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# THE FREIGHT TRANSPORTATION FORECAST IN LIGHT OF OUR CURRENT ECONOMIC TRENDS

TrueNorth  
Transportation  
Risk Summit  
August 18, 2016



Connecting the Dots...  
So You Can Plan for the Future

**FREIGHT FOCUS REPORTS**  
**EQUIPMENT FOCUS REPORTS**

Winner of the best overall forecast in  
2012 & 2014 from the Federal Reserve  
Bank of Chicago

**CONSULTING | SPECIALTY REPORTS | ON-SITE EVENTS**

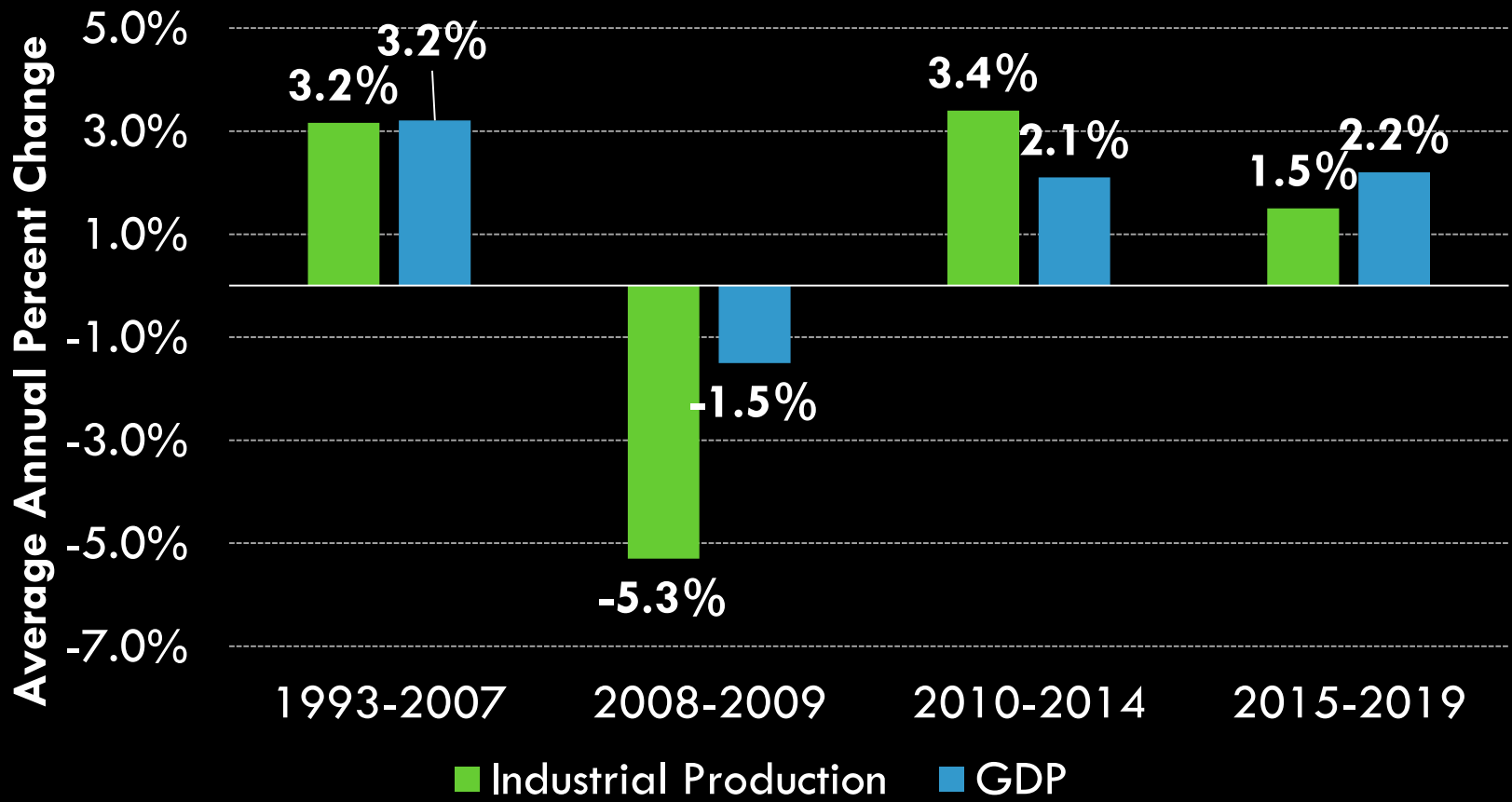
# DISCUSSION OVERVIEW

- Economic Indicators
- Trucking Environment
  - Truck Freight
  - Capacity
  - Rates
  - Regulations
  - Driver Shortage
  - CV Equipment
- The Future of Transportation

