

# Mulch and Soil Council



**Prosperity in the  
Age of Decline**

 **ITR ECONOMICS**

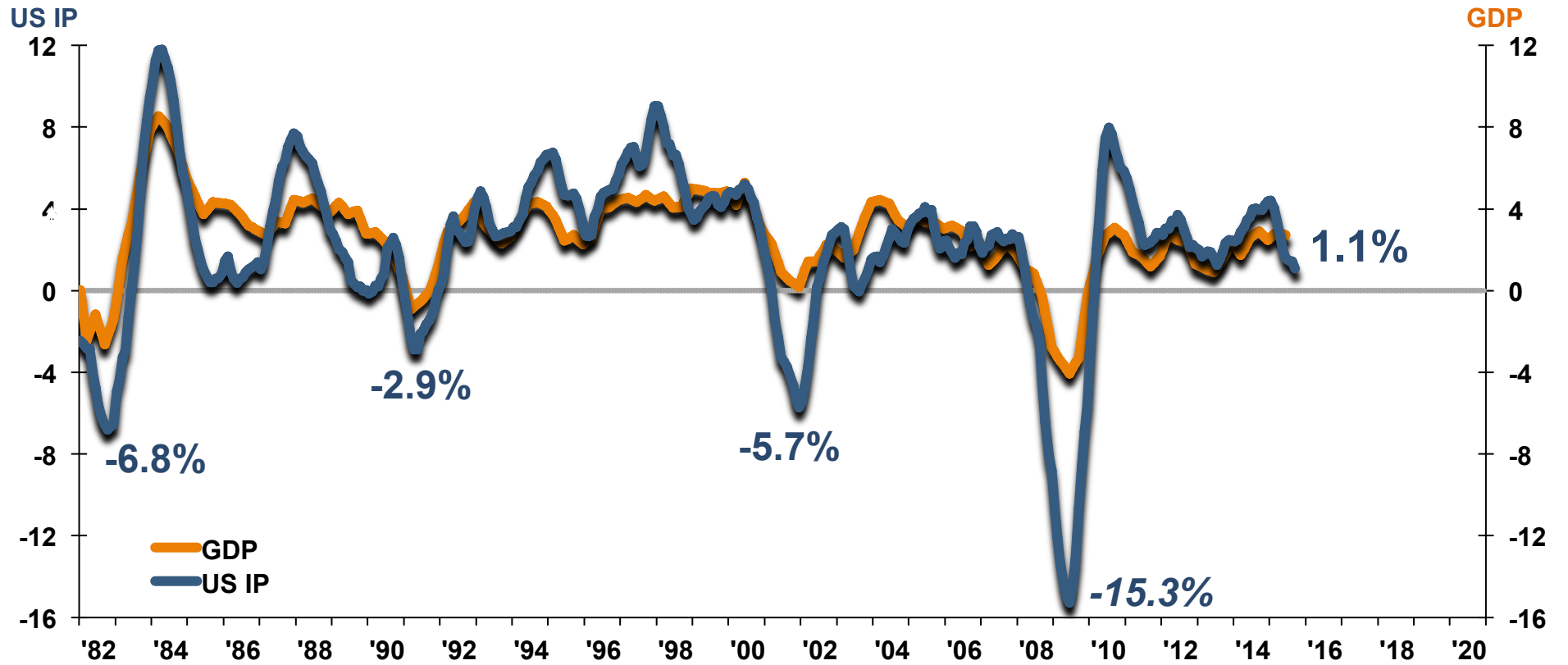
**Dr. Alan Beaulieu  
President**

## 2014 Forecast Results

	Duration	Forecast	Result	Accuracy
US GDP	15	\$16.098 Trillion	\$16.317 Trillion	98.7%
US Ind. Prod.	13	101.5 (12MMA)	104.1	97.4%
EU Ind. Prod.	14	100.6 (12MMA)	101.5	99.1%
Canada Ind Prod	9	350.1 (12MMA)	C\$357.1	98.0%
China Ind Prod	21	564.9 (12MMA)	563.6	99.8%
US Housing	12	955 Ths. Units	1.0 mils. Units	94.7%
US Retail Sales	16	\$2.751 Trillion	\$2.808 Trillion	98.0%
US Employment	13	144.9 Million	146.3 Million	99.0%

*ITR Economics provides the best economic intelligence to reduce risk and drive practical and profitable business decisions.*

# US Industrial Production to Gross Domestic Product

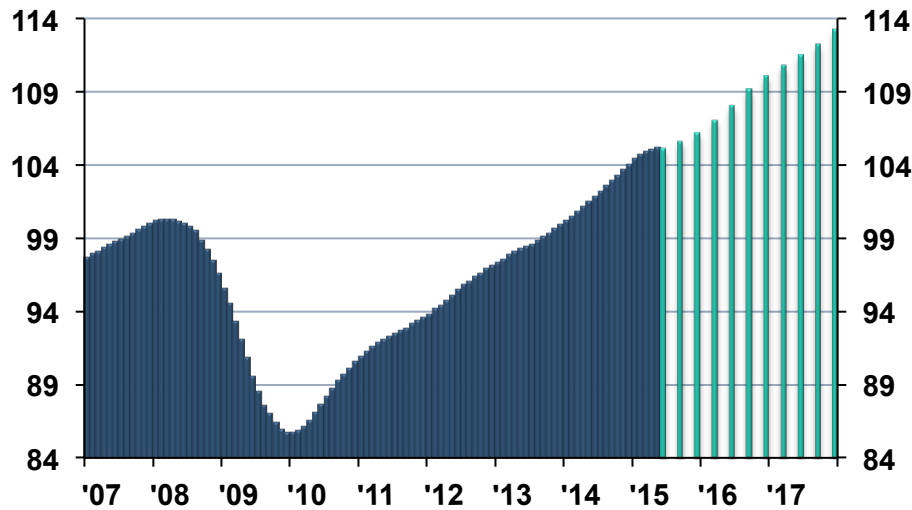


Year-over-Year, Quarter-to-Quarter (3/12)

# US Industrial Production Index

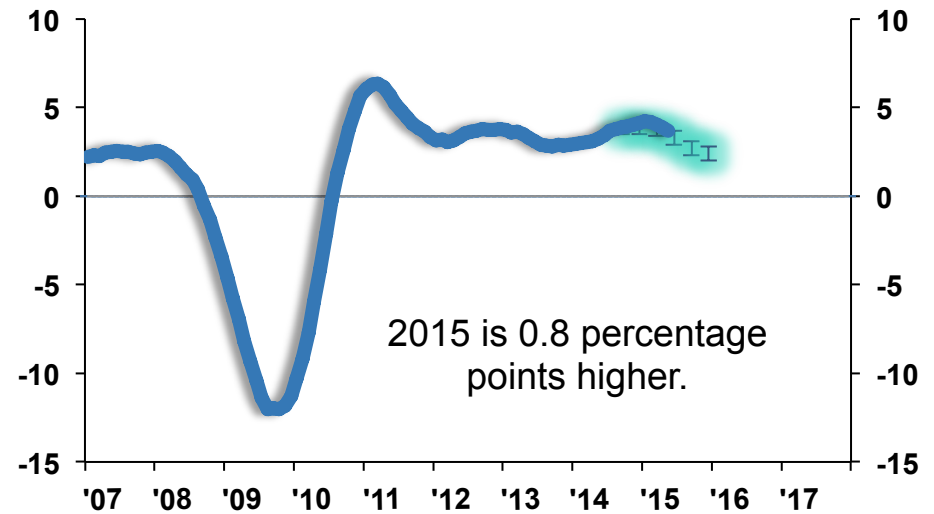
## Pre Data Revision ...

**US Industrial Production Index**  
12-Month Moving Average



- Annual Trend: 105.2
- Phase: C
- Year-over-Year: 3.7%

**Year-over-Year Growth Rate**  
12/12 Rate-of-Change

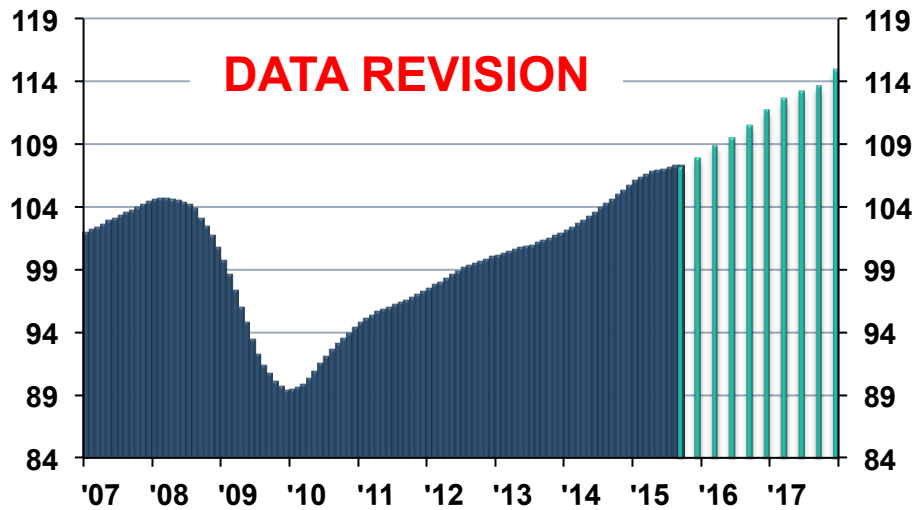


**Industry**      2015: 2.4%

 **Outlook**      2016: 3.7%

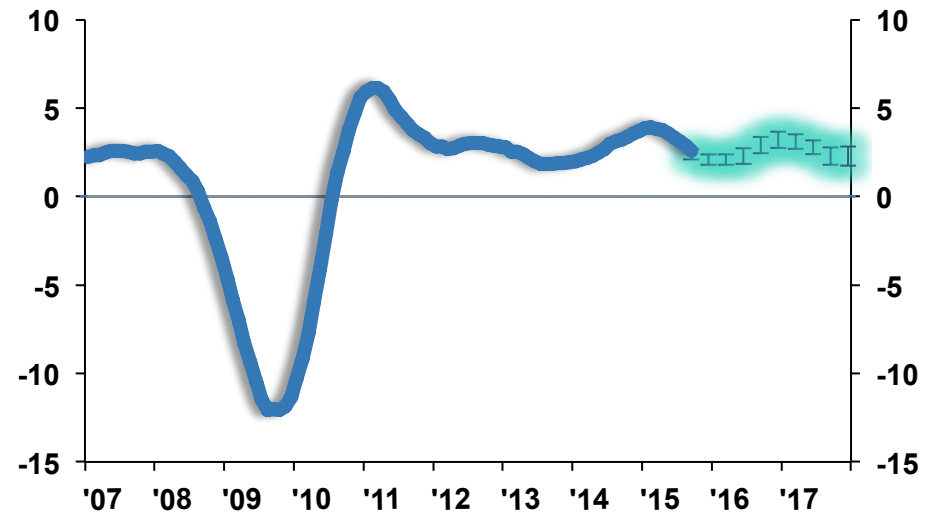
# US Industrial Production Index

**US Industrial Production Index**  
12-Month Moving Average



- Annual Trend: 107.3
- Phase: C
- Year-over-Year: 2.6%

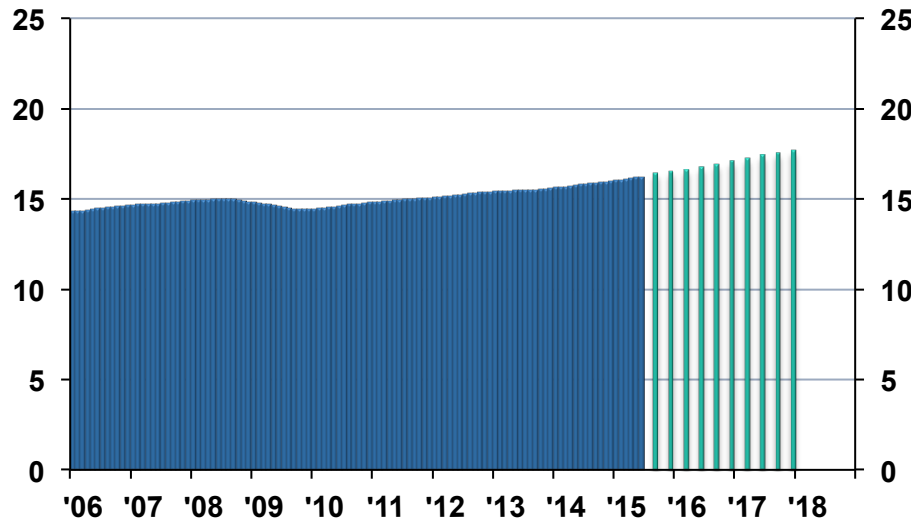
**Year-over-Year Growth Rate**  
12/12 Rate-of-Change



**Industry** 2015: 2.1%  
 **Outlook** 2016: 3.2%

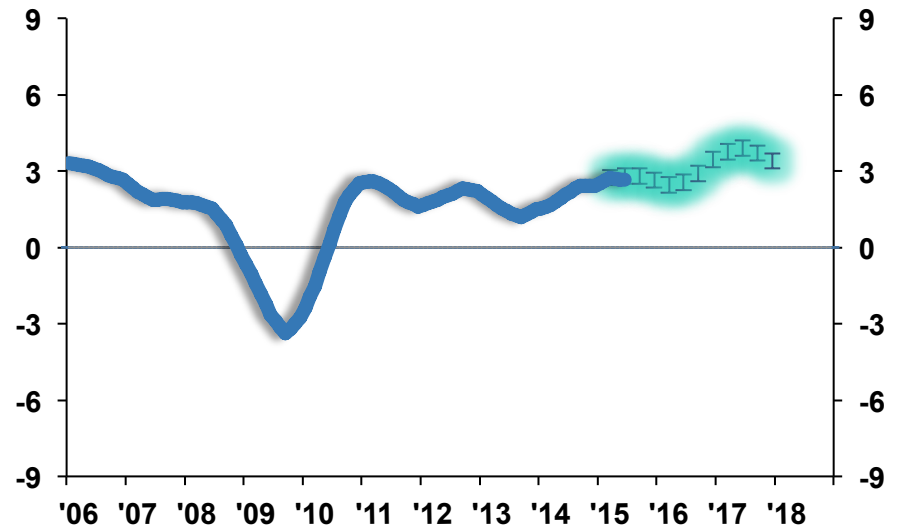
# Gross Domestic Product


**US Gross Domestic Product**  
12-Month Moving Average



- Annual Trend: \$16.2 trillion
- Phase: C
- Year-over-Year: 2.6%

**Year-over-Year Growth Rate**  
12/12 Rate-of-Change



<b>Industry</b>	<b>2015: 2.7%</b>
 <b>Outlook</b>	<b>2016: 3.5%</b>
	<b>2017: 3.4%</b>

## Data Preparation

	Raw	3MMT	3/12	12MMT	12/12
Nov-13	1.4				
Dec-13	1.5				
Jan-14	1.5	4.4			
Feb-14	1.4	4.4			
Mar-14	1.5	4.4			
Apr-14	1.3	4.2			
May-14	1.3	4.1			
Jun-14	1.6	4.2			
Jul-14	1.6	4.5			
Aug-14	1.5	4.7			
Sep-14	1.7	4.8			
Oct-14	1.6	4.8		18.0	
Nov-14	1.7	5.0		18.2	
Dec-14	1.7	5.0		18.4	
Jan-15	1.7	5.1	15.9%	18.6	
Feb-15	1.6	5.0	13.6%	18.8	
Mar-15	1.7	5.0	13.6%	19.0	26.7%
Apr-15	1.5	4.8	14.3%	19.2	25.5%
May-15	1.5	4.7	14.6%	19.4	25.2%
Jun-15	1.9	4.9	16.7%	19.7	22.4%
Jul-15	1.7	5.1	13.3%	19.8	20.0%
Aug-15	1.7	5.3	12.8%	20.0	18.3%
Sep-15	1.9	5.3	10.4%	20.2	15.4%
Oct-15	1.7	5.3	10.4%	20.3	12.7%

### 3/12 Rate-of-Change

$$= \text{October 2015 3MMT} / \text{October 2014 3MMT} \times 100 - 100$$

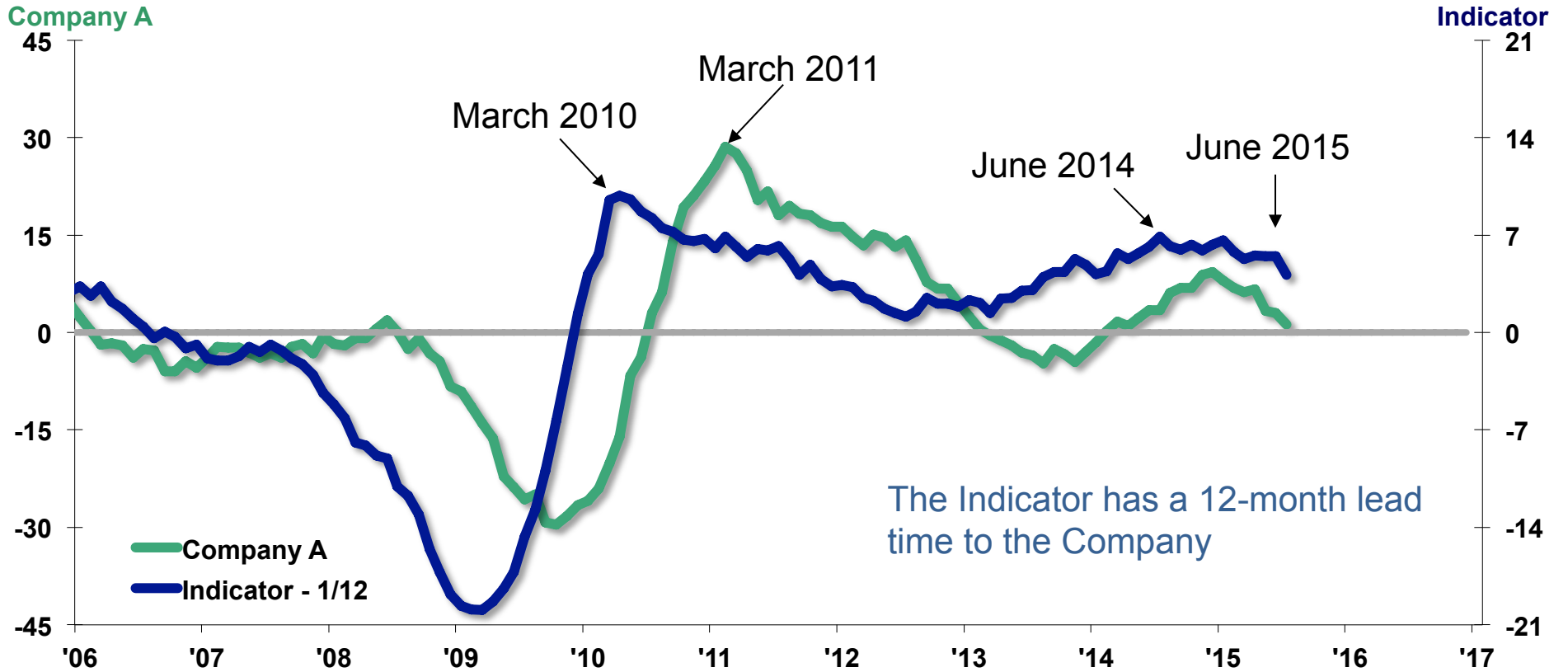
$$= 5.3 / 4.8 \times 100 - 100 = 10.4\%$$

### 12/12 Rate-of-Change

$$= \text{October 2015 12MMT} / \text{October 2014 12MMT} \times 100 - 100$$

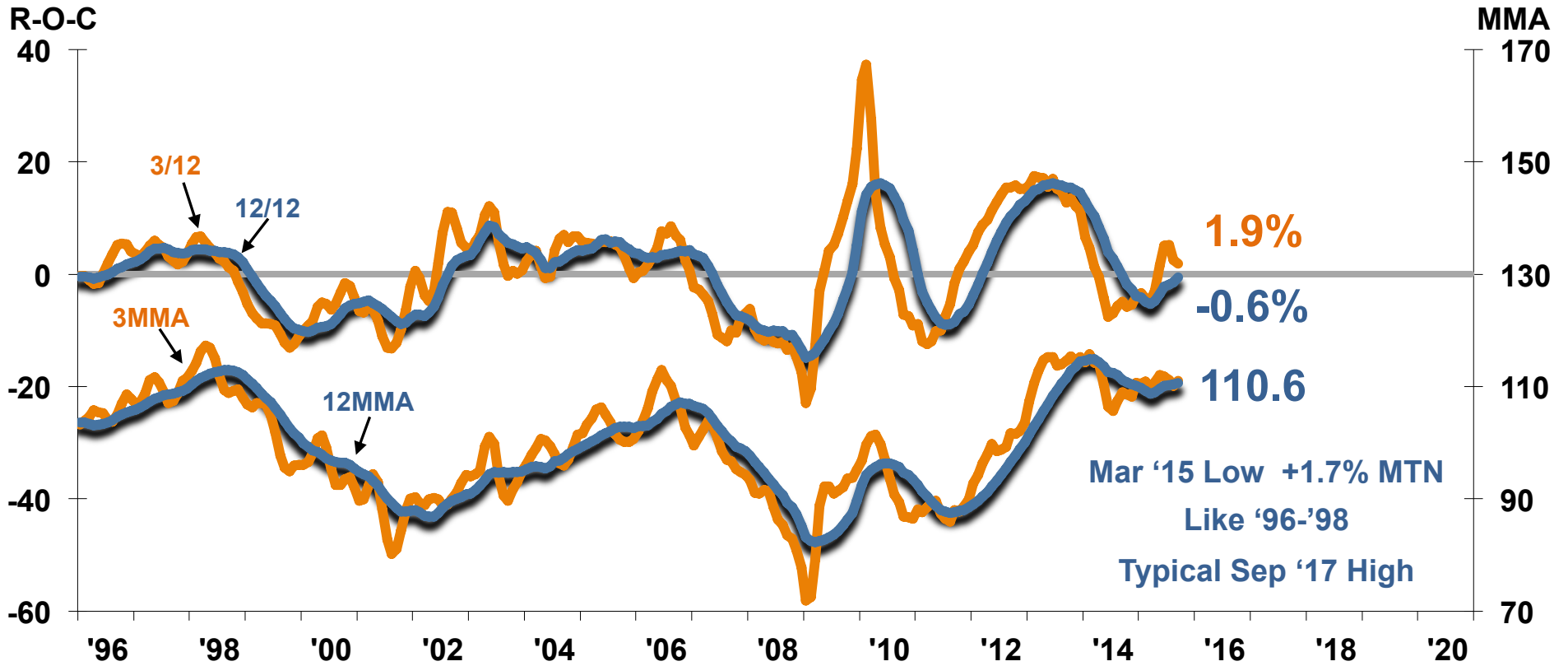
$$= 20.3 / 18.0 \times 100 - 100 = 12.7\%$$

