



23RD ANNUAL

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**AUTOMOTIVE OUTLOOK  
SYMPOSIUM**

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FRIDAY, JUNE 3, 2016

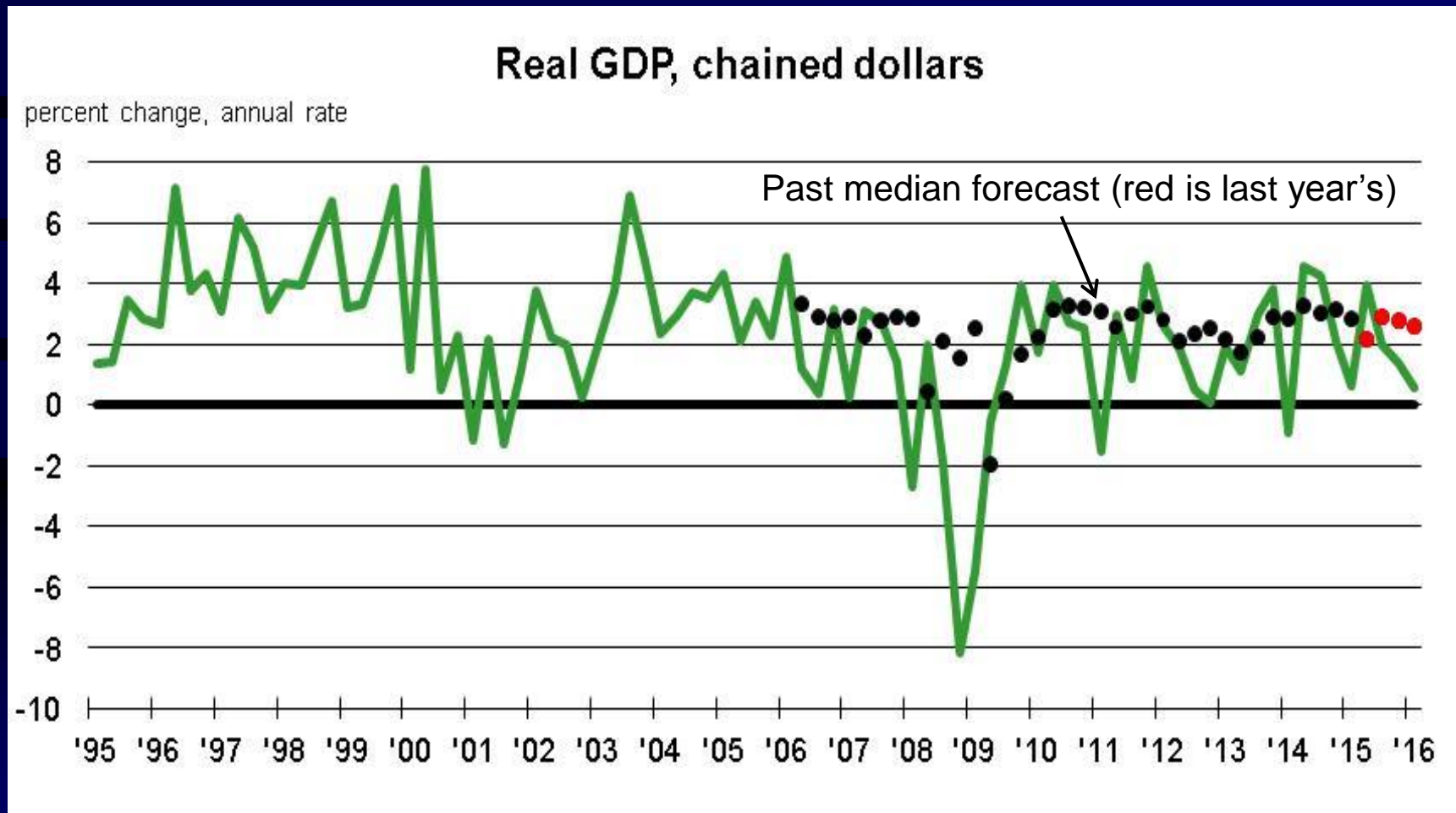
# Consensus Forecast 2016 and 2017

**Twenty-third Annual  
Automotive Outlook Symposium**  
Detroit, Michigan  
June 3, 2016

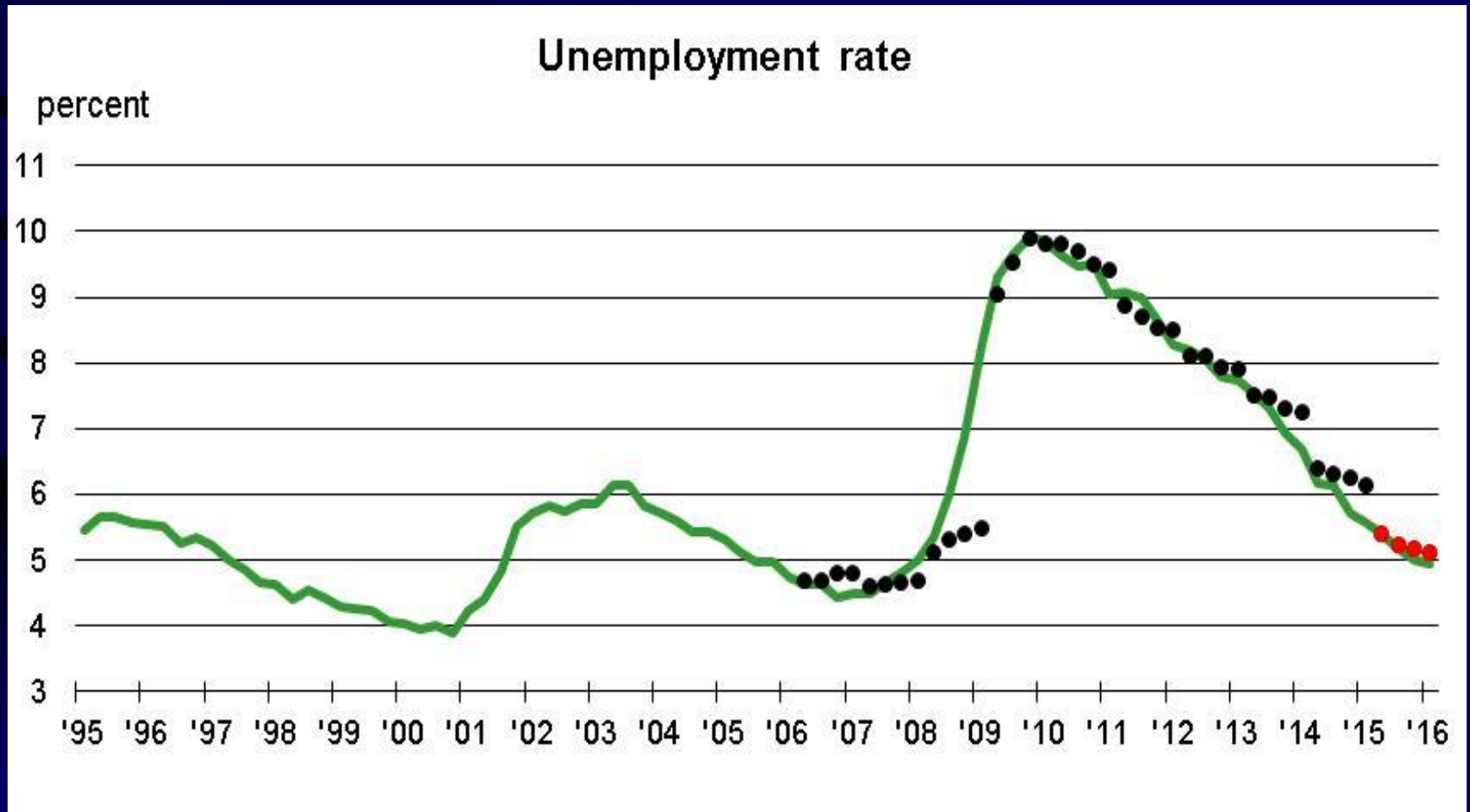
**William Strauss**  
Senior Economist  
and Economic Advisor  
Federal Reserve Bank of Chicago

# Review of past performance

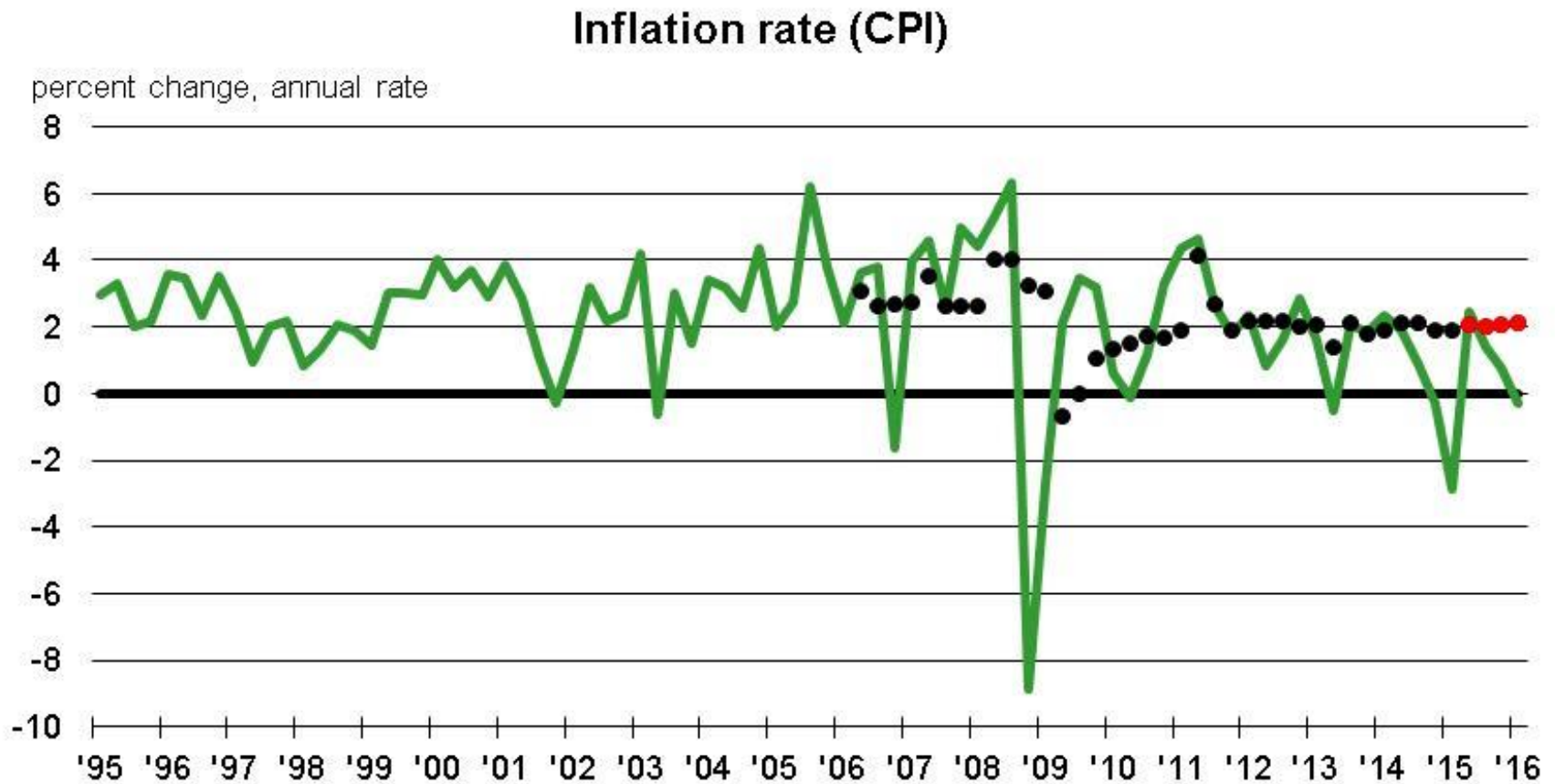
# Real GDP growth was below the consensus outlook



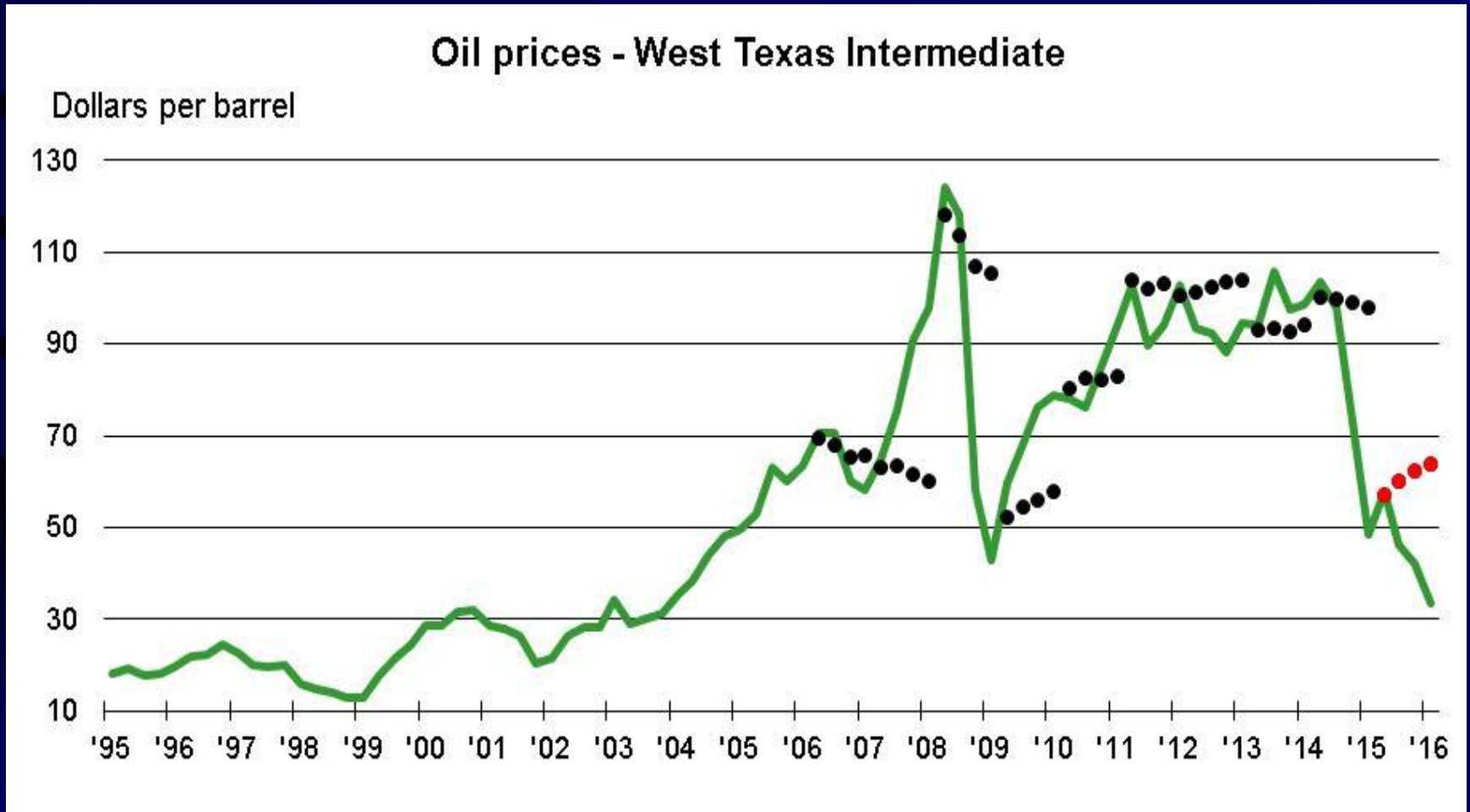
# The unemployment rate was accurately predicted



