

# Chicago Fed Letter

## Economic Outlook Symposium: Summary of 2017 results and 2018 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 2018, with inflation moving up a little and the unemployment rate remaining low.

The Federal Reserve Bank of Chicago held its 31st annual Economic Outlook Symposium (EOS) on December 1, 2017. More than 100 economists and analysts from business, academia, and government attended the conference. This *Chicago Fed Letter* reviews the forecasts for 2017 from the previous EOS, and then analyzes the forecasts for 2018 (see figure 1) and summarizes the presentations from the most recent EOS.

The U.S. economy entered the ninth year of its expansion in the third quarter of 2017. 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 quite restrained. During the 33 quarters following the second quarter of 2009, the annualized rate of real GDP growth was 2.2%—just slightly above what is considered the long-term rate of growth for the U.S. economy.

Last year got off to quite a slow start, with the annualized rate of real GDP growth coming in at 1.2% in the first quarter; early in 2017, growth was hampered in large part by a dramatic drop in

Some materials presented at the latest EOS are available online, <https://www.chicagofed.org/events/2017/economic-outlook-symposium>.

inventories, worth nearly \$62 billion in real terms, from the previous quarter. The annualized rate of real GDP growth improved in the second quarter to 3.1%—as the change in inventories from the previous quarter was minimal and, thus, no longer the drag to growth it had been in the first quarter. The annualized growth rate in the first half of the

year was 2.1%—quite close to the annualized rate since the expansion began. Growth in the third quarter was negatively affected by Hurricanes Harvey and Irma. Especially hard hit were the energy and chemical industries, which have a heavy concentration in the Gulf Coast states. Additionally, the damaging floods and winds forced many people to abandon their homes and vehicles, and shut down several southern ports. Even with the negative economic impact from the hurricanes, real GDP still expanded at a strong annualized rate of 3.2% in the third quarter. The port disruption in part led to a 0.7% drop in imports in the third quarter from the second quarter. This drop boosted net exports' contribution (amounting to 0.4 percentage points) to the annualized rate of real GDP growth in the third quarter. Also, the need to replace and repair damaged homes, vehicles, and other property likely added temporary support to growth in the fourth quarter and beyond.

## 1. Median forecasts of real gross domestic product and related items

	2016	2017	2018
	(Actual)	(Forecast)	(Forecast)
Real gross domestic product <sup>a</sup>	1.8	2.5	2.3
Real personal consumption expenditures <sup>a</sup>	2.8	2.6	2.3
Real business fixed investment <sup>a</sup>	0.7	5.4	3.5
Real residential investment <sup>a</sup>	2.5	-0.2	3.3
Change in private inventories <sup>b</sup>	63.1	379	41.8
Net exports of goods and services <sup>b</sup>	-631.1	-602.7	-627.9
Real government consumption expenditures and gross investment <sup>a</sup>	0.4	-0.1	0.6
Industrial production <sup>a</sup>	-0.1	1.9	1.9
Car and light truck sales (millions of units)	17.5	17.1	17.0
Housing starts (millions of units)	1.18	1.19	1.26
Unemployment rate <sup>c</sup>	4.7	4.2	4.1
Consumer Price Index <sup>a</sup>	1.8	1.8	2.0
One-year Treasury rate (constant maturity) <sup>c</sup>	0.76	1.43	2.01
Ten-year Treasury rate (constant maturity) <sup>c</sup>	2.13	2.45	3.01
J. P. Morgan trade-weighted dollar index <sup>a</sup>	3.7	-4.1	1.0
Oil price (dollars per barrel of West Texas Intermediate) <sup>c</sup>	49.20	52.31	53.18

<sup>a</sup>Percent change, fourth quarter over fourth quarter.

<sup>b</sup>Billions of chained (2009) dollars in the fourth quarter at a seasonally adjusted annual rate.

<sup>c</sup>Fourth quarter average.

NOTE: These values reflect forecasts made in November 2017.

SOURCES: Actual data from authors' calculations and Haver Analytics; median forecasts from Economic Outlook Symposium participants.

Consumer spending expanded at a solid pace in 2017: Real personal consumption expenditures grew at an annualized pace of 2.5% during the first three quarters of 2017. After the annualized rate of light vehicle sales (car and light truck sales) reached 18.1 million units in December 2016, it began to decline in 2017, eventually coming in at 16 million units in August 2017. The decline in vehicle sales was larger than the cutback in production, which led to a sharp rise in vehicle inventories. The destruction of an estimated half-million to 1 million vehicles due to the hurricanes provided a temporary boost to light vehicle sales in September and October: The annualized rate of light vehicle sales surged to 18.2 million units during these months, significantly reducing the bloated inventories. Light vehicle sales closed the year at a solid annualized pace of 17.6 million units during November and December.