## Step 2 - Leading Indicators

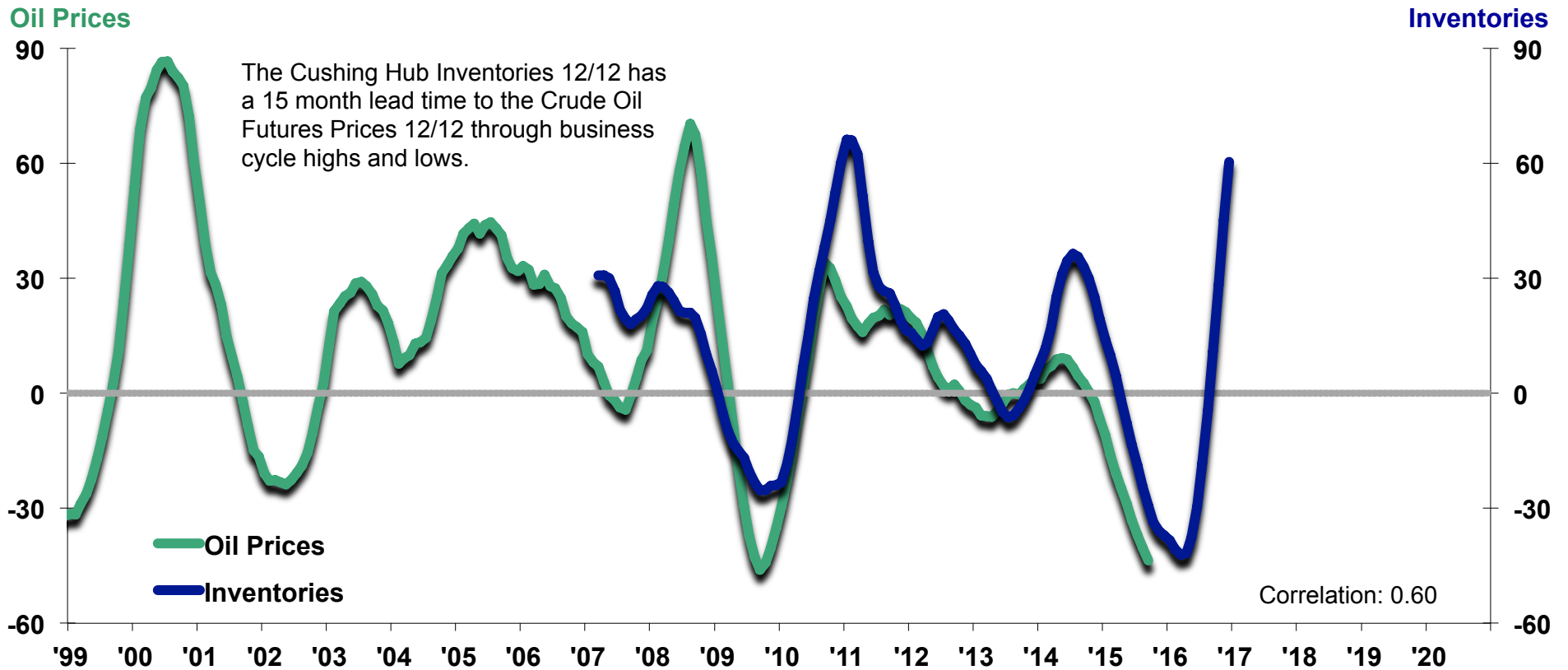




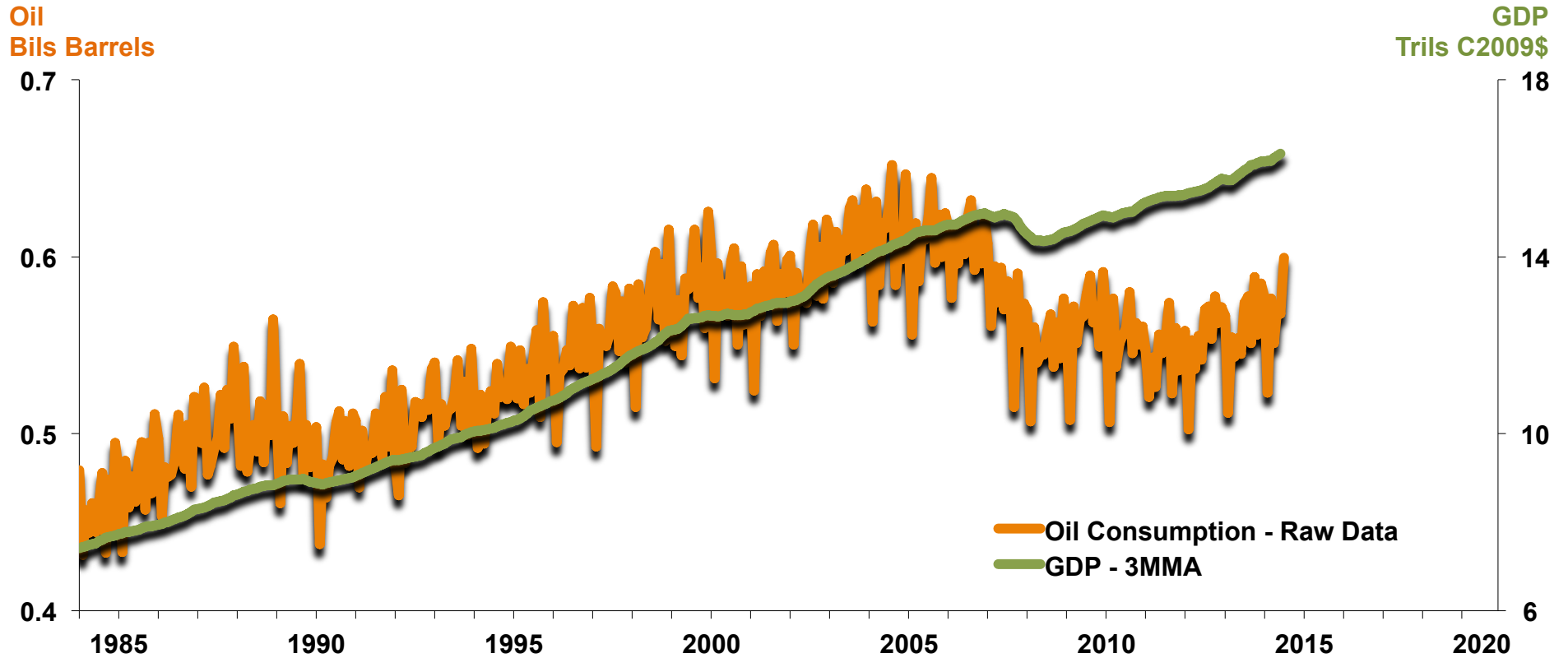
# Agricultural Chemicals Production Index



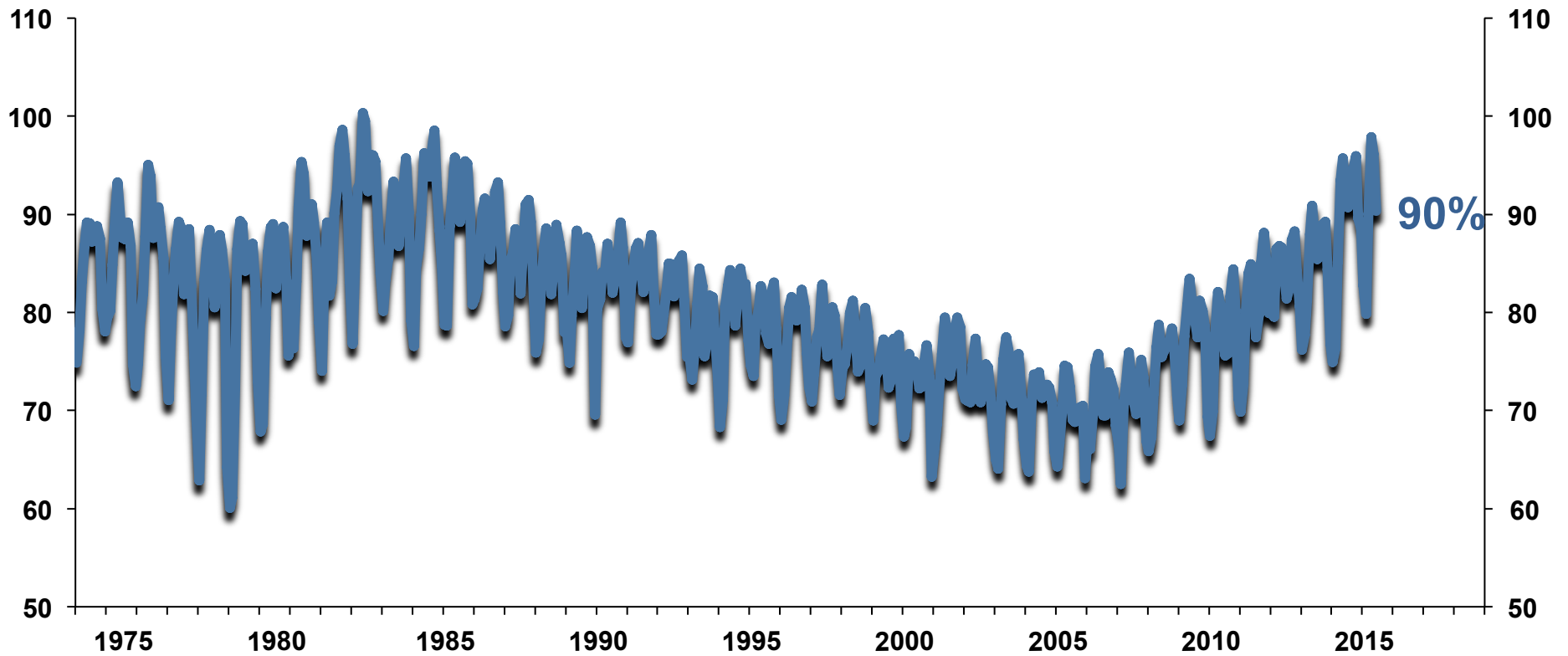
# Crude Oil Futures Prices to Cushing Hub Inventories



# US Consumption of Crude Oil & Petroleum Products to Real Gross Domestic Product



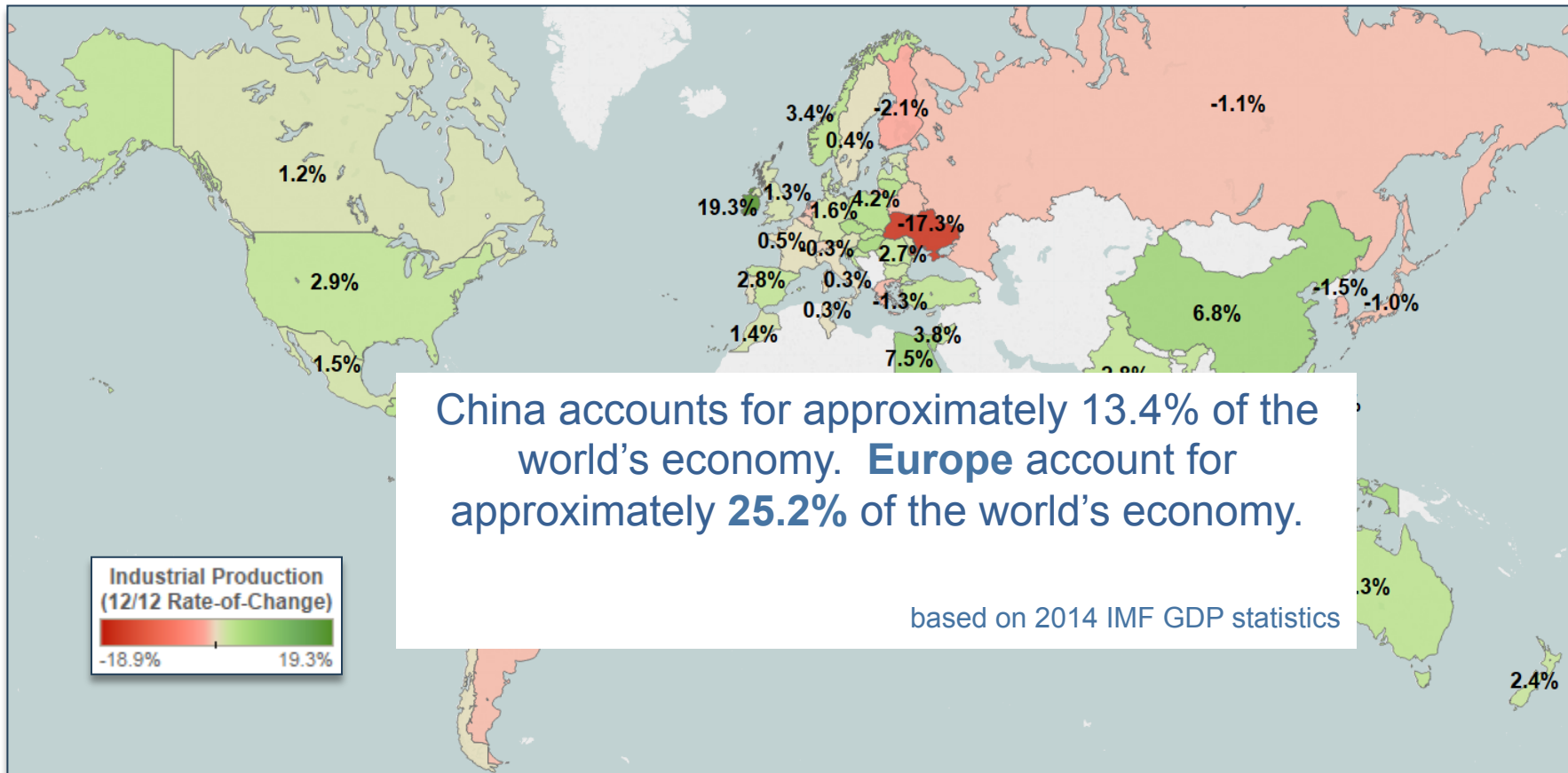
# Percent of Energy Consumed from Domestic Sources



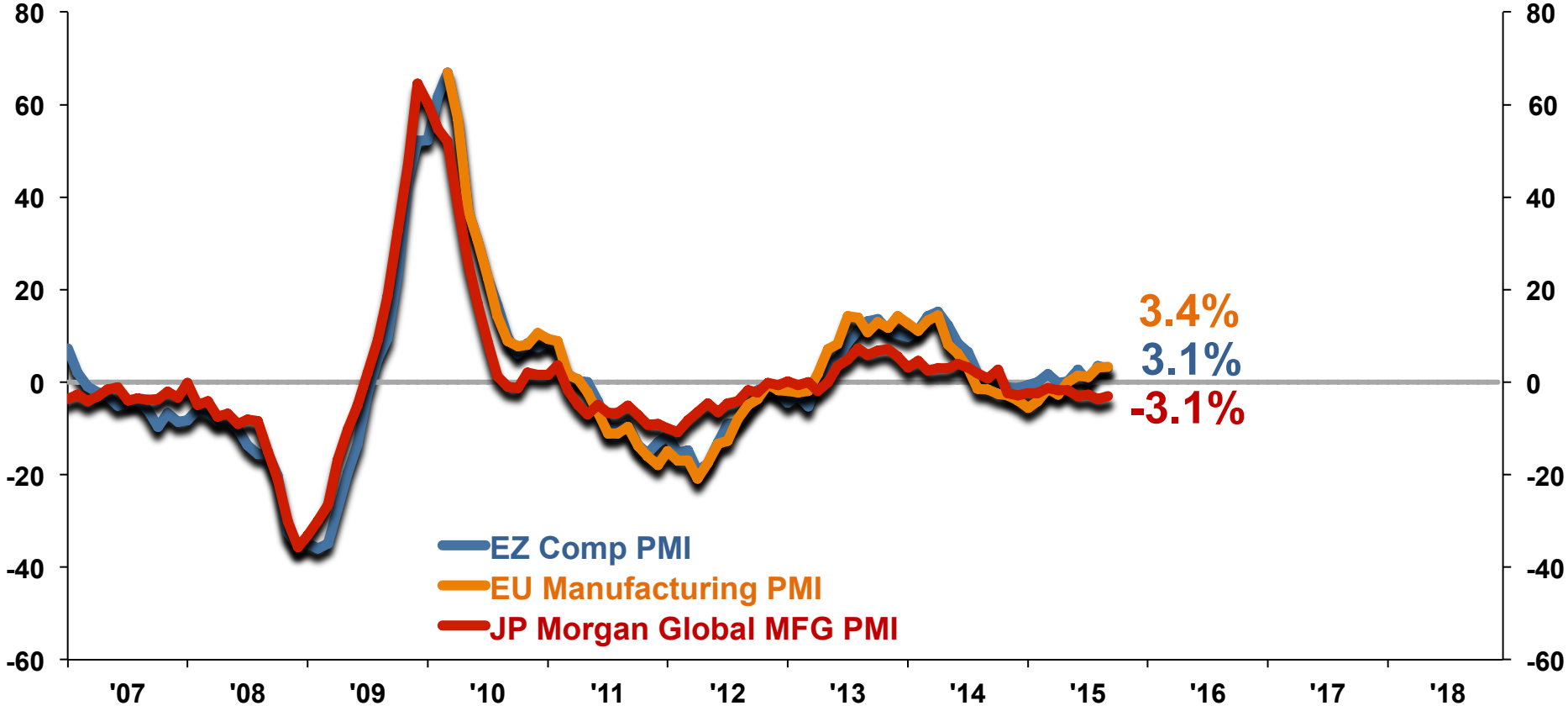
## Ongoing Concerns

- **China: Debt, Devaluation, Doubtful growth**
- **Fear of instability from low oil prices**
- **Non-defense capital goods new orders**
- **South America**
- **US Debt**
- **World Demographics**