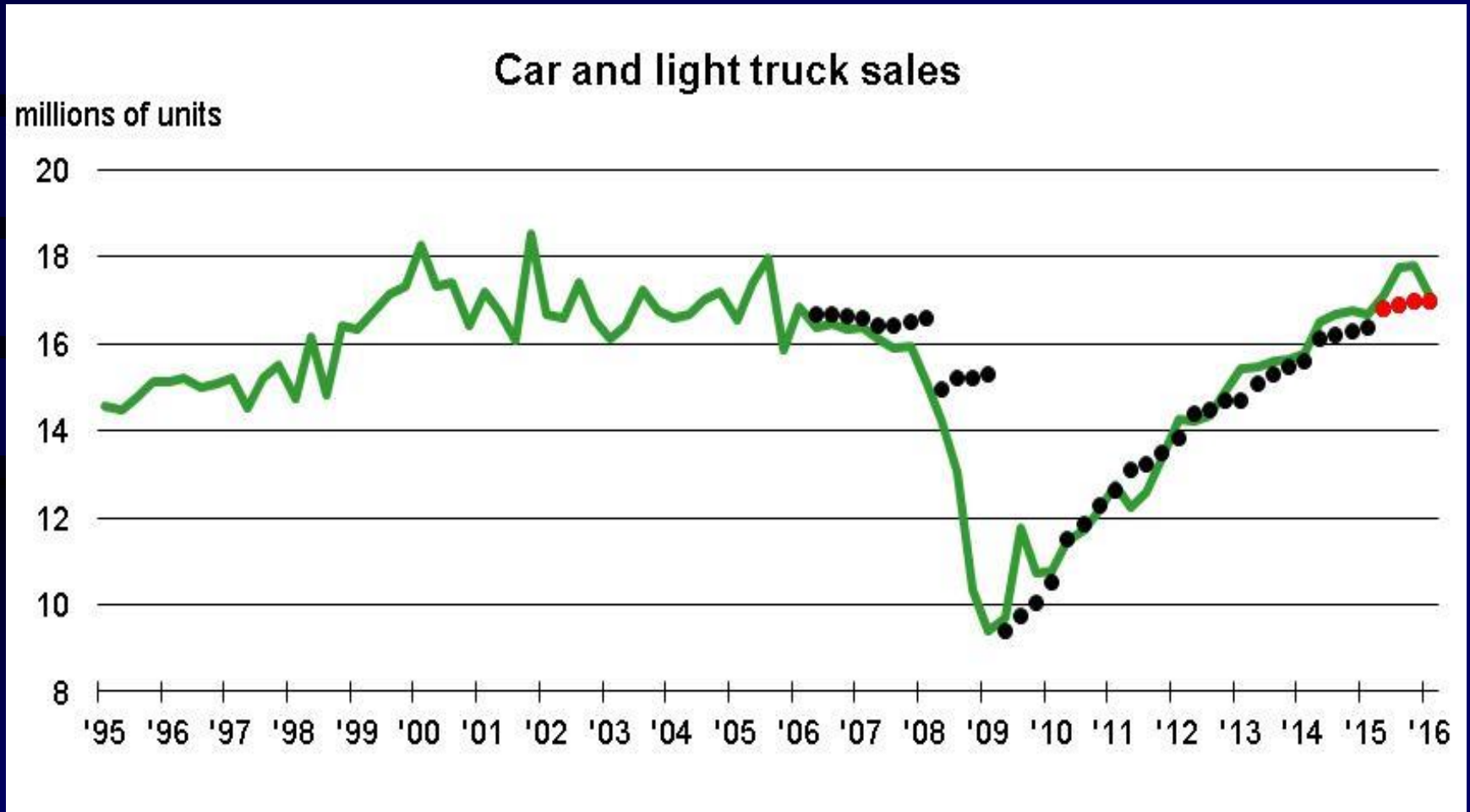
# Inflation was sharply lower than forecast



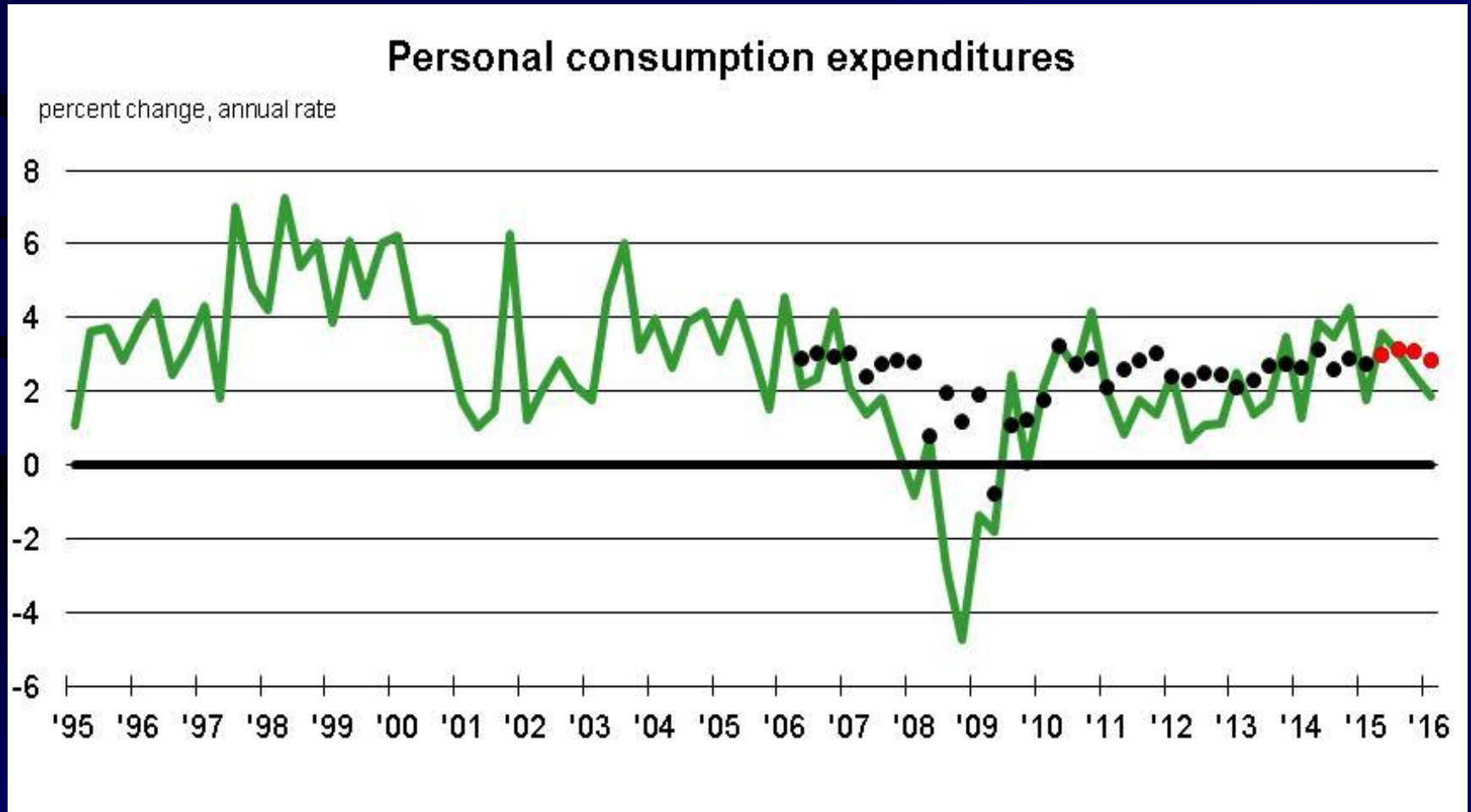
**In large part due to a further collapse in oil prices that was not expected**



# Car and light truck sales came in a bit higher than predicted

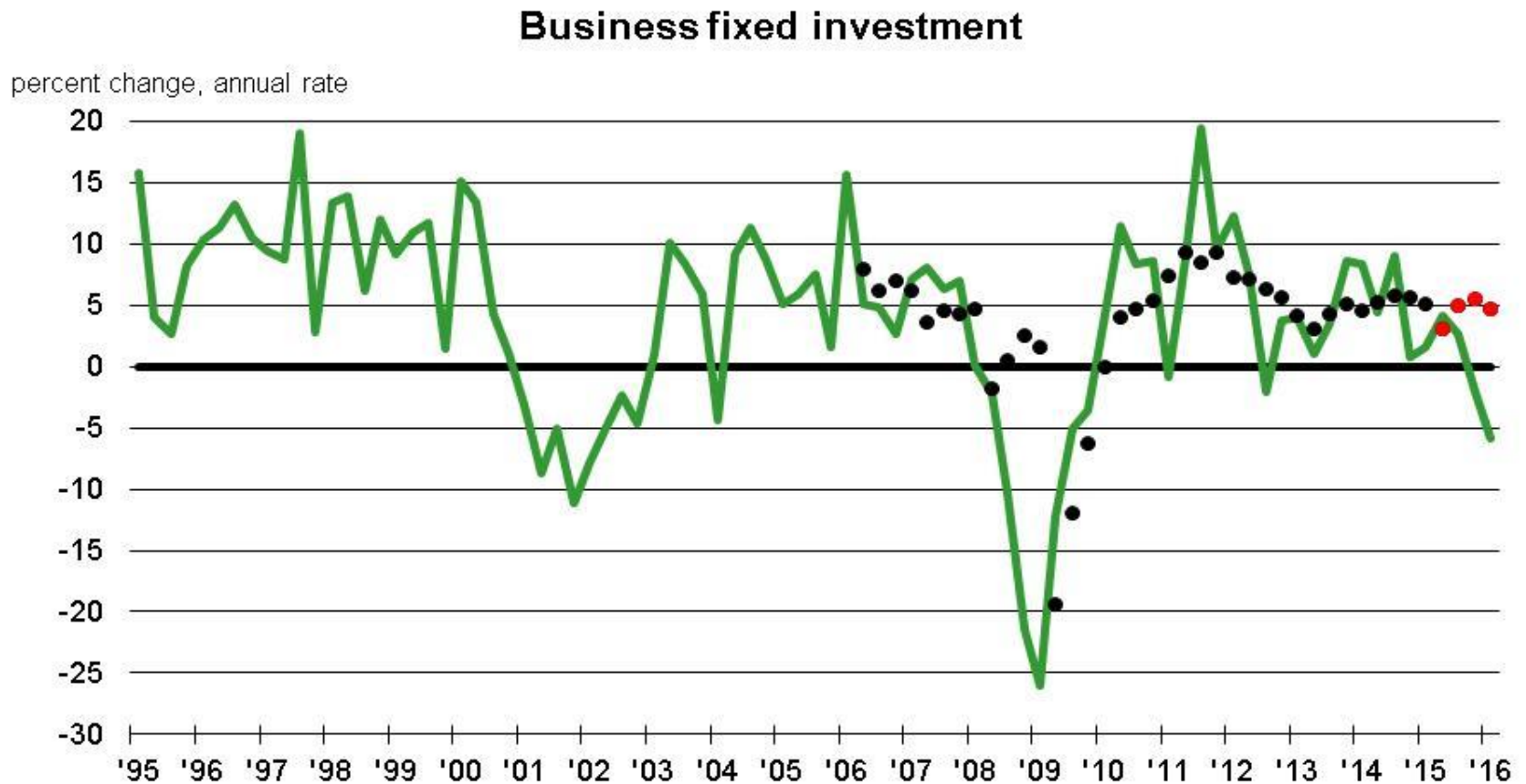


# Consumer spending was a bit lower than forecast





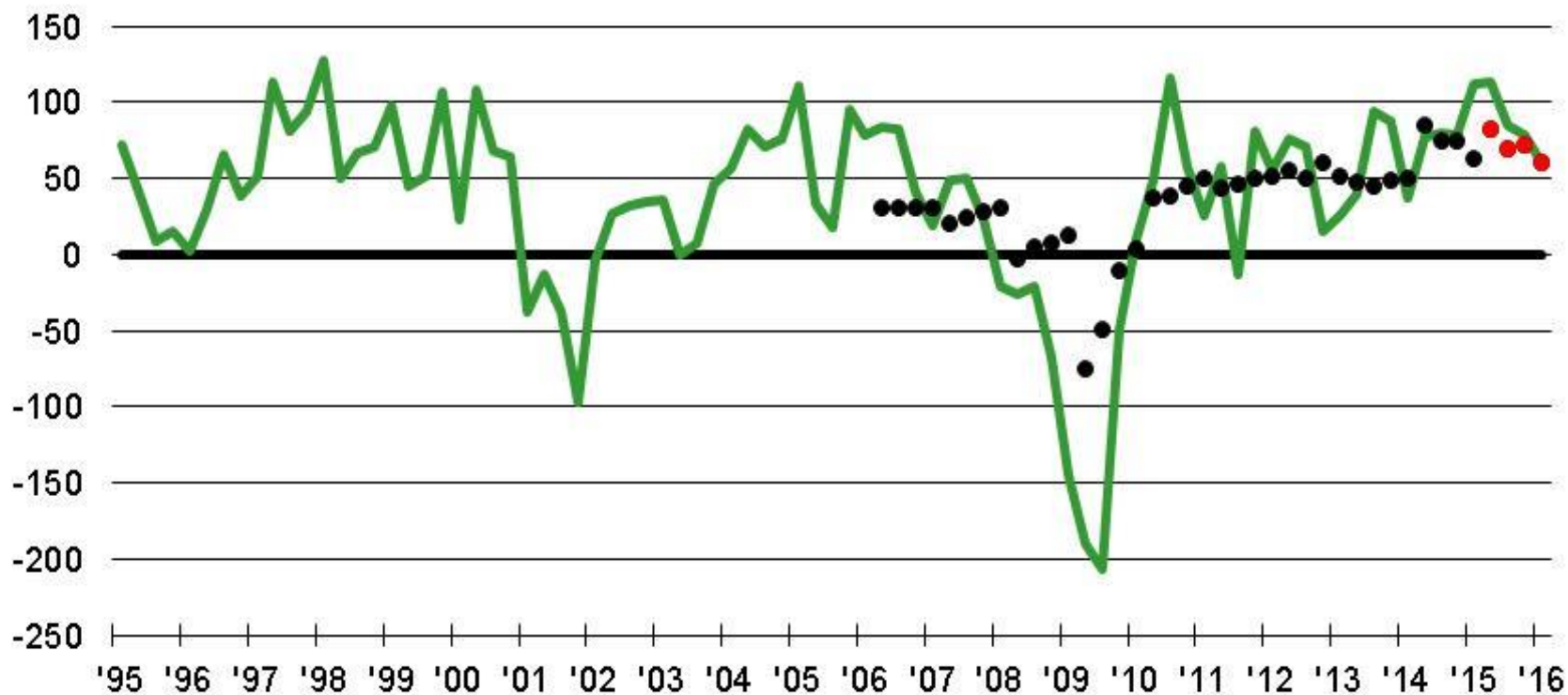
# Business investment growth was significantly weaker than predicted