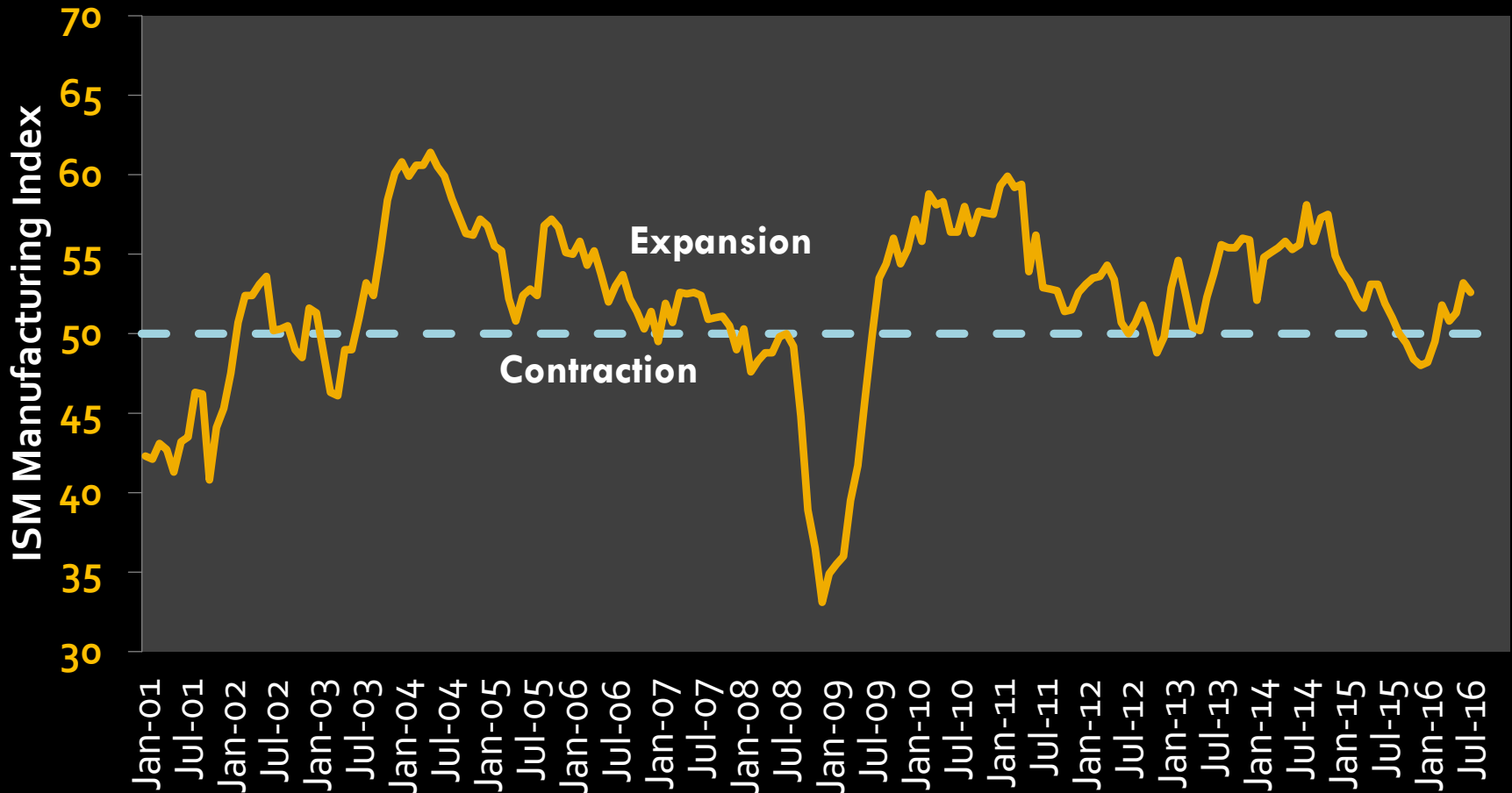
ECONOMY

# INDUSTRIAL SECTOR GROWTH

## Growth During Recoveries



# ISM MANUFACTURING INDEX

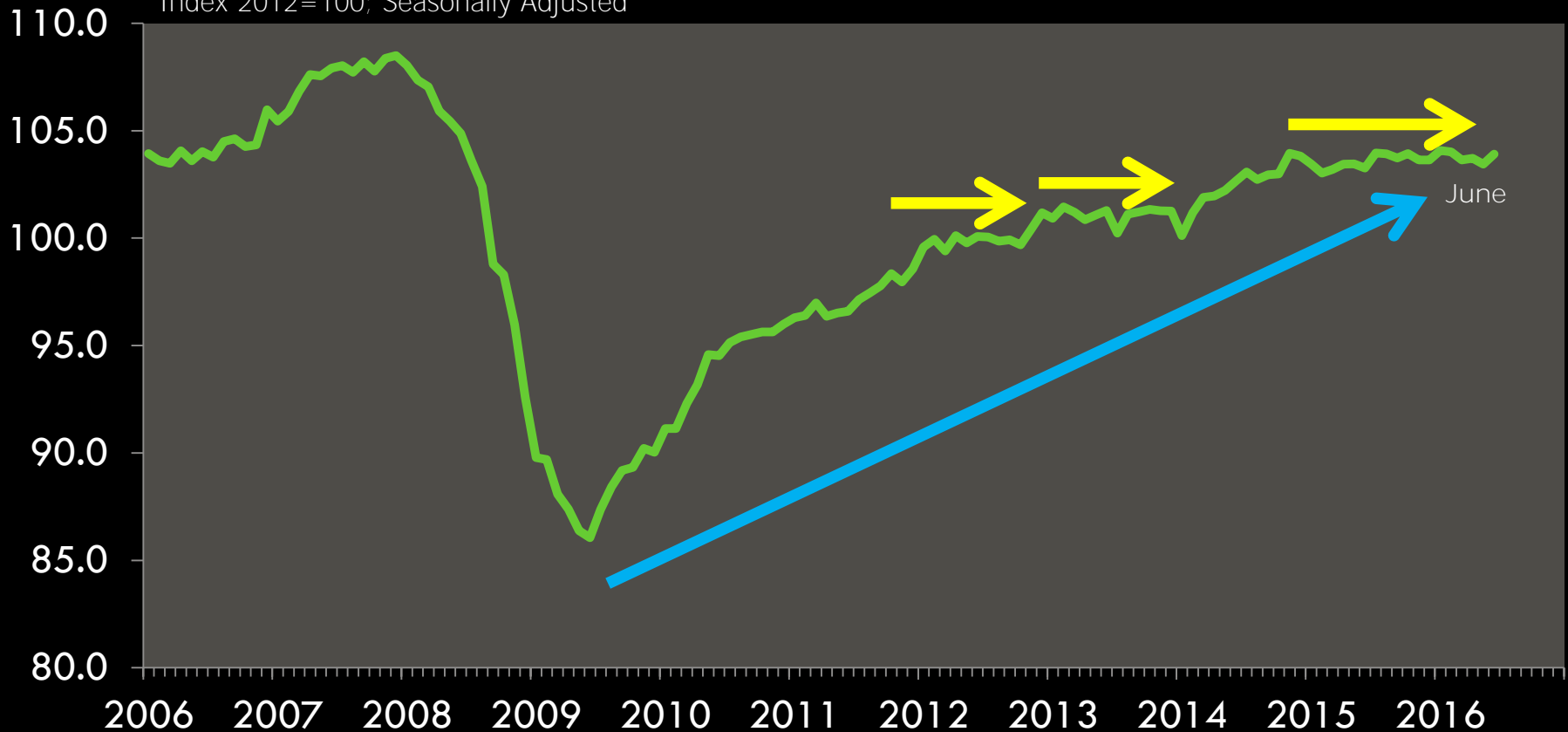


Source: Institute for Supply Management (ISM) Report on Business

# INDUSTRIAL PRODUCTION: MANUFACTURING

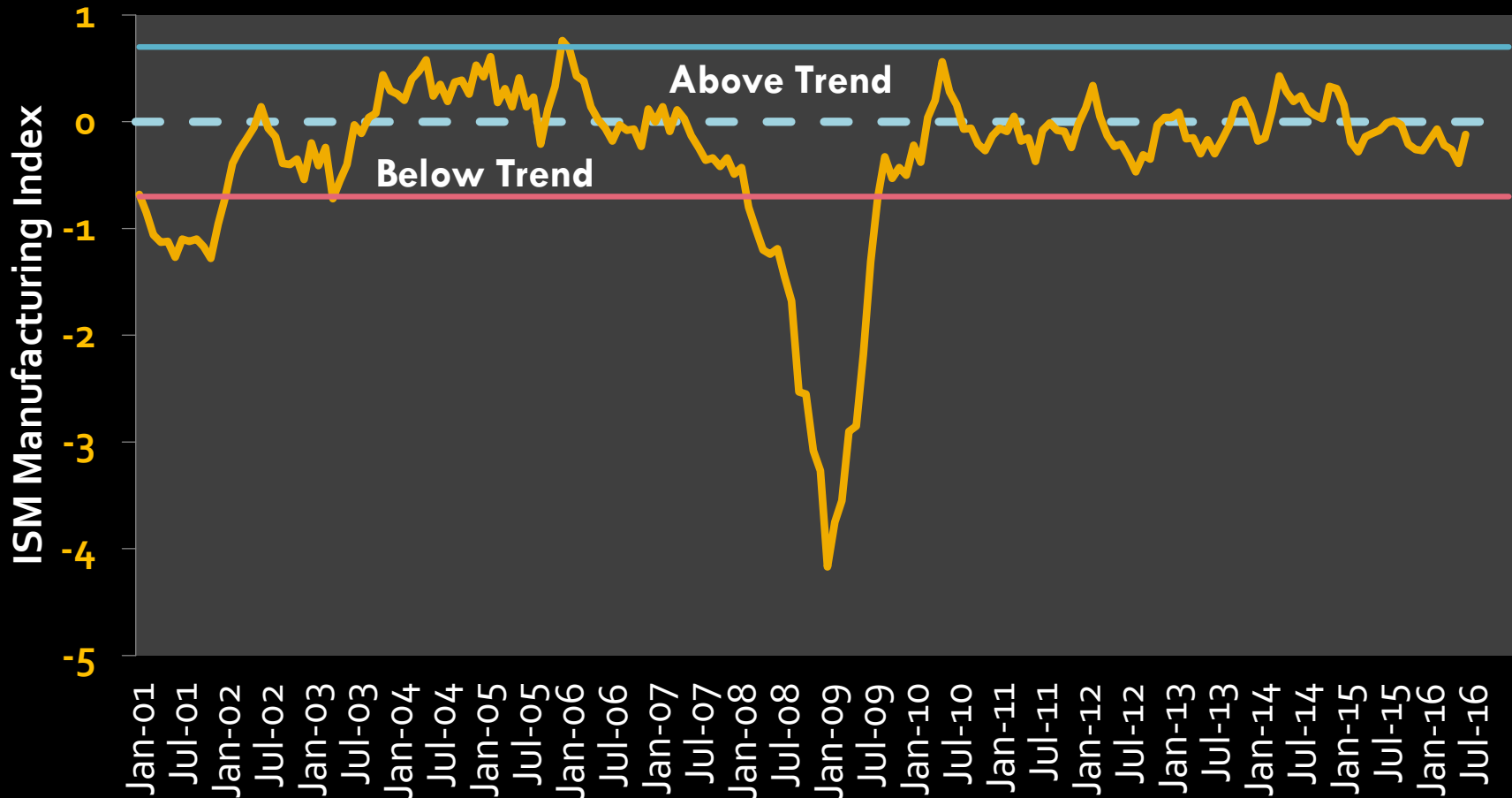
## Industrial Production Index: Manufacturing