Energy prices increased some in 2017. Specifically, the price of West Texas Intermediate oil averaged \$55.39 per barrel in the final quarter of 2017—above the \$49.20 it averaged in the fourth quarter of 2016, but still well below the nearly \$80 per barrel it averaged in the ten years before the collapse of oil prices in the middle of 2014.

Given energy prices remained low in 2017, more consumers chose to purchase larger and less fuel-efficient vehicles than in the year before (continuing the pattern in vehicle sales seen over the past few years): Sales for light trucks (including sport utility vehicles) were up 5.0% in 2017 compared with the previous year, while sales for passenger cars were down 11.3%. This dramatic shift in consumer demand led to a record-setting share for light trucks of 64.5% of overall light vehicle sales in 2017.

Even with the pullback in light vehicle production last year, industrial production expanded at an annualized rate of 2.7% over the first 11 months of 2017—much better than its growth rate of -0.1% in 2016.

Real residential investment decreased during the first three quarters of 2017 (its annualized growth rate was  $-0.6\%$  over this span). In contrast, it had increased at an annualized rate of  $7.8\%$  between the third quarter of 2010 and the final quarter of 2016. The annualized rate of housing starts increased to 1.21 million units for the first 11 months of 2017—up  $3.3\%$  relative to the same period in 2016.

On an annualized basis, growth in real government spending was  $-0.1\%$  over the first three quarters of 2017—well below the annual rate of  $1.3\%$  it has averaged over the past 20 years.

Against this backdrop, the economy continued to increase employment in 2017: 2.06 million jobs were added last year. Moreover, in the final quarter of 2017, the unemployment rate stood at  $4.1\%$ —below most economists' estimates of the natural rate of unemployment (i.e., the rate that would prevail in an economy making full use of its productive resources).

Inflation, as measured by the Consumer Price Index (CPI), increased from a  $1.8\%$  reading in 2016 to a year-over-year rate of  $2.2\%$  in November 2017.

## Results versus forecasts

According to the consensus forecast from the most recent EOS, the growth rate of real GDP in the fourth quarter of 2017 relative to the fourth quarter of 2016 is estimated to be  $2.5\%$ —higher than the  $2.2\%$  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 2017 from the most recent EOS.) Growth in real business fixed investment was quite a bit stronger than what was forecasted; growth in real personal consumption expenditures was a little stronger than expected; and growth in real residential investment came in much weaker than predicted. The unemployment rate was actually  $4.1\%$  in the fourth quarter of 2017— $0.7$  percentage points lower than the value forecasted for the final quarter of 2017. Inflation, as measured by the CPI, is now expected to be  $1.8\%$  in 2017— $0.2$  percentage points below the previously predicted rate of  $2.0\%$  for the year. Oil's actual average price in the fourth quarter of 2017 was  $\$55.39$  per barrel—higher than its predicted average price of  $\$51.53$  per barrel. Light vehicle sales actually came in at 17.2 million units for 2017—just below the 17.3 million units forecasted. The annualized rate of housing starts was 1.21 million units for the first 11 months of 2017; so, total housing starts in 2017 are expected to come very close to the 1.20 million units previously predicted. The one-year Treasury rate in fact moved up to  $1.55\%$  in the fourth quarter of 2017—above the  $1.33\%$  forecasted. The ten-year Treasury rate increased to  $2.37\%$  by the end of 2017—virtually the same as the predicted rate of  $2.36\%$ .

## Economic outlook for 2018

The forecast for 2018 is for the pace of economic growth to be slightly above the long-term average. In 2018, the growth rate of real GDP is expected to be  $2.3\%$ —a touch lower than the projected  $2.5\%$  rate for 2017. The quarterly pattern reveals a fairly steady performance for real GDP growth throughout 2018. Given that the economic growth rate is forecasted to be slightly above its historical average, the unemployment rate is expected to remain low, at  $4.1\%$ , in the final quarter of 2018.

Inflation, as measured by the CPI, is predicted to increase from an estimated  $1.8\%$  in 2017 to  $2.0\%$  in 2018. Oil prices are anticipated to remain fairly low; they are predicted to average  $\$53.18$  per barrel in the final quarter of 2018. Real personal consumption expenditures are forecasted to expand at a rate of  $2.3\%$  in 2018. Light vehicle sales are expected to ease to 17 million units this year. The growth rate of real business fixed investment is anticipated to moderate to a solid  $3.5\%$  in 2018. Industrial production is forecasted to grow by  $1.9\%$  this year—below its historical average rate of growth.

The housing sector is predicted to improve and continue its extremely slow march toward normalization in 2018. The growth rate of real residential investment is forecasted to be  $3.3\%$  in 2018. And housing

starts are anticipated to rise to 1.26 million units in 2018—but still below the 20-year annual average of roughly 1.3 million starts.