# Inventories gains were bit stronger than forecast

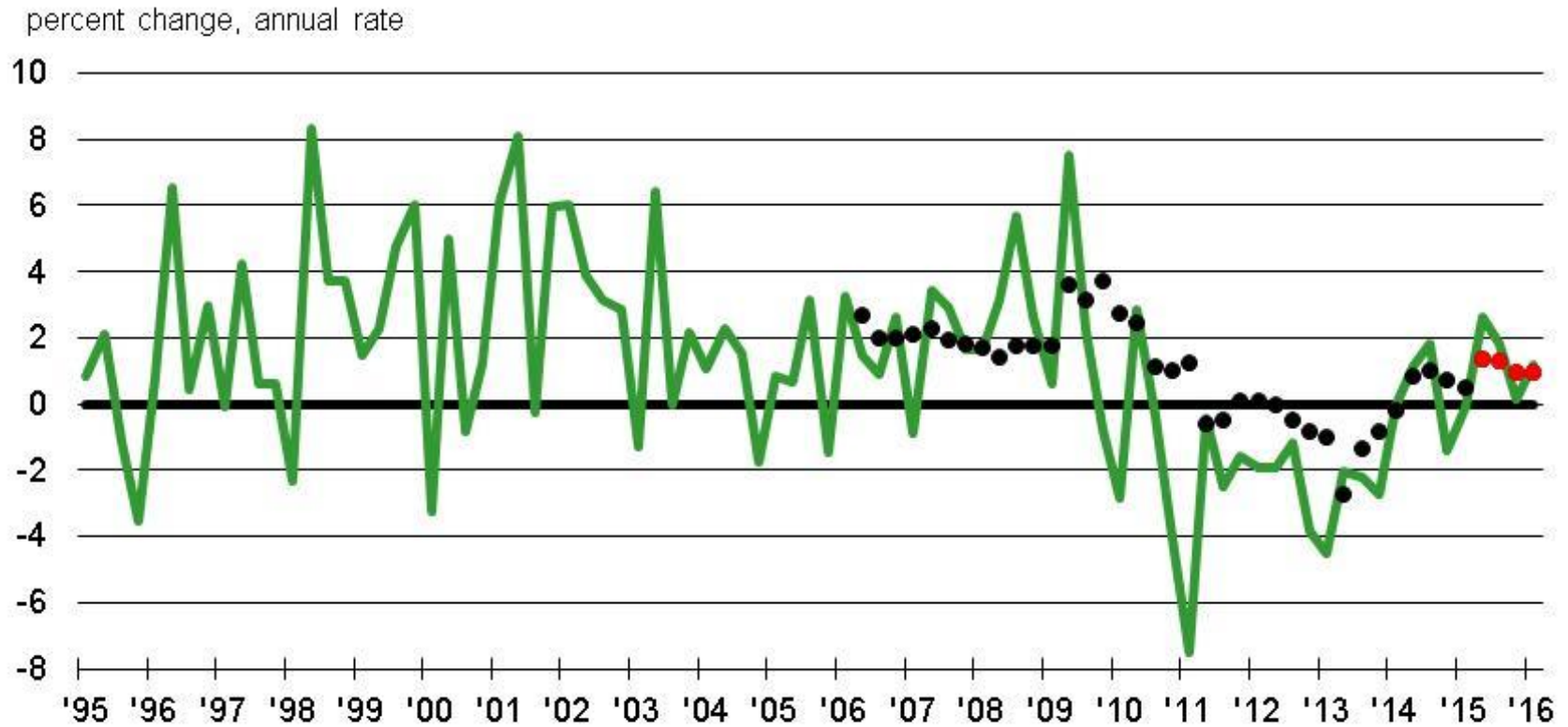
## Change in business inventories

billions of constant dollars



# Government spending over the past year was close to what was predicted

## Government consumption



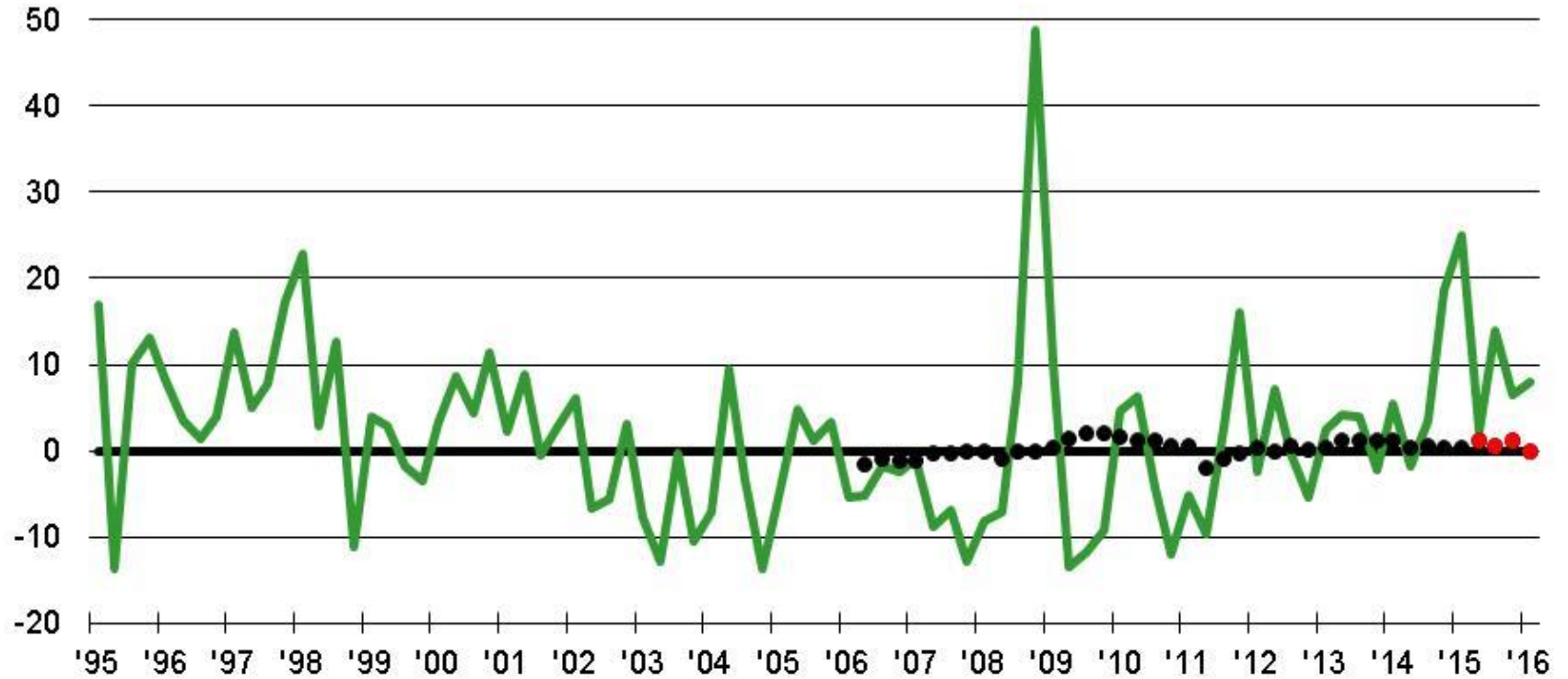
# Industrial production growth was weaker than expected



**In large part due to an unanticipated surge in the dollar**

### J.P. Morgan trade weighted dollar

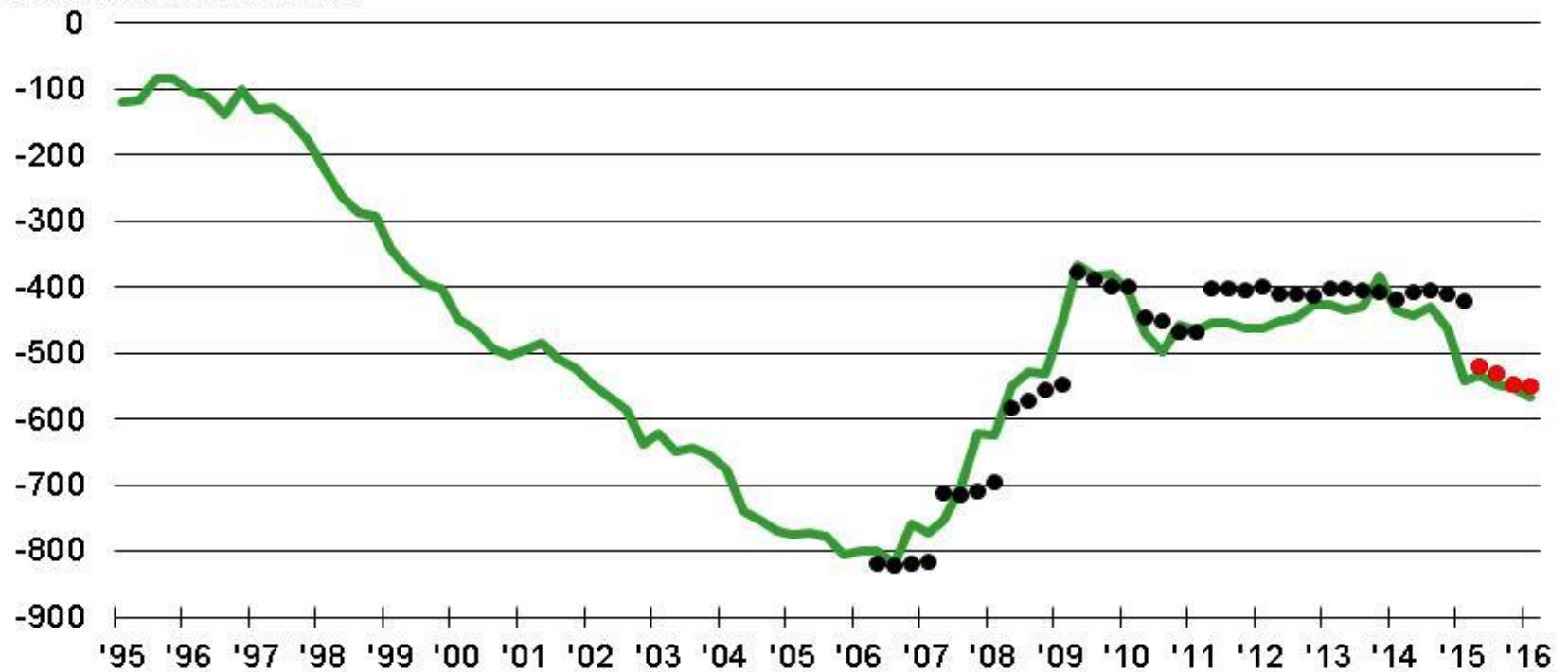
percent change, annual rate



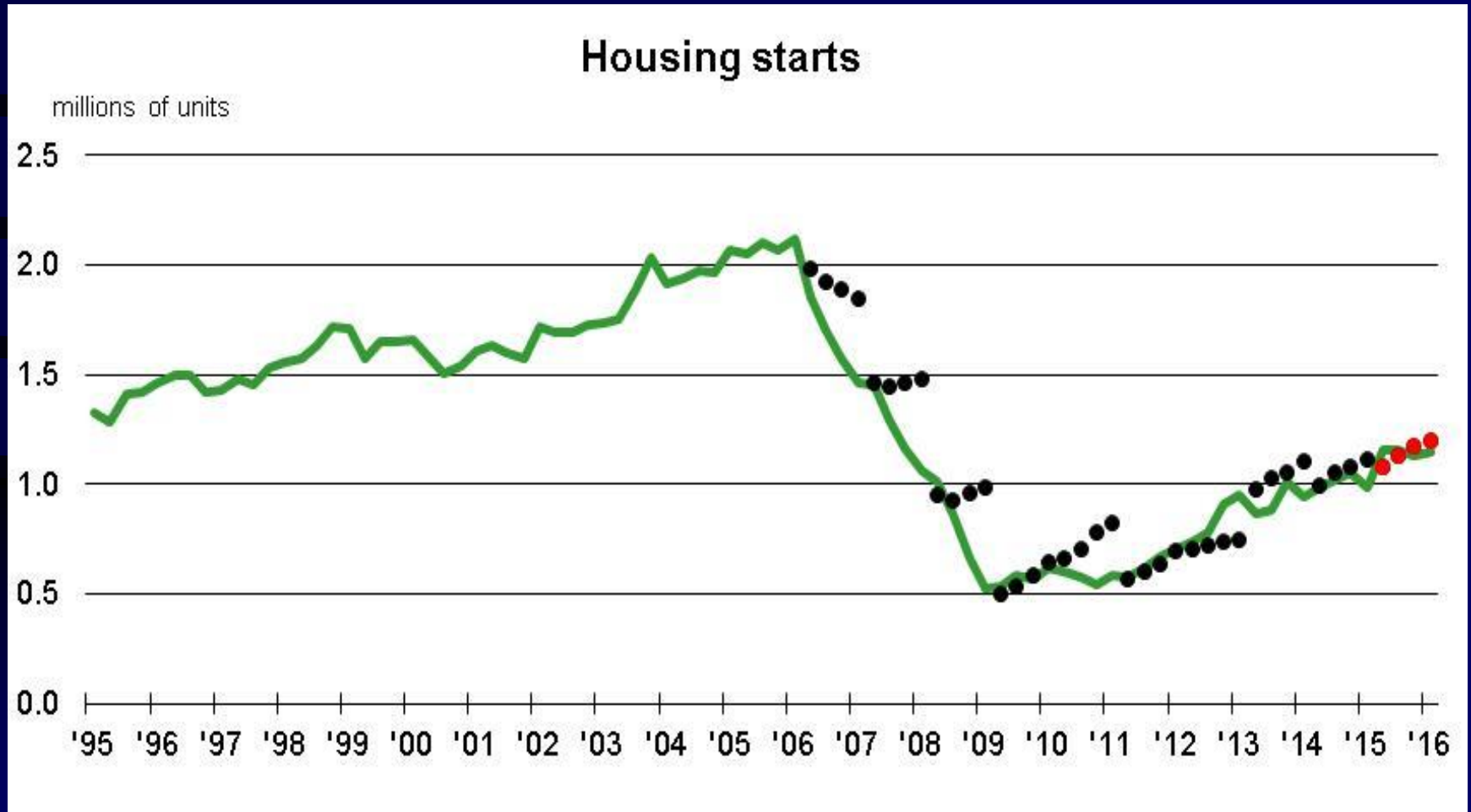
# The increase in the trade deficit was accurately forecast