Index 2012=100; Seasonally Adjusted



Source: Federal Reserve

# CHICAGO FED NATIONAL ACTIVITY INDEX

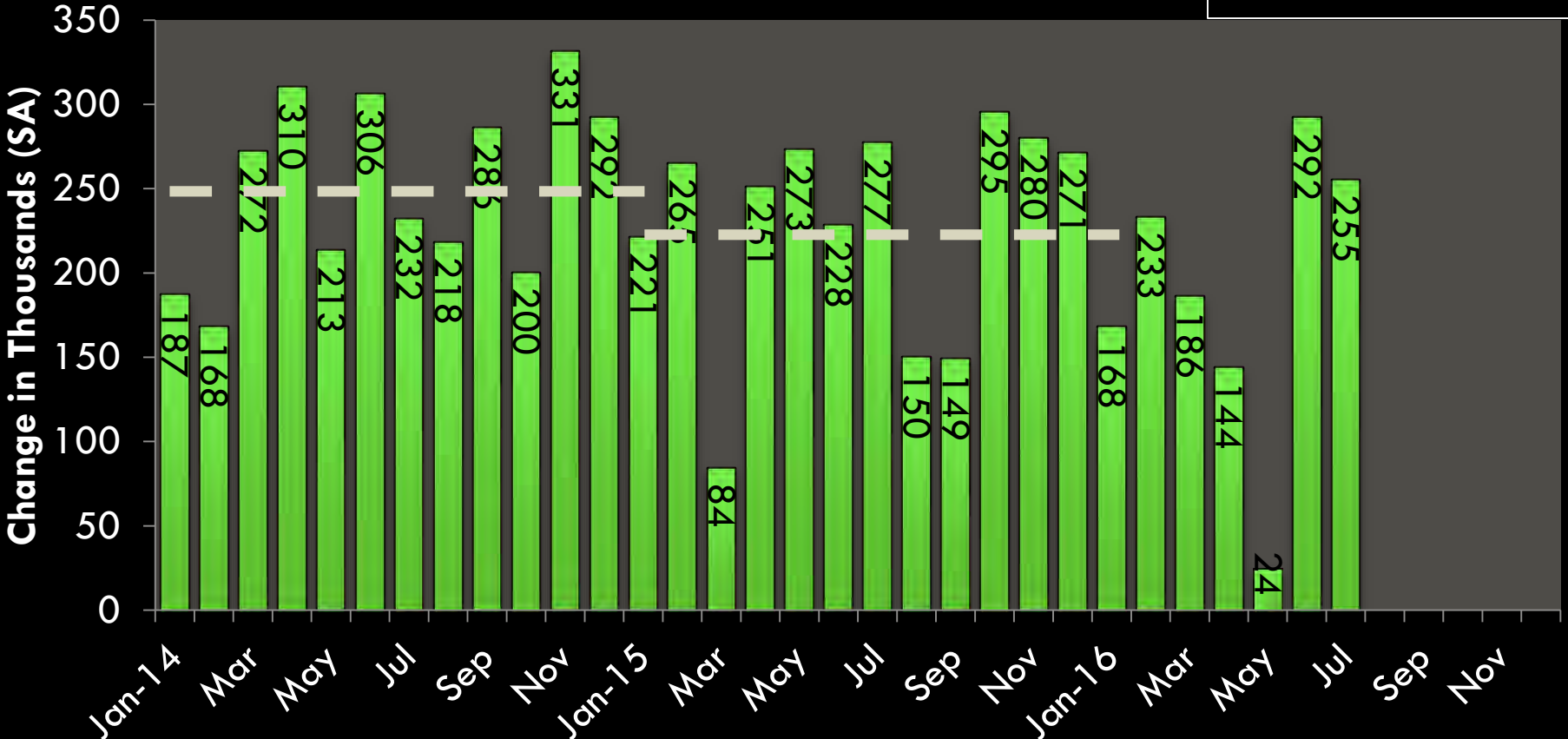


Source: Federal Reserve Bank of Chicago



# PAYROLL EMPLOYMENT

Monthly Averages:	
2013:	+192
2014:	+251
2015:	+229



Source: Bureau of Labor Statistics

# BUSINESS STILL WEAK

## Core Capital Goods Orders



Source: Census Bureau

# TOTAL BUSINESS INVENTORIES

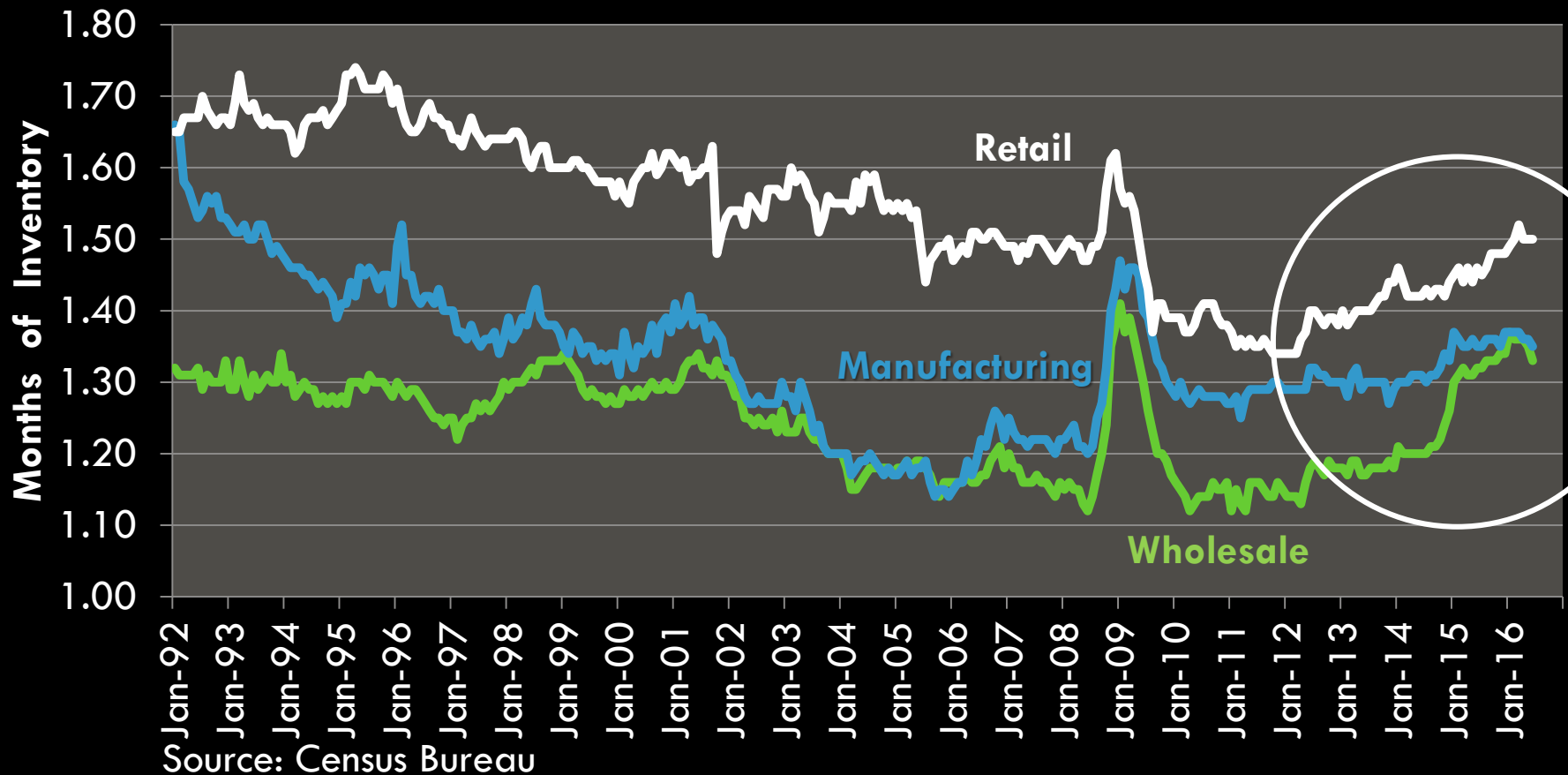
## Business Inventory/Sales Ratio



Source: Census Bureau

# TOTAL BUSINESS INVENTORIES BY SECTOR

Business Inventory/Sales Ratio

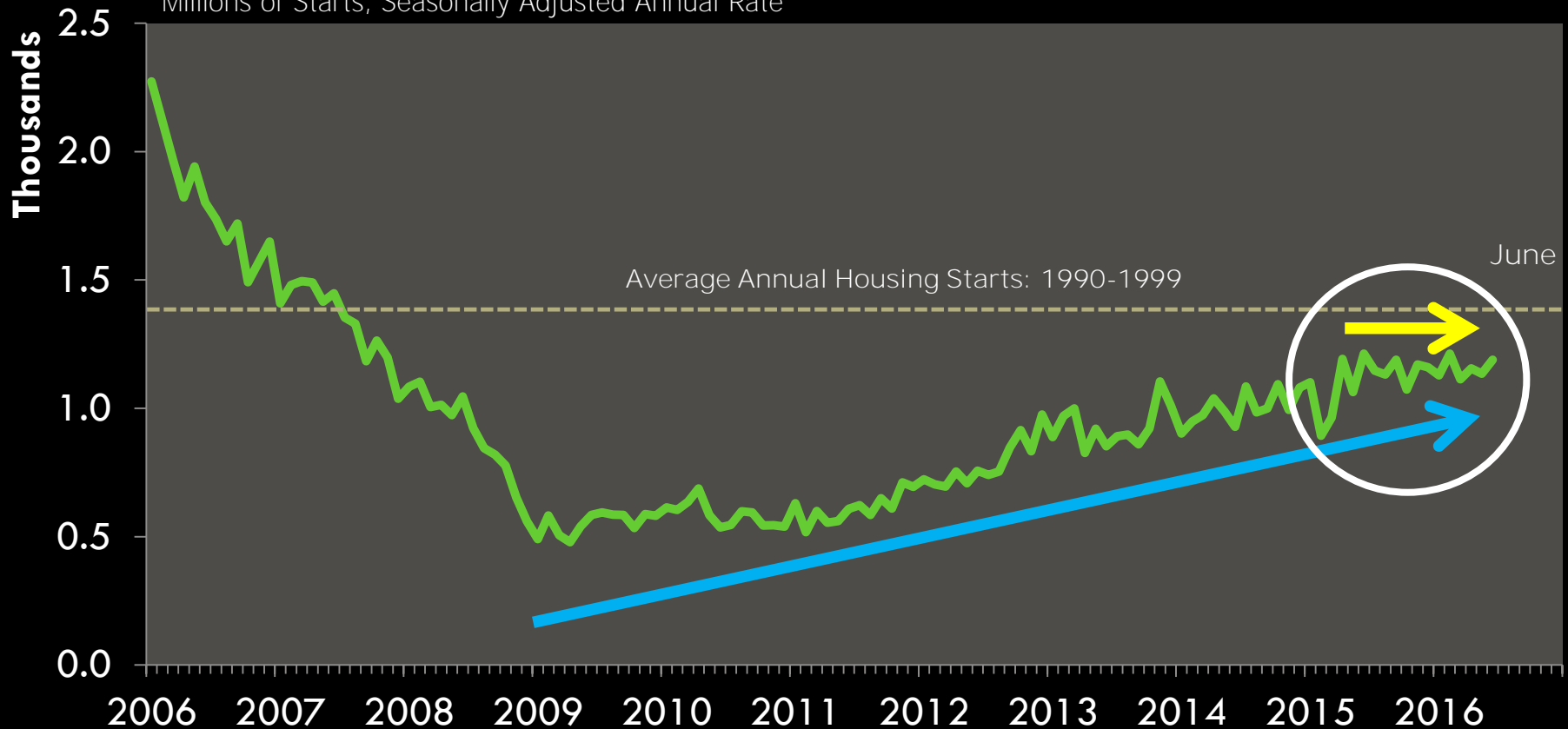


Source: Census Bureau

# HOUSING STARTS

## New Privately Owned Housing Units Started

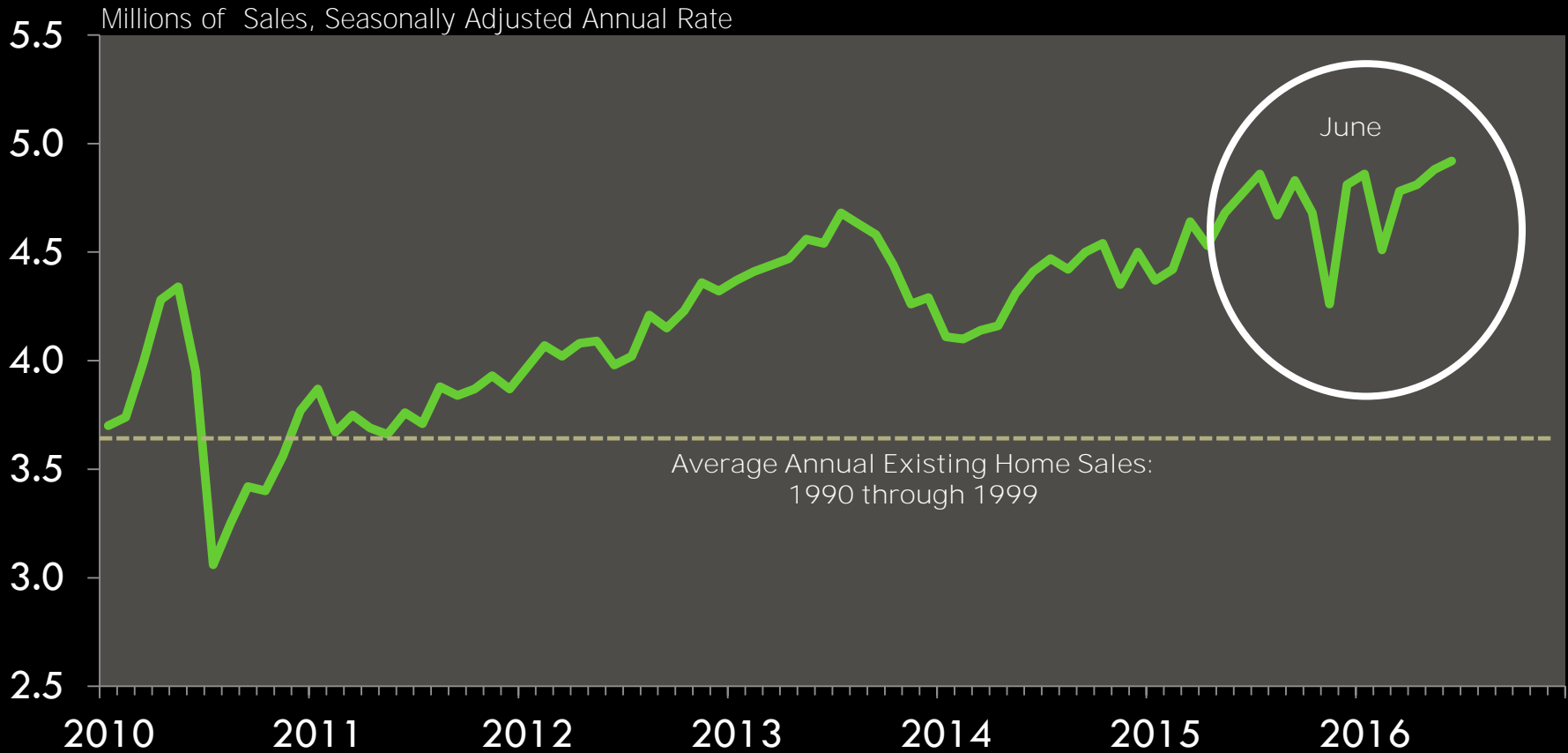
Millions of Starts, Seasonally Adjusted Annual Rate



