Consensus Outlook – 2018 and 2019

Twenty-fourth Annual Automotive Outlook Symposium

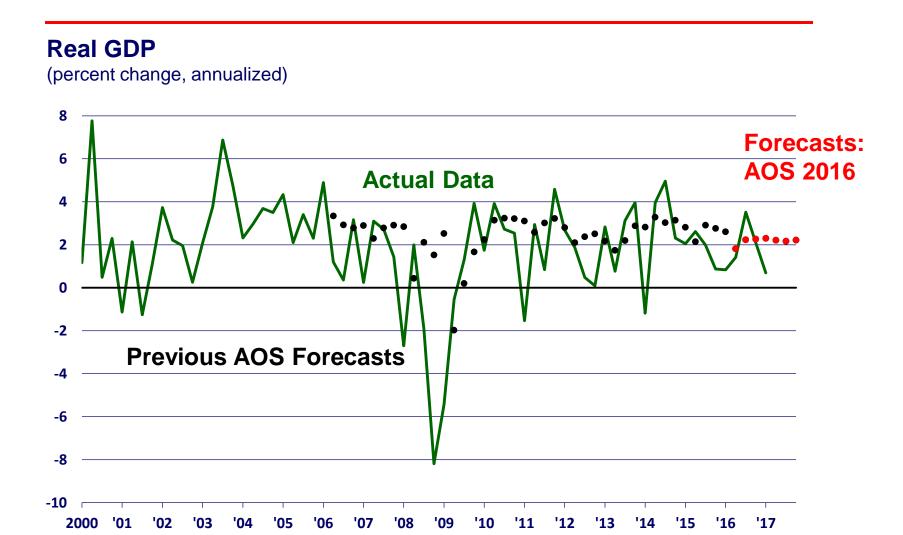
June 2, 2017

William Strauss
Senior Economist and Economic Advisor
Federal Reserve Bank of Chicago

The views expressed herein are those of the author and do not necessarily represent the views of the Federal Reserve System or the Federal Reserve Bank of Chicago.

Review of Past Performance

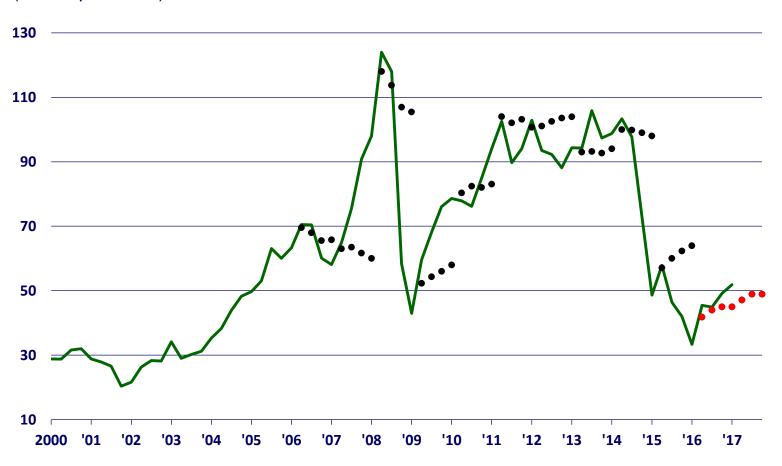
While volatile, real GDP growth was close to forecast