The one-year Treasury rate is expected to rise to 2.01% in 2018, and the ten-year Treasury rate is forecasted to increase to 3.01%. The trade-weighted U.S. dollar is predicted to rise 1.0% in 2018, and the nation's trade deficit (i.e., net exports of goods and services) is anticipated to increase to \$627.9 billion by the final quarter of 2018.

## **Consumer outlook**

Diane Swonk, CEO and founder, DS Economics, presented her outlook for consumers. Swonk began by observing that the United States is currently in the midst of its third-longest economic expansion on record. However, she said there has been an unevenness in the distribution of income gains and employment opportunities among various demographic groups (for instance, as separated by race and ethnicity) and across different regions of the country (for instance, urban versus rural areas). She suggested perhaps too many segments of the population are being left economically behind. Moreover, Swonk noted that labor force participation has fallen in part because of a large retiring population, curbed immigration, and the opioid crisis (particularly in rural areas). Given these factors, Swonk said she has some concerns about the future of the U.S. labor market.

Swonk said she expects personal consumption expenditures to increase around 2.5% this year—slightly above the symposium's consensus median forecast of 2.3%—with spending being driven by purchases of big-ticket items, such as home additions and light vehicles. Swonk stated that wage growth may pick up in 2018, partly because of minimum wage increases going into effect in several states (including California) at the beginning of the year. The unemployment rate could still decrease below 4%, even as job gains slow somewhat, she suggested. Households have repaired their balance sheets, and overall household debt is back to pre-recessionary levels. Credit scores are generally up from a few years ago, she said, and banks have made credit more readily available. Swonk argued that the rise in both creditworthiness and credit availability should help stimulate consumer spending (there's already been an upturn in credit card usage lately, she observed). That said, home contractors and high-quality existing homes are in short supply, she said, so many consumers are opting to stay in their current residences (even though interest rates on home mortgages have stayed fairly low). And some consumers still face substantial headwinds. For example, many millennials have large amounts of outstanding student loan debt, noted Swonk.

## **Automotive outlook**

Yen Chen, senior industry economist, Center for Automotive Research, provided a lukewarm outlook for U.S. light vehicle sales, at least over the shorter term. According to Chen, domestic auto sales peaked at 17.5 million units at the end of 2016, and they have been trending lower since. He indicated that in North America, auto sales were lagging production in 2017 (through October), which caused inventories to rise and profitability to decline. According to data from the National Automobile Dealers Association, Chen said, dealerships were experiencing a net loss of \$400 per new vehicle sold in 2017 (through September)—roughly equal to the loss experienced in 2009, when the economy emerged from the Great Recession midyear. The losses would incentivize dealerships to cut personnel and manufacturers to cut production, he said.

According to Chen, domestic light vehicle sales are projected to decrease from 17.2 million units in 2017 to 16.8 million units in 2018 and then 16.5 million units in 2019, before gradually rising to 17.2 million units by 2022. Chen discussed several key factors underlying his forecast for auto sales. For one, consumer credit may become a drag on light vehicle sales, given further likely hikes in interest rates. In addition, he said, the rise in subprime auto loan defaults is prompting some banks to pull back on extending auto credit. Finally, prices for used vehicles continue to fall, making them more attractive to potential buyers and hurting new vehicle sales, said Chen.

Chen argued that light vehicle sales may be moving less in tandem with the overall economy than they have historically. He noted that changes in auto sales have diverged from those of real GDP in recent years and that increases in vehicle prices are averaging below increases in the Consumer Price Index for the first time since 2012.

## **Steel industry outlook**

Robert DiCianni, manager of marketing and analysis, ArcelorMittal USA, noted that U.S. steel consumption in 2017 rose 5% from 2016, reaching about 106 million tons. Several factors contributed to the growth in domestic steel demand. The energy industry—which uses a lot of steel for extracting and transporting oil and gas—had a strong positive impact on steel consumption, DiCianni stated. Moreover, industrial production performed much better in 2017 than in 2016. Shipment rates and inventories of steel also bounced back in 2017. While the upside potential for the steel industry is better now than a few years ago, domestic steel consumption is projected to grow just 3% in 2018, to 109 million tons, said DiCianni. Steel consumption is still not anticipated to reach 120 million tons—the level in a typical good year—according to DiCianni. He based this prediction chiefly on the following factors. DiCianni explained that nonresidential construction—the largest final market for steel—should increase slightly through the end of 2018. In addition, steel service centers, which serve as a bridge between steel producers and final consumers, are expected to hold larger reserves in 2018 than in early 2017 (indicating relatively higher steel demand), he said. While the auto sector, a highly important steel-consuming market, has performed well in recent years, DiCianni said he expects auto sales to be roughly flat this year. A downside risk, he noted, is for imbalanced trade with other countries to continue to have a negative influence on U.S. demand for steel.