Source: Census Bureau

# EXISTING HOME SALES

## Existing Single-Family Home Sales



Source: National Association of Realtors

# EXISTING HOME SALES INVENTORY

## Existing Single-Family Home: Months of Supply

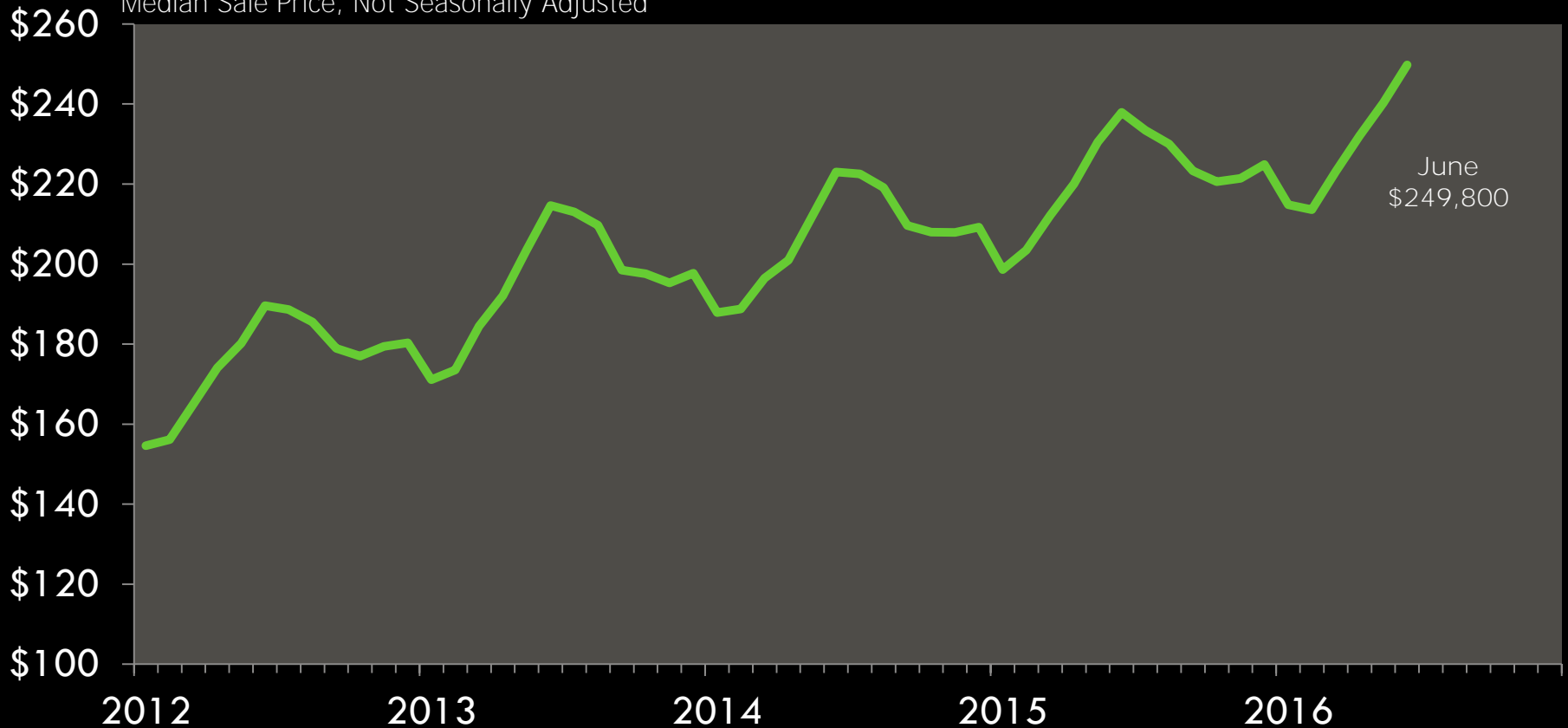


Source: National Association of Realtors

# EXISTING HOME SALES PRICES

## Existing Single-Family Home: Selling Price (\$000)

Median Sale Price, Not Seasonally Adjusted



Source: National Association of Realtors



# WEEKLY MORTGAGE RATES

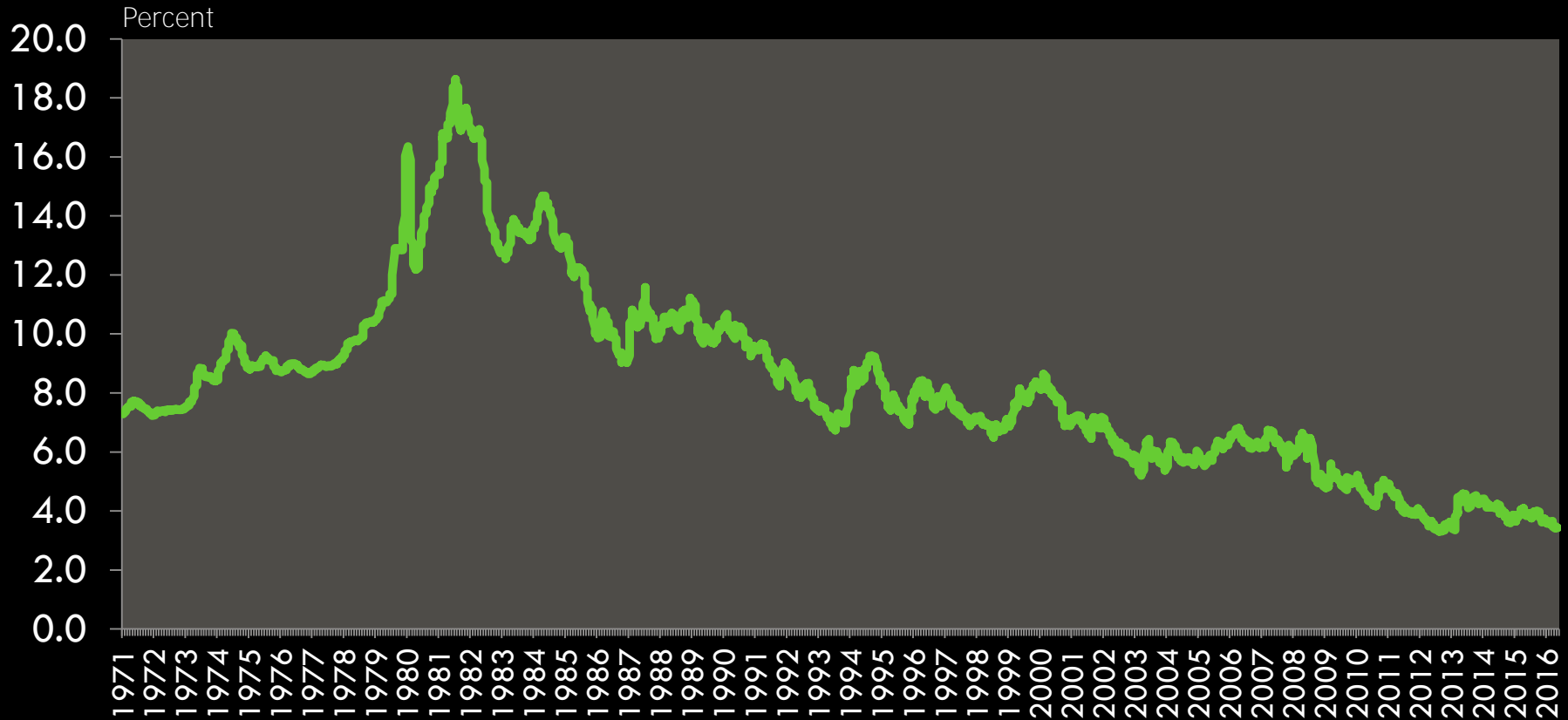
## 30-Year Fixed Rate Mortgage Average in the United States



Source: Freddie Mac

# WEEKLY MORTGAGE RATES

## 30-Year Fixed Rate Mortgage Average in the United States



Source: National Association of Realtors

# RETAIL SALES

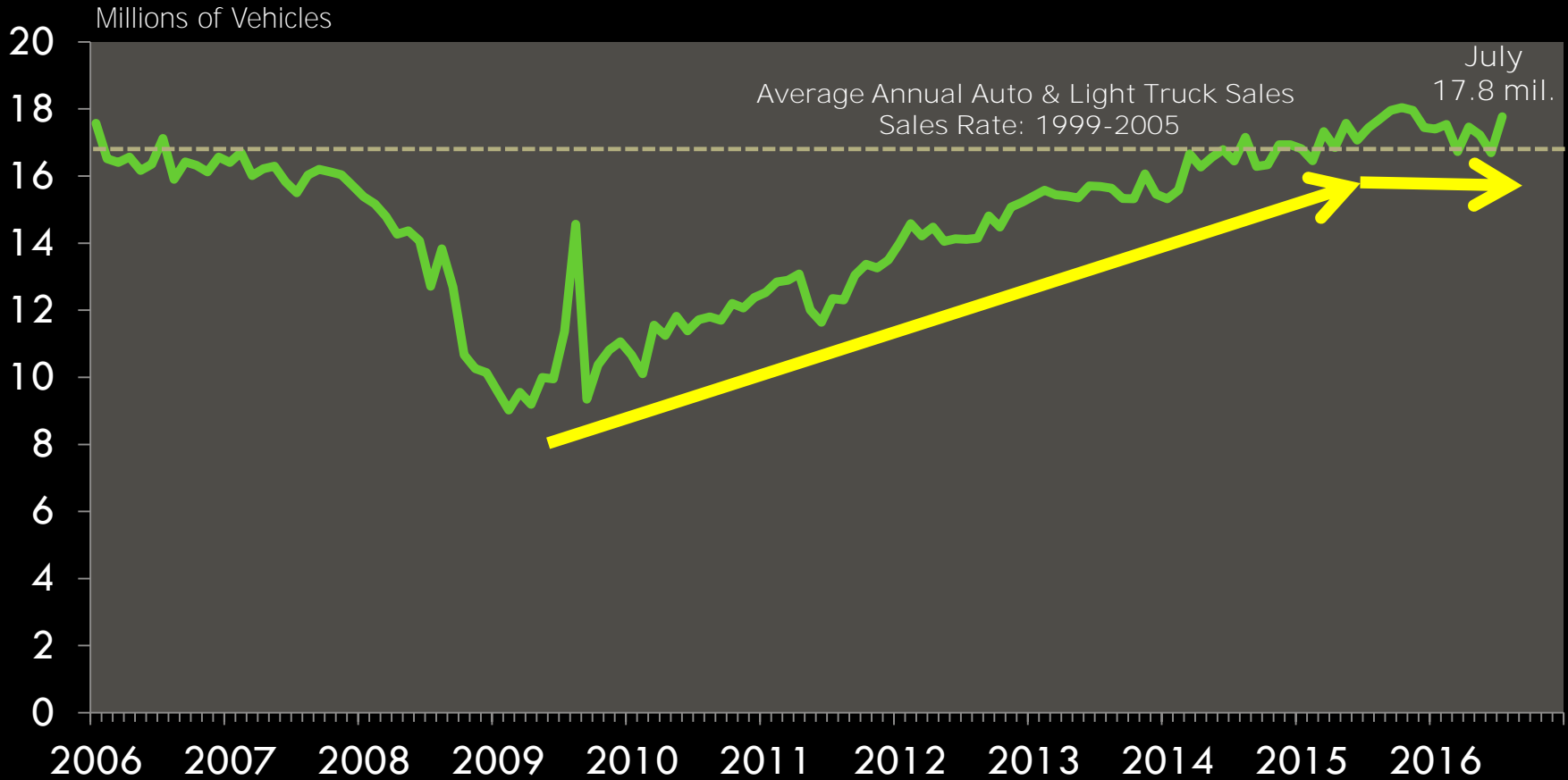
## Retail and Food Services Sales, Seasonally Adjusted