## Net exports of goods and services

billions of constant dollars



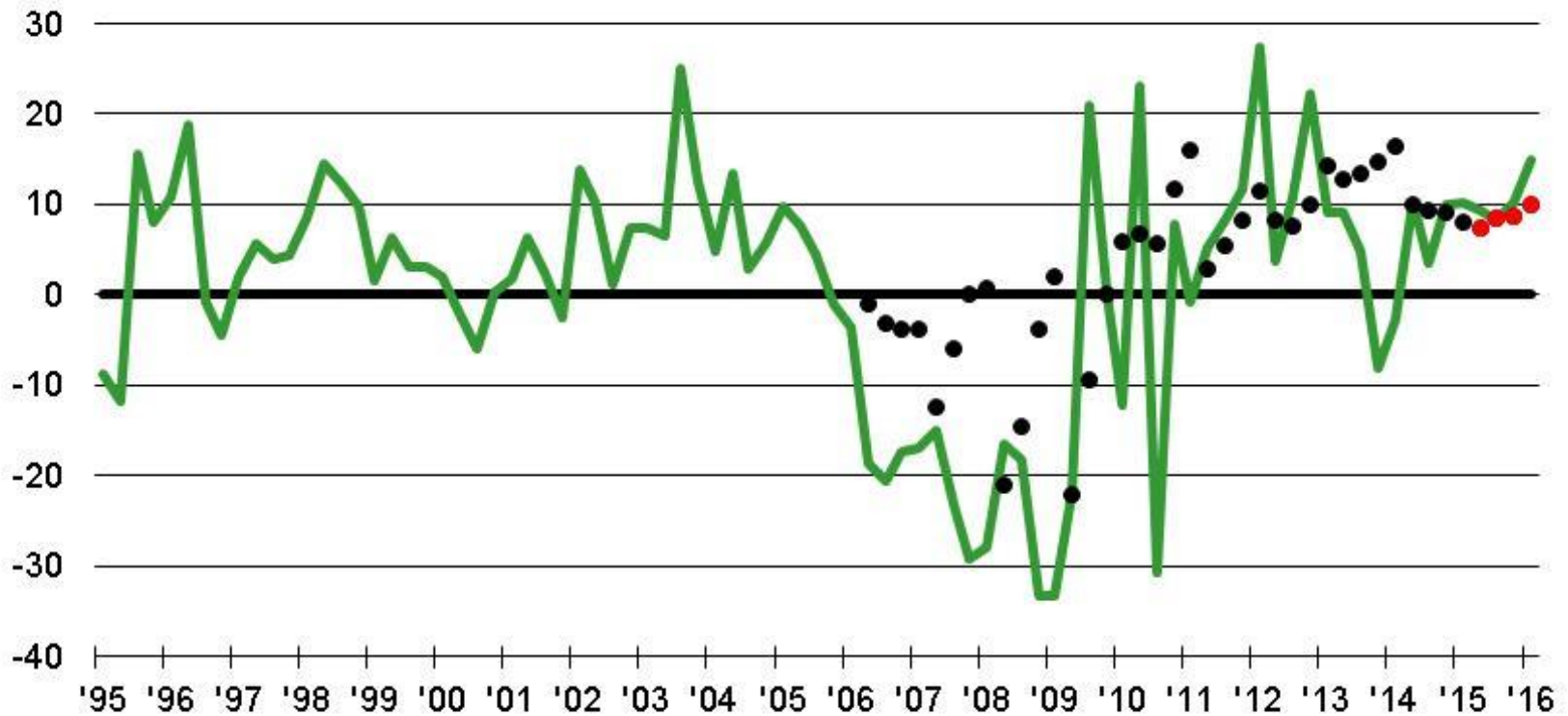
# Housing starts were accurately forecast



# Residential investment growth was a bit stronger than predicted

## Residential investment

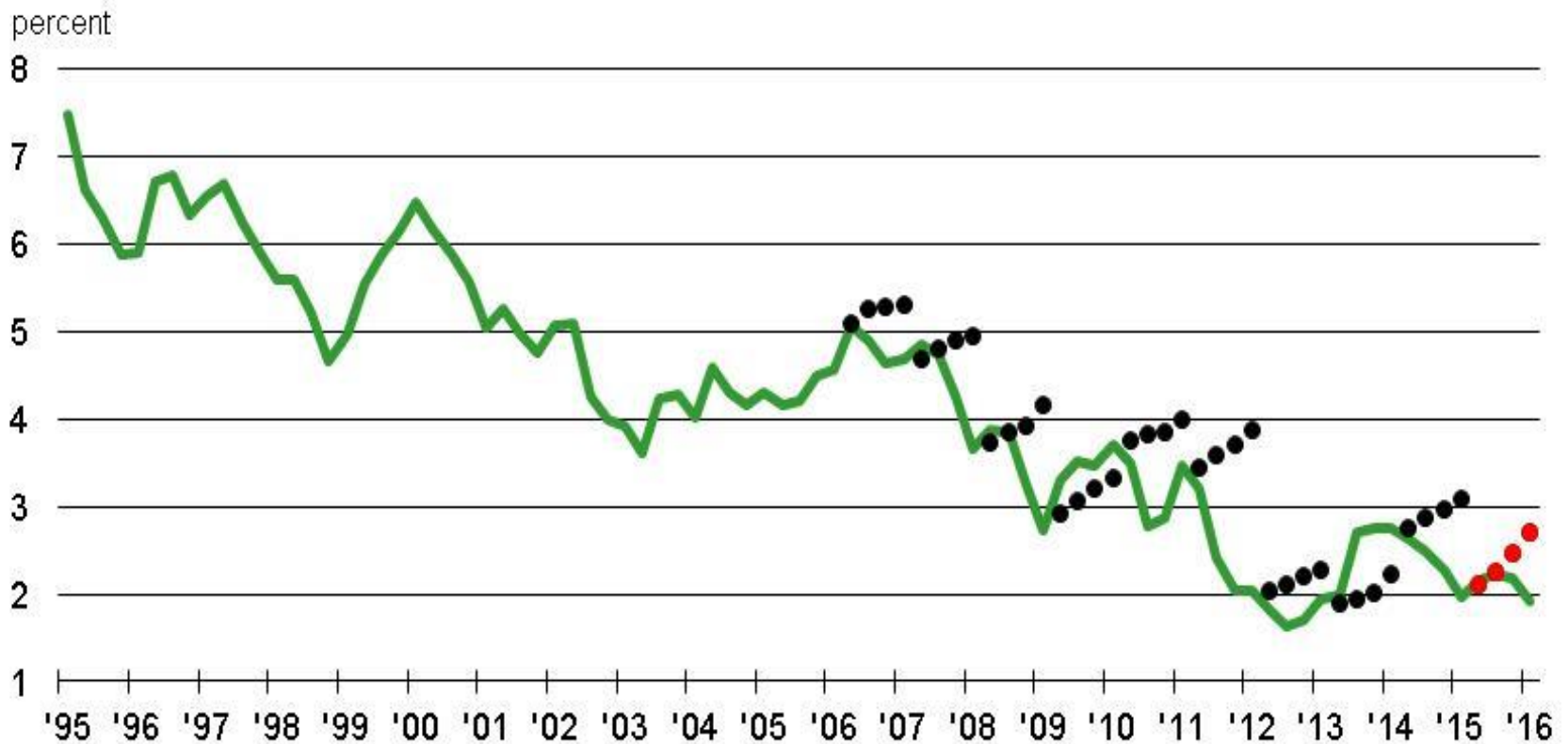
percent change, annual rate



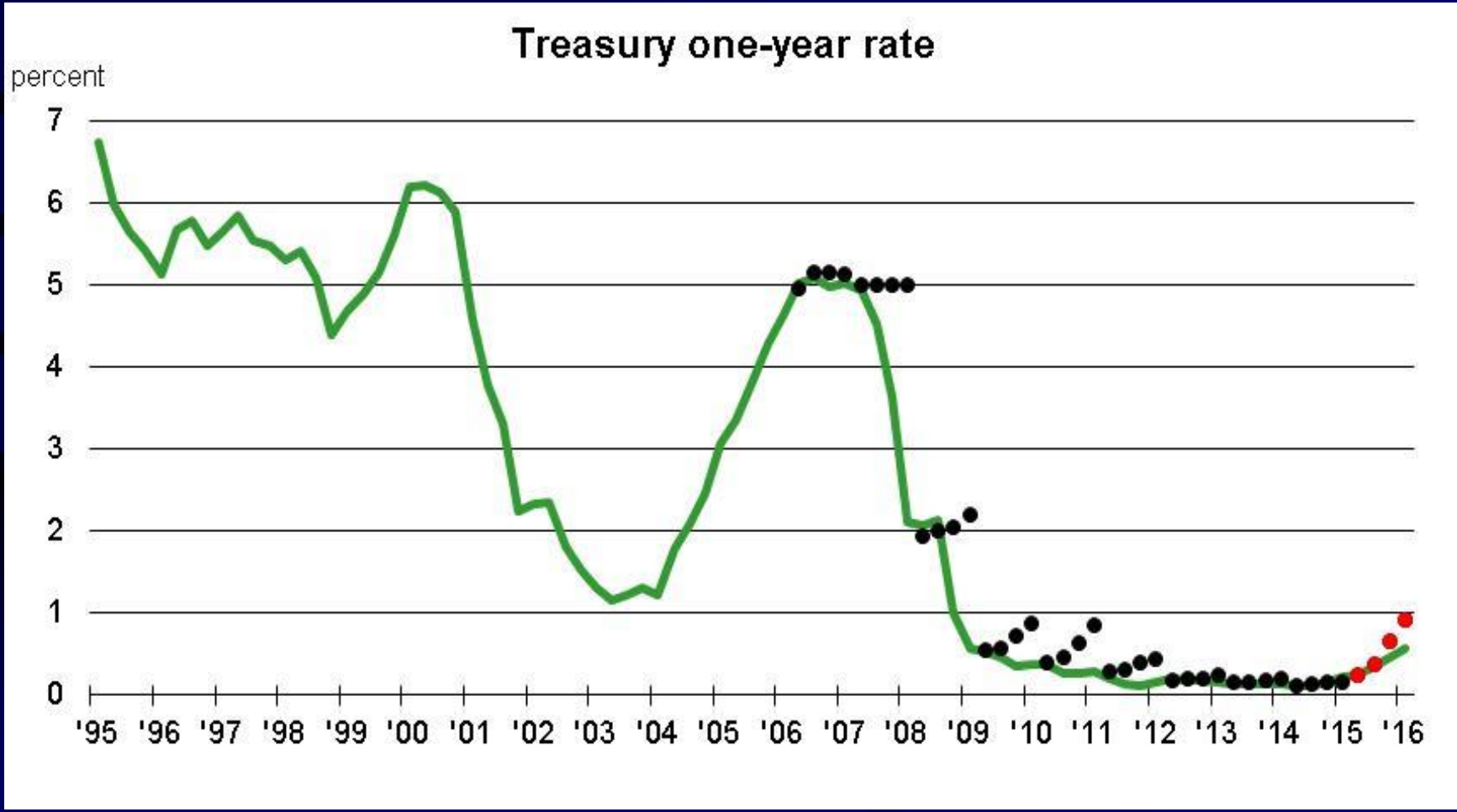


Perhaps in part due to long-term interest rates remaining below what was expected

Treasury ten-year rate



# Short-term interest rates were expected to rise to one percent but the increase was a bit less



# Forecast for 2016 and 2017

## Median forecast of GDP and related items

	2015	2016	2017
GDP, current dollars*	3.1%	3.2%	4.3%
GDP price index, chain-type*	1.1%	1.5%	2.0%
Real GDP, chained dollars*	2.0%	1.8%	2.2%
Personal consumption expenditures*	2.7%	2.5%	2.4%
Business fixed investment*	1.5%	0.4%	3.3%
Residential investment*	9.4%	8.5%	6.0%
Change in private inventories (billions of constant dollars)**	\$78.3	\$53.8	\$53.0
Net exports of goods and services (billions of constant dollars)**	-\$551.9	-\$608.6	-\$631.6
Government consumption expenditures and gross investment*	1.1%	1.3%	1.0%