Oil prices rose at a bit faster pace than predicted

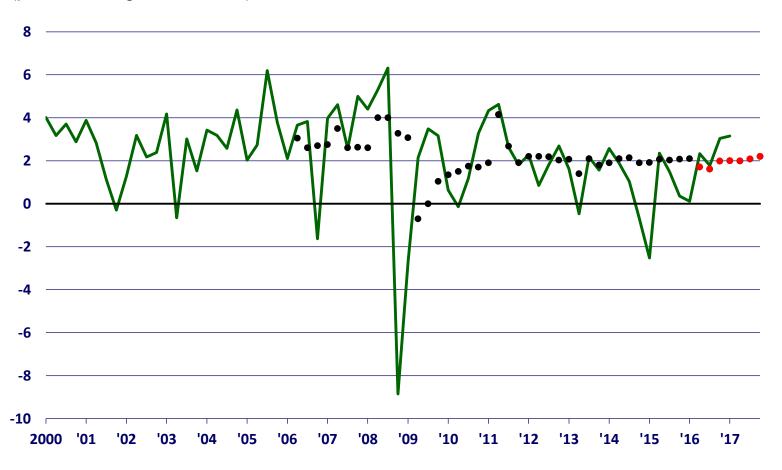
Oil Prices - West Texas Intermediate

(dollars per barrel)



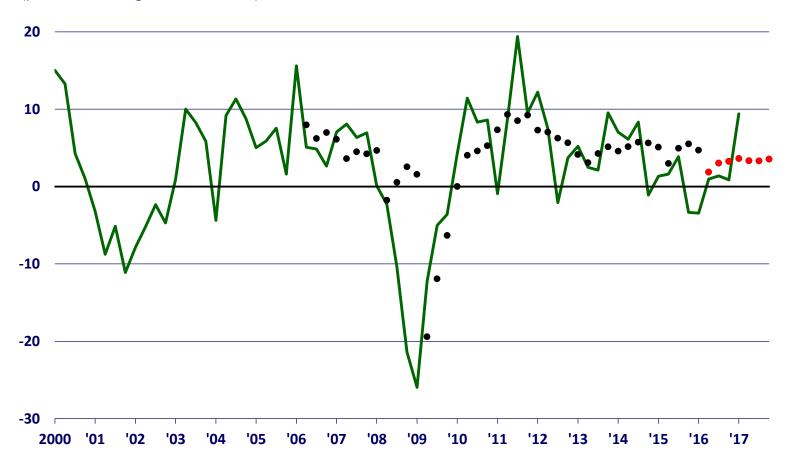
This in part explains why inflation rose at a faster pace than forecast