Source: Census Bureau

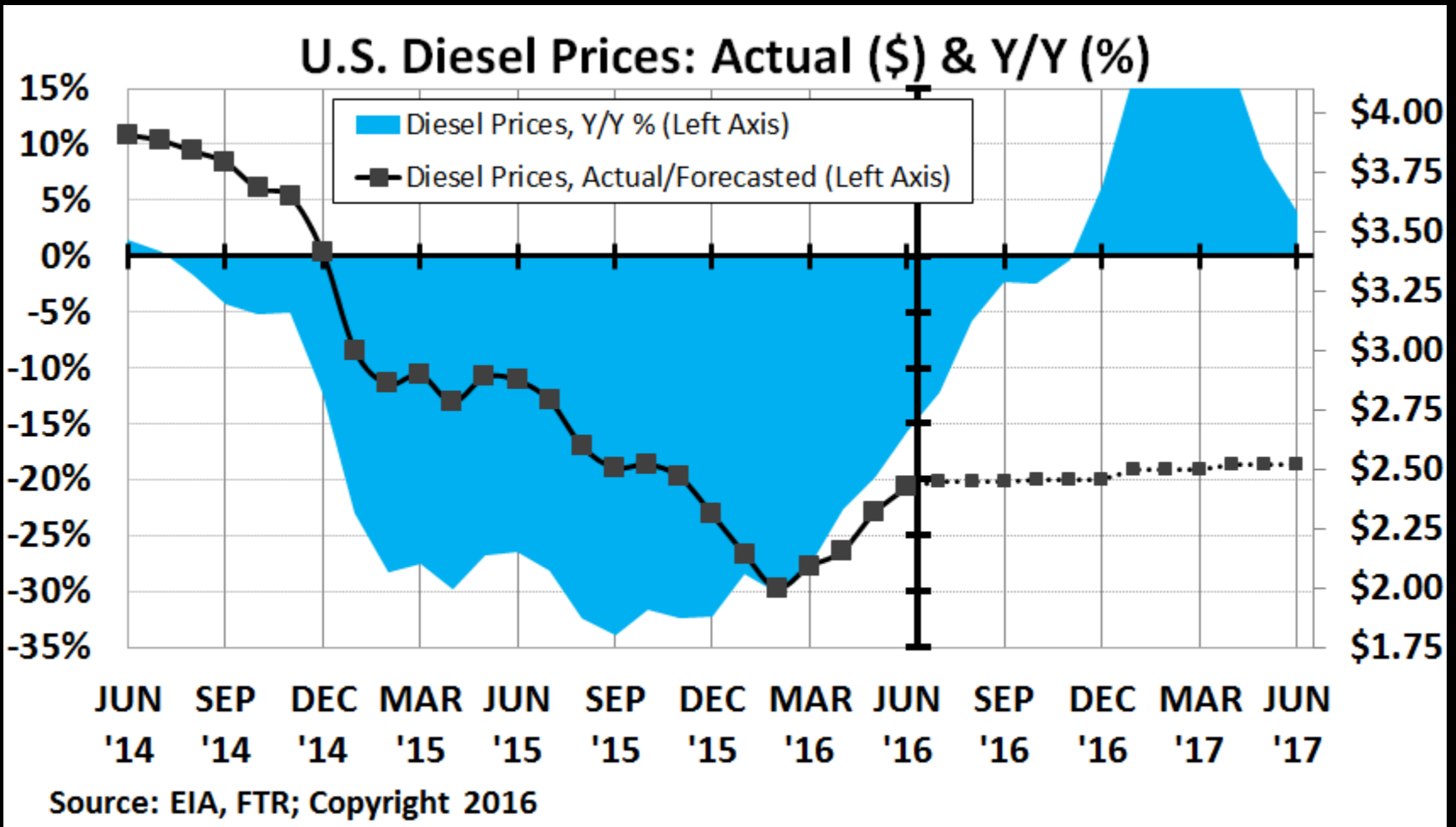
# AUTOMOTIVE MARKET

## Auto & Light Truck Sales (SAAR)



Source: Bureau of Economic Analysis

# FUEL



# DEMAND RISK FACTORS

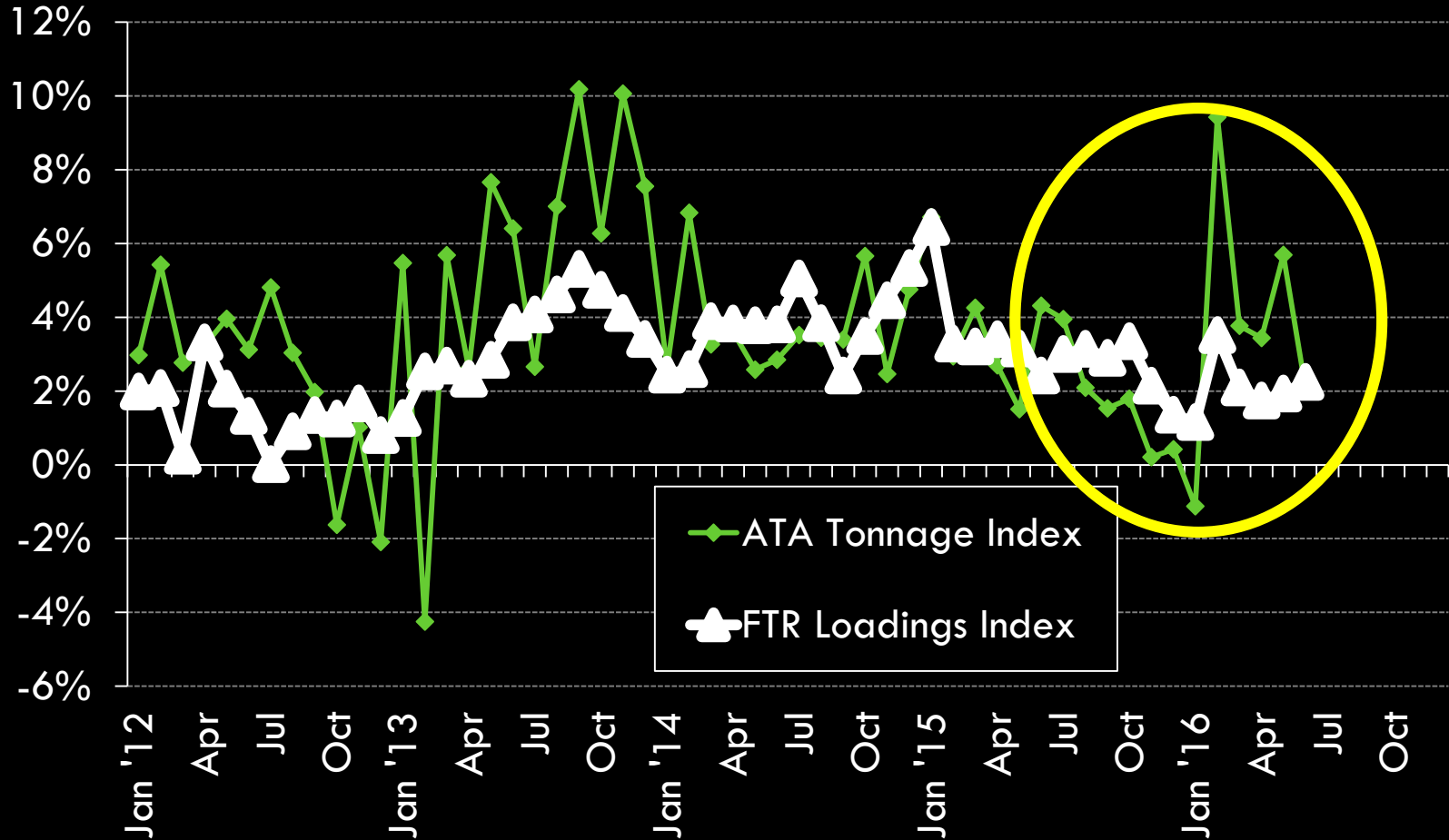
3 Greatest Areas of Concern for the Economy & Freight Sectors:

- Housing
- Business Investment
- China/Global Economy

# Trucking Environment



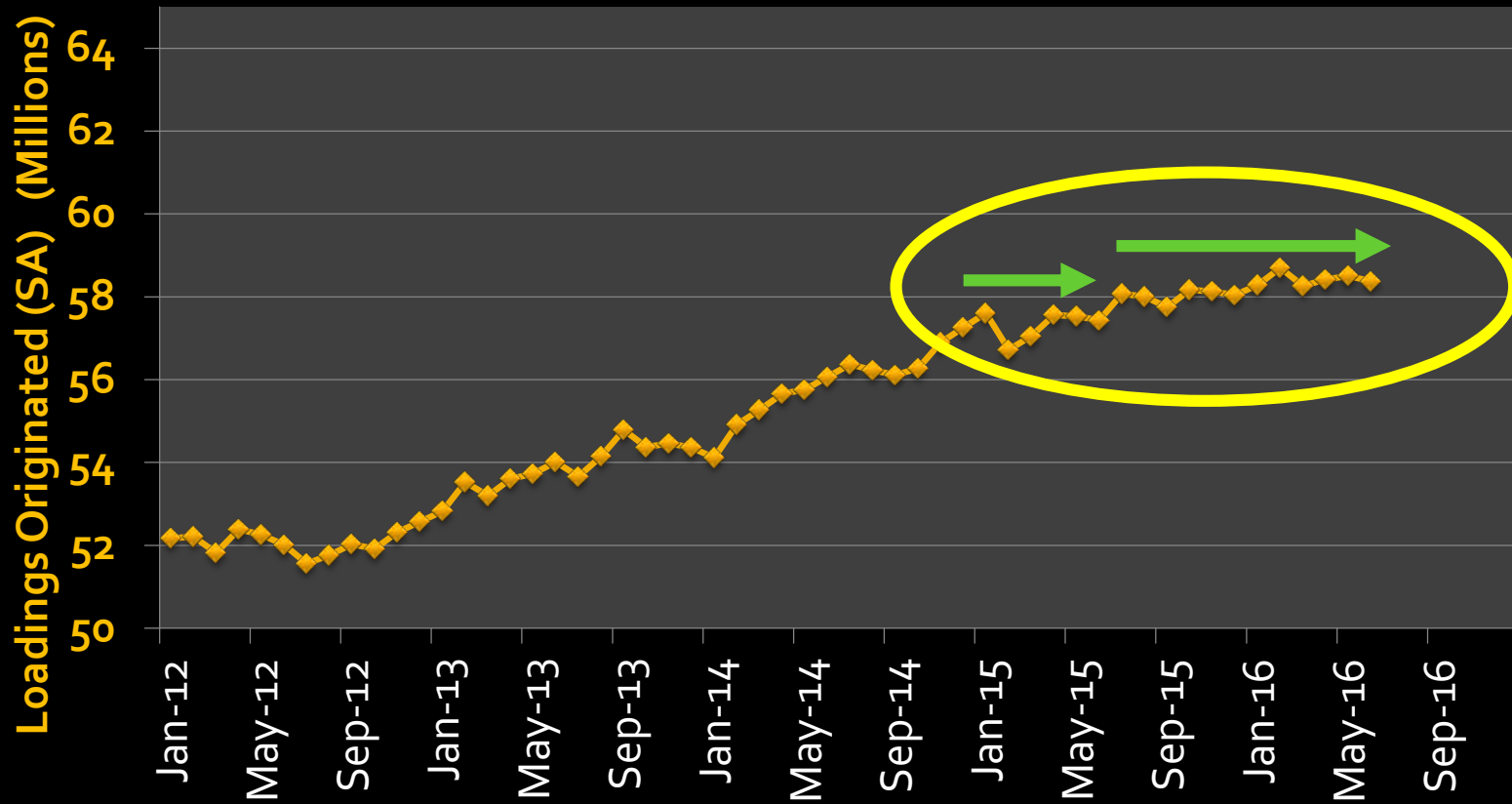
# U.S. TRUCK FREIGHT LEVELS ARE EASING BACK ON GROWTH





# TRUCK MONTHLY FREIGHT LOADINGS

## FTR Truck Loadings Originated



Source: FTR Trucking Update Report

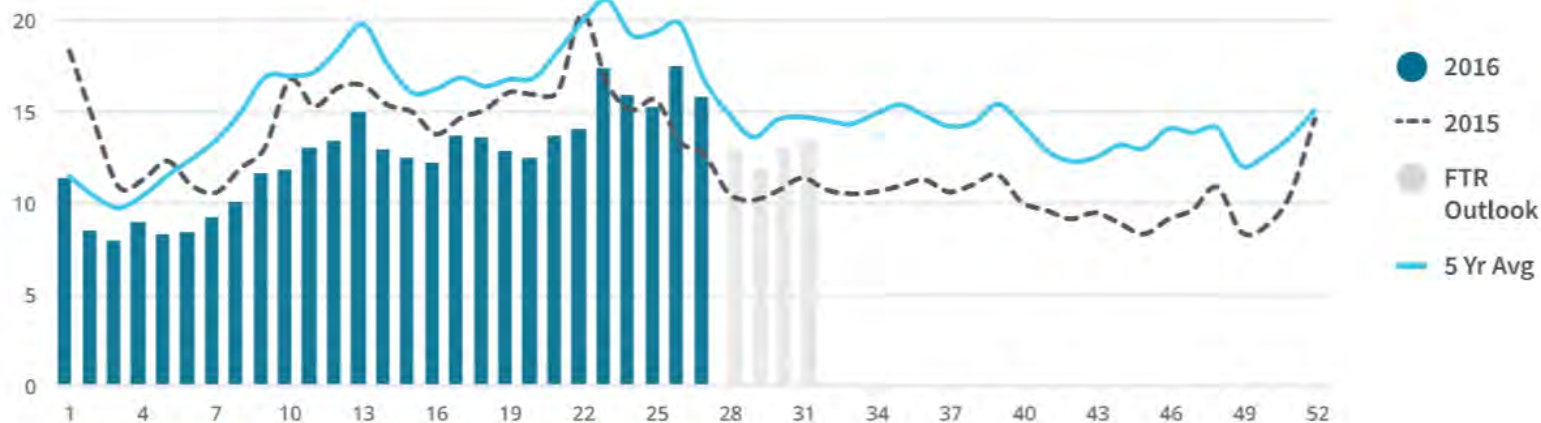
# TRANS4CAST WEEKLY MARKET DEMAND INDEX – TOTAL

Weekly Market Demand Index (MDI)