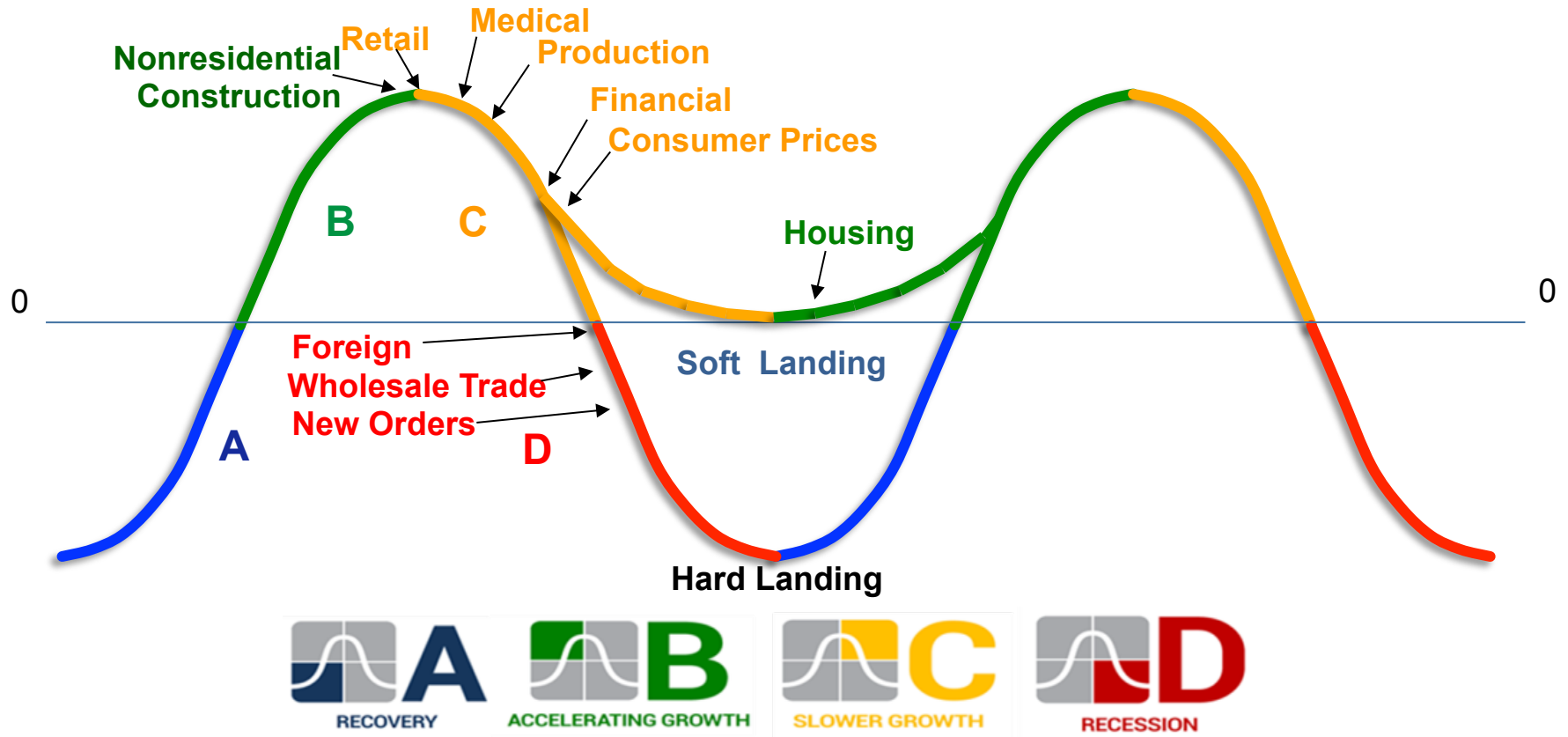
# World Countries Industrial Production



# Global Leading Indicators

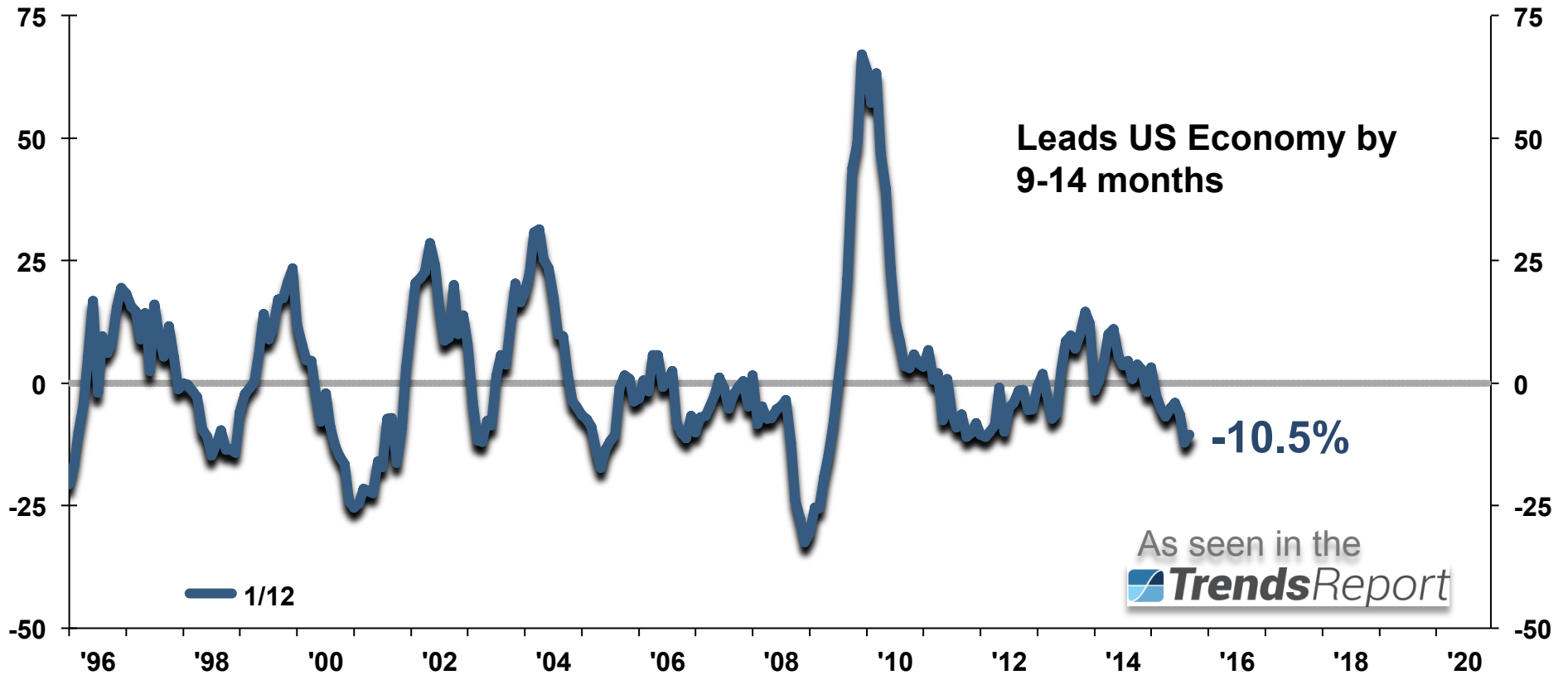


# Trends 10

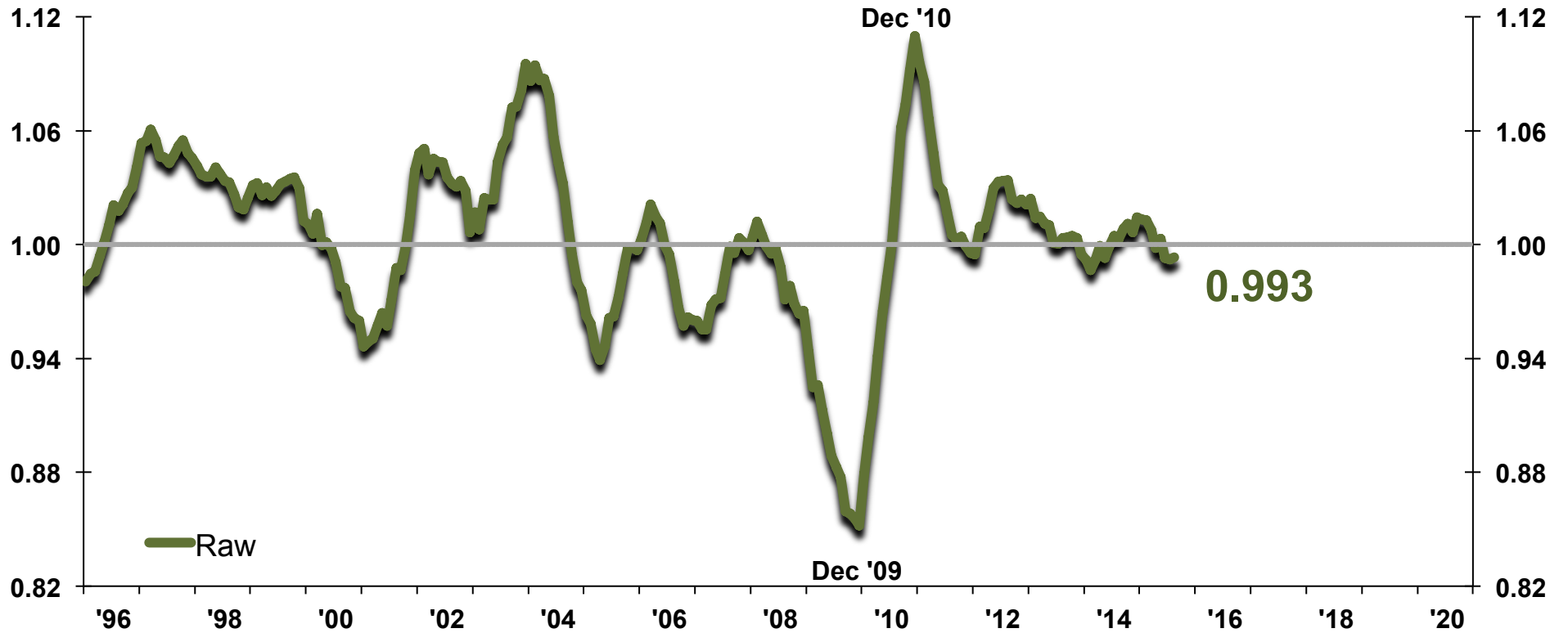




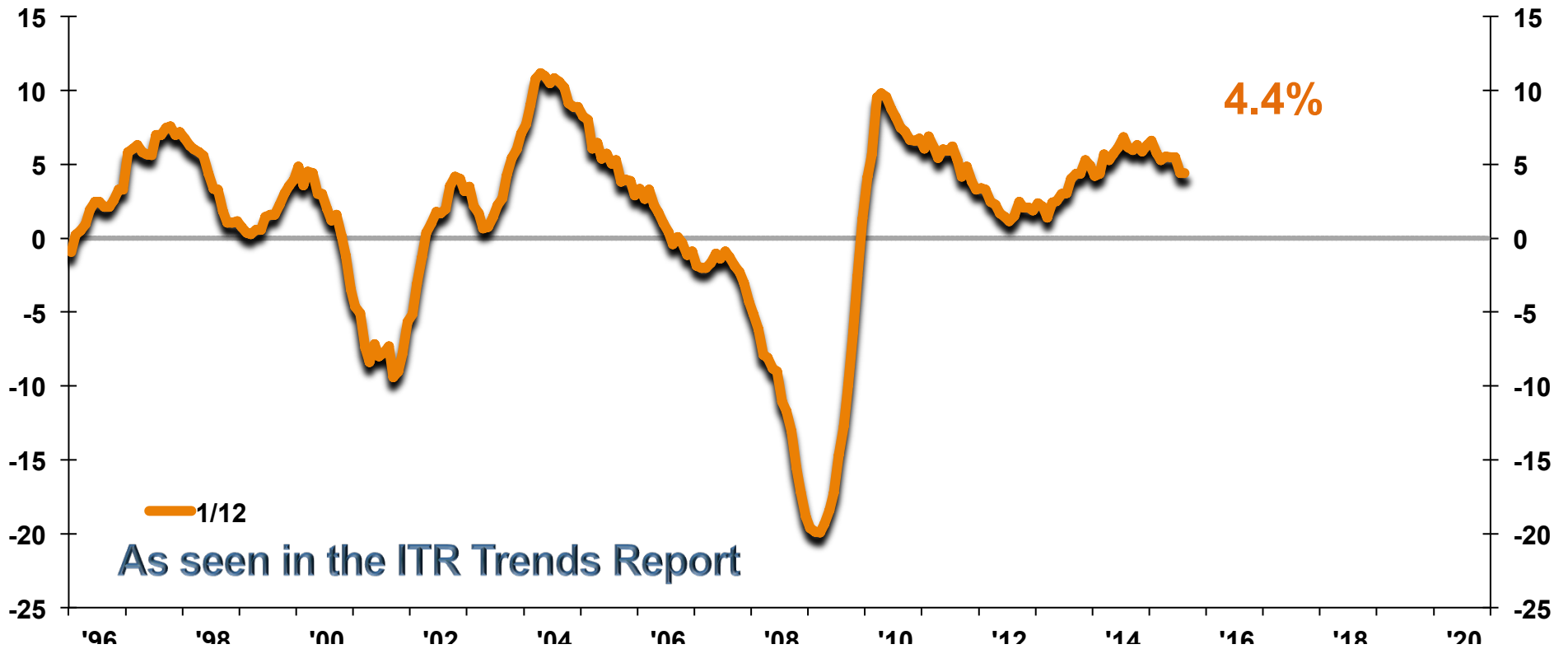
# Purchasing Managers Index



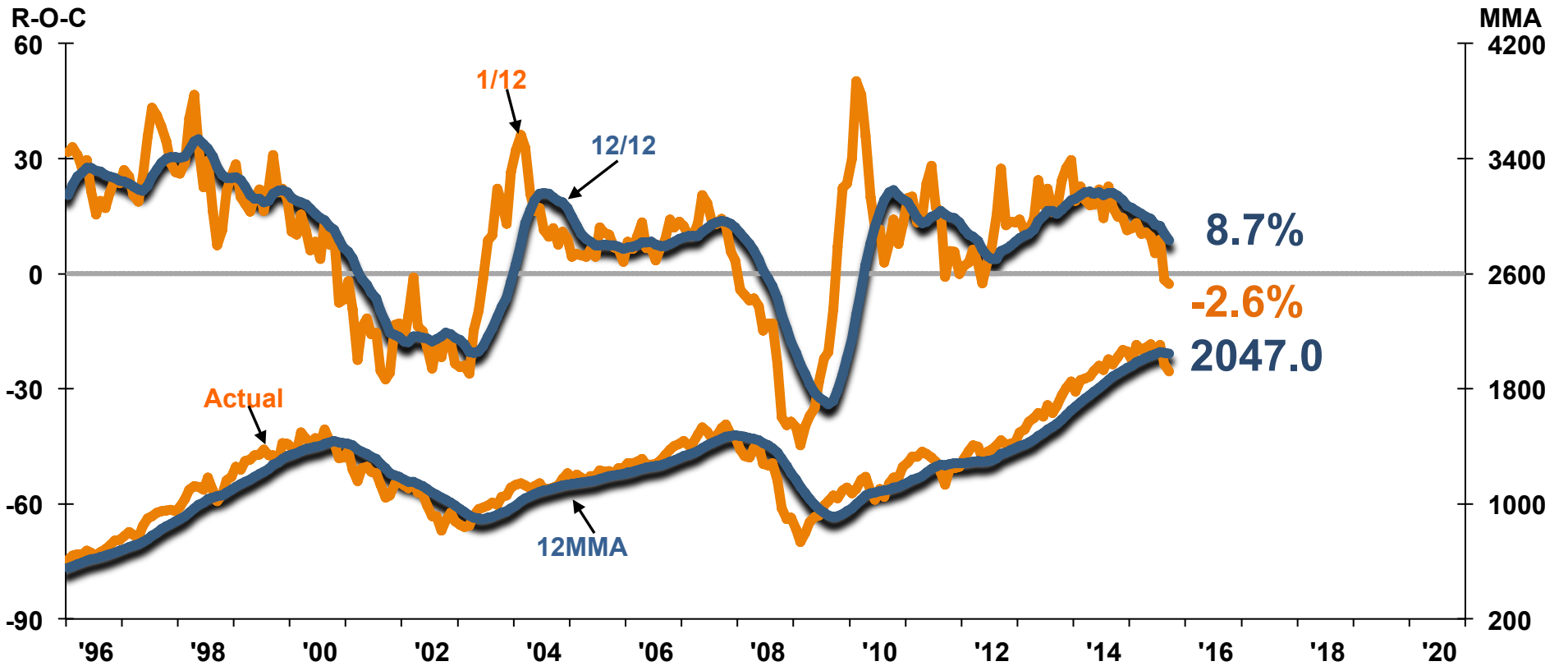
# Ratio of Inventories to New Orders



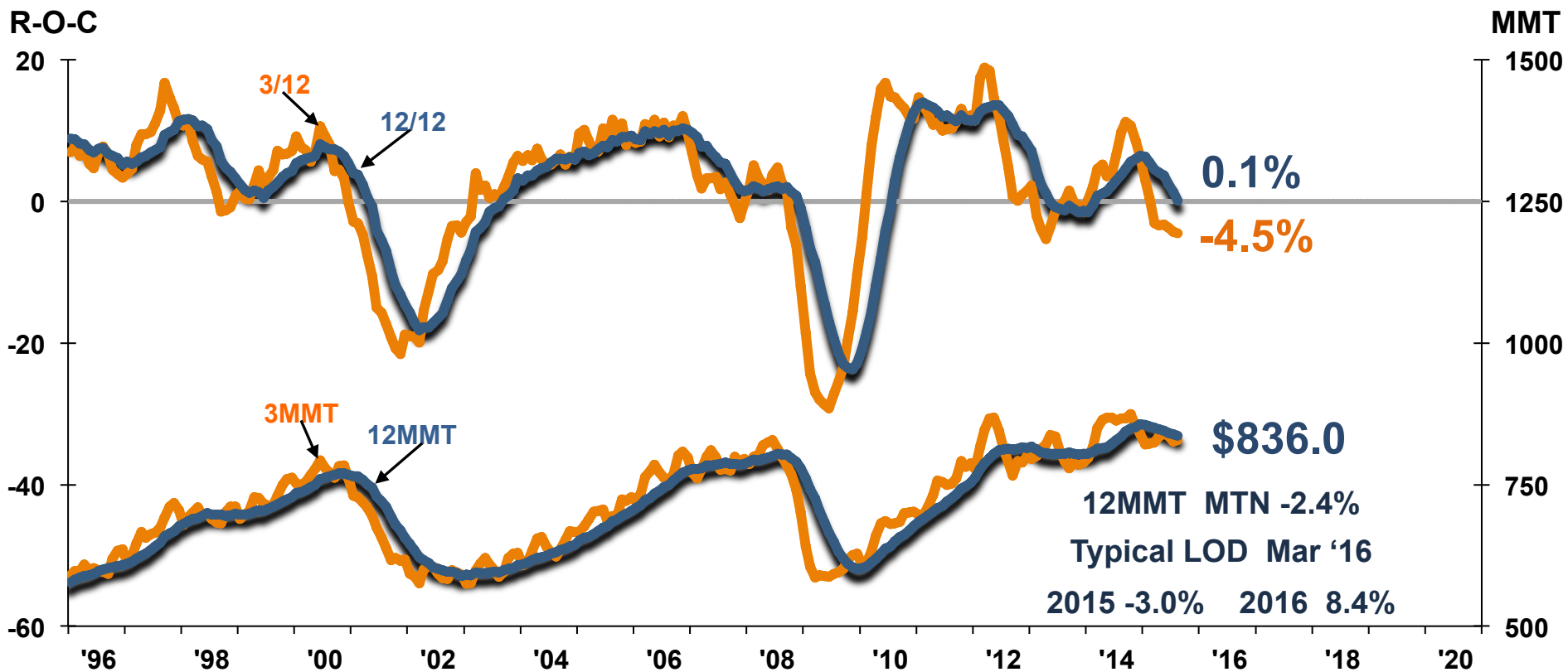
# US Leading Indicator



# Stock Prices Index

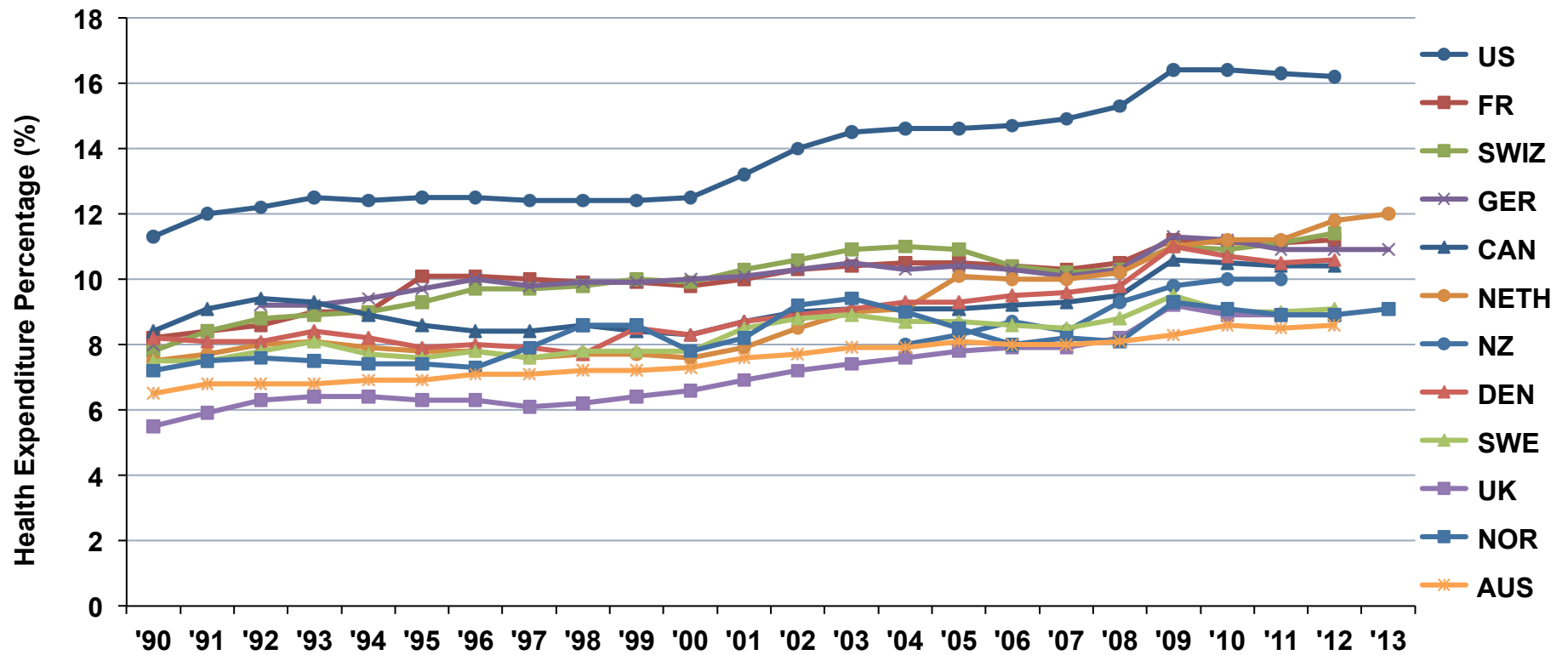


# Nondefense Capital Goods New Orders w/o Aircraft

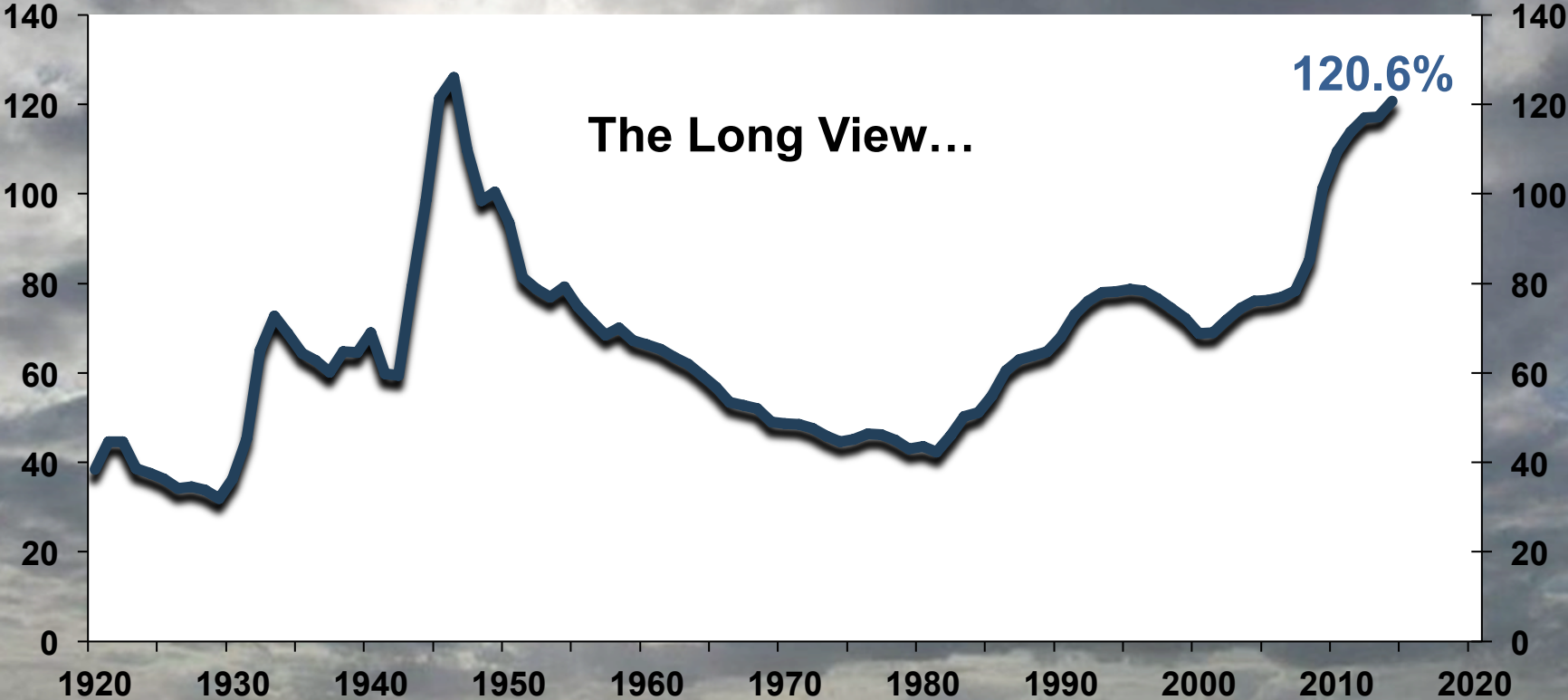


Billions of Dollars

## Total Expenditure on Health as a Percent of GDP (1990-2013)



# Total U.S. Public Debt



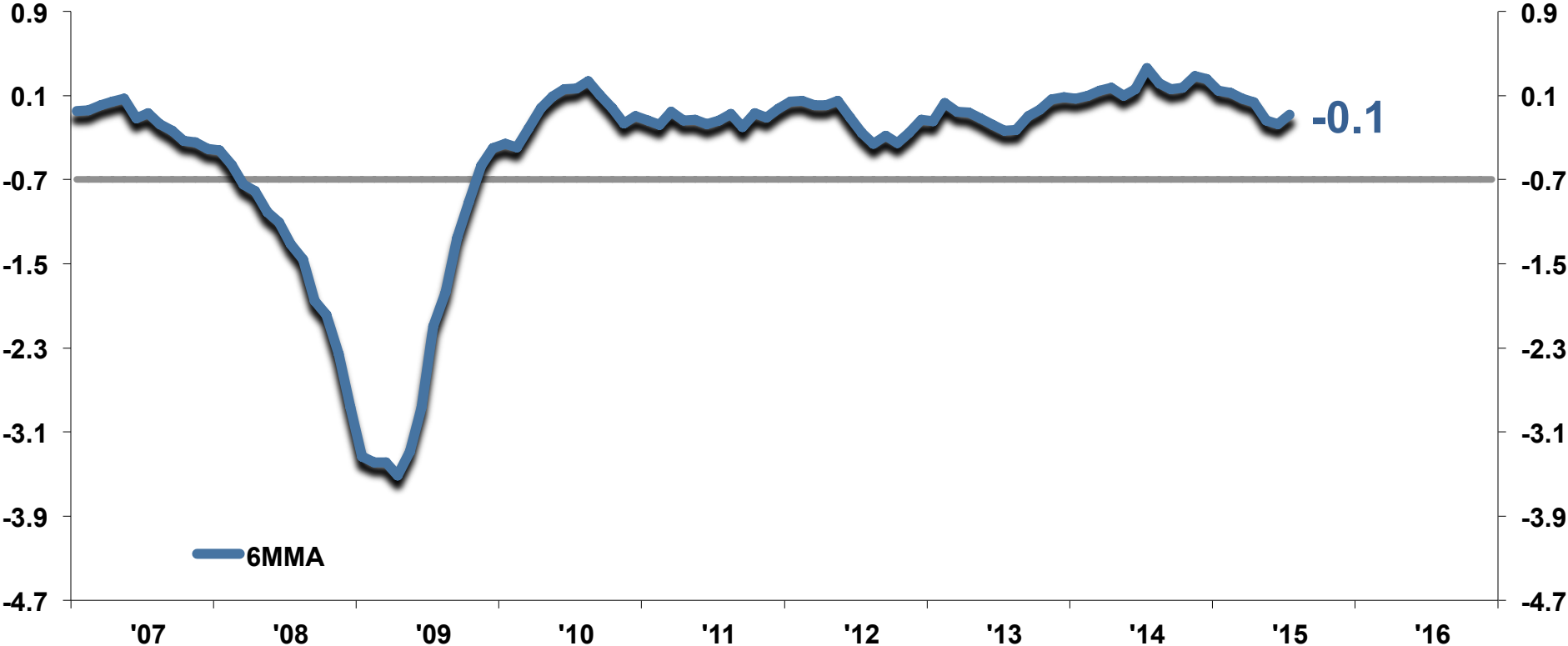
(% of GDP)

