 per barrel. Even though the United States is progressing toward energy independence, a significant share of its energy needs is still being imported. Therefore, the lower prices for energy should have aided growth in 2015 as users of energy—such as consumers, manufacturers, and the transportation sector—faced lower expenses. Offsetting some of this stimulative effect on the economy was the sharp reduction of investment in the domestic energy sector. This cutback contributed to a decline in real business fixed investment growth; real business fixed investment grew 5.5% in 2014, but over the first three quarters of 2015, its annualized growth rate was 2.7%.

The second shock was the significant rise in the international value of the U.S.

dollar, which generally had a negative impact on the overall U.S. economy. The real trade-weighted value of the U.S. dollar began to strengthen in August 2014: It had risen 4.7% by November 2014 and then increased a further 10.9% over the next 12 months. This sharp rise made U.S.-produced goods significantly more expensive for foreign customers while making foreign-produced goods less expensive for domestic purchasers, leading to a jump in the trade deficit. The trade deficit rose from $429.1 billion in the third quarter of 2014 to $546.1 billion in the third quarter of 2015, subtracting 0.7 percentage points from economic growth over this span. The manufacturing sector's growth was negatively affected by the increasing value of the dollar against foreign currencies; industrial production increased by 4.1% in 2014, but its annualized growth rate was just 1.1% over the first 11 months of 2015—well below its historical growth rate.

That said, light vehicle sales (car and light truck sales) still rose to a record 17.4 million units in 2015—a 5.8% increase over the previous year's sales of 16.4 million units. In addition, the housing sector, which had contributed little to the economic expansion, finally began to pick up steam in 2015. Residential investment grew at an annualized rate of 8.9% over the first three quarters of 2015—the fastest pace in three years. And the annualized rate of housing starts was 1.10 million for the first 11 months of 2015—up 11% relative to the same period in 2014.

Against this backdrop, the economy continued to increase employment in 2015: 2.65 million jobs were added last year. Moreover, in the final quarter of 2015, the unemployment rate stood at 5.0%—a rate that would normally be associated with full employment. However, other measures of the labor market suggest that slack is still present. For instance, by historical standards, there remain an outsized number of part-time workers who desire full-time employment and a large percentage of unemployed workers who have been out of work for more than six months.

Given falling energy prices, lower prices on imports, and persistent slack in the economy, inflation remained extremely low in 2015. At 1.2% in both 2013 and 2014, inflation, as measured by the Consumer Price Index (CPI), had already been low by historical standards. By November 2015, year-over-year inflation had fallen to 0.4%.

> In 2016, the growth rate of real GDP is expected to be 2.6%—an improvement from the projected 2.2% rate for 2015.

Results versus forecasts

According to the consensus forecast from the most recent EOS, the growth rate of real GDP in the fourth quarter of 2015 relative to the fourth quarter of 2014 is estimated to be 2.2%—lower than the 2.7% rate predicted at the previous EOS. (For the remaining comparisons of GDP components, annual values are calculated based on the consensus estimates for the fourth quarter of 2015 from the most recent EOS.) While growth in real personal consumption expenditures was slightly higher than forecasted, growth in real business fixed investment came in much weaker than expected. Real residential investment improved at a somewhat faster rate than anticipated. The unemployment rate was actually 5.0% in the fourth quarter of 2015—more than half a percentage point lower than the 5.6% rate forecasted for the final quarter of 2015. Inflation, as measured by the CPI, is now expected to be 0.4% in 2015—significantly below the previously predicted rate of 1.7% for the year. Oil's actual average price in the fourth quarter of 2015 was $42.02 per barrel—significantly lower than its predicted average price of $84 per barrel. Light vehicle sales actually came in at 17.4 million units for 2015—much higher than the 16.8 million units forecasted. The annualized rate of housing starts rose to 1.10 million units for the first 11 months of 2015; so, total housing starts in 2015 are expected to fall a tad shy of the 1.14 million units previously predicted. The one-year Treasury rate in fact moved up to 0.46% in the fourth quarter of 2015—almost matching the 0.47% forecasted. Yet the ten-year Treasury rate had actually decreased to 2.19% by the end of 2015 instead of increasing to the predicted rate of 3.00%.

Economic outlook for 2016

The forecast for 2016 is for the pace of economic growth to be slightly above the long-term average. In 2016, the growth rate of real GDP is expected to be 2.6%—an improvement from the projected 2.2% rate for 2015. The quarterly pattern reveals a fairly steady performance for real GDP growth throughout 2016; the annualized rate is predicted to tick higher in the second half of the year. Given that the economic growth rate is forecasted to be only slightly above its historical average, the unemployment rate is expected to edge lower to 4.9% in the final quarter of 2016. Inflation, as measured by the CPI, is predicted to increase from an estimated 0.4% in 2015 to 1.9% in 2016. Oil prices are anticipated to increase, but still remain fairly low; they are predicted to average just over $53 per barrel in the final quarter of 2016. Real personal consumption expenditures are forecasted to expand at a rate of 2.7% in 2016. Light vehicle sales are expected to rise to 17.6 million units this year. The growth rate of real business fixed investment is anticipated to improve to 3.5% in 2016. Industrial production is forecasted to grow by 2.0% this year—below its historical average rate of growth.