Down 1.7 points from the previous week

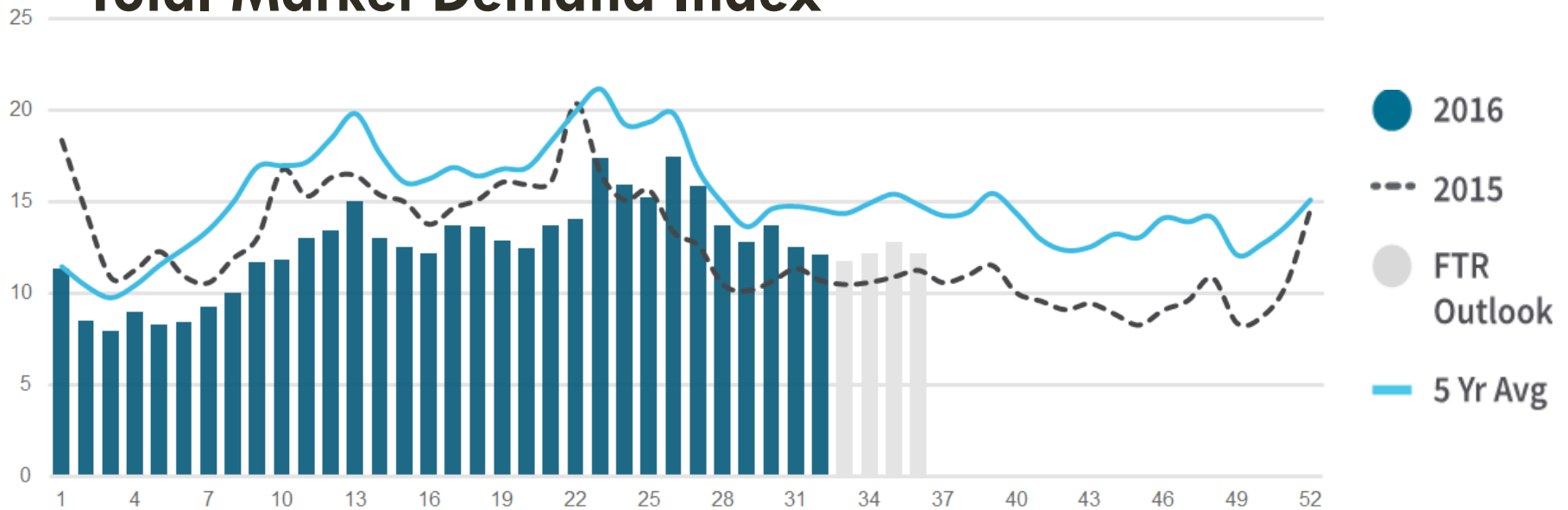
## Needs updated



Source: Truckstop.com; FTR; www.trans4cast.com

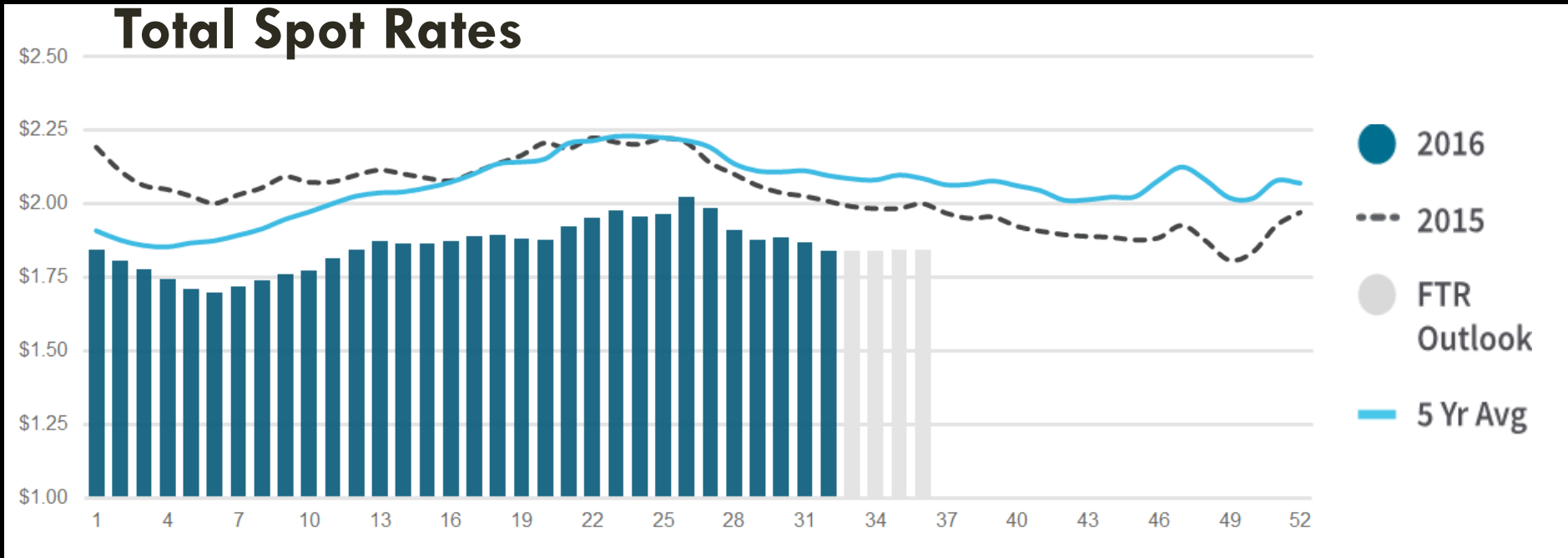
# TRANS4CAST WEEKLY MARKET DEMAND INDEX – TOTAL

## Total Market Demand Index



Source: Truckstop.com; FTR; www.trans4cast.com

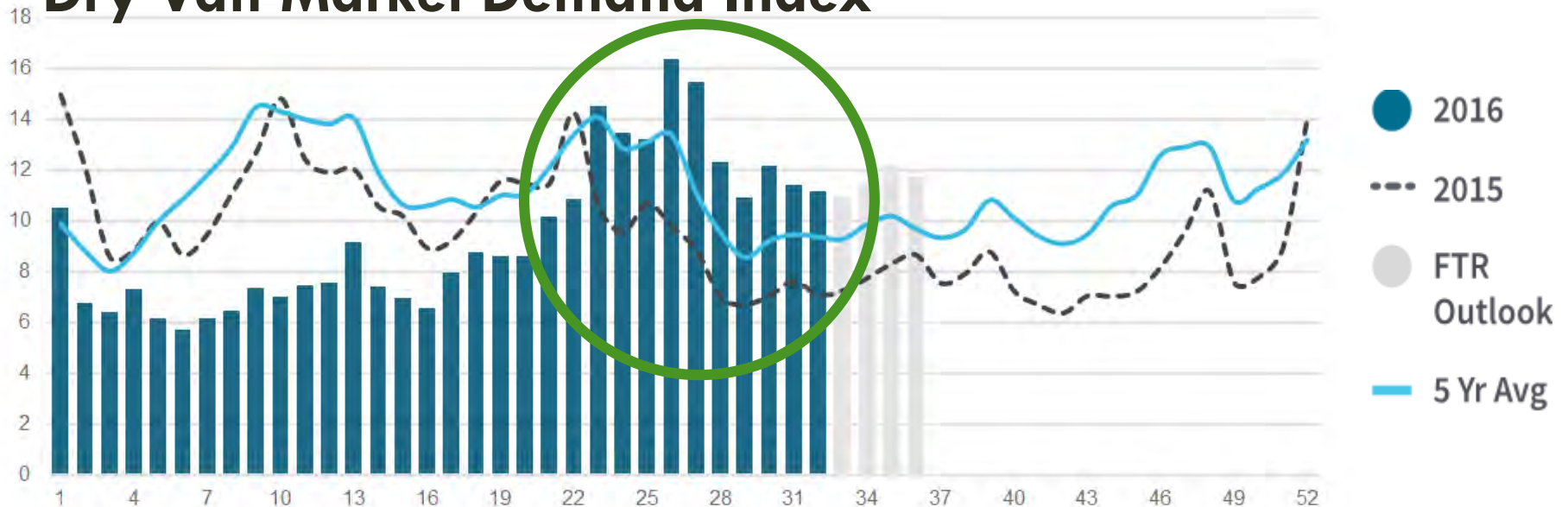
# TRUCKSTOP.COM SPOT RATES – TOTAL



Source: Truckstop.com; FTR; www.trans4cast.com

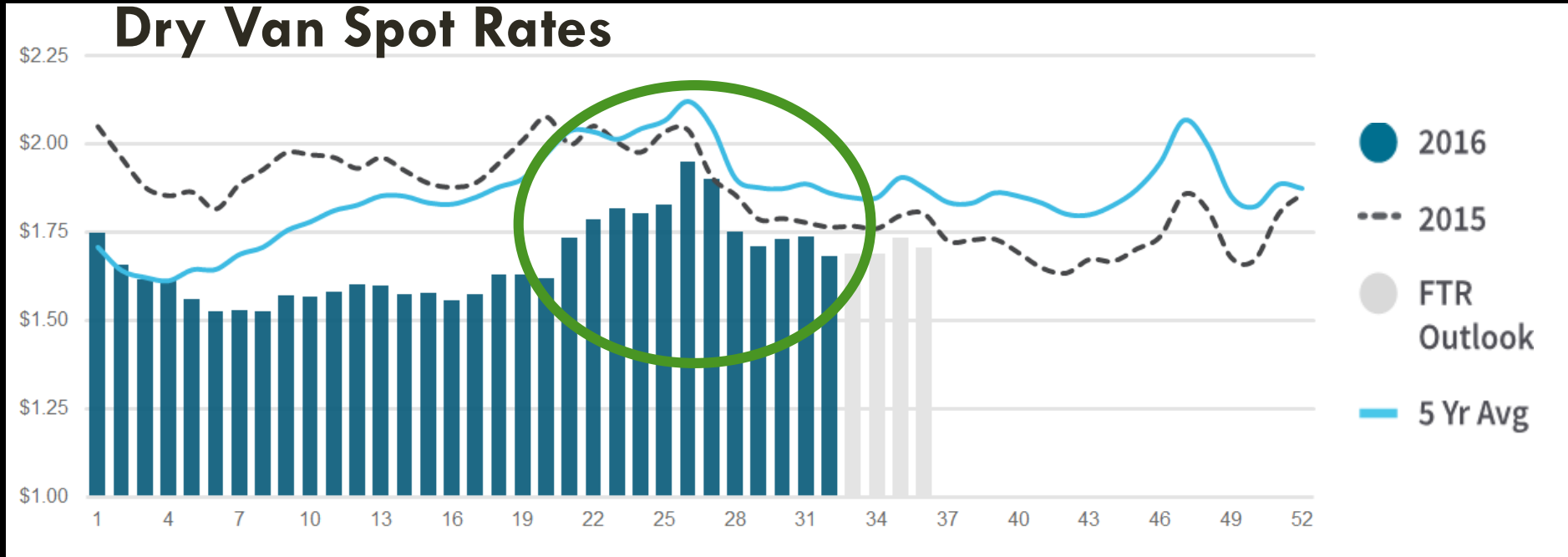
# TRANS4CAST WEEKLY MARKET DEMAND INDEX – DRY VAN