## US/Global Recovery – Good Days Ahead

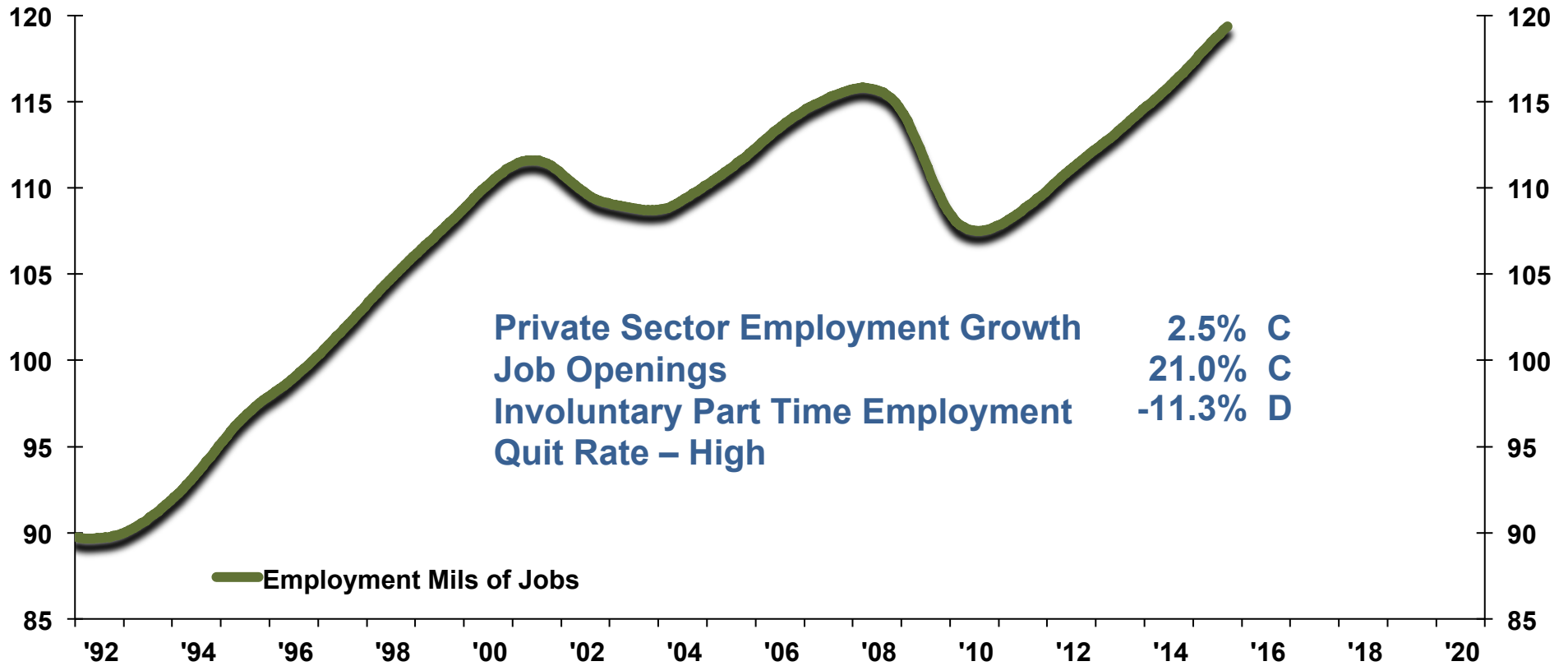
- Consumers are in great shape
- World is relatively calm
- Employment rising
- Banks are lending
- Retail Sales are rising
- Non-residential construction is improving
- Deficit spending continues – no fear of austerity



# Chicago Fed National Activity Index



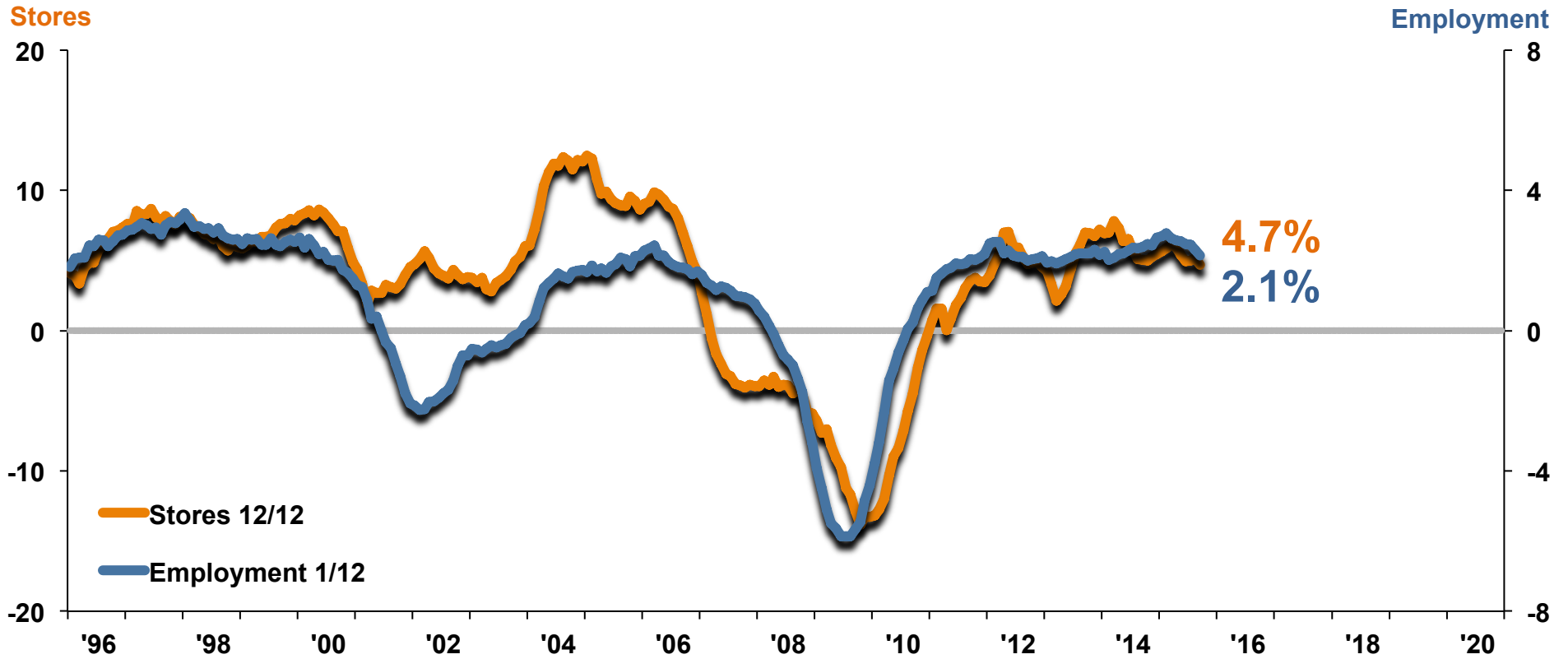
# Employment – Private Sector



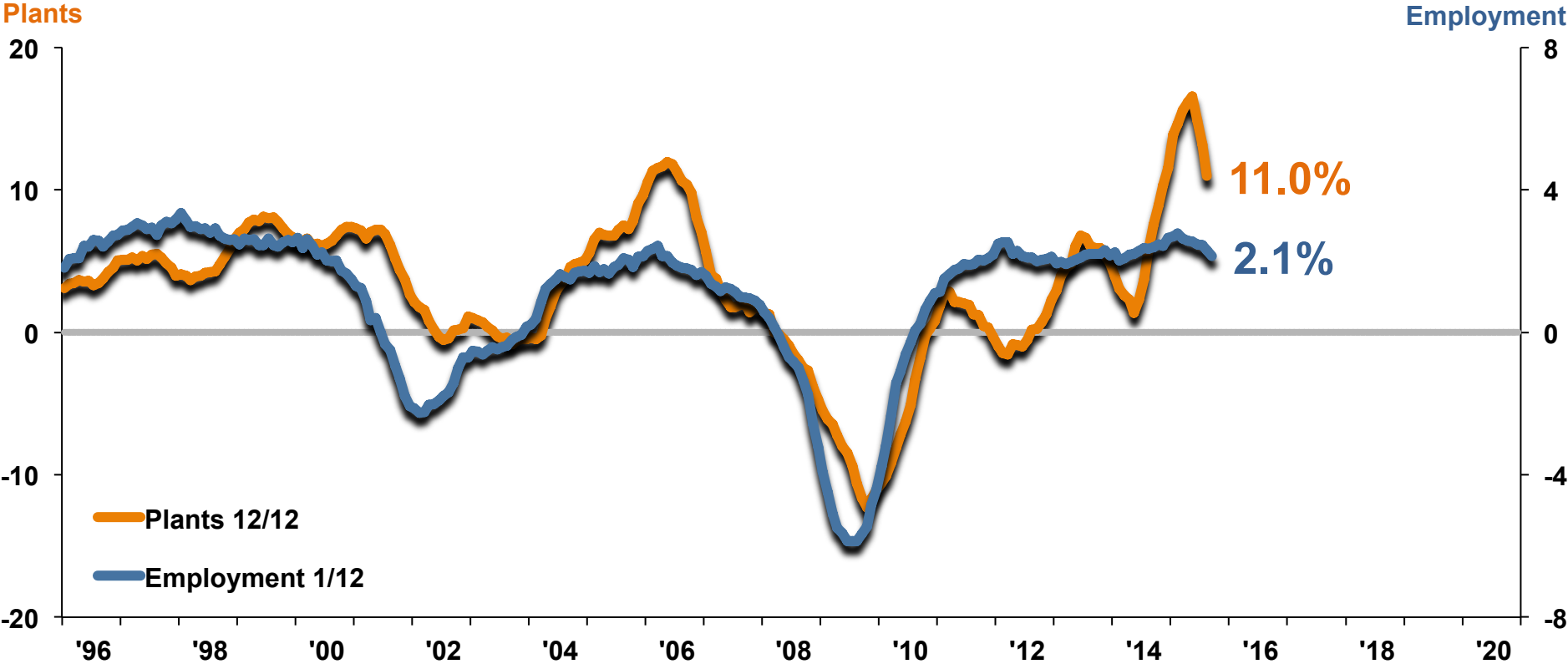
**Private Sector Employment Growth 2.5% C**  
**Job Openings 21.0% C**  
**Involuntary Part Time Employment -11.3% D**  
**Quit Rate – High**

— Employment Mils of Jobs

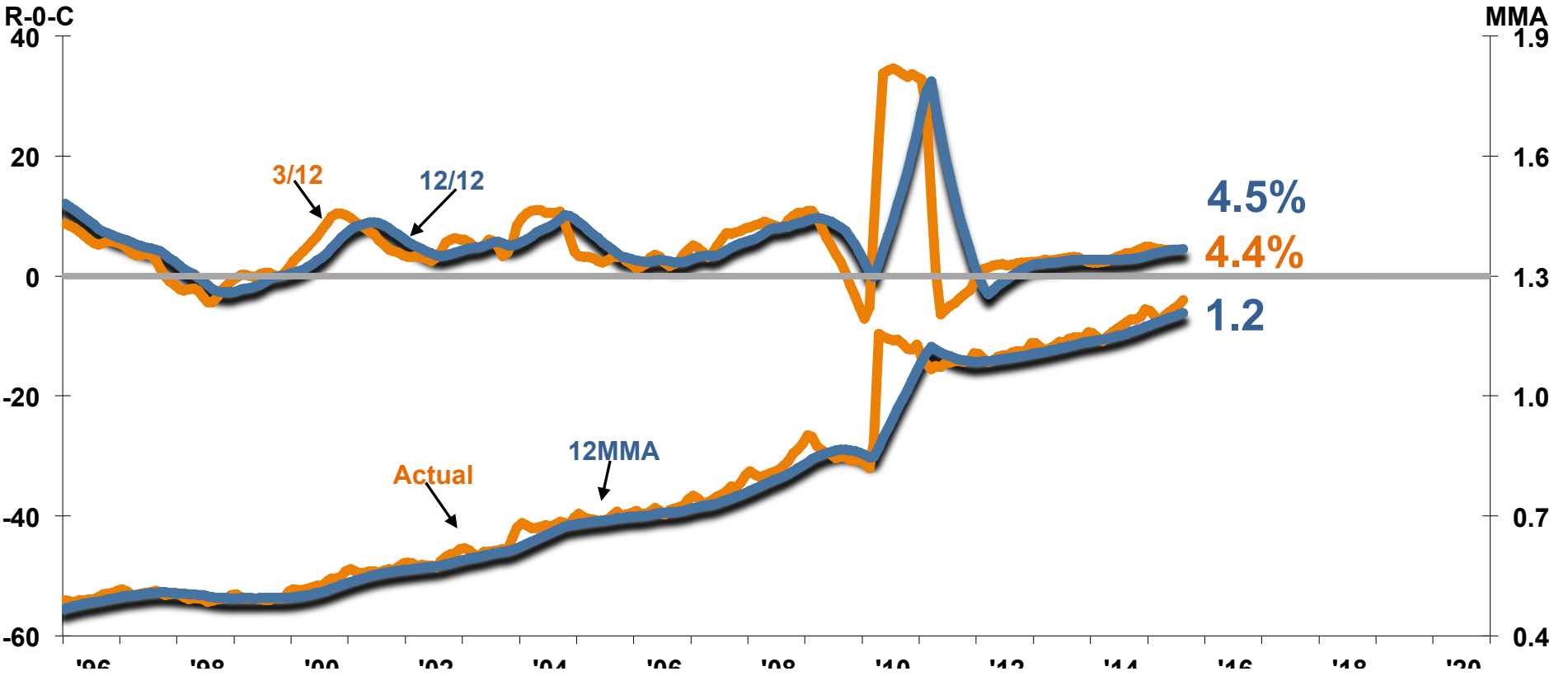
# US Building Materials, Garden Equipment and Supplies Stores Retail Sales to Private Sector Employment