According to DiCianni, global steel consumption in 2018 is projected to increase a modest 1.6% from 2017, to 1.65 billion metric tons. China's reduction in steel demand is the major contributor to the expected slowdown in global steel consumption from a stellar growth rate of 7% in 2017. Further, DiCianni warned that the steel industry will continue to see large spikes in the prices of steel-making components, such as those seen for prices of coking coal after the closures of several mills in China and the cyclone that damaged coal mines and rails on the east coast of Australia (one of the largest exporters of coking coal).

## **Heavy machinery outlook**

Eli Lustgarten, president, ESL Consultants Inc., presented a fairly optimistic outlook for the heavy machinery industry. He noted that business investment recorded a solid annualized growth rate of 3.9% in the third quarter of 2017 (equipment purchases by businesses were particularly strong, he pointed out). The Institute for Supply Management's Manufacturing Purchasing Managers' Index had its best reading in September 2017 since May 2004; this could portend stronger industrial production in the year ahead, he suggested. Lustgarten said that on the heels of improved manufacturing activity, a significant recovery in industrial equipment demand (including upswings in heavy-duty truck and machine tool purchases) is anticipated.

Lustgarten said he expects demand for farm equipment to increase moderately this year from the current low level (largely due to low crop prices resulting from abundant harvests). Similarly, new equipment demand from the energy and mining sectors is expected to firm up as prices for energy and metals commodities continue to rebound, according to Lustgarten. Since the Great Recession, growth in spending on nonresidential construction, including public spending on infrastructure projects, has been slow. While that trend continued into 2017, Lustgarten said he remains hopeful that eventually federal funds for building and improving infrastructure will be made available, which would drive up heavy machinery demand.

## Fiscal condition of Illinois

Rick Mattoon, senior economist and economic advisor, Federal Reserve Bank of Chicago, presented his assessment of Illinois's fiscal condition and potential solutions. Between fiscal years (FY) 1995 and 2010, Illinois was a lower tax state compared with the national average and most neighboring states.<sup>1</sup> Rather than raise taxes, it borrowed funds to close the gap between revenues and expenditures. According to a 2015 analysis by the Institute of Government and Public Affairs (IGPA) at the University of Illinois,<sup>2</sup> the state has run a budget deficit since FY2000, and the deficit is projected to increase from FY2016 through at least FY2026. Illinois has become a higher tax state relative to the national average and most neighboring states; this was a necessary adjustment to address the accumulation of debt, Mattoon explained.

What is the magnitude of Illinois's debt? Mattoon referenced a 2016 study by the Mercatus Center at George Mason University,<sup>3</sup> which estimated Illinois's total outstanding debt to be approximately 60% of total state personal income in FY2014. Furthermore, Mattoon explained that the amount of unfunded pension liabilities—a significant portion of the overall debt—may be understated. Lowering the assumed rate of return on the state and local governments' pension assets from 7.9% (the rate estimated in 2014) to 3% (which Mattoon suggested is closer to a risk-free rate) increases the combined pension debt from \$140 billion to \$371 billion, or approximately \$78,000 per household.

As Mattoon explained, Illinois's FY2018 budget reduces spending and raises additional revenues, primarily through hikes in income tax rates, freeing up funds to pay off some of its backlog of debt. Adopting the complete set of spending cuts and revenue increases proposed in the 2015 IGPA study could close most of the budget deficit in ten years. However, Mattoon underscored the need for a binding budget plan to prevent further poor fiscal management. He observed that public pension cuts would be difficult to implement: Less generous benefits already exist for new pension employees, and the state constitution prohibits impairment of benefits for existing pension employees and retirees.

## Conclusion

In 2017, the U.S. economy expanded at a pace somewhat above the historical average. The economy in 2018 is forecasted to grow at a slightly slower pace than it did in 2017, but still above the historical average. Business investment is predicted to moderate in 2018, and the housing sector is projected to improve this year. The unemployment rate is expected to stay low, at 4.1%, by the end of 2018, and inflation is predicted to move up slightly to 2%.

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<sup>1</sup> Mattoon reported a state's tax burden as its total state and local tax revenues divided by its gross state product.

<sup>2</sup> The full report by the IGPA is available online, [https://igpa.uillinois.edu/sites/igpa.uillinois.edu/files/reports/FF\\_Apocalypse\\_Now\\_Jan\\_2015.pdf](https://igpa.uillinois.edu/sites/igpa.uillinois.edu/files/reports/FF_Apocalypse_Now_Jan_2015.pdf).

<sup>3</sup> The full report by the Mercatus Center is available online, <https://www.mercatus.org/system/files/mercatus-norcross-fiscal-rankings-2-v6.pdf>.

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