## Dry Van Market Demand Index



Source: Truckstop.com; FTR; www.trans4cast.com

# TRUCKSTOP.COM SPOT RATES – DRY VAN

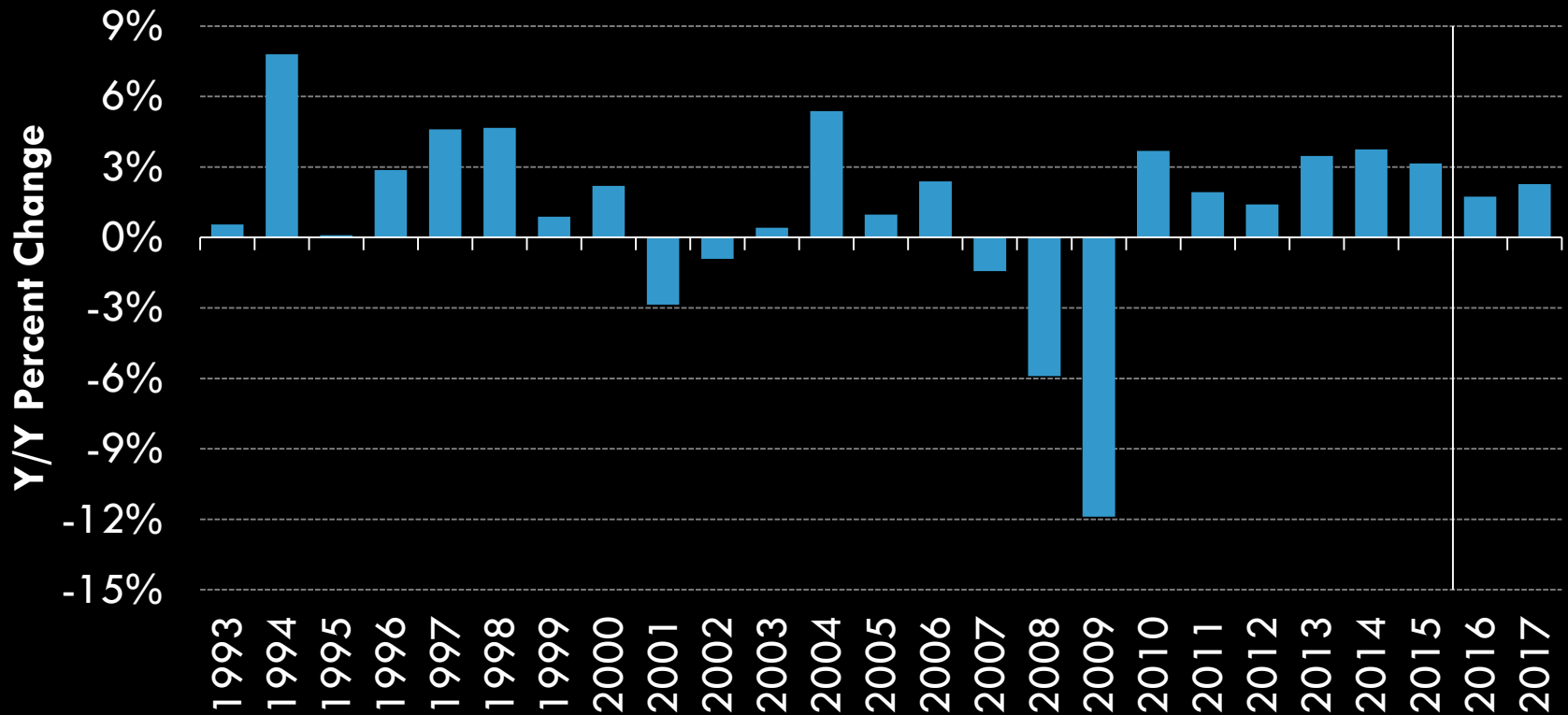


Source: Truckstop.com; FTR; www.trans4cast.com

# FREIGHT LOADINGS FORECAST

- Modest freight growth expected going forward

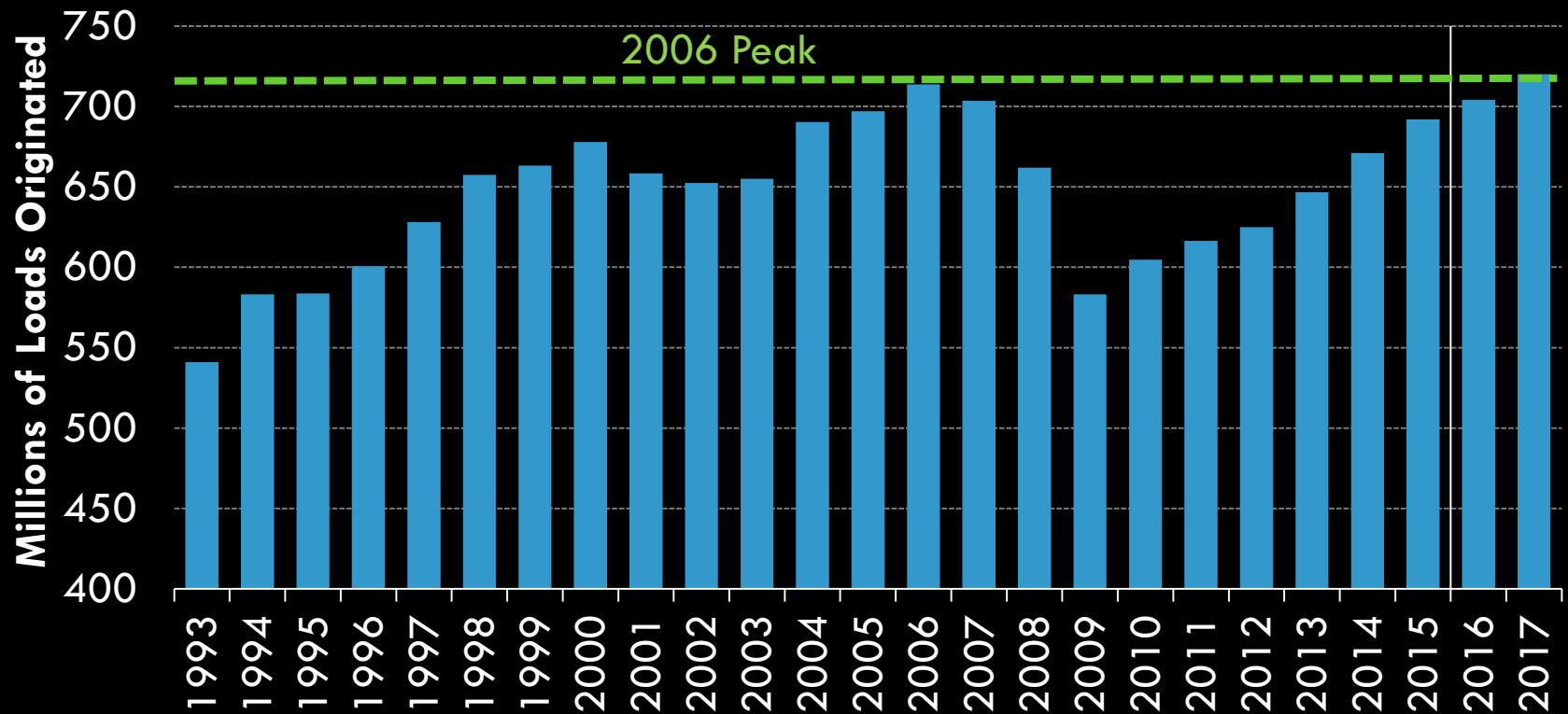
## U.S. Truck Loadings Originated



# FREIGHT LOADINGS FORECAST

- Expect 2006 levels to be exceeded in 2017

## U.S. Truck Loadings Originated

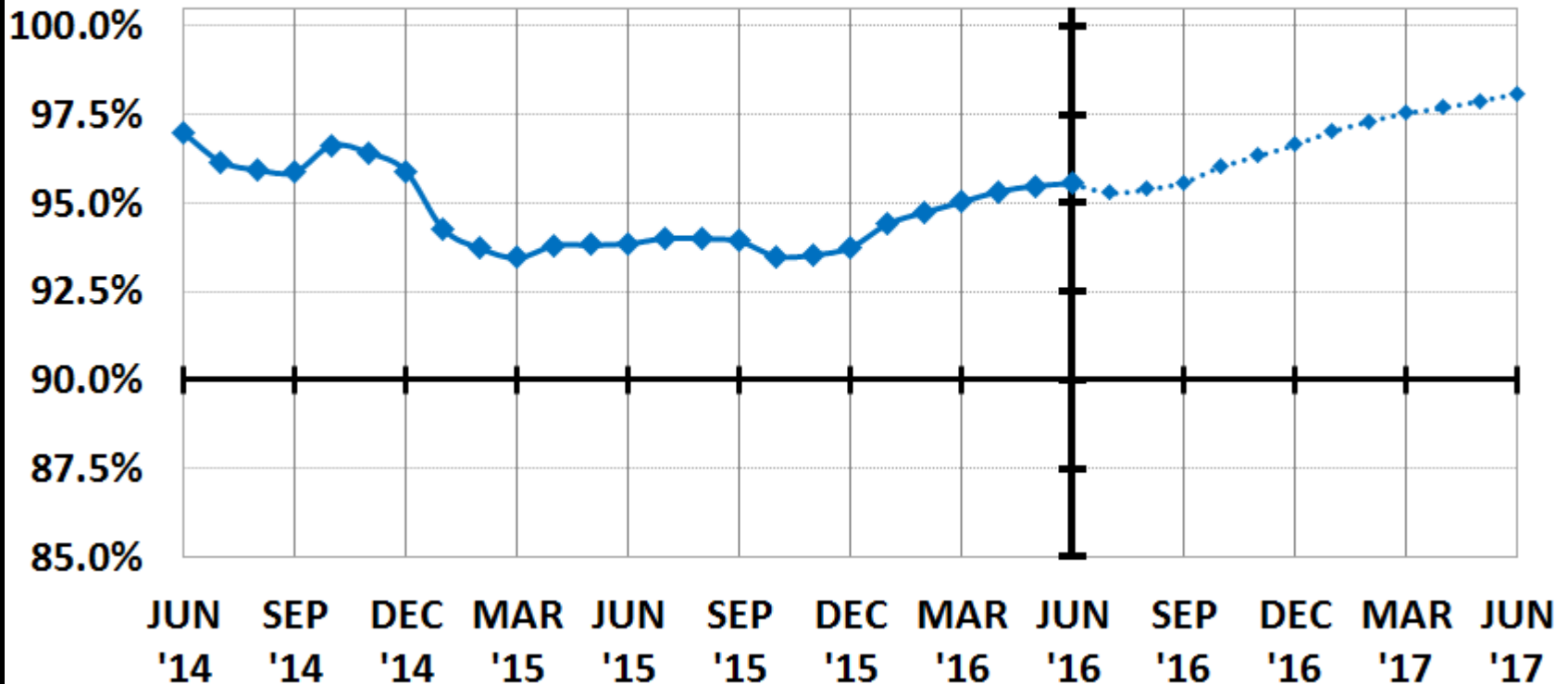




# ACTIVE TRUCK CAPACITY

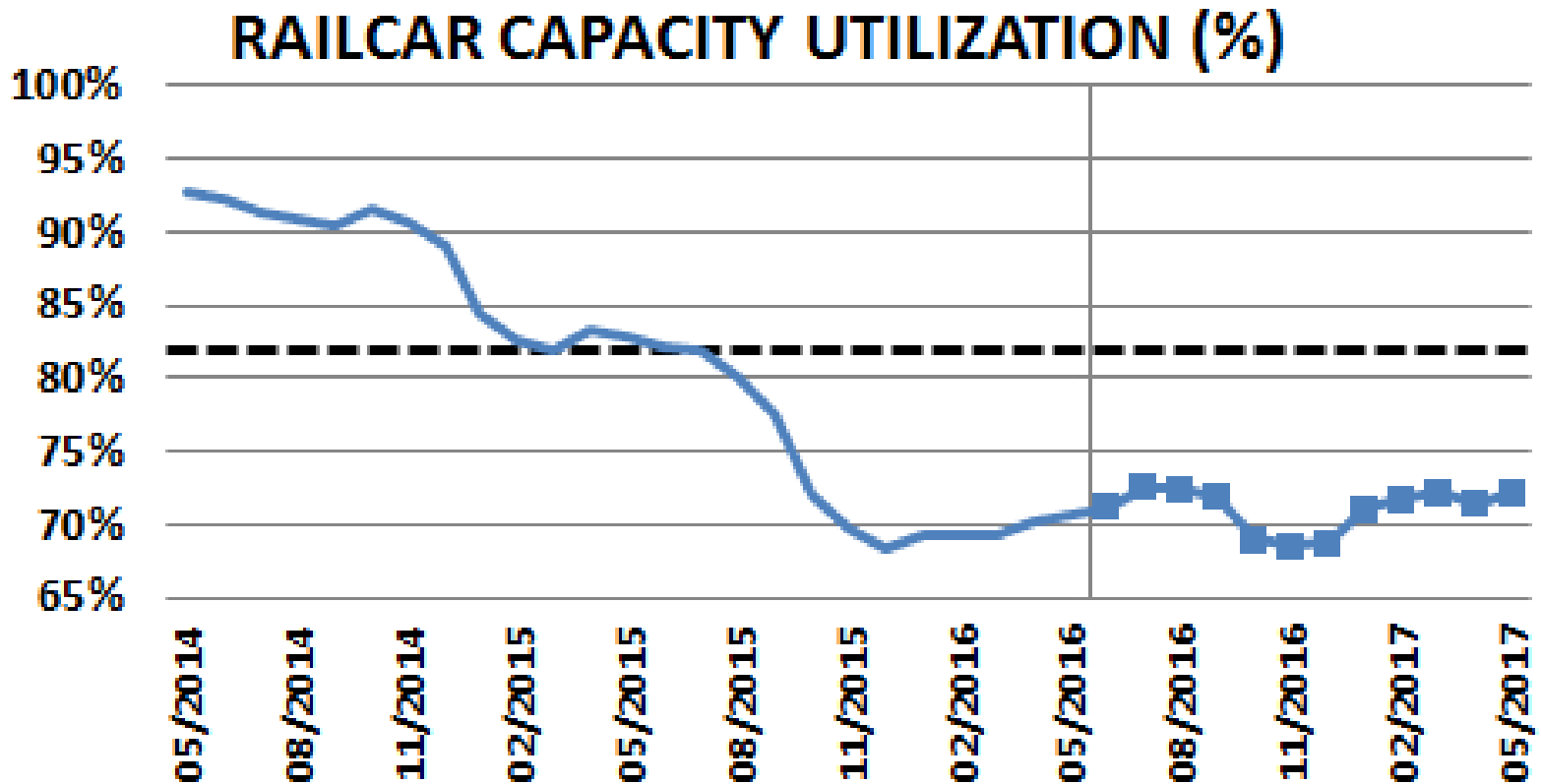
## Active Truck Utilization (%)