CPI Inflation Rate



Business fixed investment lagged what was expected until the most recent quarter

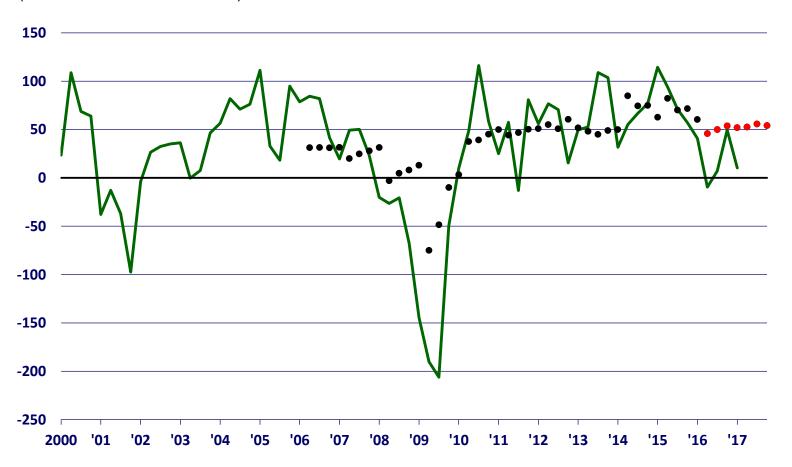
Business Fixed Investment



Inventories contribution to growth was less than predicted

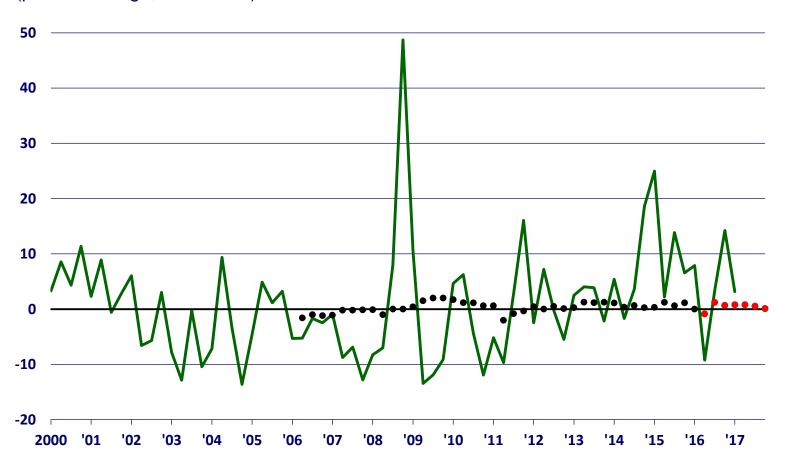
Change in Private Inventories

(billions of constant dollars)



The trade weighted value of the dollar rose more than anticipated

J.P. Morgan Trade Weighted Dollar



The trade deficit was initially less than forecast but increased sharply at the end of last year

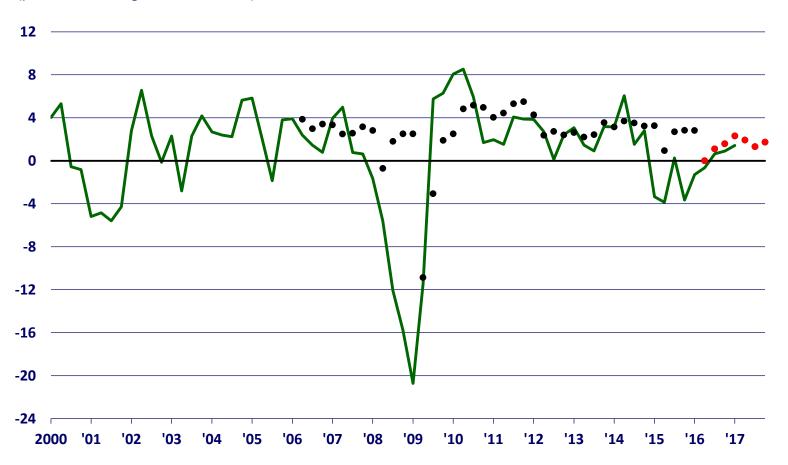
Net Exports of Goods and Services

(billions of constant dollars)



Industrial production improved at a pace close to what was expected

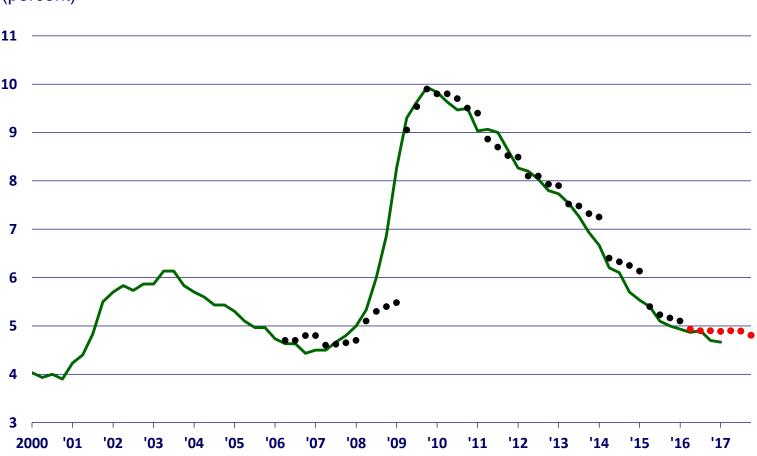
Industrial Production



The unemployment rate moved slightly below the rate forecast

Unemployment Rate

(percent)