\*Q4 over Q4

\*\*Q4 value

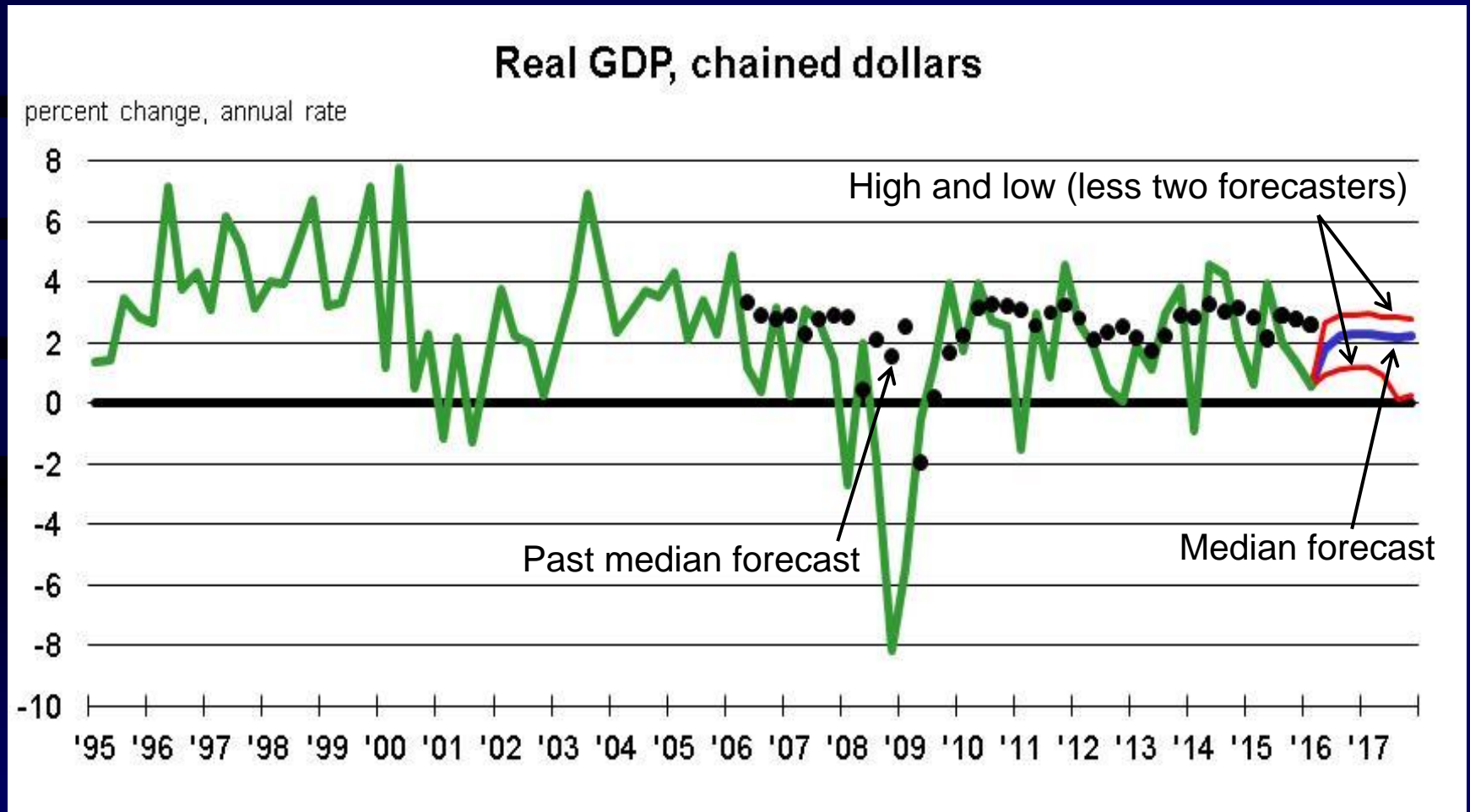
## Median forecast of GDP and related items

	2015	2016	2017
Industrial production*	-1.6%	0.2%	1.7%
Car & light truck sales (millions - calendar year including imports)	17.3	17.3	17.2
Housing starts (millions)	1.11	1.17	1.25
Oil price (dollars per barrel of West Texas Intermediate)**	\$42.02	\$45.00	\$48.92
Unemployment rate**	5.0%	4.9%	4.8%
Inflation rate (consumer price index)*	0.4%	1.2%	2.1%
Treasury constant maturity 1-year rate**	0.46%	0.97%	1.68%
Treasury constant maturity 10-year rate**	2.19%	2.25%	2.69%
J.P. Morgan trade weighted OECD dollar*	11.6%	2.4%	3.0%

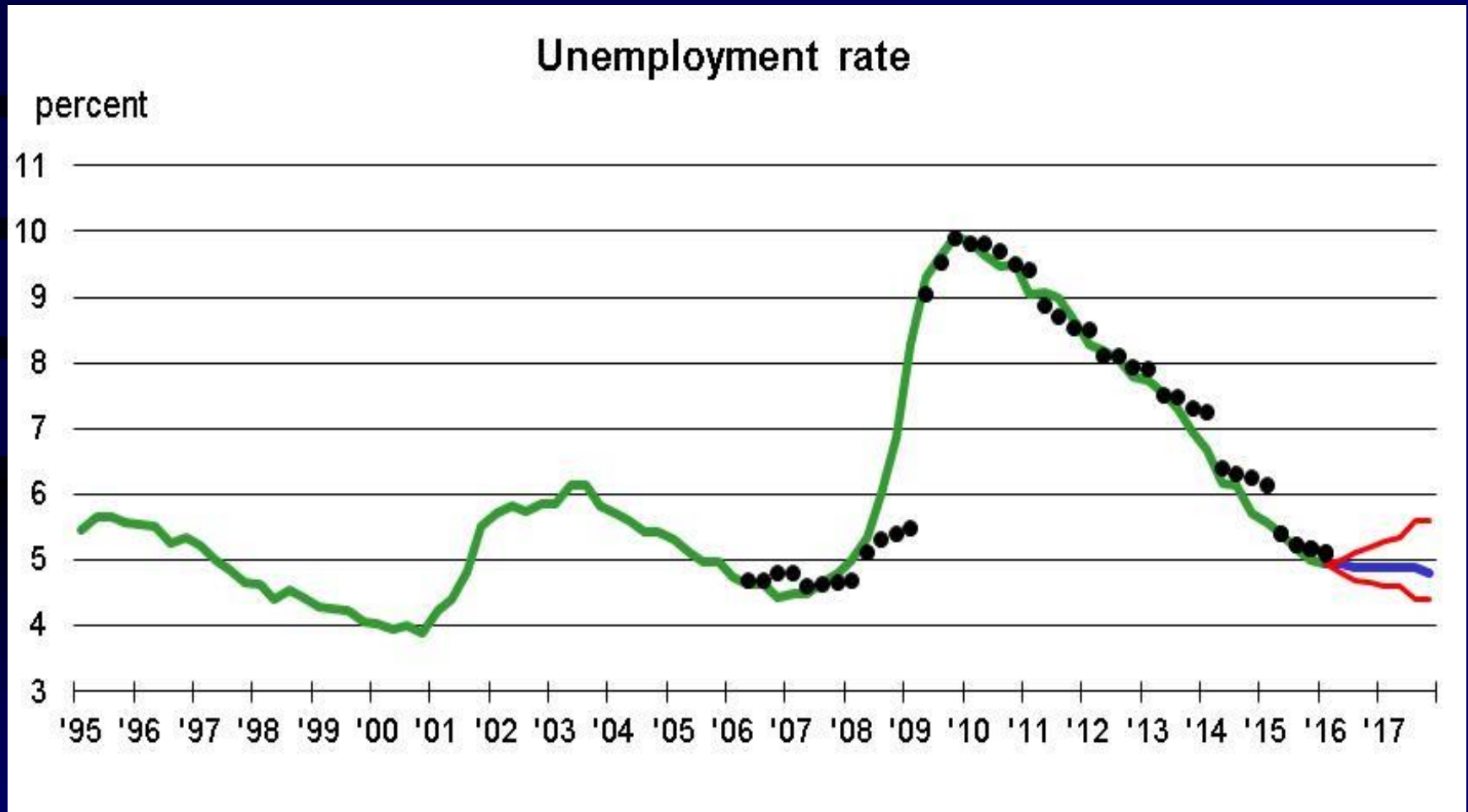
\*Q4 over Q4

\*\*Q4 value

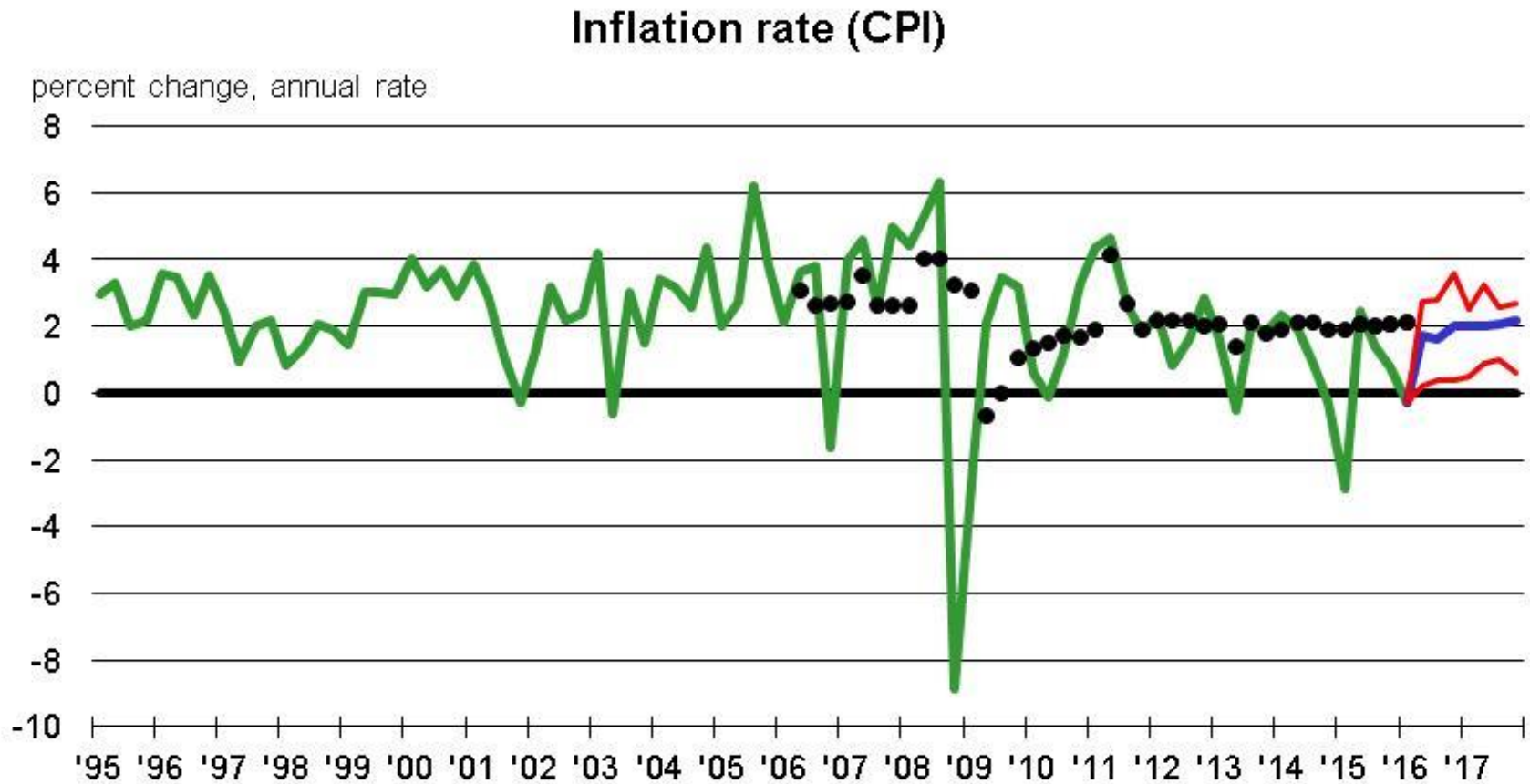
# Real GDP is forecast to grow at a rate close to 2%



**The unemployment rate is forecast to remain low at just under 5.0%, a rate that is considered around the natural rate**