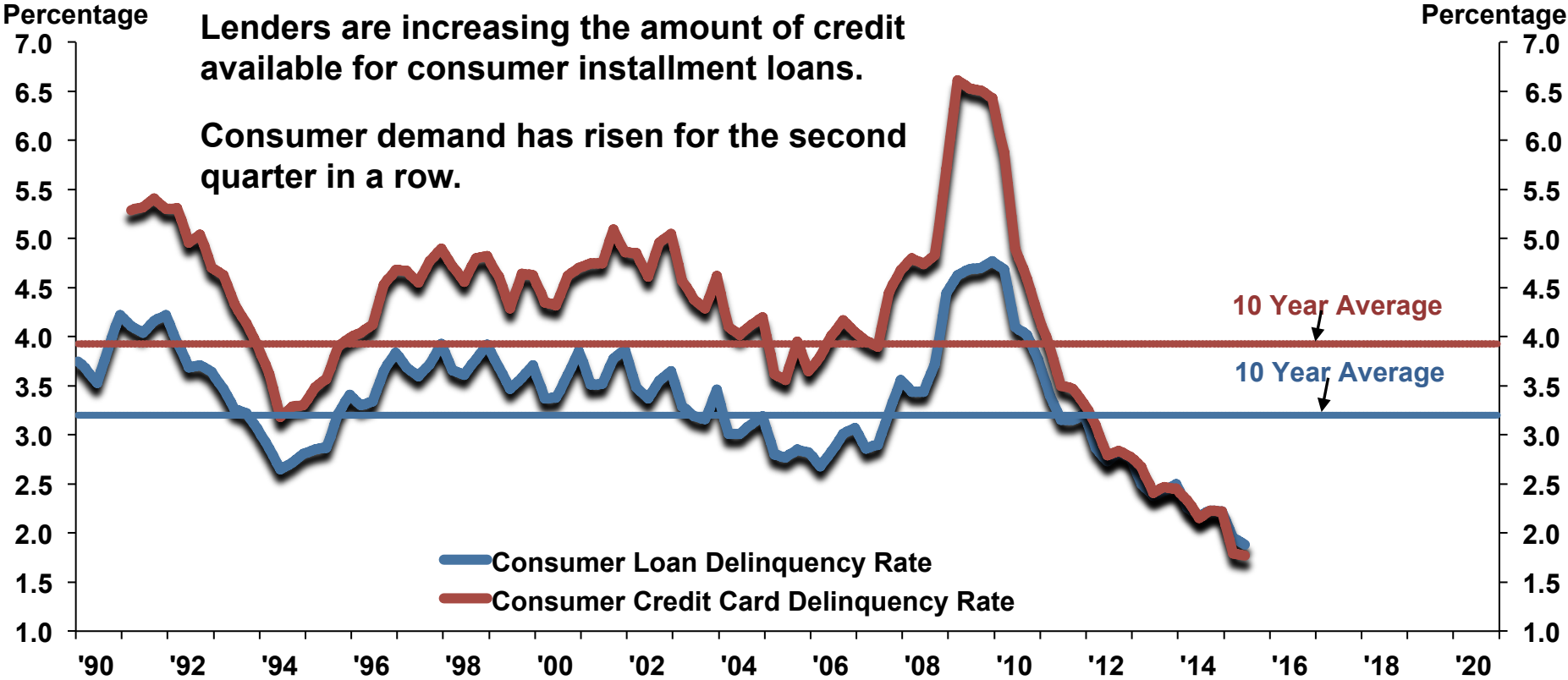
# US Personal Consumption Expenditures for Plantings (flowers, seeds, and potted plants) to Private Sector Employment



# Consumer Credit

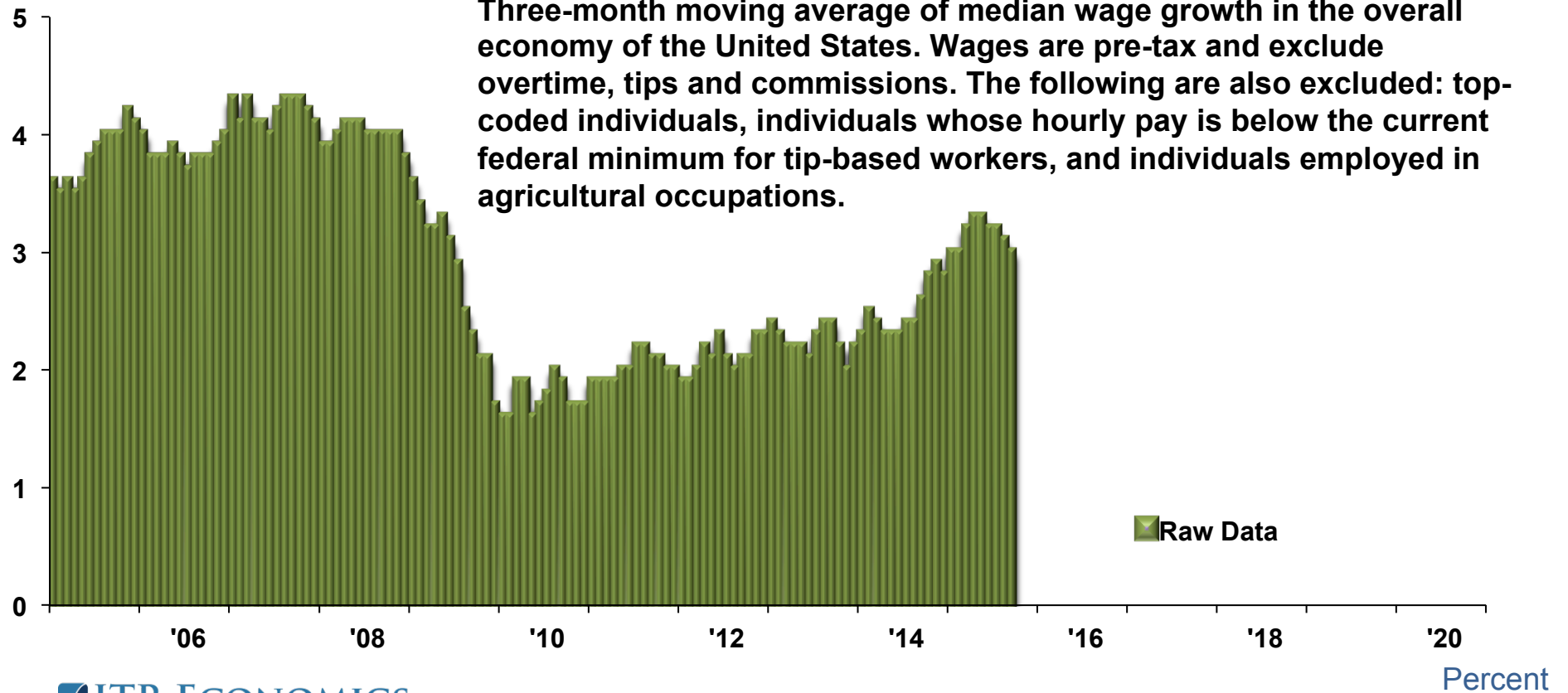


# Delinquency Rates on Consumer Loans

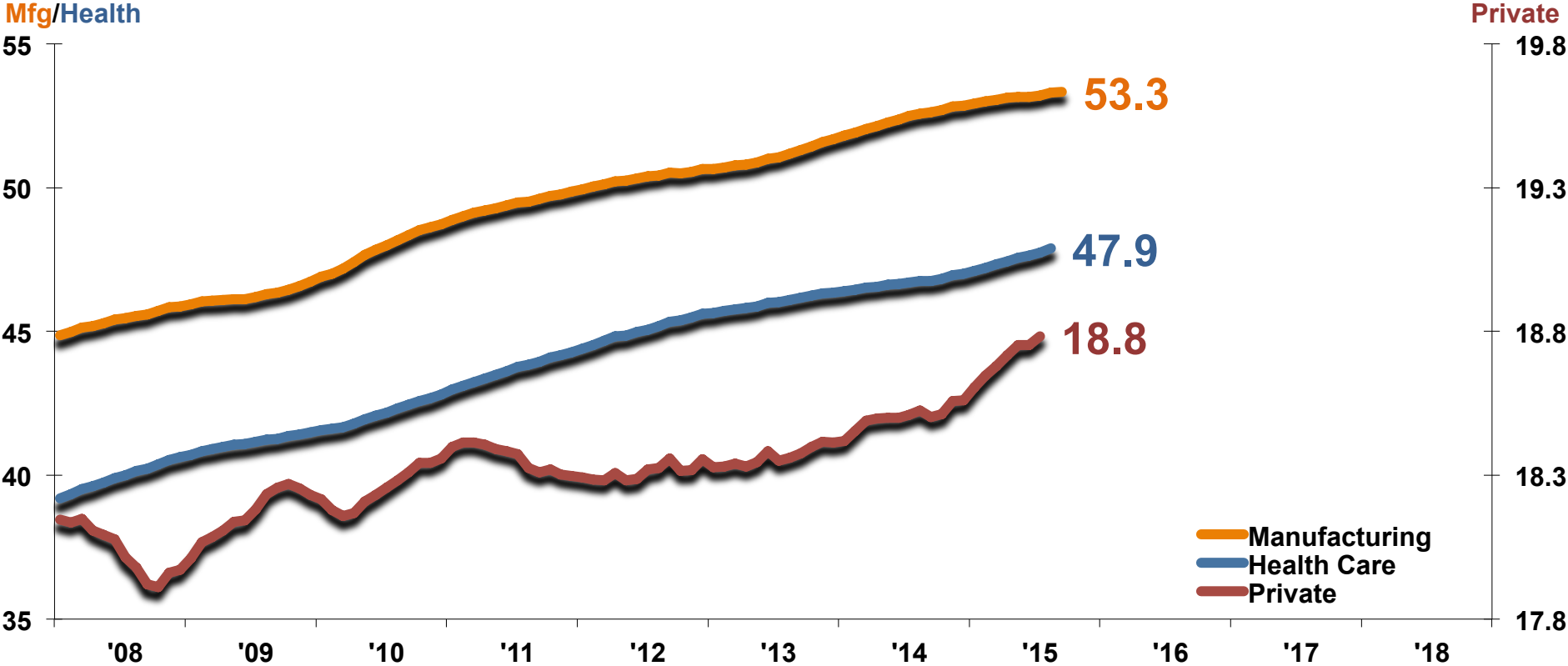


# US Overall Wage Growth

Three-month moving average of median wage growth in the overall economy of the United States. Wages are pre-tax and exclude overtime, tips and commissions. The following are also excluded: top-coded individuals, individuals whose hourly pay is below the current federal minimum for tip-based workers, and individuals employed in agricultural occupations.

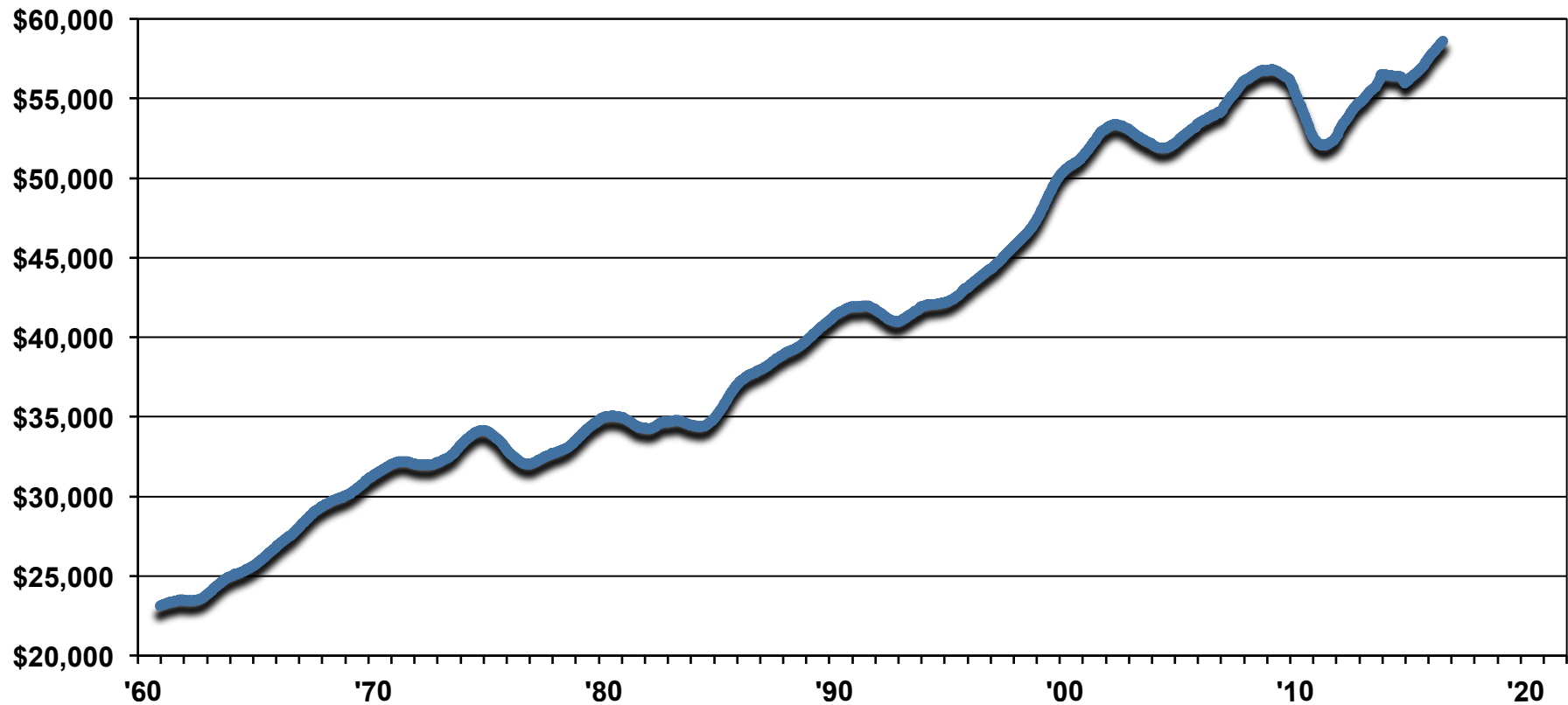


# Average Annual Earnings: Manufacturing Workforce to Healthcare Workers to Total Private Workforce

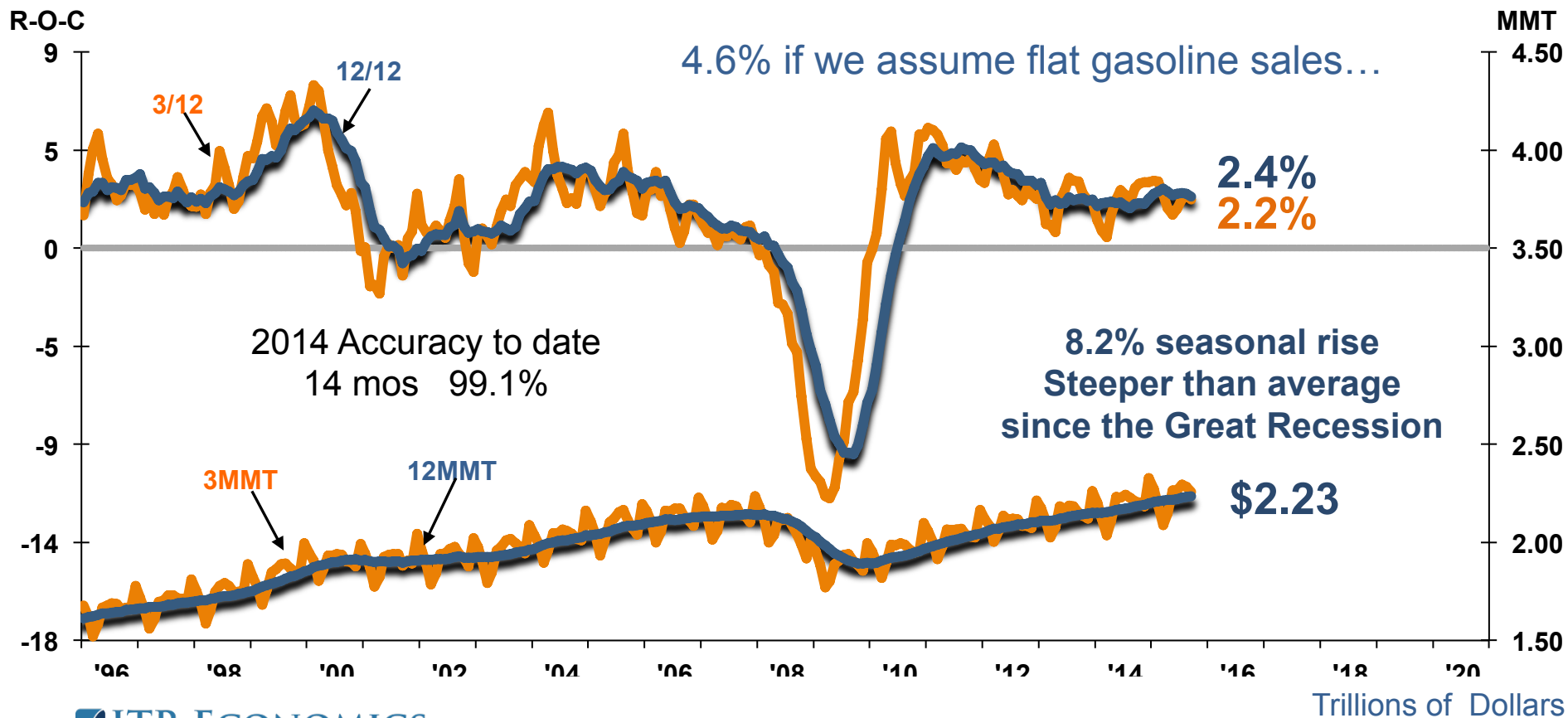




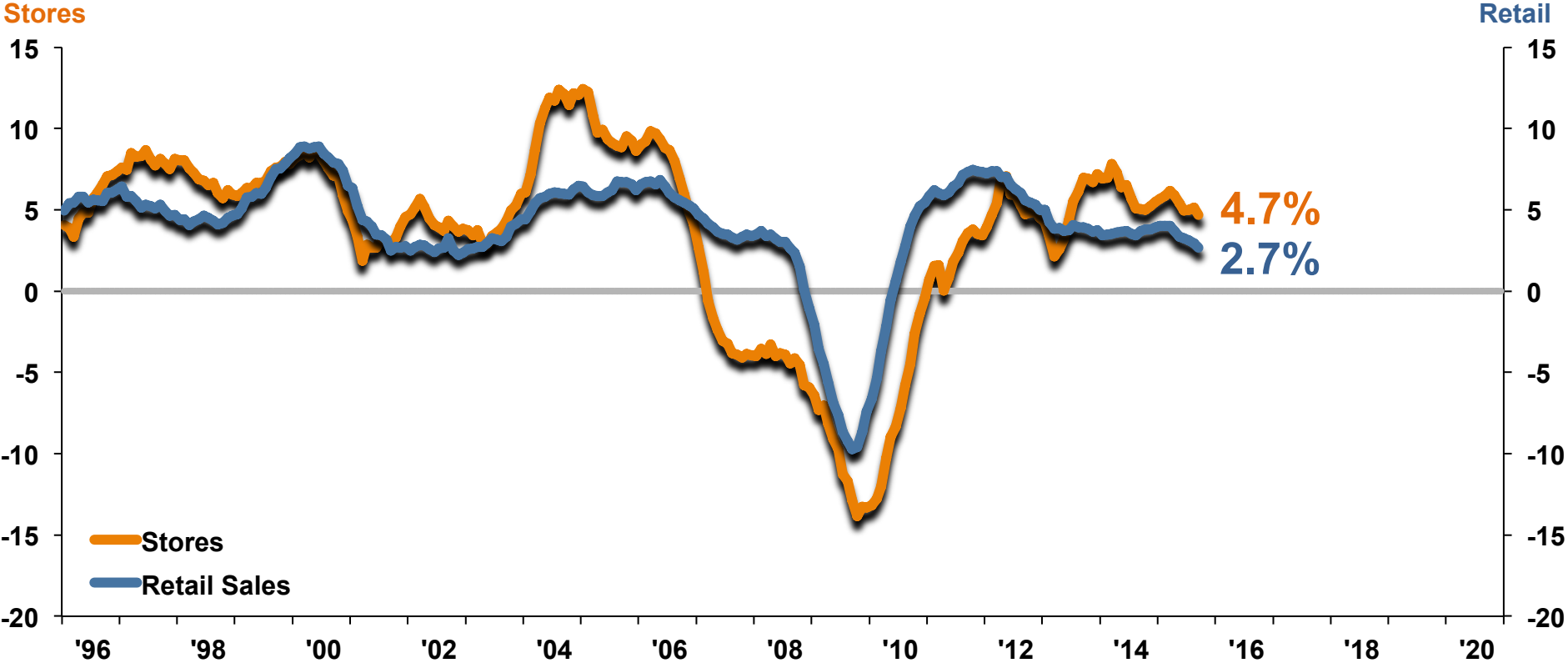
## Real Personal Income Less Transfer Receipts Average per Person Age 18 to 65