Consumer spending was slightly stronger than predicted

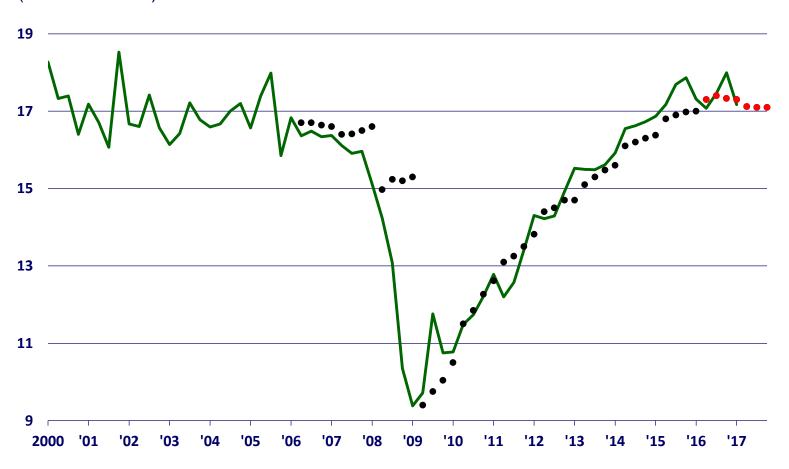




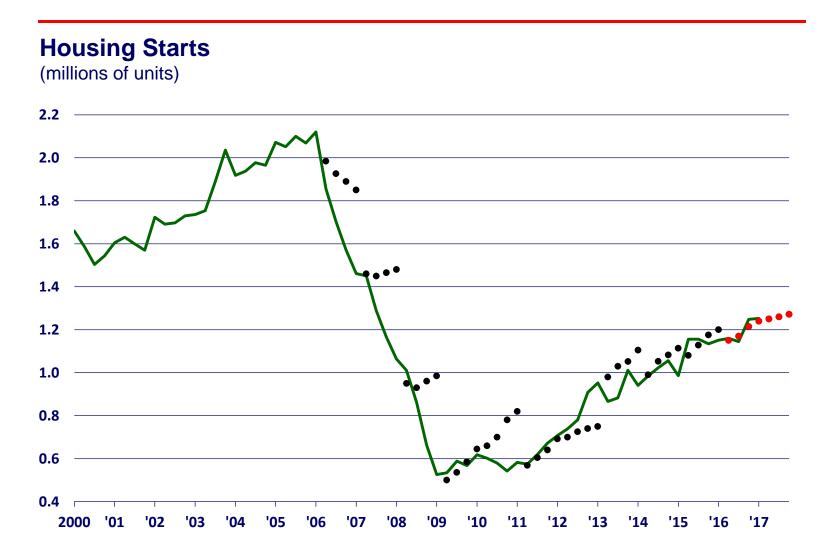
This helped push light vehicle sales slightly above what was anticipated

Car and Light Truck Sales

(millions of units)

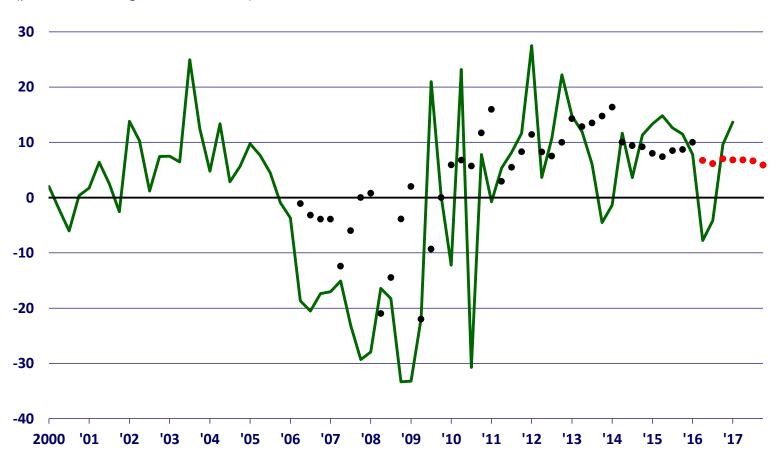


Housing starts were accurately forecast



Residential investment was initially weaker than expected, but strengthened over the past couple quarters