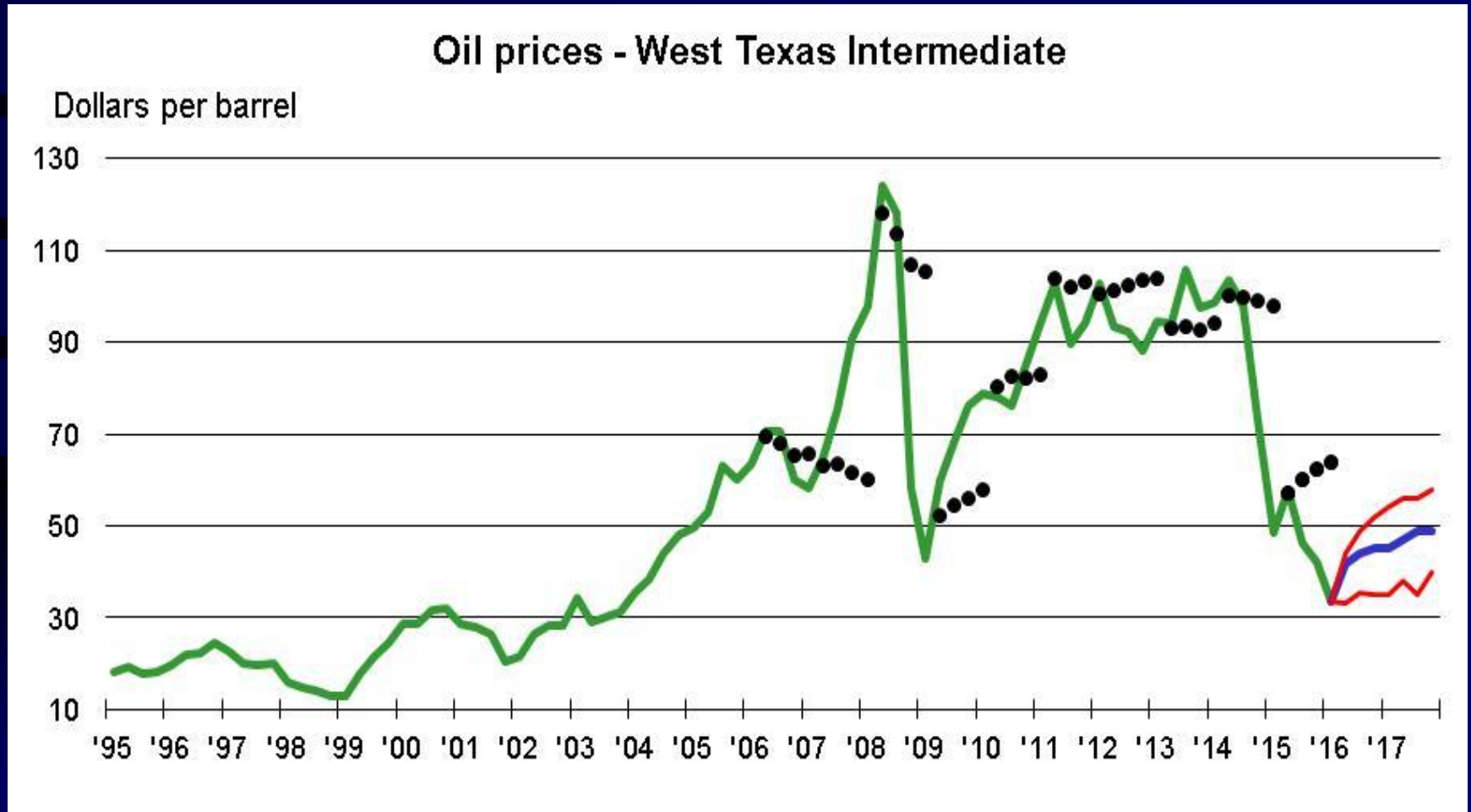


# Inflation is anticipated to remain restrained at 1.2% this year and 2.1% in 2017

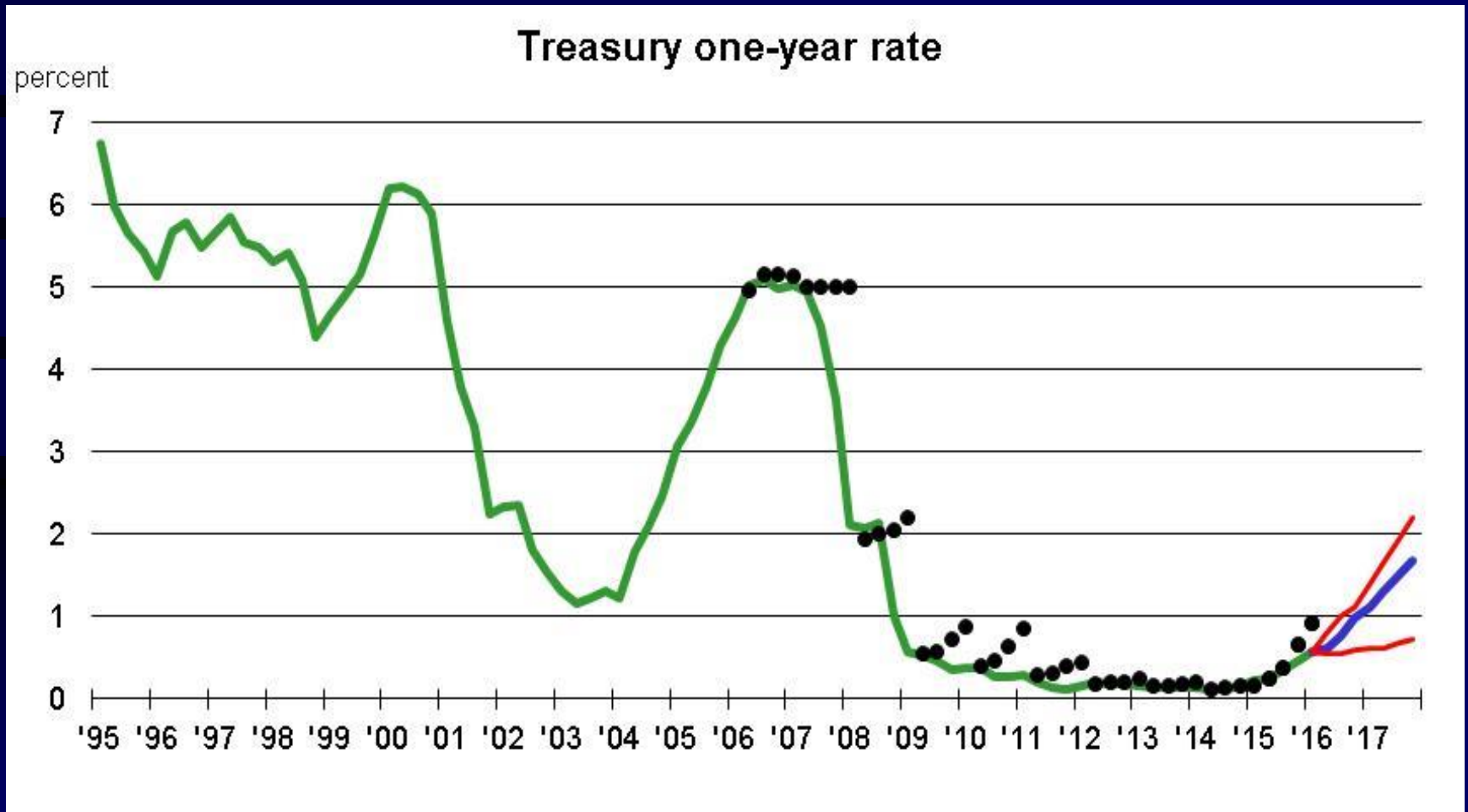




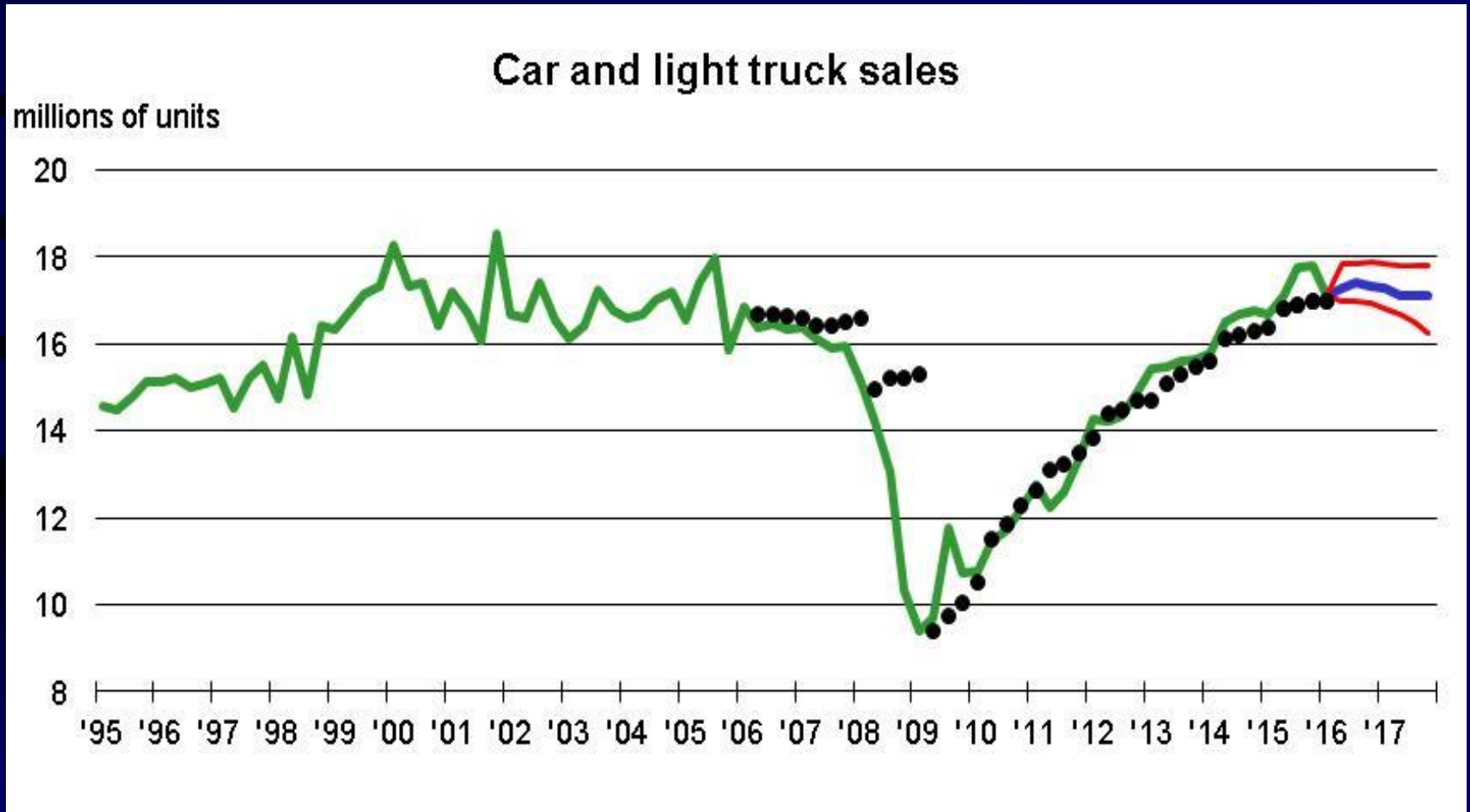
# Oil prices are expected to rise to just below \$50 by the end of 2017



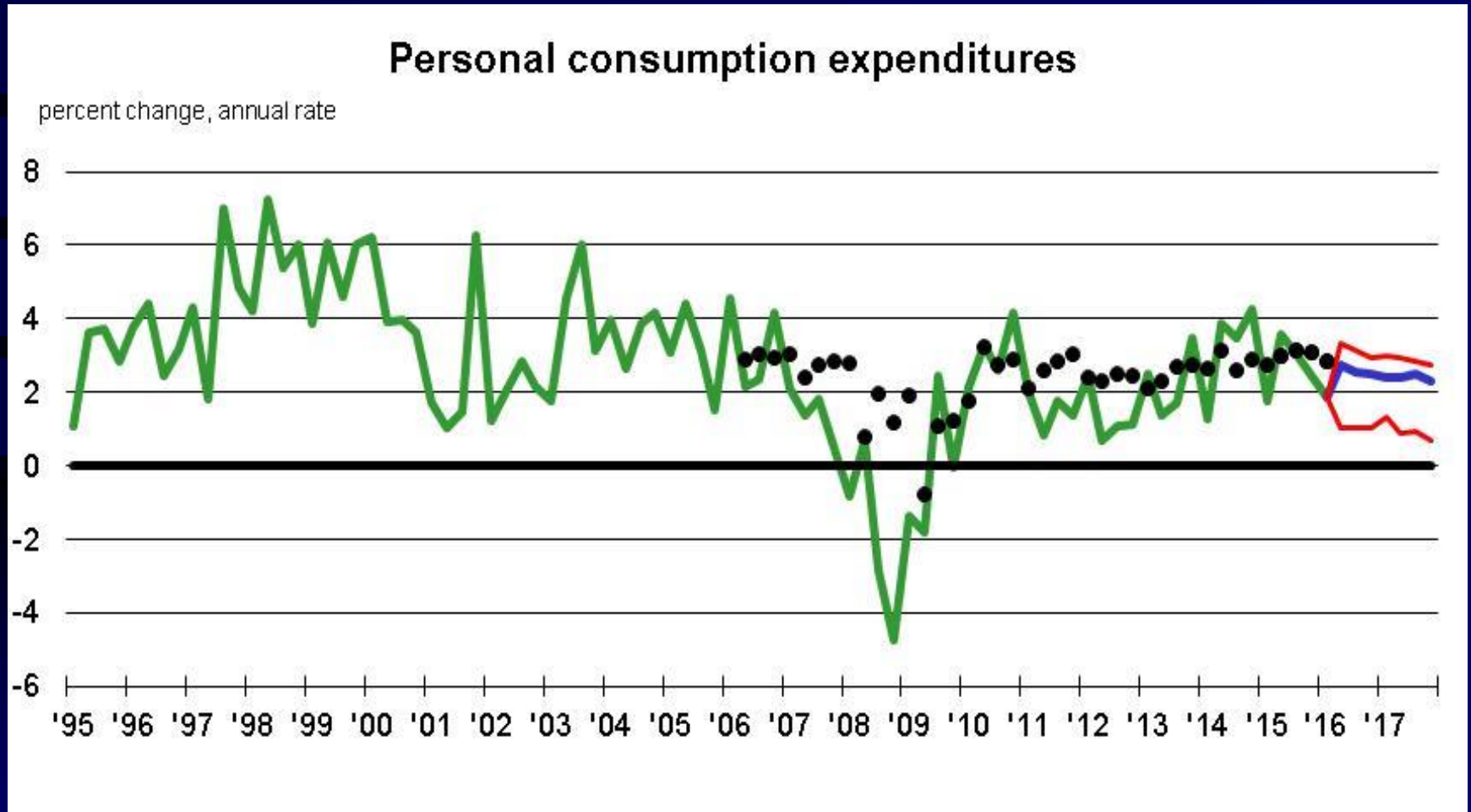
**Short-term interest rates are forecast to continue to rise reaching just under 1.7% in the final quarter of next year**