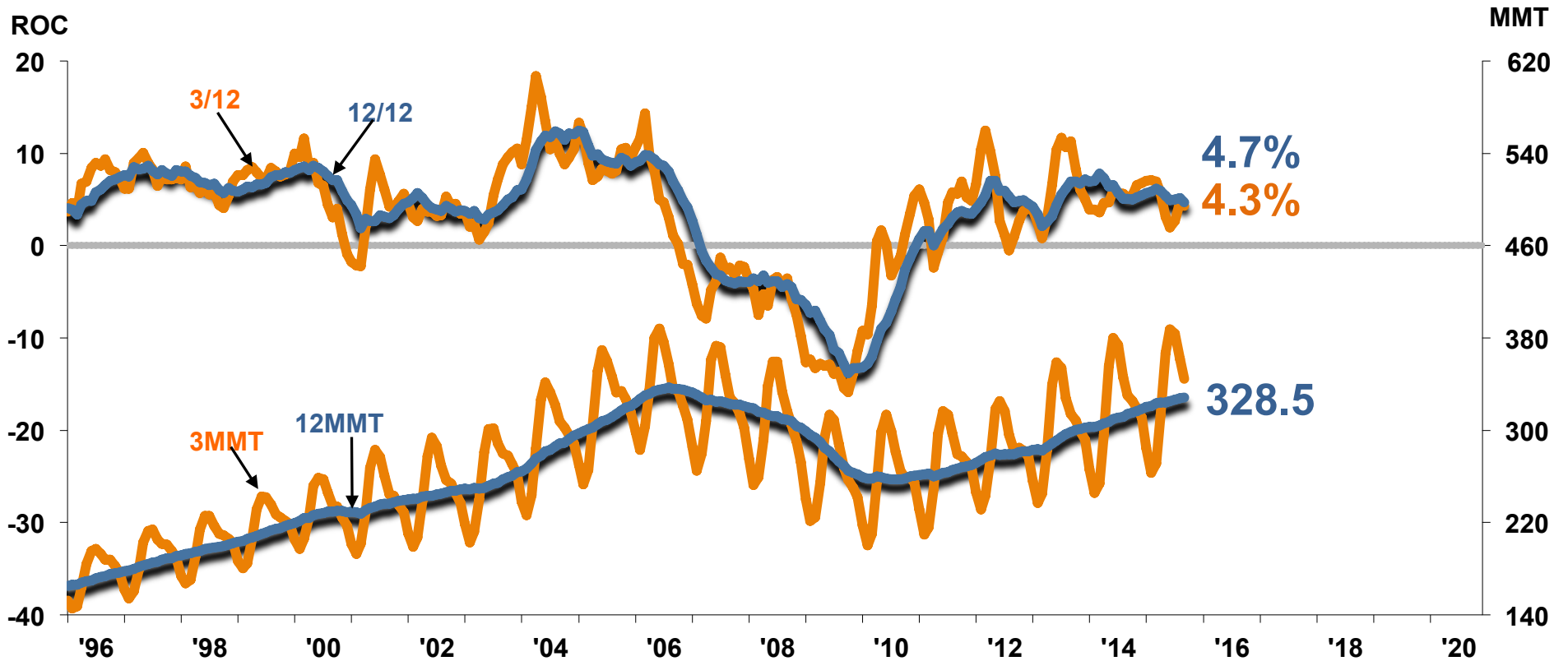
# Total Retail Sales (deflated)



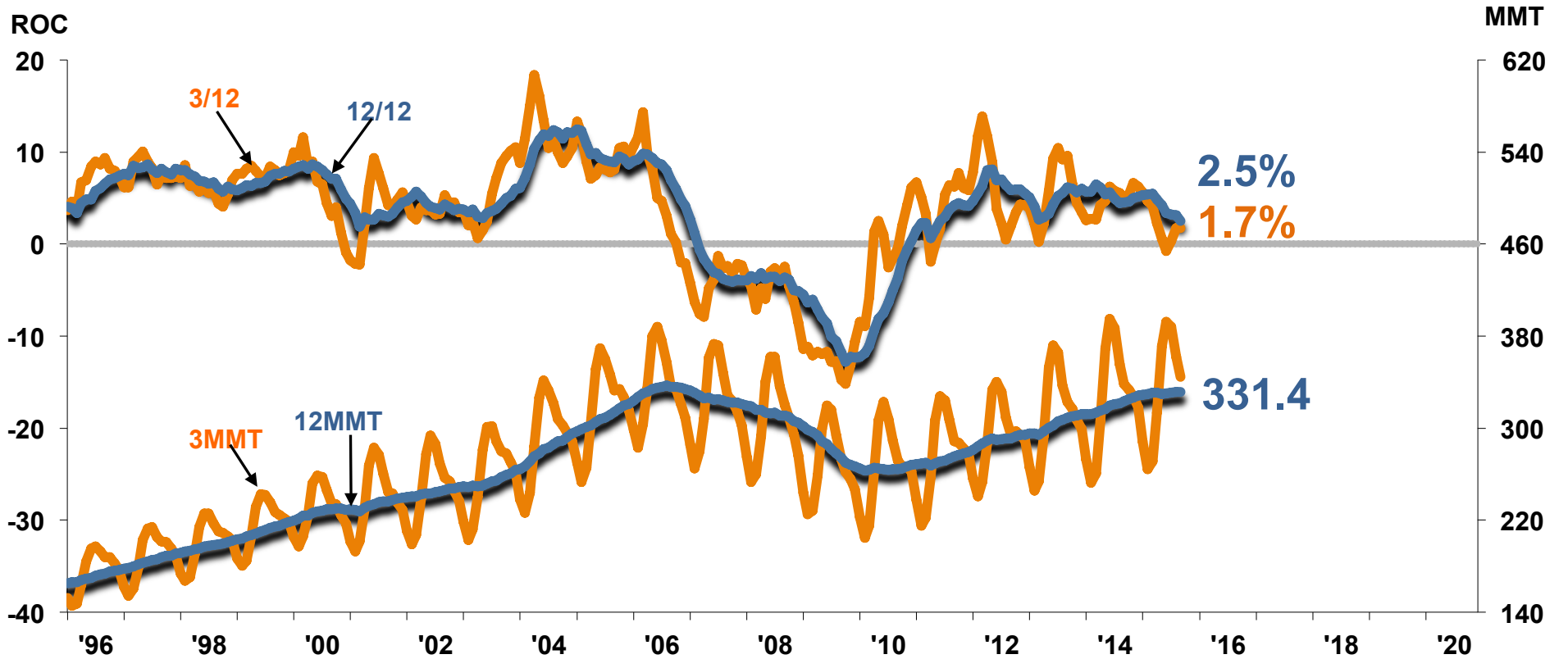
# US Building Materials, Garden Equipment and Supplies Stores Retail Sales to US Total Retail Sales



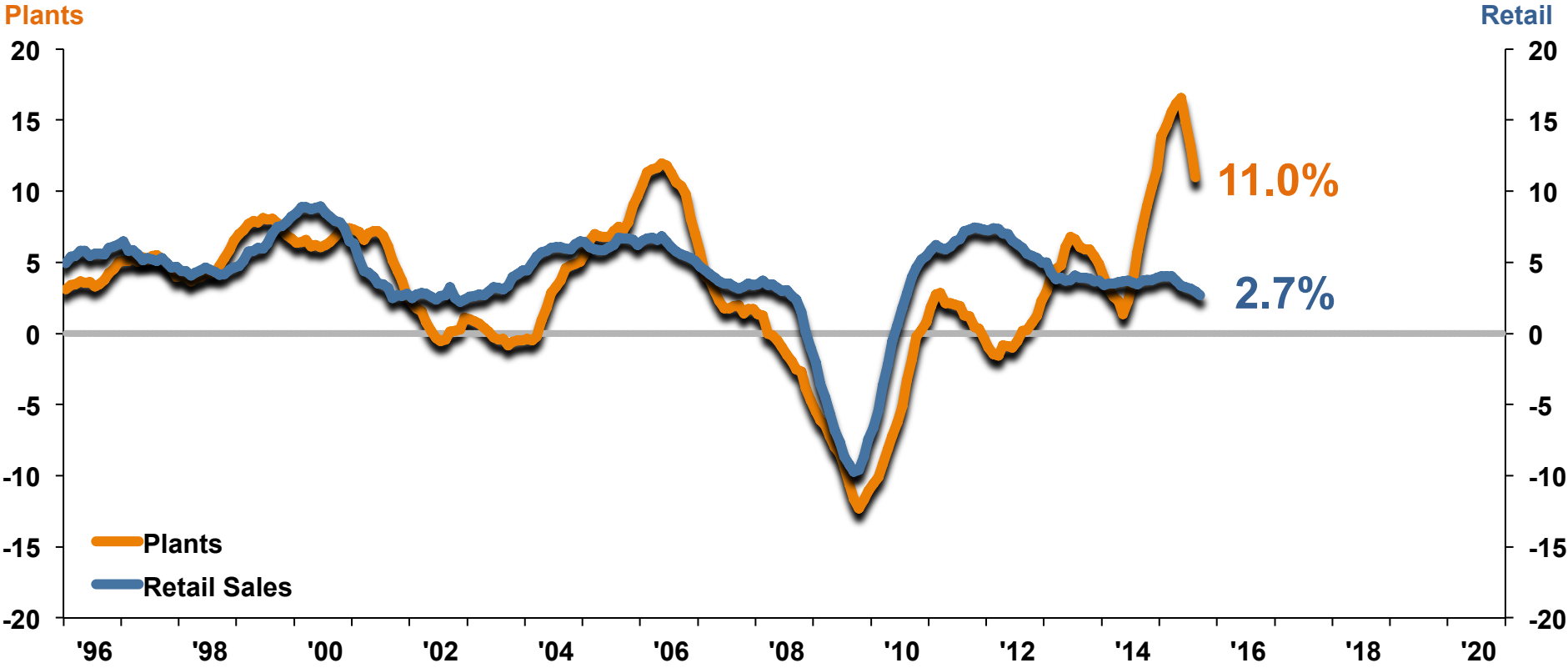
# Building Materials, Garden Equipment & Supplies Stores Retail Sales



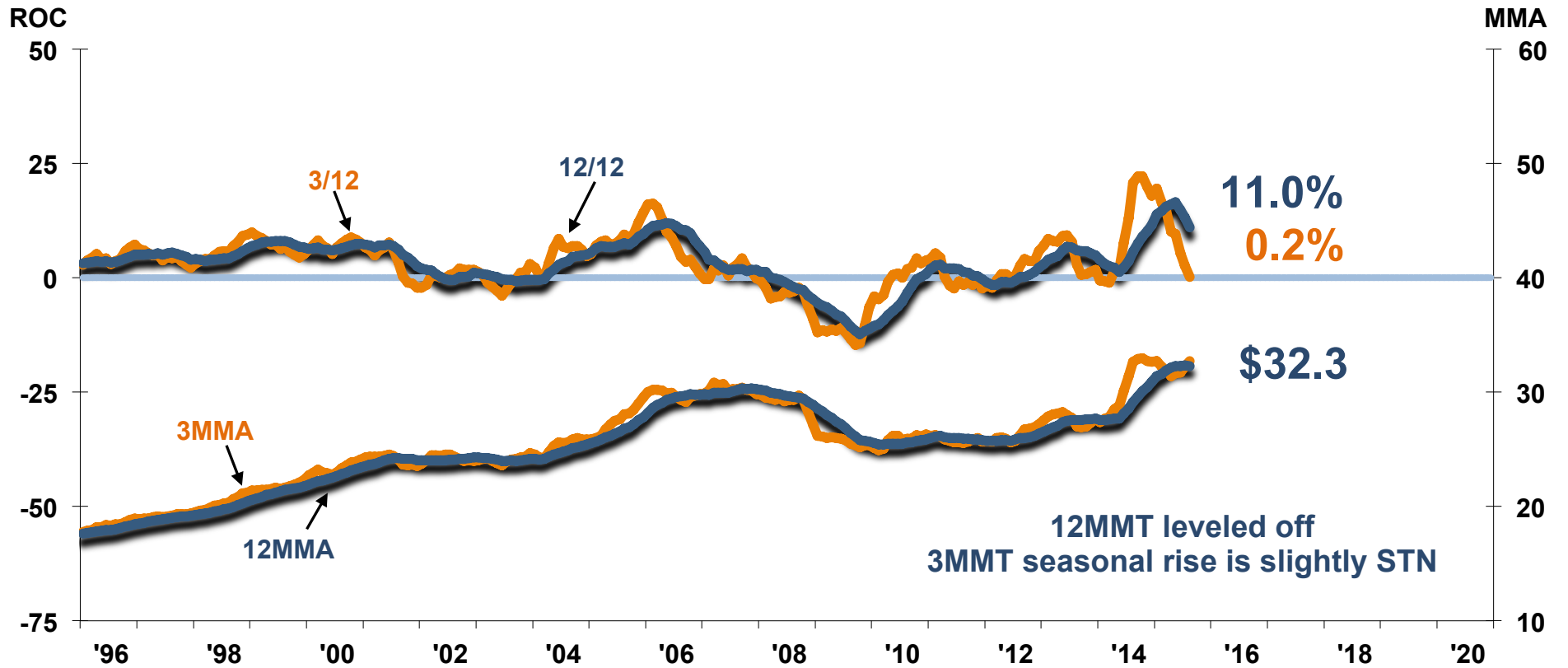
# Building Materials, Garden Equipment & Supplies Stores Retail Sales



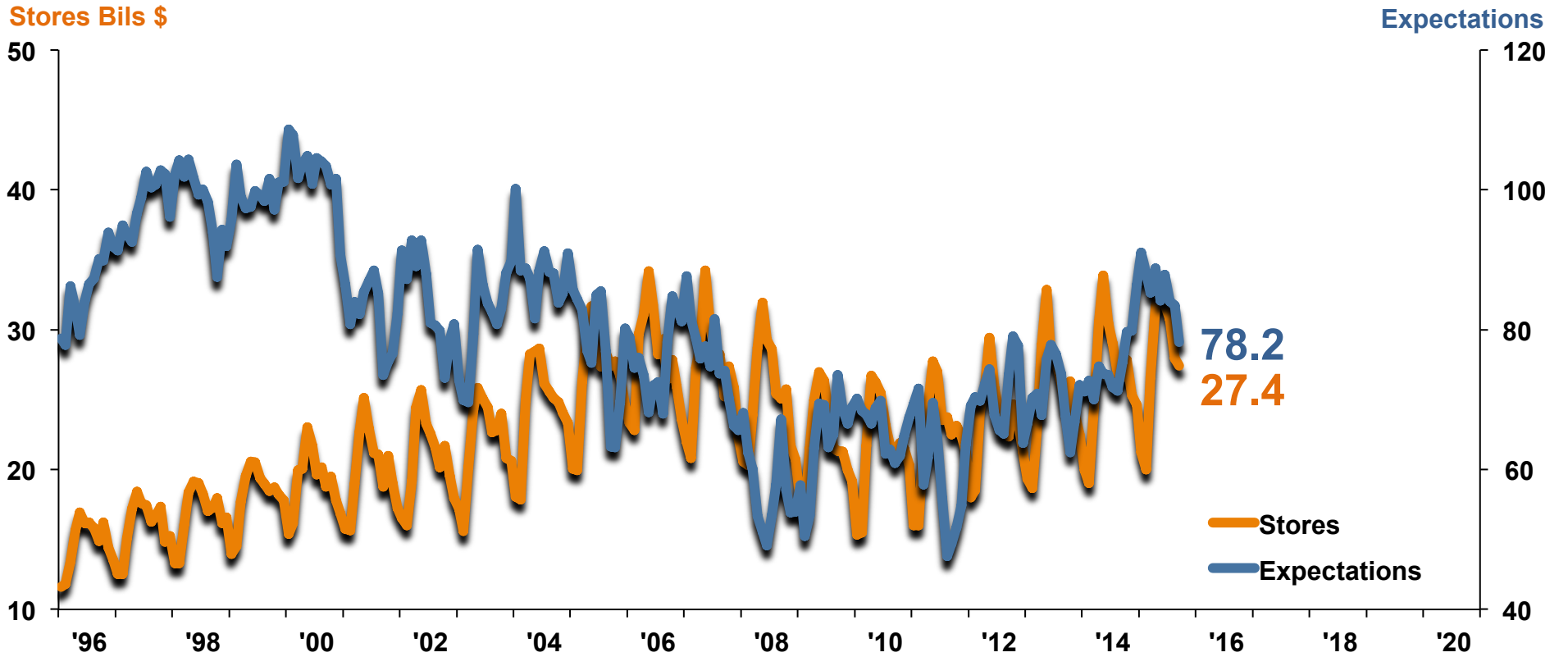
# US Personal Consumption Expenditures for Plantings (flowers, seeds and potted plants) to US Total Retail Sales