Residential Investment



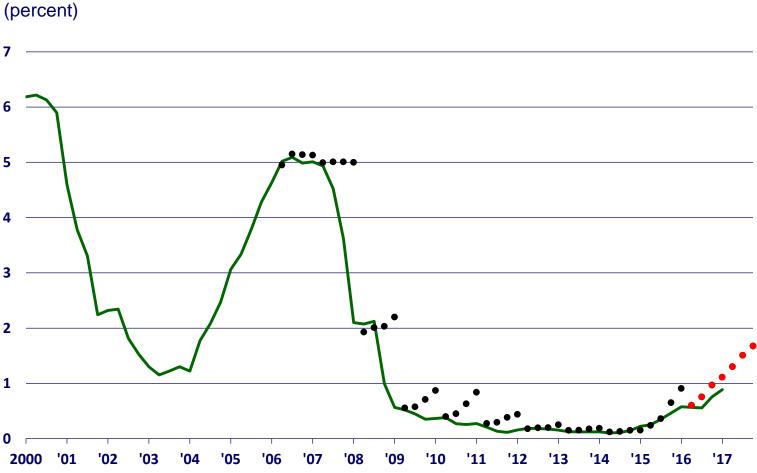
Longer-term rates ended up rising close to what was predicted



(percent) 2000 '01 '02 '03 '04 '05 '06 **'07** '08 '09 '10 '11 '12 '13 '14 '16 '17

Short term interest rates rose at a somewhat slower pace than forecast

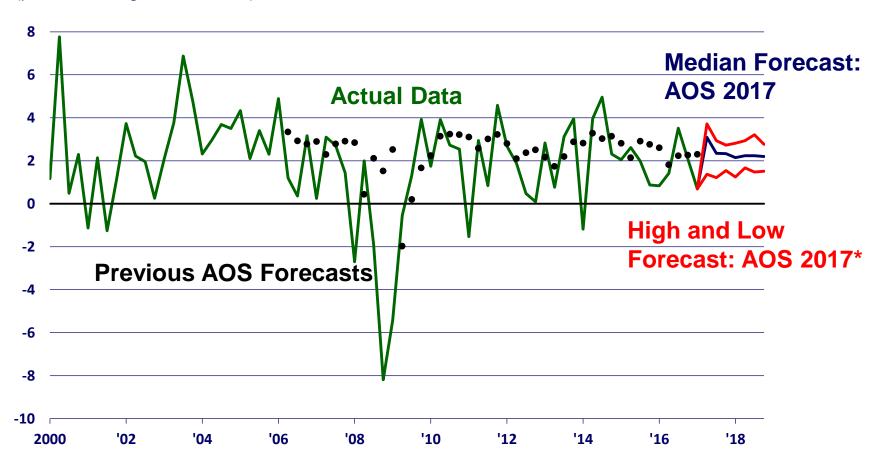




Forecast for 2017 and 2018

Real GDP growth is expected to edge higher in both 2017 and 2018

Real GDP



^{*}Excludes the two highest and two lowest forecasts

Oil prices are anticipated to increase modestly beginning next year

Oil Prices - West Texas Intermediate

(dollars per barrel)



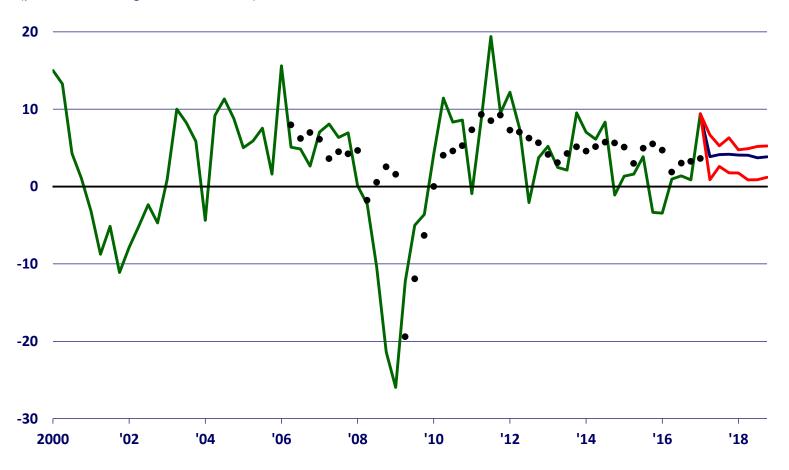
Inflation is expected to remain relatively stable through the end of 2018