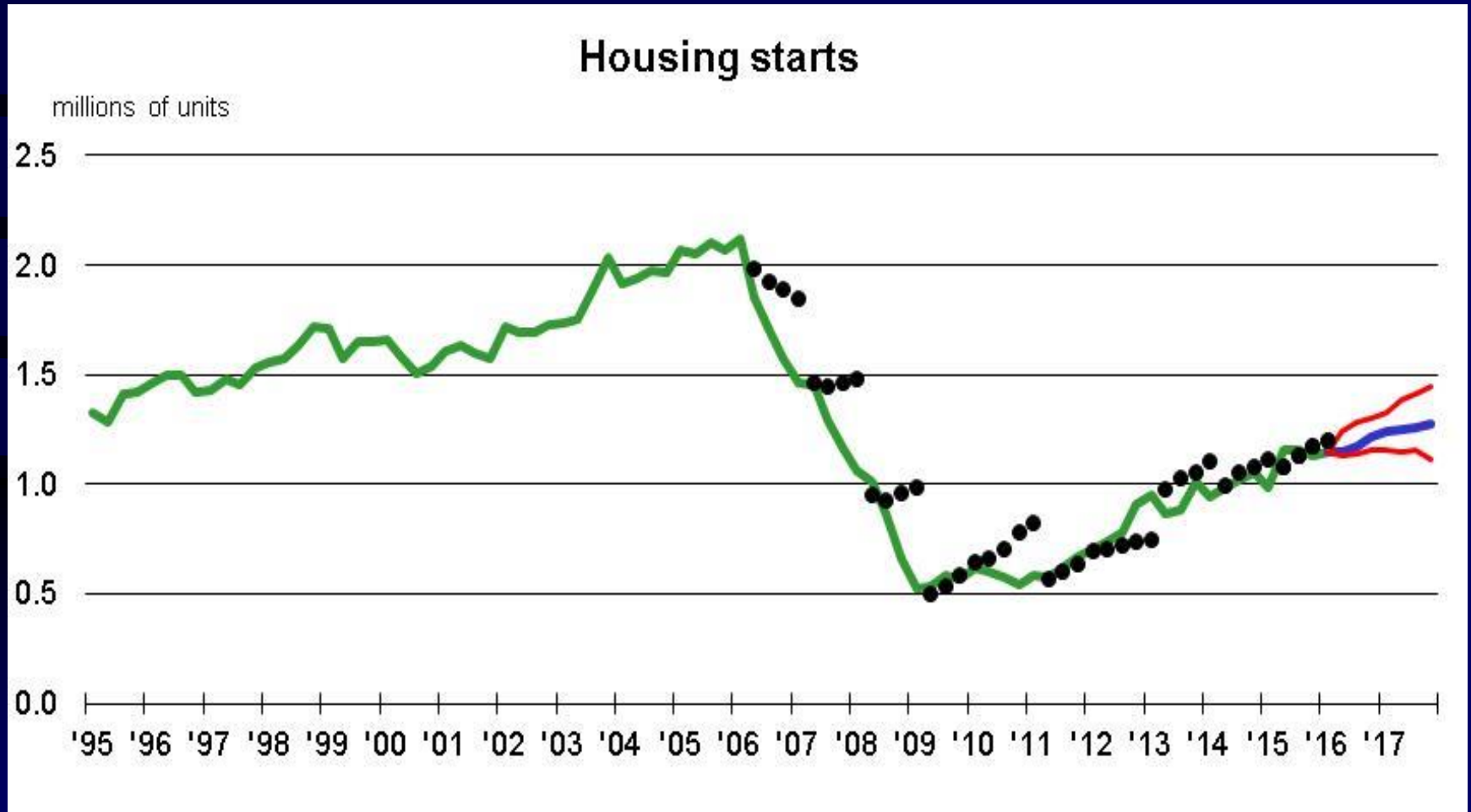
**Light vehicle sales are forecast to remain at a high level, at 17.3 million units this year and 17.2 million units in 2017**



# Consumption growth is expected to rise at a moderate pace



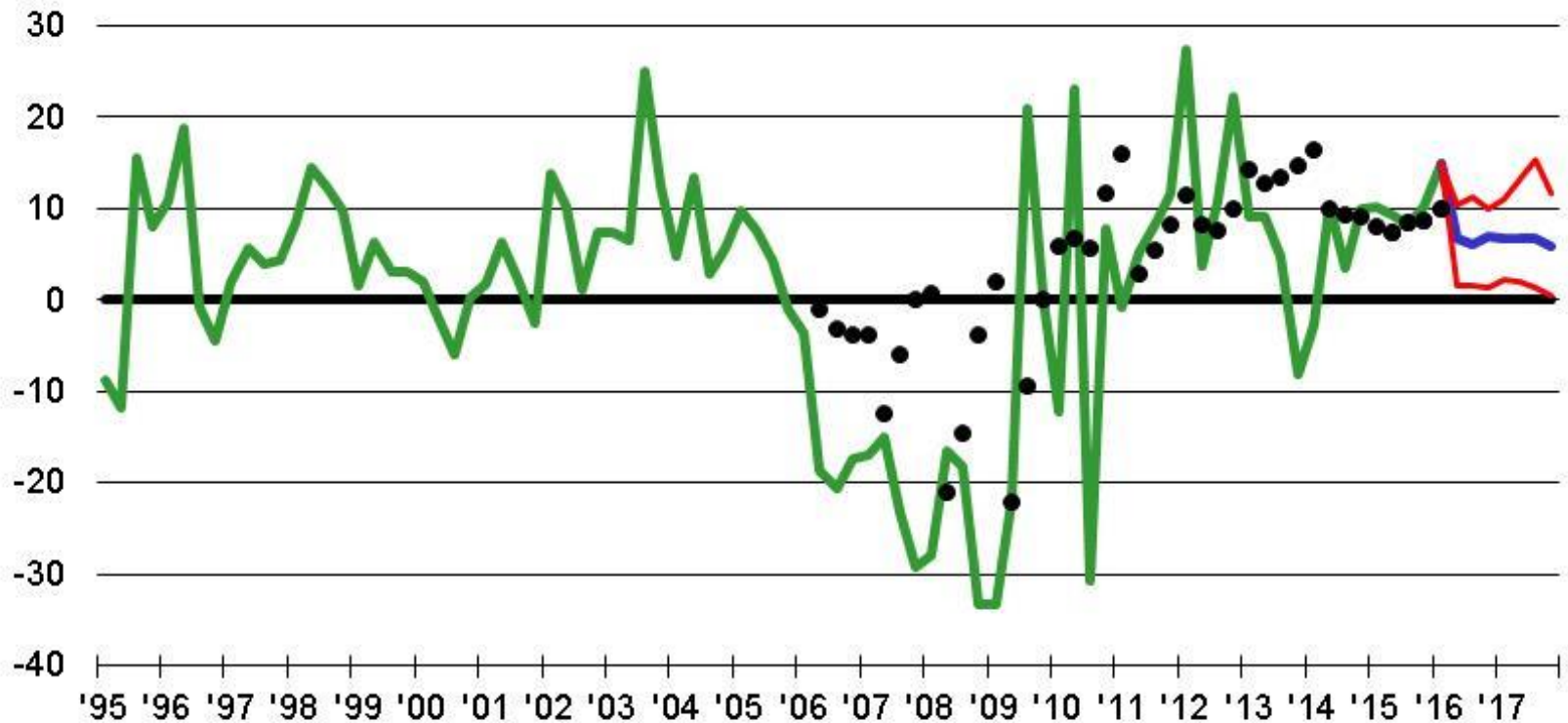
# Housing starts are expected to continue to rise at a moderate pace