# Personal Consumption Expenditures: Plantings (Flowers, Seeds and Potted Plants)

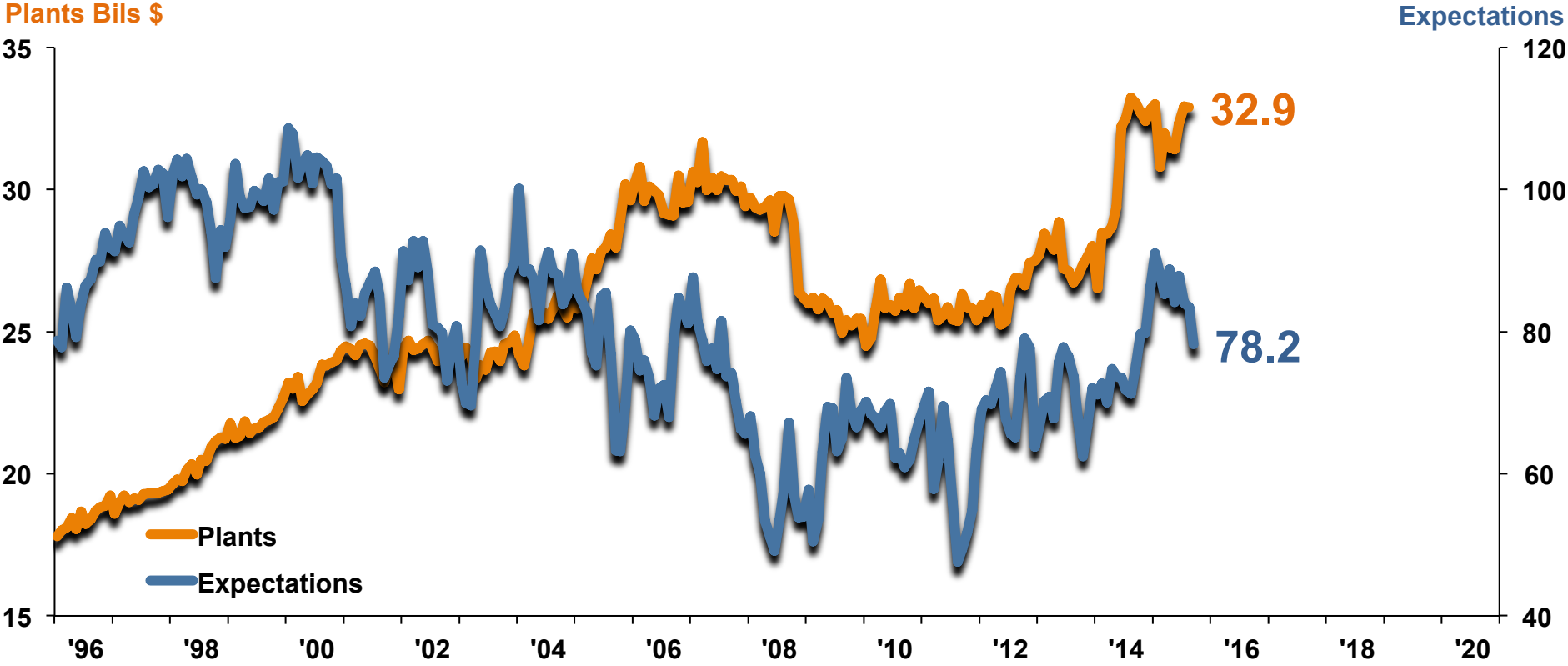


# US Building Materials, Garden Equipment and Supplies Stores Retail Sales to Consumer Expectations Index

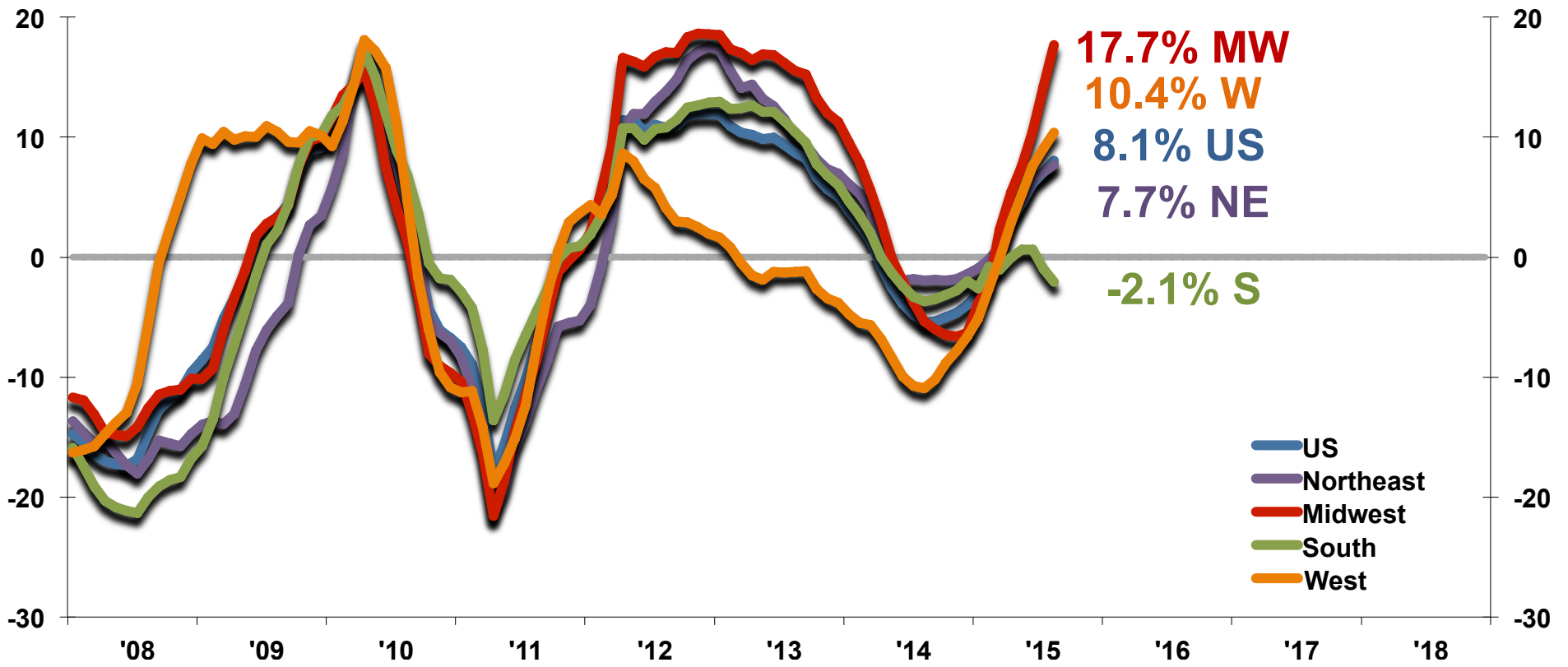




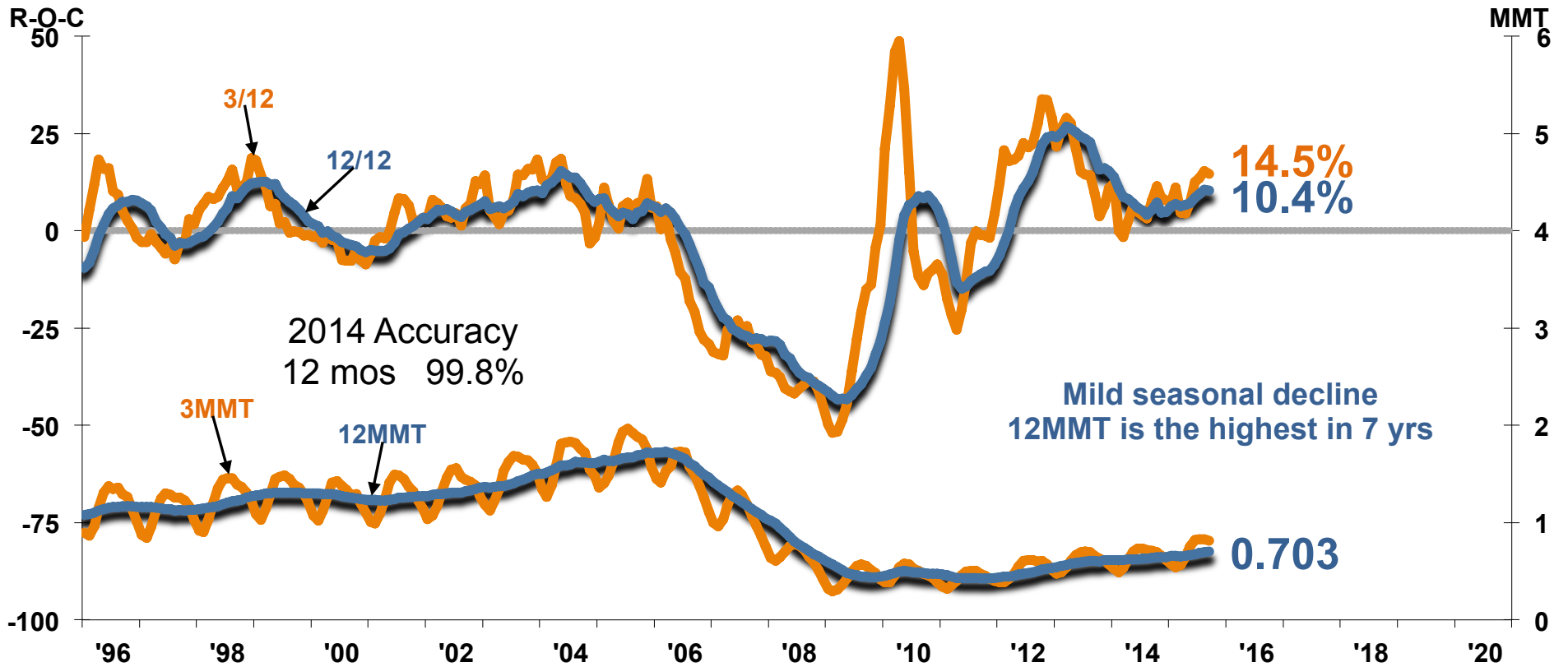
# US Personal Consumption Expenditures for Plantings (flowers, seeds, and potted plants) to Consumer Expectations Index



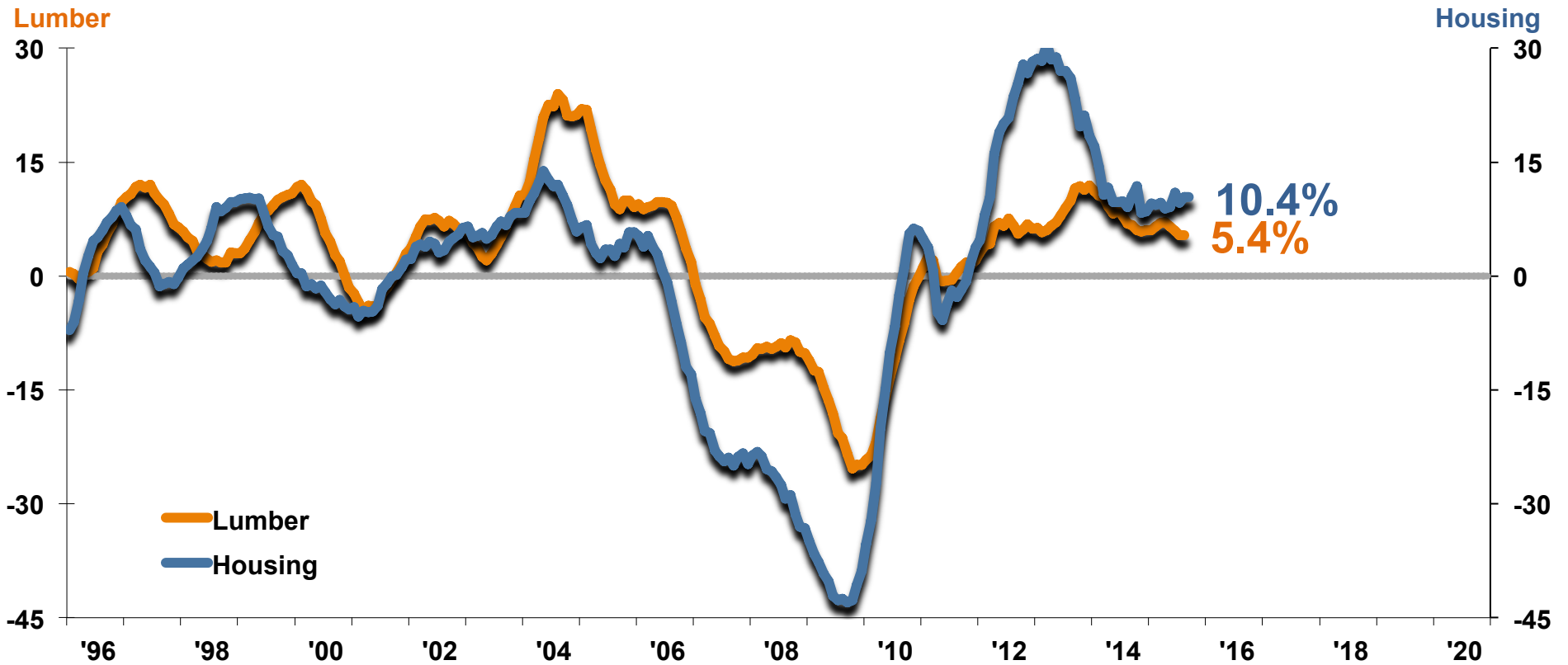
# Pending Home Sales Index



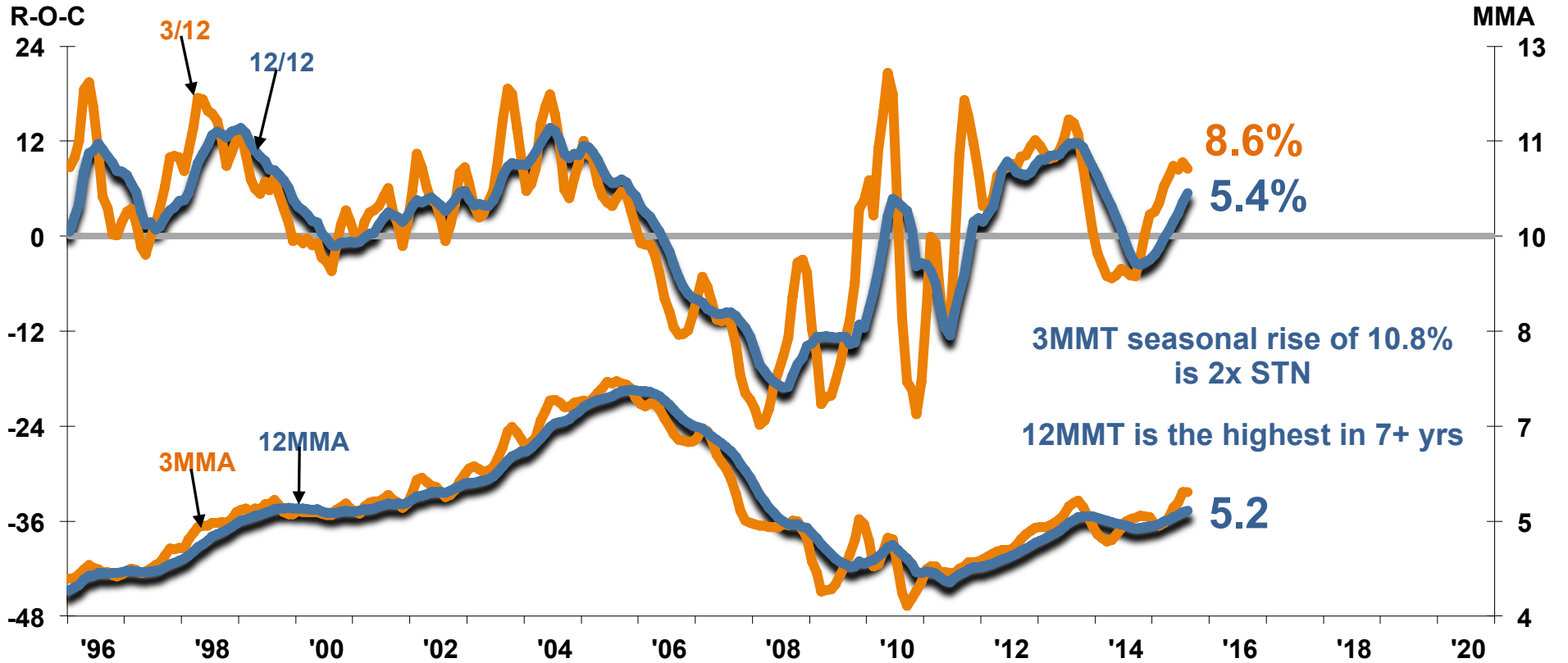
# Single Unit Housing Series



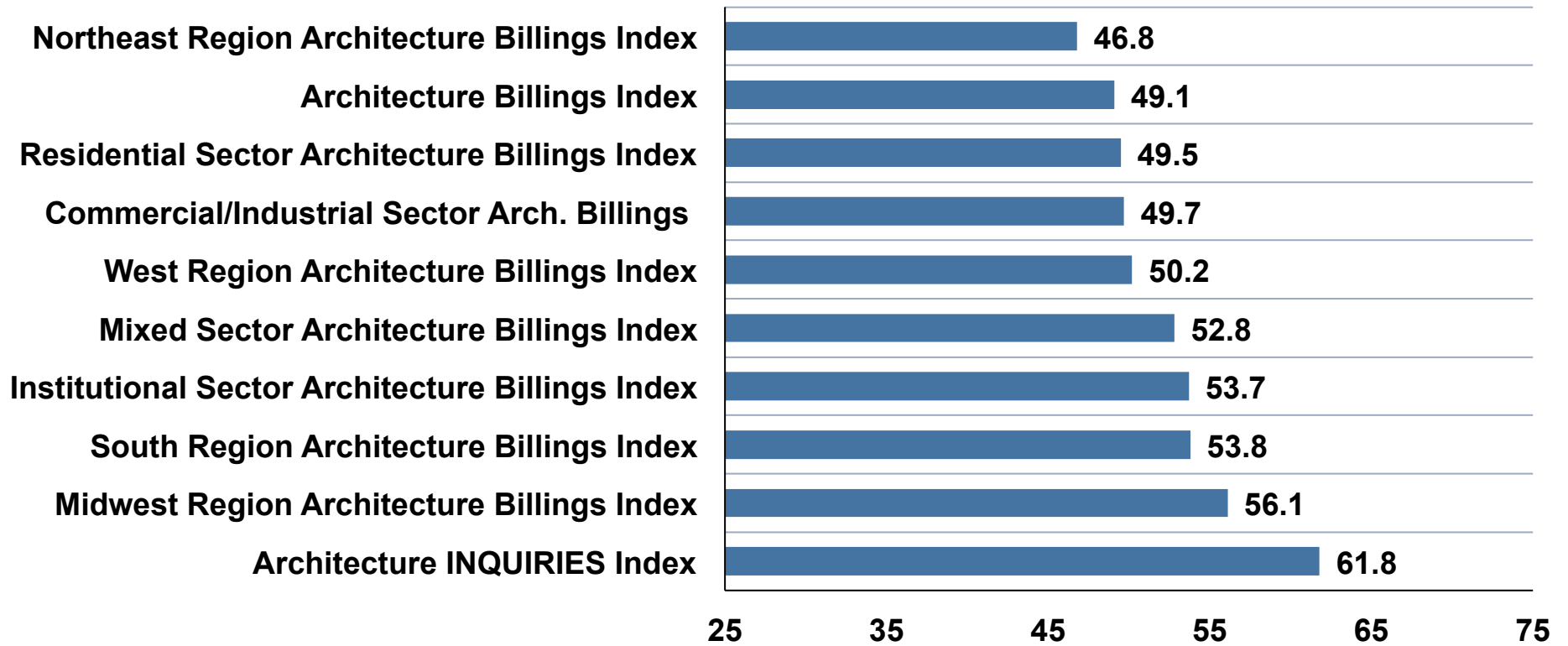
# Housing Starts to Wholesale Trade of Lumber & Other Construction Materials