CPI Inflation Rate



Business fixed investment is anticipated to rise at a solid pace

Business Fixed Investment



The change in business inventories are forecast to rise at a pace likely to keep the inventory to GDP ratio constant

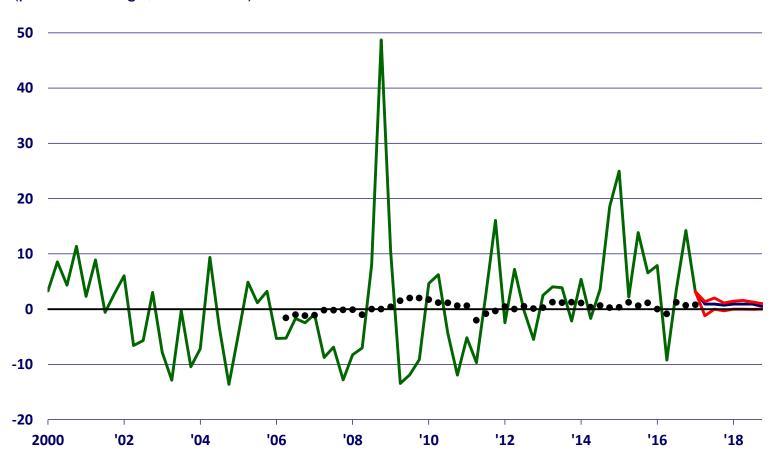
Change in Business Inventories

(billions of constant dollars)



The trade weighted dollar is predicted to continue rising through next year

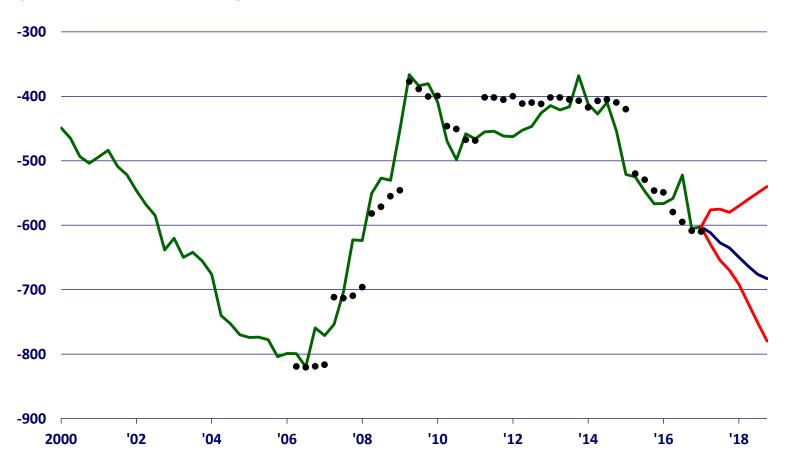
J.P. Morgan Trade Weighted Dollar



This may in part explain why the trade deficit is expected to increase

Net Exports of Goods and Services

(billions of constant dollars)



Industrial output is forecast to rise at pace below its long-run trend

Industrial Production



The unemployment rate is predicted to remain stable at a low rate



2000

'02

'04

'06

'08

'10

'12

'14

'16

'18

(percent)