# Residential investment is forecast to increase at a solid but slower pace through next year

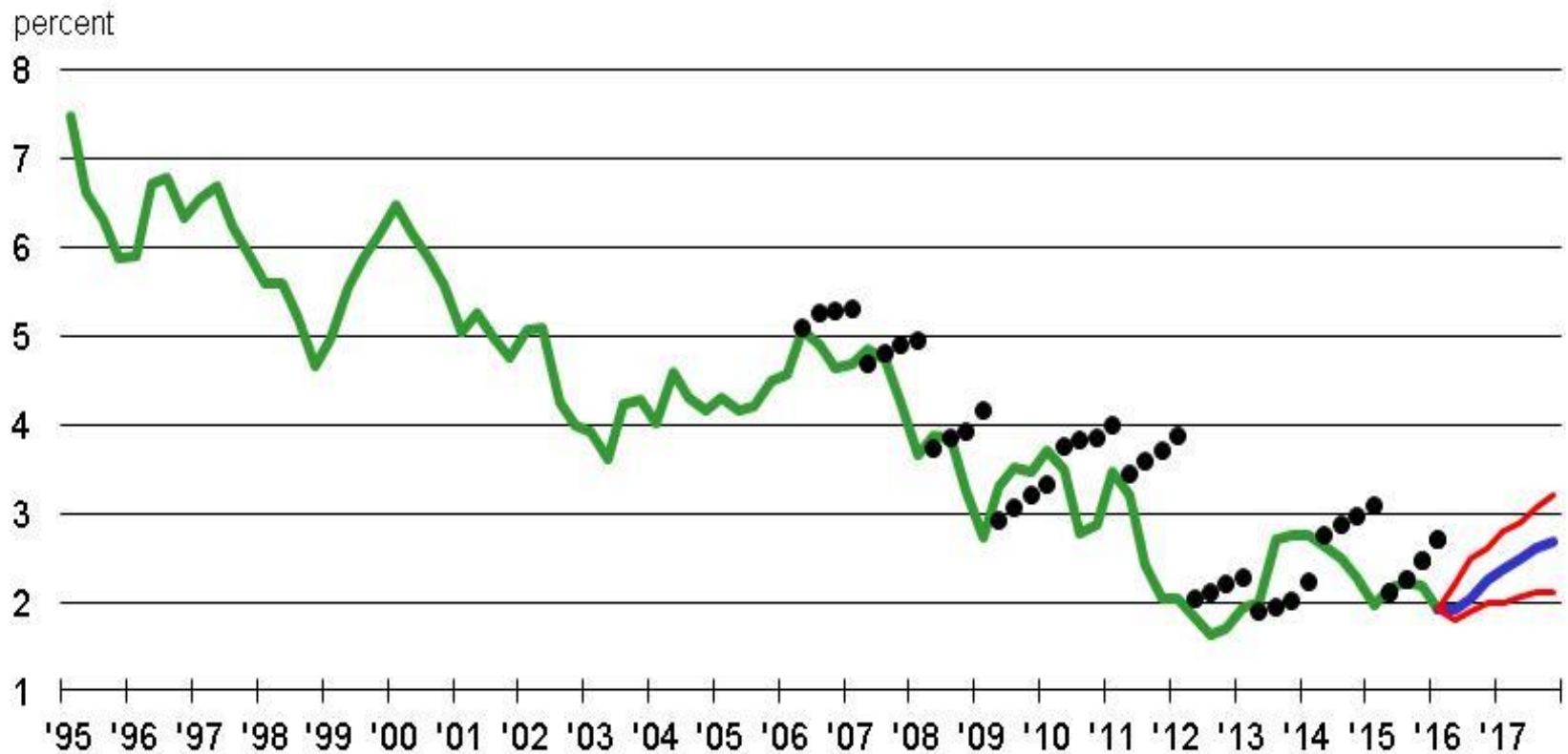
## Residential investment

percent change, annual rate



**Long-term interest rates are forecast to increase by 6 basis points in 2016 and then rise by 44 basis points in 2017**

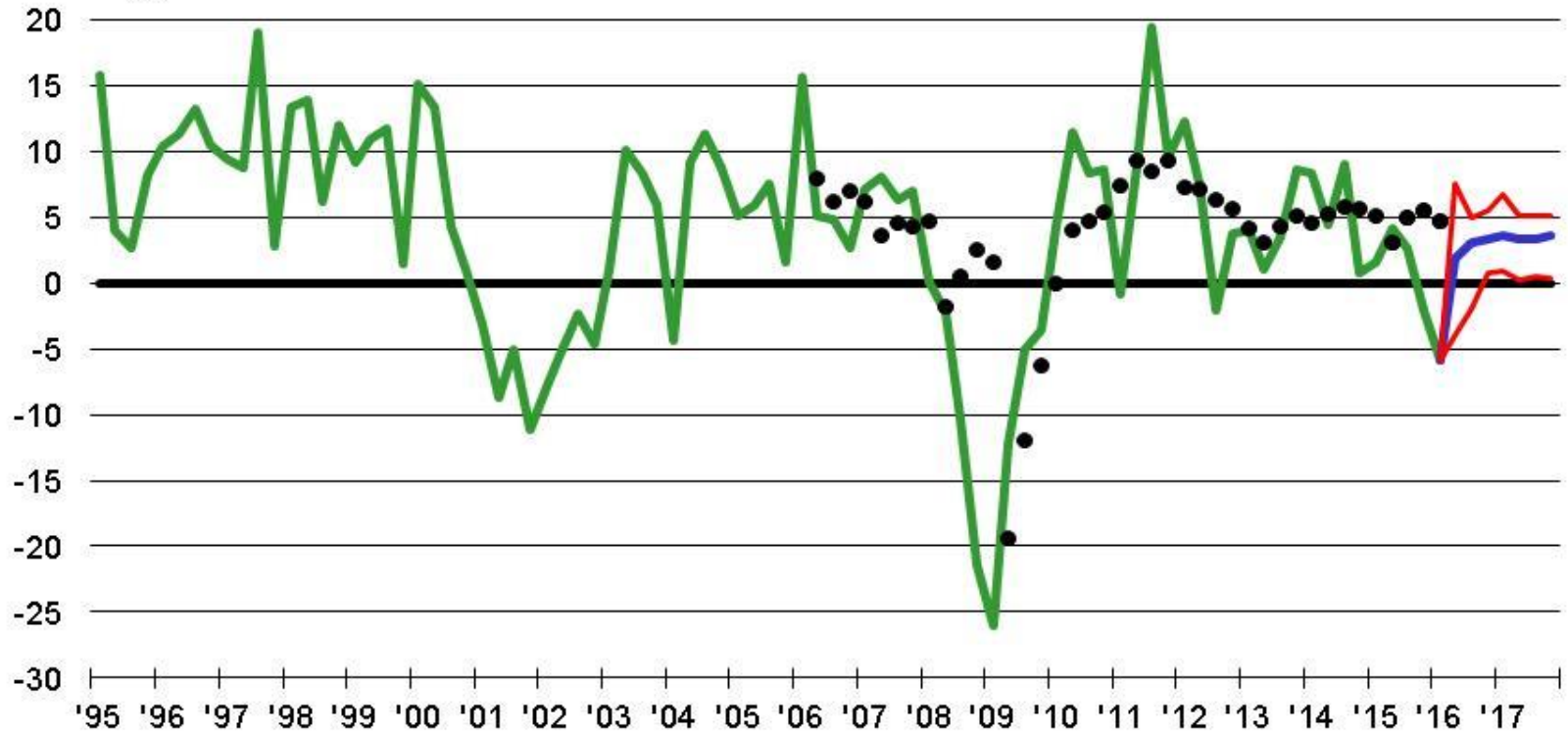
Treasury ten-year rate



# Business spending is anticipated to edge up 0.4% in 2016 and then rise 3.3% next year

## Business fixed investment

percent change, annual rate

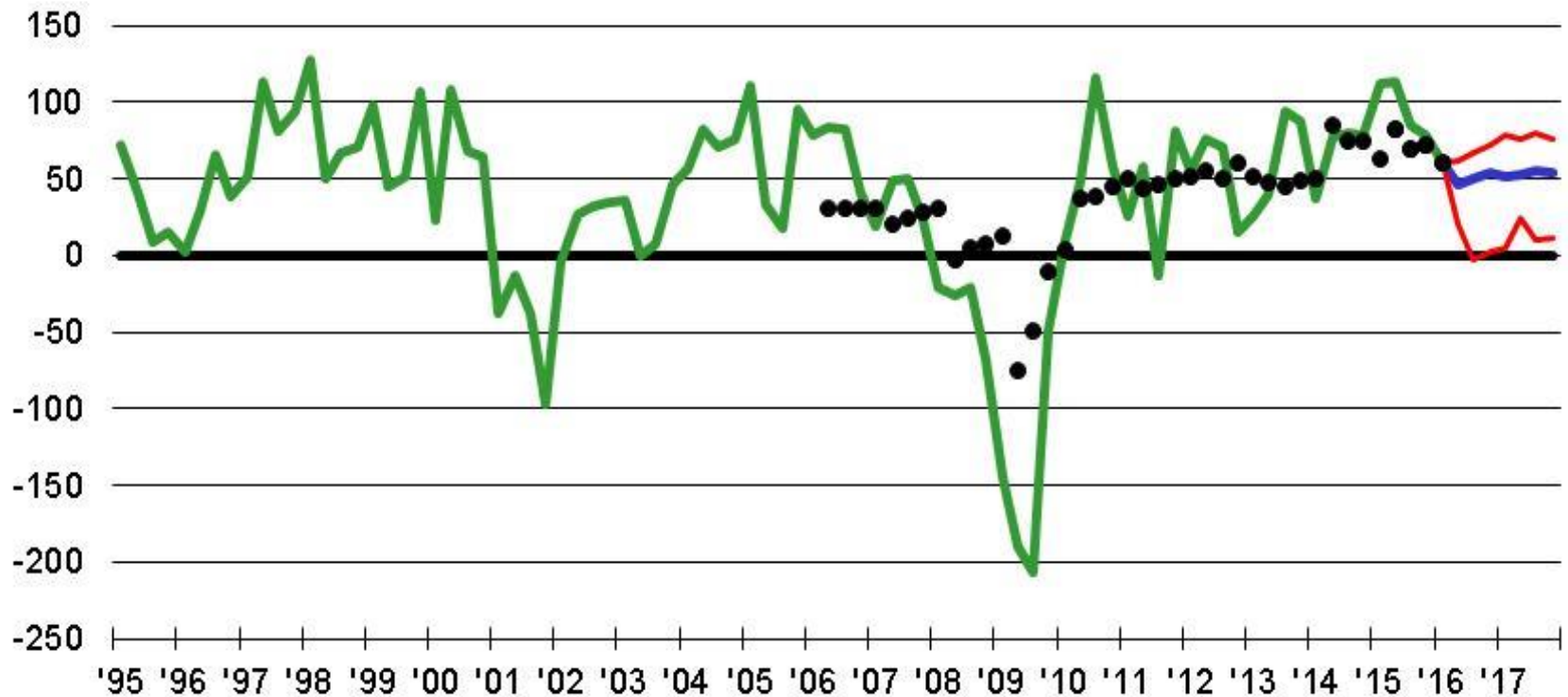




**Inventories gains are expected to slow this year to a pace that maintains the inventory to GDP ratio through 2017**

**Change in business inventories**

billions of constant dollars

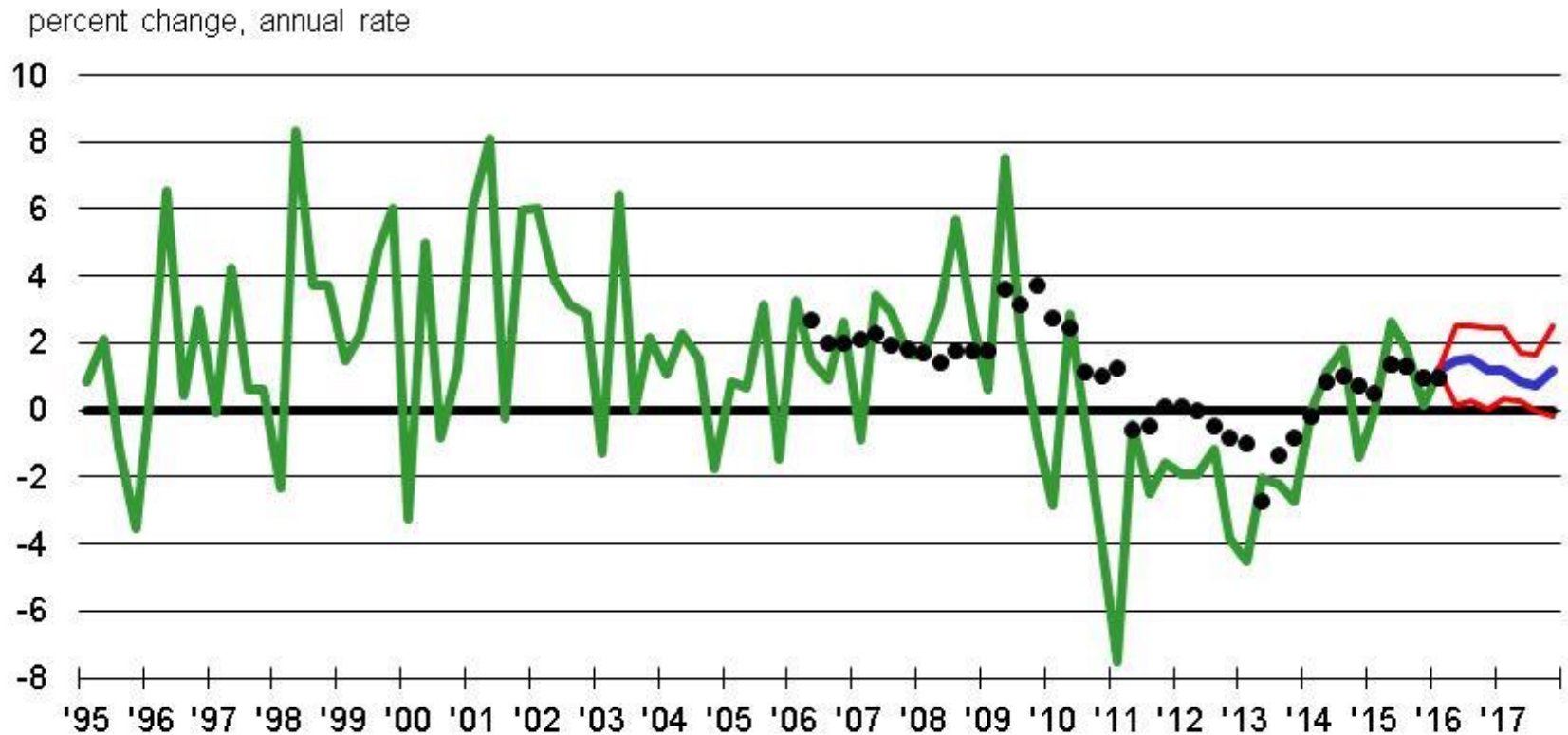


# Industrial output growth is forecast to edge higher this year and increase at a pace below its historical rate next year



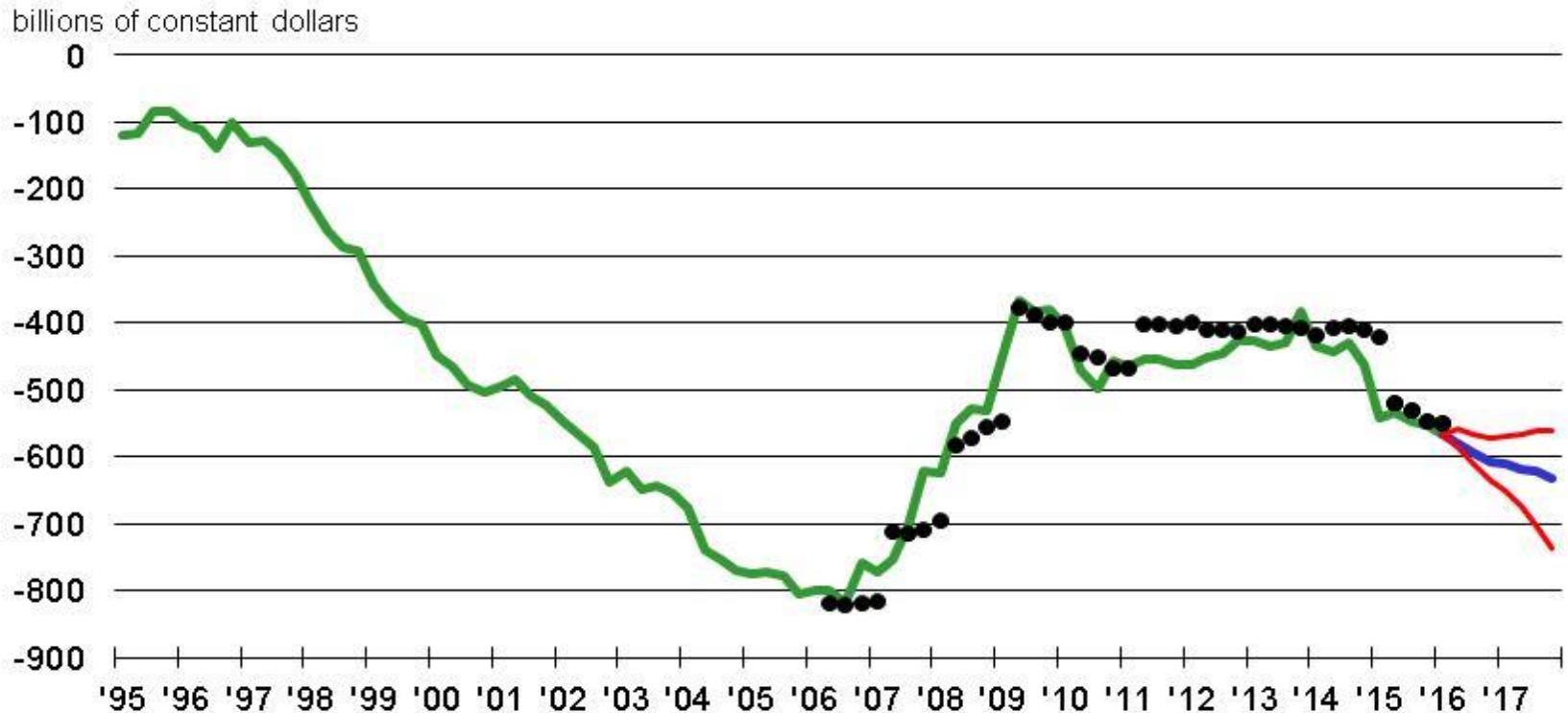
# Government purchases is forecast to increase 1.3% this year and 1.0% in 2017

## Government consumption



# The trade deficit is expected to continue to increase over the forecast horizon

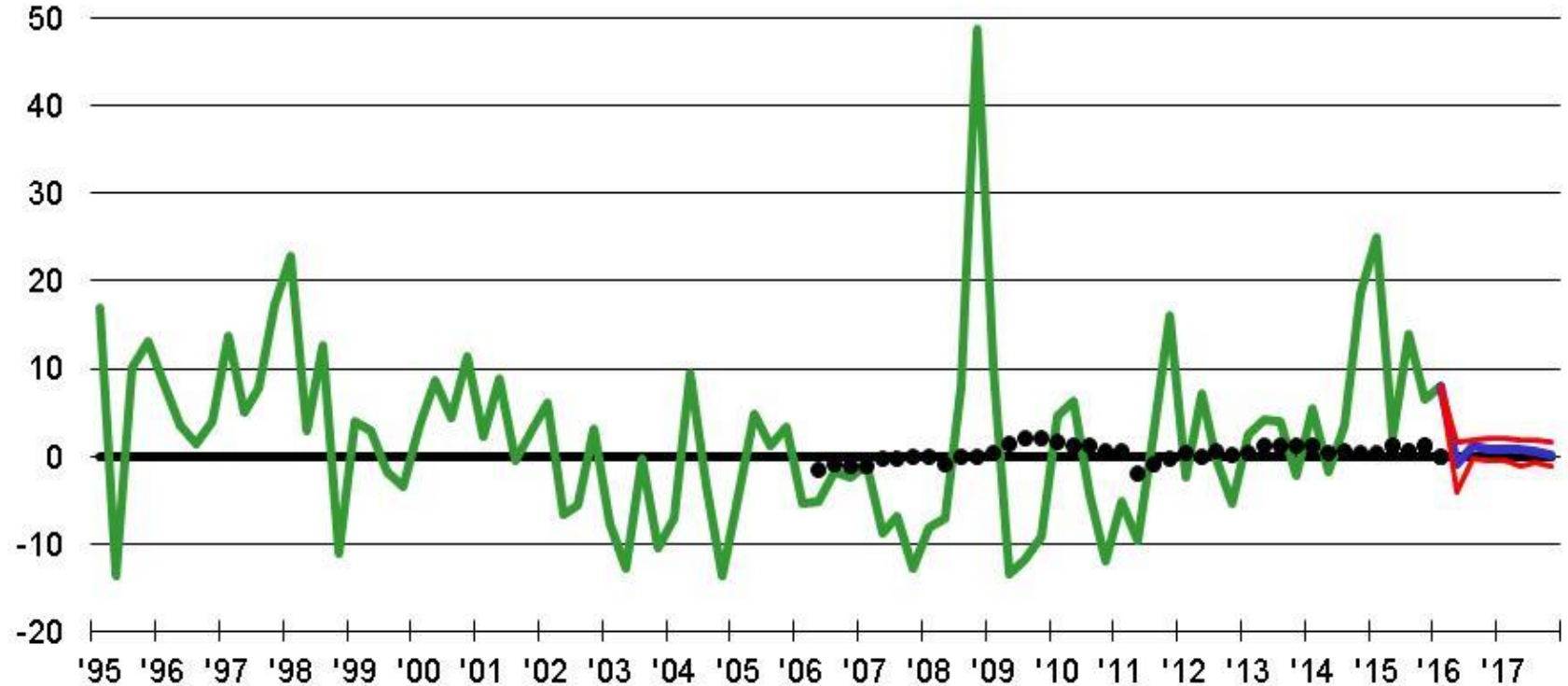
## Net exports of goods and services



**The dollar is forecast to increase 2.4% this year and 3.0% next year**

### J.P. Morgan trade weighted dollar

percent change, annual rate



# Summary

- **The economy is forecast to rise at a pace around potential in 2016 and 2017**
- **The unemployment rate is expected to remain at a level close to the natural rate**
- **Inflation is expected to come in at 1.2% in 2016 and 2.1% in 2017**
- **Light vehicle sales are forecast to be 17.3 million units this year and then tick lower to 17.2 million in 2017**
- **[www.chicagofed.org](http://www.chicagofed.org)**