The housing sector is predicted to continue its fairly slow march toward normalization in 2016. The growth rate of real residential investment is forecasted to be a solid 7.7% in 2016. And housing starts are anticipated to rise to 1.24 million units in 2016—higher than the predicted total for 2015 but still below the 20-year annual average of roughly 1.34 million starts.

The one-year Treasury rate is expected to rise to 1.04% in 2016, and the ten-year Treasury rate is forecasted to increase to 2.70%. The trade-weighted U.S. dollar is predicted to rise an additional 2.5% in 2016, and the nation's trade deficit (i.e., net exports of goods and services) is anticipated to increase to $610 billion in 2016.

Consumer and banking outlook

Scott Brown, senior vice president and chief economist, Raymond James & Associates, presented his outlook for consumers and the banking sector. Brown began by discussing two fundamental factors that drive consumption—growth in employment and wages. Overall, job growth last year slowed from 2014's pace but stayed strong. At the time of the EOS, Brown said he projected nonfarm payroll growth to reach 2.5 million jobs in 2015. In addition, he said job growth is likely to moderate further in 2016. Average wage growth was lackluster last year, Brown noted, but it is expected to improve as the labor market tightens.

Brown emphasized that falling gas prices boosted consumer purchasing power and spending in 2015. Personal consumption expenditures increased 3.2% in nominal terms for the August through October period of 2015 relative to the same period a year ago. Consumer spending on cars, furniture, online shopping, dining out, and services (including health care) was strong last year. However, consumer spending at department stores and discount stores was weak, which Brown said he found puzzling given the low energy prices. Brown said oil prices should begin to rise sometime in 2016 (to around $50 per barrel by year-end), implying that the acceleration in consumer spending is not likely to continue throughout this year on account of the headwinds of higher energy costs.

Turning to the banking sector, Brown said in 2015 banks were more willing to make auto loans than home mortgages, as evidenced by last year's brisk vehicle sales. Additionally, he noted he did not think the then expected interest rate hike from the Federal Reserve would dampen credit availability to consumers and small businesses over the near term.

Automotive outlook

Yen Chen, senior research economist, Center for Automotive Research (CAR), presented an optimistic outlook for U.S. light vehicle sales. According to Chen's projections, light vehicle sales are expected to reach 18.1 million units in 2016, rising above the 18 million mark for the first time in U.S. history. While his forecast showed light vehicle sales peaking at 18.6 million units in 2018, he expressed some reservations about this prediction (and the related timing of the inevitable sales downturn), largely because of the difficulty in anticipating future gas prices and consumer tastes, which can change rapidly. For instance, recent shifts in both may have led to a surge in sales of small crossover utility vehicles in 2015 relative to 2014.

Chen explained that vehicle sales are no longer moving in sync with the broader economy, as they traditionally have. One clear sign of this is that on a percentage basis, vehicle price increases are now higher than both CPI inflation and wage increases. According to the National Automobile Dealers Association, the average transaction price of a car has risen steadily since 2008, surpassing $33,000 per vehicle in 2015, said Chen. Auto loan debt has also risen along with prices; Chen said he expects it to surpass student loan debt as the highest form of household debt, excluding mortgage debt and home equity loans, in the coming years. The growth rate of vehicle sales has also significantly outpaced that of GDP. Chen suggested that low labor force participation has limited GDP growth; but given that consumer confidence has been on the upswing over the past few years, households are feeling wealthy enough to purchase big-ticket items, such as motor vehicles.

According to Chen, the U.S. share of North American auto production is expected to decrease, largely because automakers are making more investments in Mexico. Automaker investment is shifting from the U.S. to Mexico on account of several factors, such as the depreciation of the Mexican peso against the U.S. dollar (down 23% since 2011), Mexico's much lower average hourly wages for auto assembly and parts production, and Mexico's more favorable trade agreements with certain countries.

Steel industry outlook

Robert DiCianni, manager of marketing and analysis, ArcelorMittal USA, said that 2015 was a rough year for the steel industry. Domestic steel consumption last year was down 3% compared with 2014, even though the economy as a whole continued to expand. According to DiCianni, in a normal good year, the U.S. consumes about 120 million tons of steel, but consumption was down to 114 million tons in 2015. Until last year, industrial production had consistently grown faster than the economy as a whole during the expansion; but in 2015, industrial production underperformed expectations, reducing the demand for steel. As of late 2015, the tide had not turned back, as indicated by the Institute for Supply Management's manufacturing purchasing managers' index, whose reading dropped in November below the threshold between expansion and contraction for the first time since November 2012.