Consumer spending is anticipated to increase at a solid pace

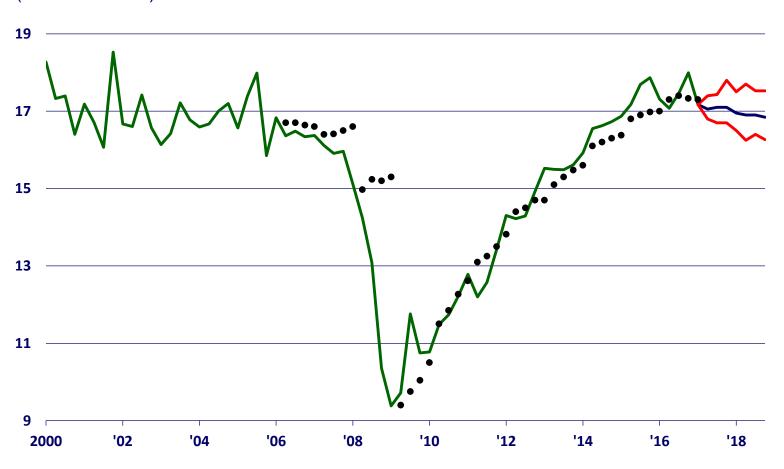




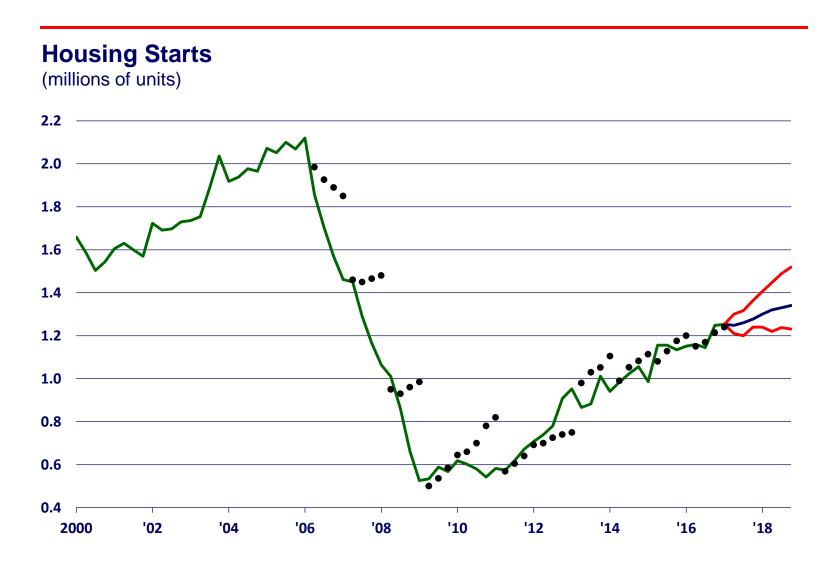
Even with light vehicles sales moving lower



(millions of units)

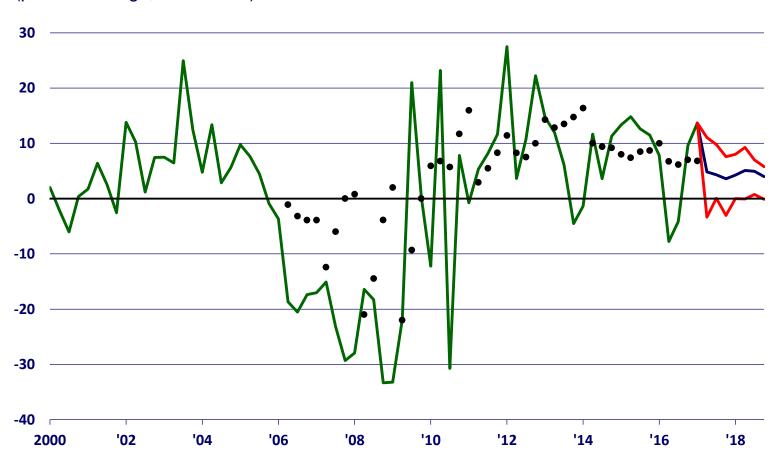


Housing starts are expected to continue its modest gains



Residential investment is predicted to grow moderately





Ten-year interest rates are forecast to rise to just over 3% by the end of next year