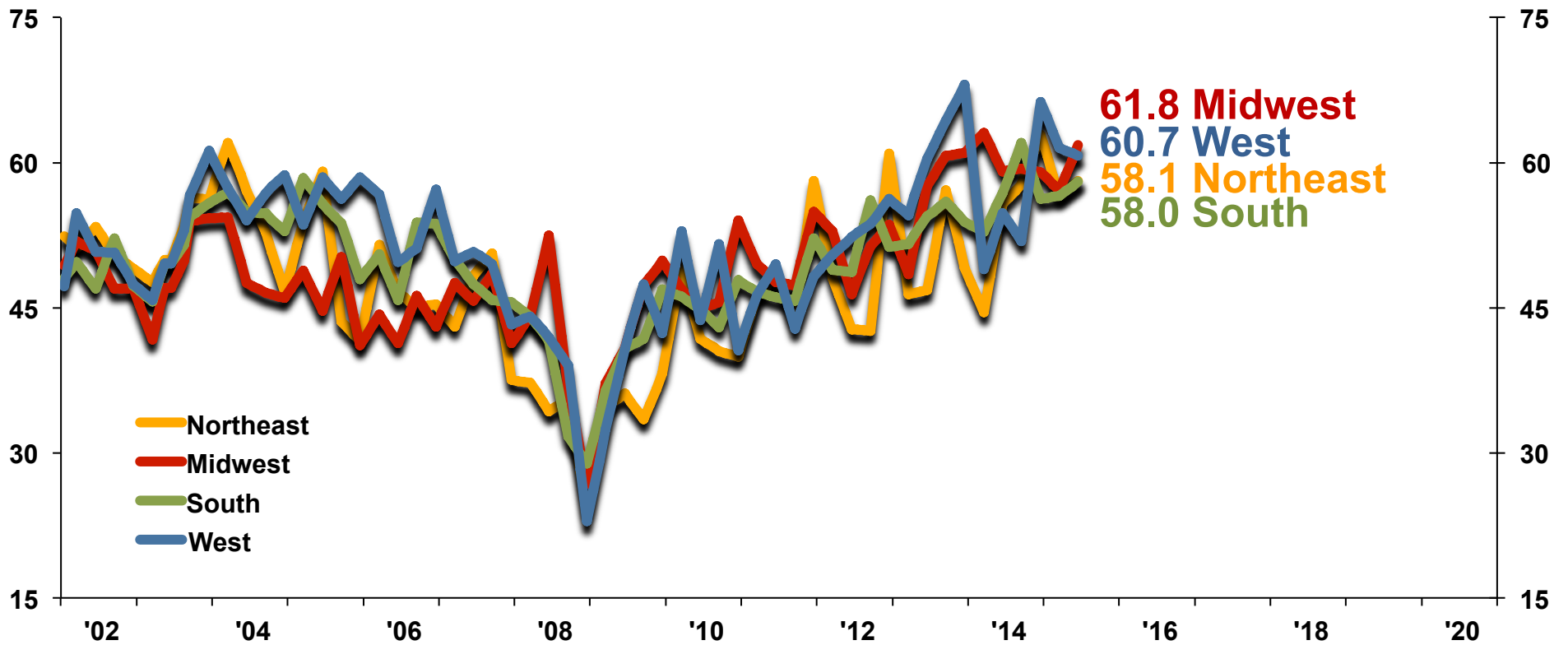
# Existing Home Sales



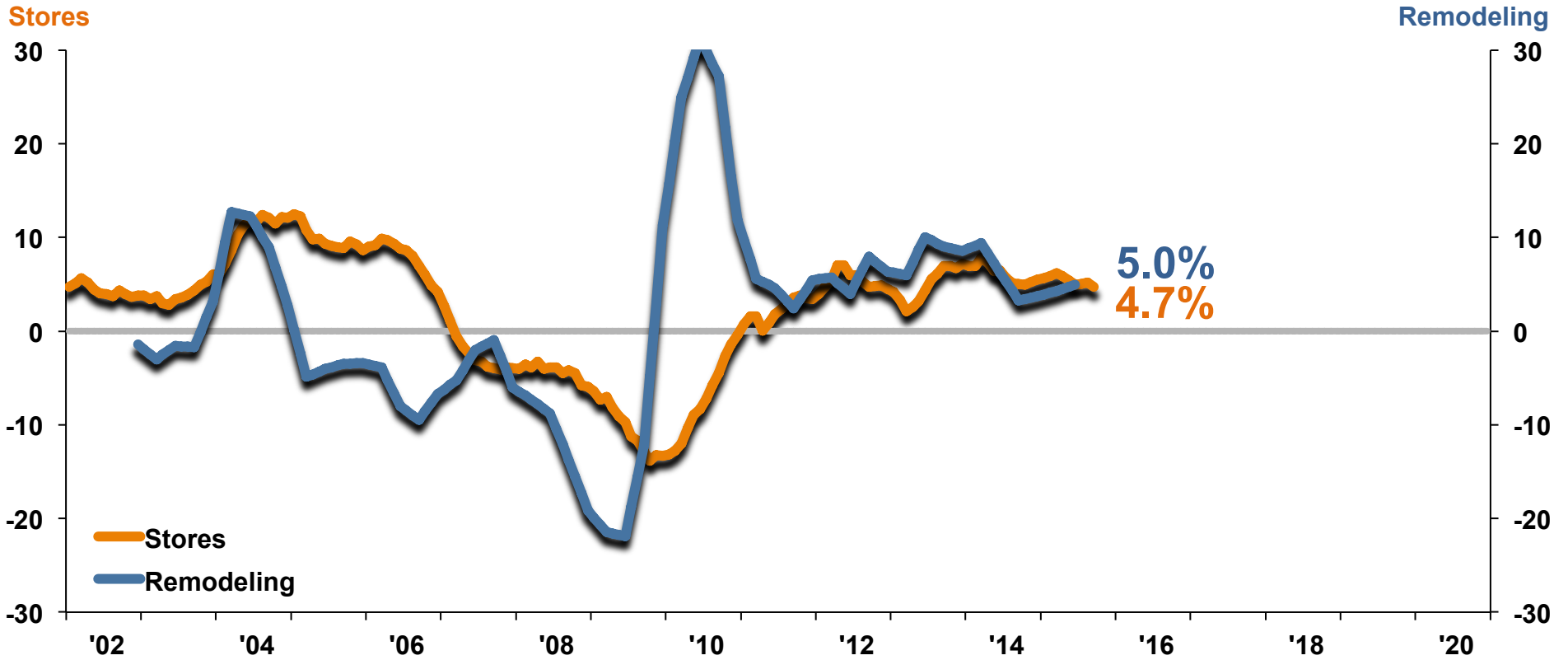
# Architecture Billing Index



# Remodeling Market Index

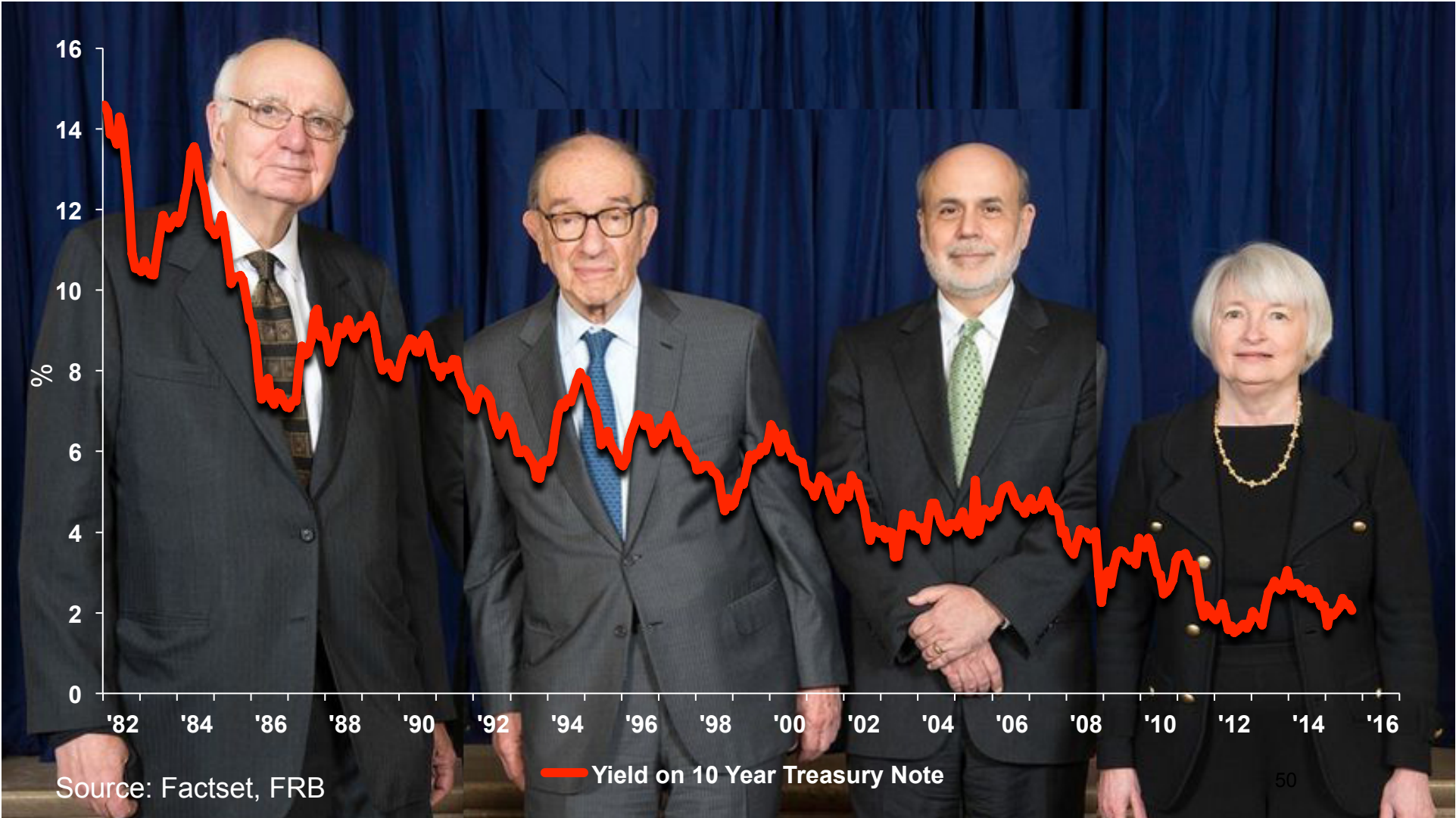


# US Building Materials, Garden Equip., and Supplies Stores Retail Sales to National Remodeling Market Index for Current Market Conditions

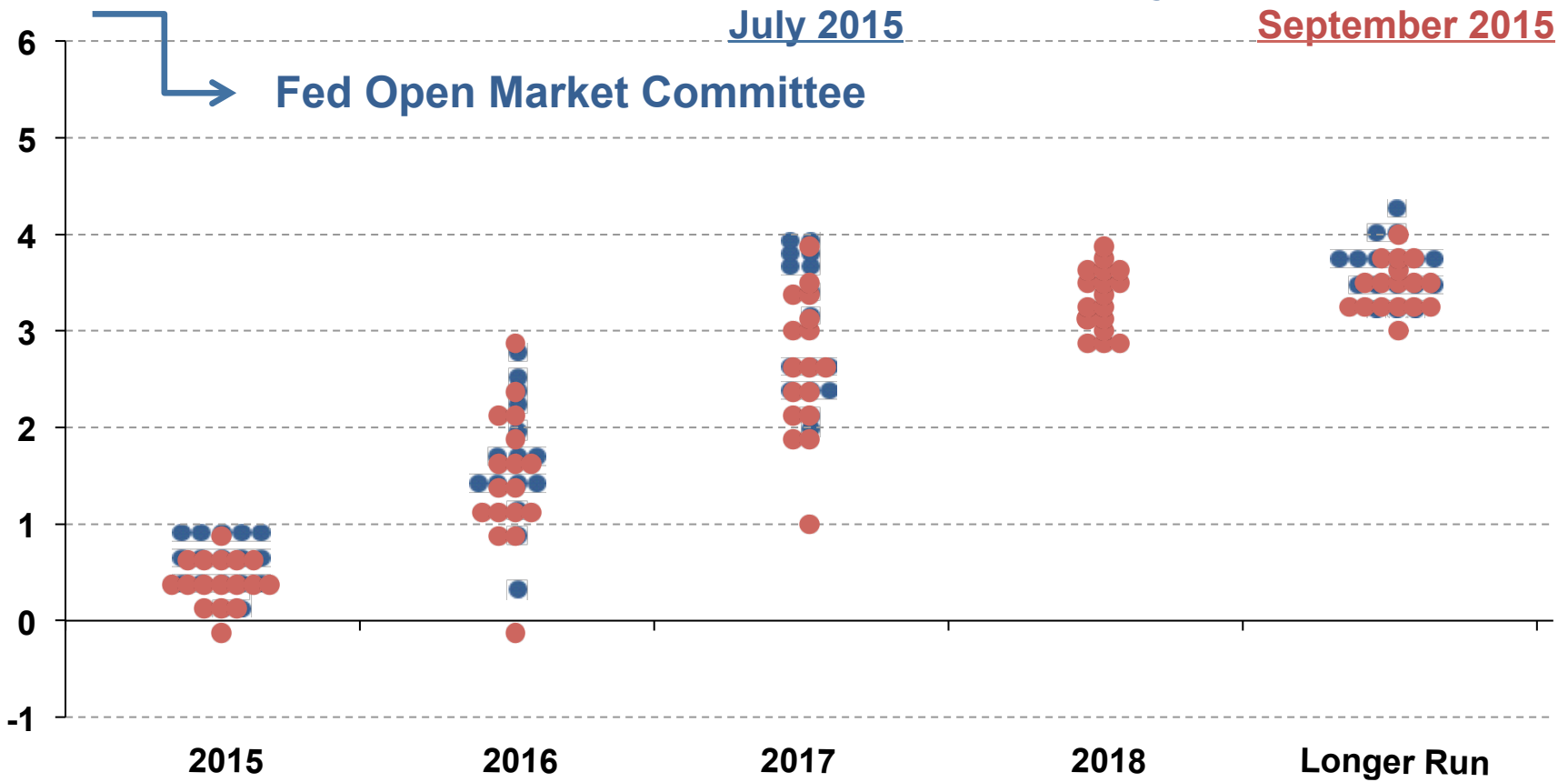






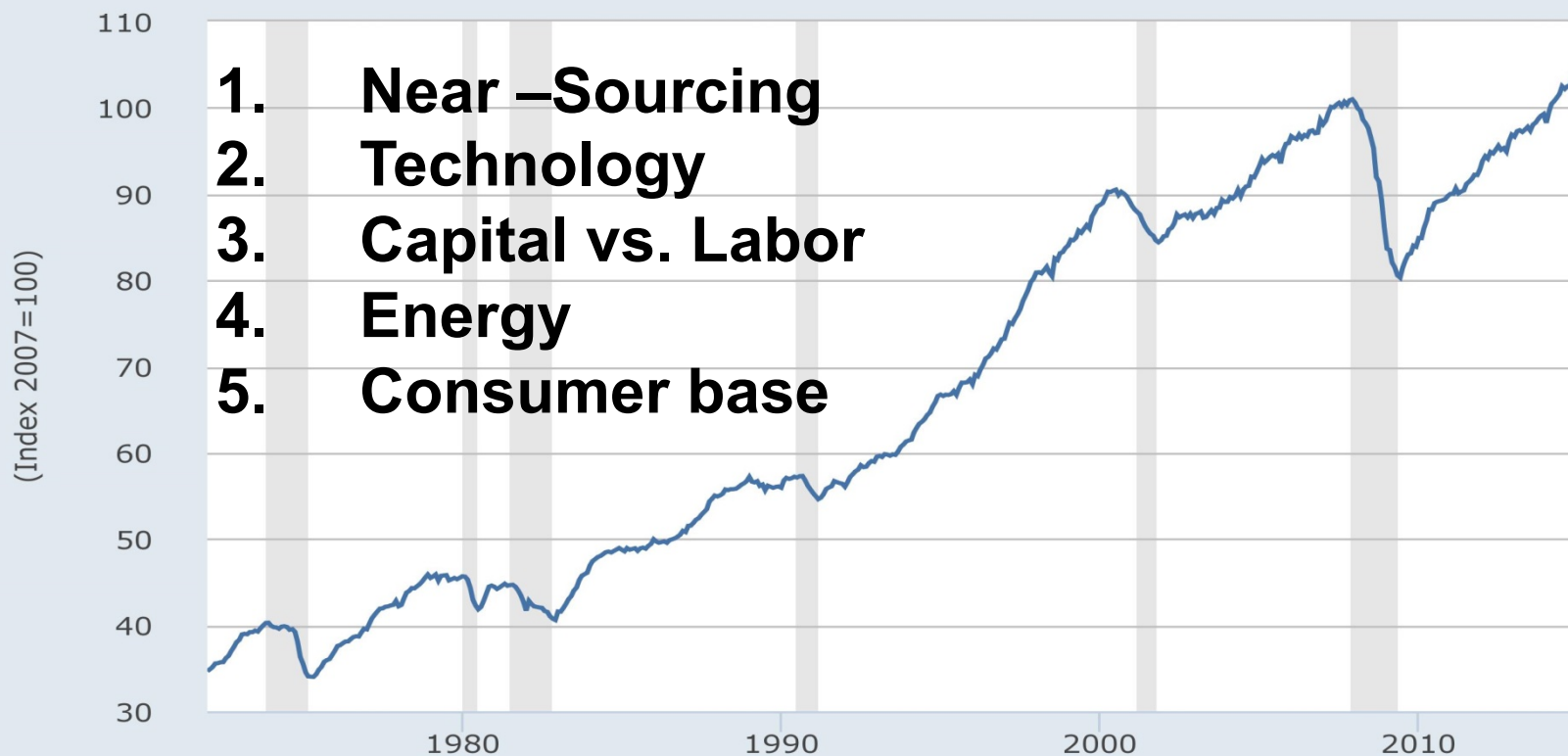


# FOMC Member Interest Rate Projections





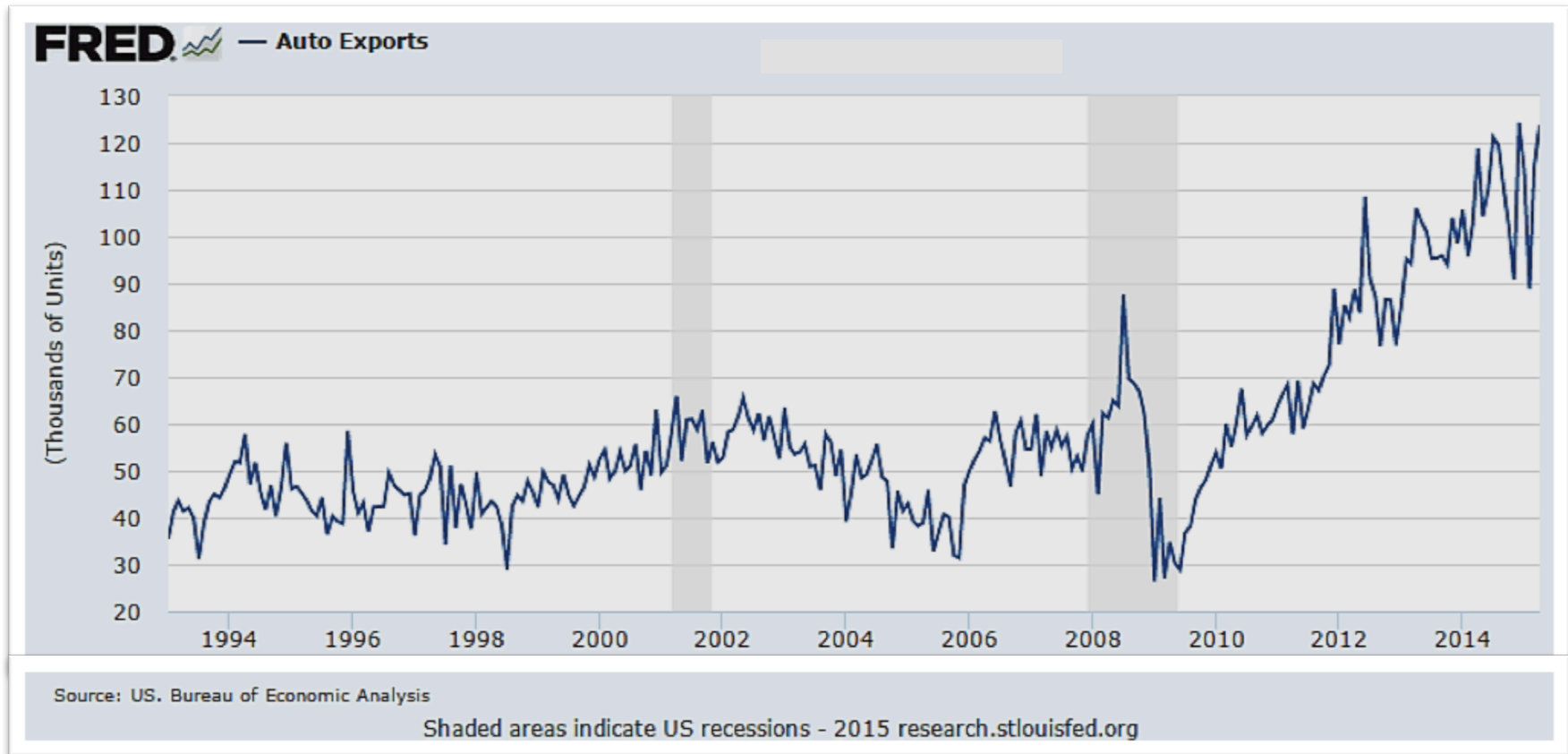
— Industrial Production: Manufacturing (NAICS)



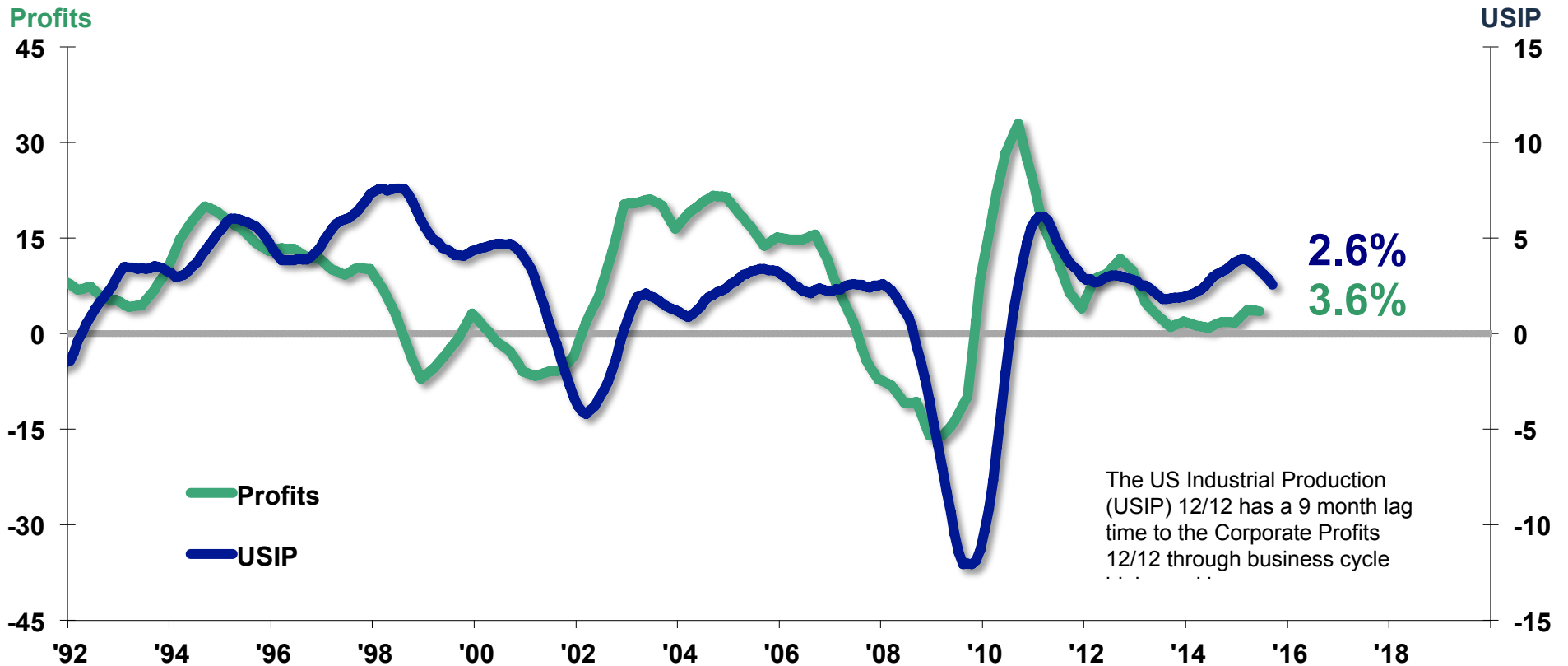
Source: Board of Governors of the Federal Reserve System (US)

Shaded areas indicate US recessions - 2015 research.stlouisfed.org

# US Auto Exports



# Corporate Profits to US Industrial Production



## Construction Segments Annual Trend

Sector	Phase	Year-over-year	Annual Data Trend In \$
Total Public Construction	B	5.3	Rising
Total New Construction	B	7.5	Rising
Total Health Care Facilities	B	2.0	Rising
Private Medical Building Construction	D	-7.6	Declining
Primary & Secondary Building Construction	C	2.0	Declining
Private Education Building Construction	B	2.3	Rising
Total Office Building	B	23.1	Rising
Private Office Building Construction	C	27.4	Rising
Private Lodging	B	29.0	Rising
Total Commercial Building	C	14.9	Rising
Multi-Family Residential	C	26.9	Rising
Airport Passenger Terminals	A	-0.2	Declining



# Bullish on 2016

- ☞ Some improvement in Global Leading Indicators
- ☞ US Corporate Profit – rising
- ☞ Disposable Personal Income - rising
- ☞ Oil Prices – Good for consumers, rising in 2016
- ☞ National Defense Expenditures – (A)
- ☞ Existing Home Sales – cyclical rise underway
- ☞ Pending Home Sales
- ☞ General Consumer Activity – healthy
- ☞ Money Supply (M2, deflated) – 5.3% and rising



## Phase Management Objectives™

### Preparing for 2016

1. Find out where you are in the business cycle
2. Implement growth strategies
3. Spend money on marketing – C.M.O.
4. Spend money on people and process, and then... spend some more!
5. Plan for higher wages
6. Plan on higher energy costs in '16

It's About YOU!  
YOUR RISK,  
YOUR PROFITABILITY



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