DiCianni said he expected the domestic steel market to bounce back somewhat

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in 2016; according to his forecast, U.S. steel consumption is predicted to rise by 2% in 2016, reaching 116 million tons. He based this prediction on the following factors. Nonresidential construction—the largest final market for steel—grew 10% in 2015; and it is predicted to increase another 10% in 2016. Growth in both U.S. auto sales and North American auto production in 2016 should also support steel sales. However, the pace of heavy-duty truck sales is expected to slow down in 2016 and 2017, reducing steel demand. Activity in the energy market—another steel-intensive sector—is anticipated to fall in 2016, but by less than it did in 2015, said DiCianni.

Global steel consumption is forecasted to grow by just 0.7% in 2016, to 1.52 billion metric tons, after having fallen by 1.7% in 2015, said DiCianni. Europe's steel consumption is predicted to rise this year by 2.2% (a bit higher than that of the U.S.). However, DiCianni expressed some concern about this forecast given Europe's political and financial uncertainties (e.g., the Syrian refugee crisis and Greek bailout). In contrast, China's consumption of steel is anticipated to decrease in 2016 by 2.0%—which reflects its slowing economy.

Heavy machinery outlook

Glenn Zetek, director of marketing planning, Komatsu America Corp., shared his outlook on heavy machinery sales based on his assessment of several sectors of the economy. Zetek described total demand for heavy machinery in the U.S. as being fairly flat in 2015, though at a healthy level by historical standards; he said he expects these market conditions to remain largely the same in 2016.

Although residential housing growth has moderated recently, continued growth in equipment demand from the housing sector is expected, said Zetek. Permits to build single-family homes are trending upward, and the latest reading on single-family home sales was up. Likewise, nonresidential fixed investment (i.e., business spending on equipment and buildings) and commercial and industrial loan volumes are forecasted to rise moderately in 2016 and 2017—which should translate into modest growth in heavy machinery sales. Zetek also said that the highway bill—Fixing America's Surface Transportation (FAST) Act—would drive up demand for heavy machinery.[2] In addition, there has been growing support among voters to fund infrastructure improvements across the nation, which bodes well for the heavy machinery market.

In contrast, mining is a weak spot for the outlook on earth-moving equipment demand, largely on account of the excess supply of commodities such as iron ore and copper, Zetek noted. He said because of this oversupply, commodity price weakness is expected to continue into 2016. Another weak spot for the machinery market is the energy sector. Zetek stated he expects oil and gas pipeline construction to grow moderately in 2016, but it's not clear how much this will help heavy machinery sales because older equipment from the shale oil and gas boom of recent years is likely to be repurposed.

State and local government debt

John Mousseau, executive vice president and director of fixed income, Cumberland Advisors, gave his outlook on the state and local government sector, focusing on the municipal bond (muni) market. He gave a fairly positive forecast, explaining that despite facing rating downgrades during the recession, the municipal bond market is expected to play a significant role in addressing debt problems in Chicago and other cities. Mousseau said that the higher ratings and lower cumulative default rates of municipal bonds relative to corporate bonds, as well as the tendency of municipal bonds to remain steady despite turbulence in energy prices and financial troubles abroad, contributed to his positive outlook. He explained that the market's strong ratings derive from municipalities' monopolistic control over essential local services, such as water and sewage. Mousseau expressed confidence in the muni market leading up to the then expected interest rate hike, partly because intermediate and long-term yields were higher for the highest-rated municipal bonds than for Treasury bonds. In addition, Mousseau noted that while municipal bond insurers are recovering from downgrades to their own credit ratings during the recession, bond insurance is still valued by the market because insured bonds have been shown to be less volatile than uninsured bonds.

Despite his generally positive outlook on the muni market, Mousseau expressed concern that political complications are hindering the full potential of this market to help heal Chicago's economy. He said that if it weren't for Illinois's similar financial problems, implementation of a state-appointed overseer for Chicago would be expected.

Conclusion

In 2015, the U.S. economy expanded at a pace roughly in line with the historical average. The economy in 2016 is forecasted to grow at a slightly faster rate than it did in 2015. The housing sector is predicted to continue to improve in 2016, as are light vehicle sales. The unemployment rate is expected to edge down by the end of 2016, and inflation is predicted to rise but remain low.

[1] Also see https://www.chicagofed.org/events/2015/economic-outlook-symposium.

[2] The FAST Act was signed into law on December 4, 2015, the same day that the EOS was held; for details on the law, see https://www.transportation.gov/fastact.