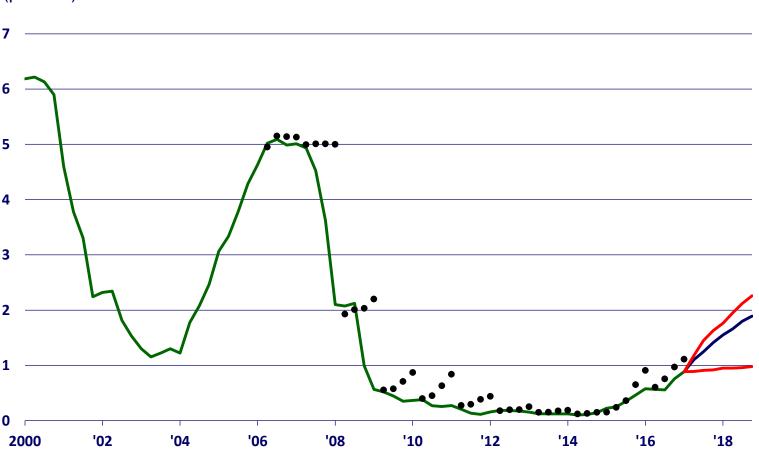


(percent) 2000 '02 '04 '06 '08 '10 '12 '14 **'16 '18**

Short-term interest rates are expected to rise to just under 2% by the end of 2018



(percent)



Median Forecasts: Consensus Book Page 1

| | 2016 | 2017 | 2018 |
|--|----------|-------------|----------|
| GDP, current dollars* | 3.5% | 3.9% | 4.3% |
| GDP Price Index, chain-type* | 1.6% | 2.0% | 2.1% |
| Real GDP, chained dollars* | 2.0% | 2.1% | 2.3% |
| Real Personal Consumption Expenditures* | 3.1% | 2.1% | 2.3% |
| Real Business Fixed Investment* | -0.1% | 5.2% | 4.0% |
| Real Residential Investment* | 1.1% | 6.3% | 3.4% |
| Change in Private Inventories** | \$49.6 | \$42.5 | \$40.0 |
| Net Exports of Goods and Services (billions of constant dollars)** | -\$605.0 | -\$635.0 | -\$682.7 |
| Real Government Consumption Expenditures and Gross Investment* | 0.2% | 0.2% | 0.9% |

^{*} Q4 over Q4

^{**} Q4 value

Median Forecasts: Consensus Book Page 1

| | 2016 | 2017 | 2018 |
|--|---------|---------|---------|
| Industrial Production* | -0.1% | 1.6% | 1.7% |
| Car and Light Truck Sales (millions – calendar year including imports) | 17.5 | 17.1 | 16.9 |
| Housing Starts (millions of units) | 1.18 | 1.26 | 1.32 |
| Oil Price (dollars per barrel of West Texas Intermediate)** | \$49.20 | \$51.59 | \$54.00 |
| Unemployment Rate** | 4.7% | 4.4% | 4.4% |
| Consumer Price Index* | 1.8% | 2.3% | 2.3% |
| Treasury Constant Maturity One-year Rate** | 0.76% | 1.42% | 1.89% |
| Treasury Constant Maturity Ten-year Rate** | 2.13% | 2.70% | 3.11% |
| J.P. Morgan Trade Weighted OECD Dollar* | 3.7% | 3.3% | 3.5% |

^{*} Q4 over Q4

^{**} Q4 value

Summary

- The economy is forecast to rise at a pace just slightly above trend in 2017 and 2018
- The unemployment rate is expected to edge lower this year and remain unchanged in 2018
- CPI inflation is anticipated to rise to 2.3% percent this year and remain unchanged next year
- Manufacturing growth is expected to improve to a pace that is still below its trend
- Light vehicles sales are forecast to decline to 17.1 million units in 2017 and 16.9 million units in 2018
- Housing starts are predicted to increase to 1.34 million units next year
- www.chicagofed.org