Truck Fleet In Use vs. Active Trucks Available



Source: FTR; Copyright 2016 -- Historical Average = 90%

# RAILCAR CAPACITY UTILIZATION

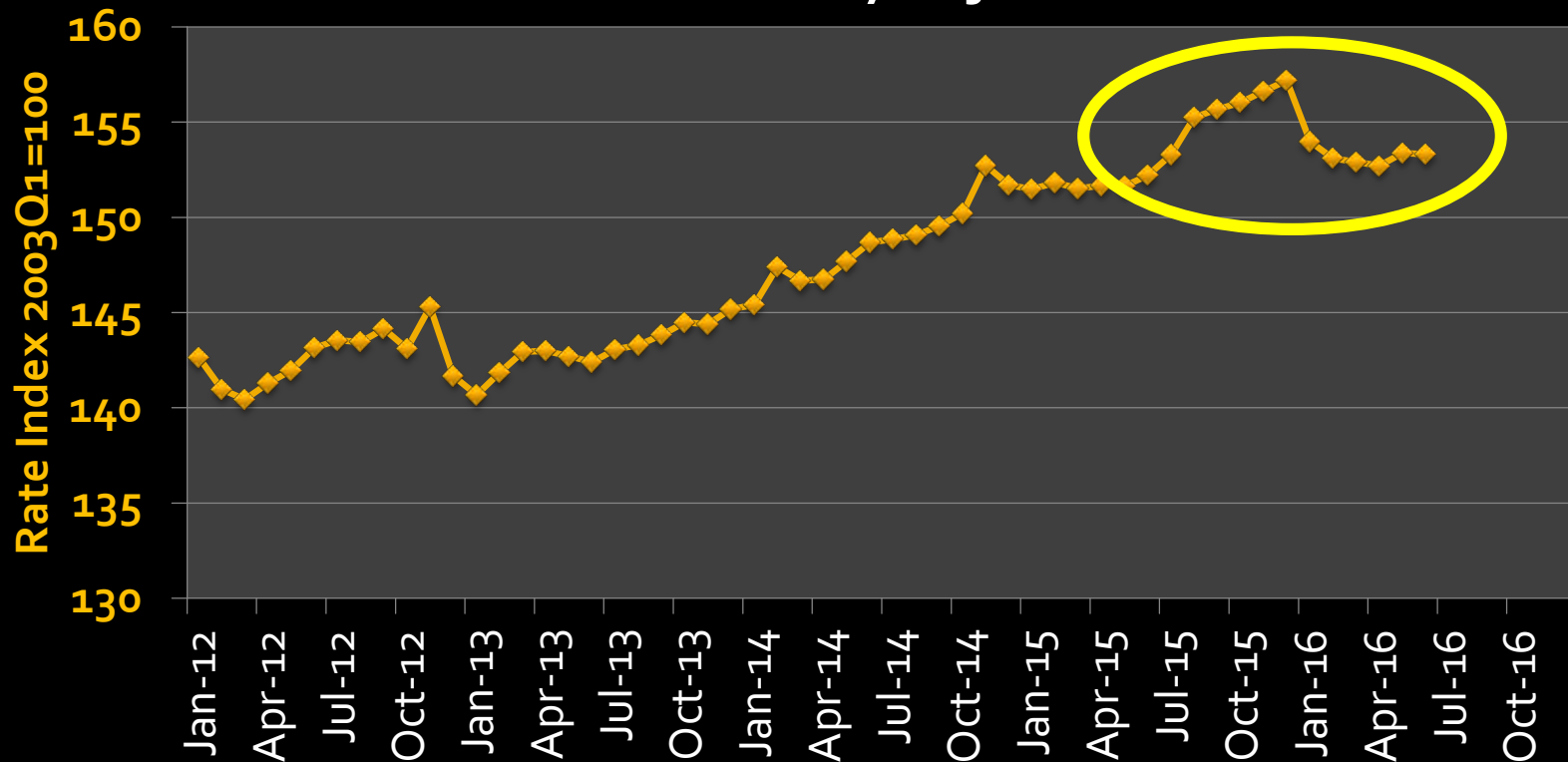


Source: FTR; Copyright 2016

Dotted Line Equals Historical Average

# TRUCK RATES (W/O FUEL) HAVE DROPPED RECENTLY

Total Truckload Rates Index (w/o FSC)  
Seasonally Adjusted

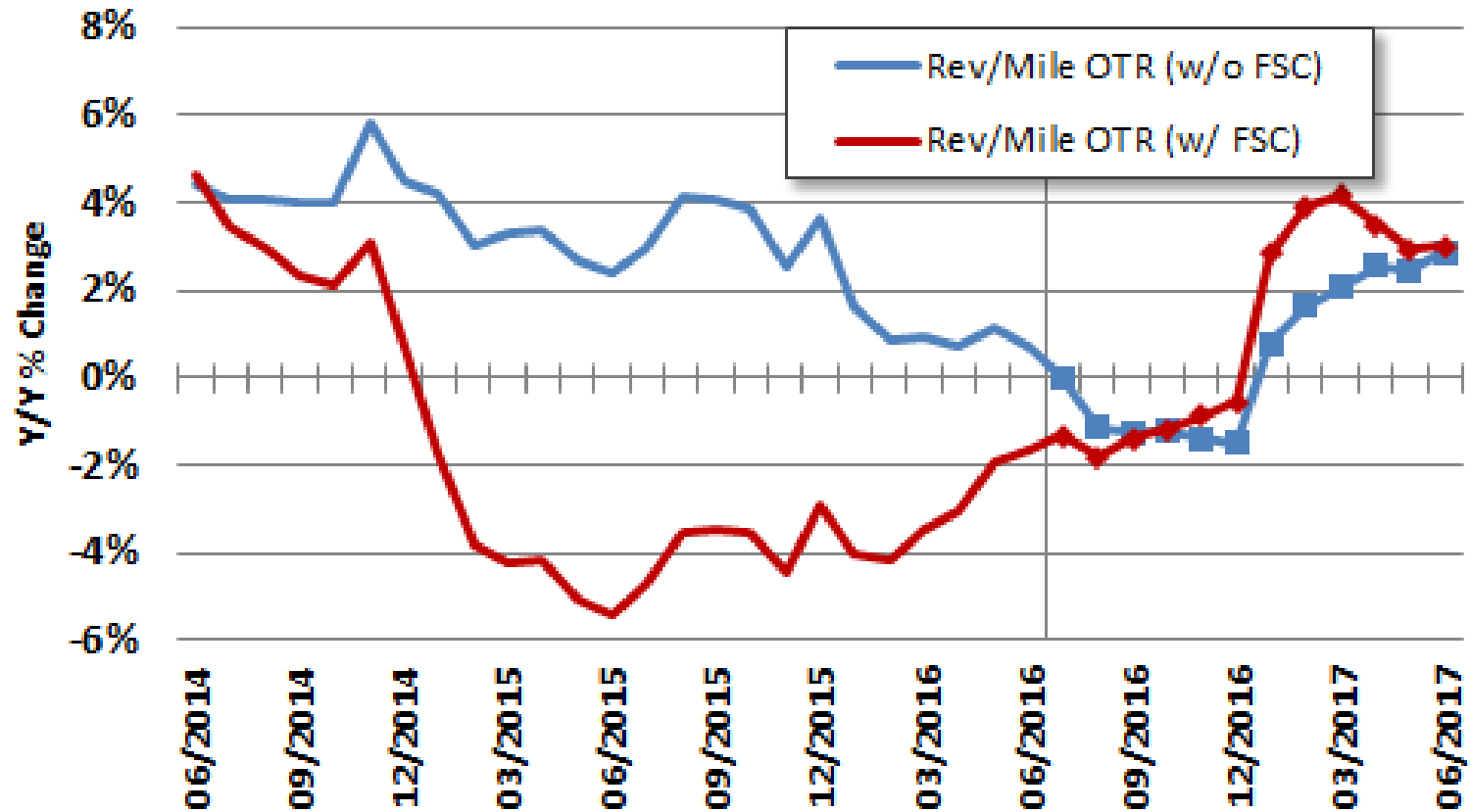


Source: FTR Trucking Update Report

FSC=Fuel Surcharge

# TRUCKING RATES OUTLOOK: TRUCKLOAD (TL)

## Rate Outlook: Total Truckload



Source: FTR; Copyright 2016

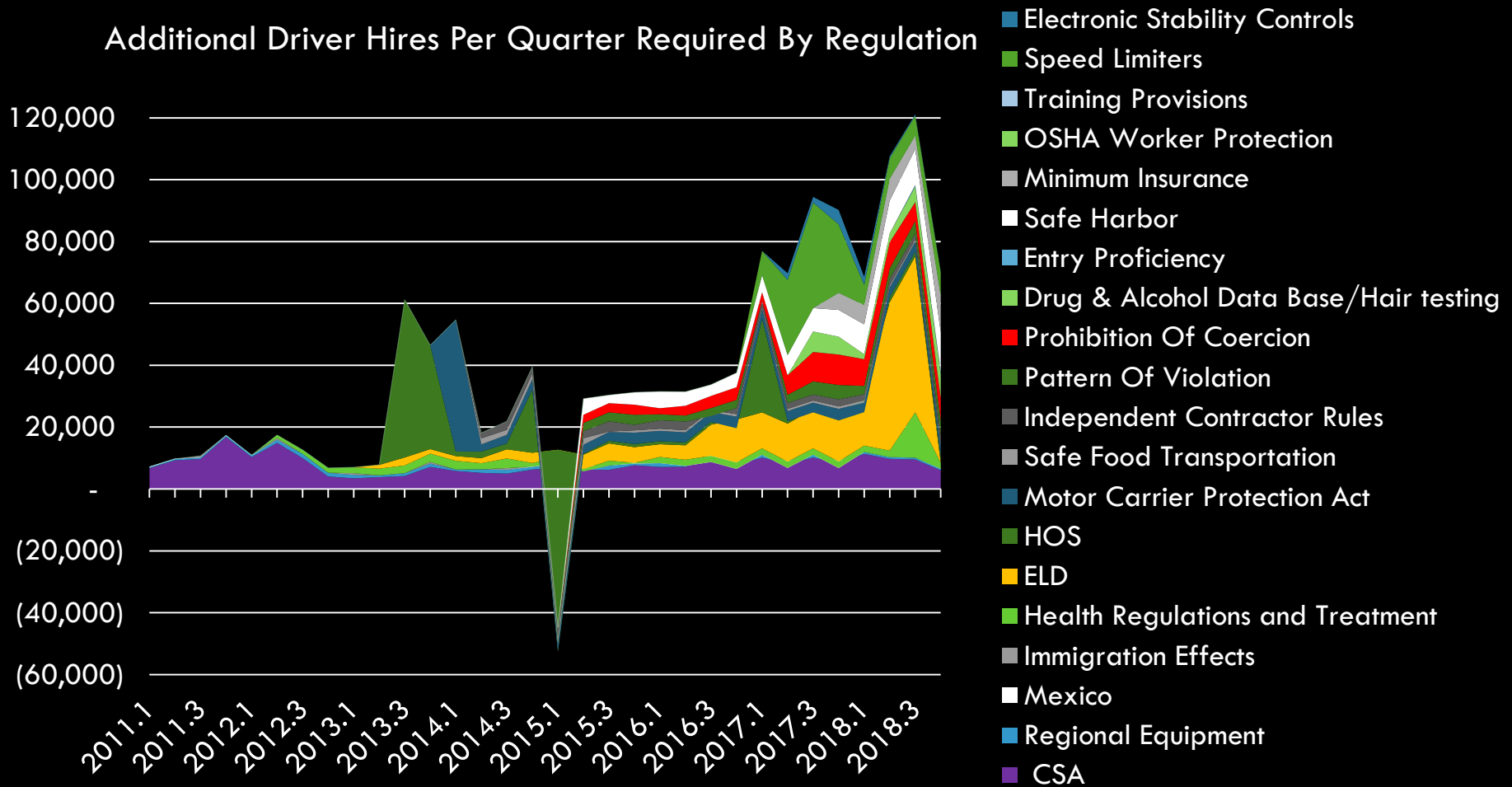
# TRUCKING REGULATIONS - SO MANY ON THE WAY

## ■ FTR IS THE ONLY COMPANY MEASURING THE FULL IMPACT ON TRUCK PRODUCTIVITY

- CSA
- Regional Equipment
- Mexico
- Immigration Effects
- Health Regulations and Treatment
- Electronic Logging Device (ELD)
- Hours-of-Service (HOS)
- Motor Carrier Protection Act
- Safe Food Transportation
- Employee Free Choice
- Pattern Of Violation
- Prohibition Of Coercion
- Drug & Alcohol Data Base
- Entry Proficiency
- Safe Harbor
- Minimum Insurance
- OSHA Worker Protection
- Training Provisions
- Speed Limiters
- Electronic Stability Controls

# TRUCKING REGULATORY DRAG

Additional Driver Hires Per Quarter Required By Regulation



# IMPORTANT TRUCKING DEVELOPMENTS

- **Electronic Logging Devices (2017 Q4)**
  - Most of the large fleets already have them
  - Smaller and mid-size fleets have yet to convert and could drive many out of business
- **Speed Limiters on trucks(2017 impact; regulation likely in 2018)**
- **Drug & Alcohol Database (2018)**
  - Will end up disqualifying many current drivers who jump from company to company
- **Driverless Trucks (Start in 2017)**
  - Platooning appears to be the likely early adopter
  - Won't take hold until at least 2020 and beyond
  - Much safer than a "real" truck driver
  - Biggest obstacle is public opinion

# REGULATIONS IMPACT

- Lower productivity
  - Need more equipment to move the same amount of freight
- Driver recruitment
  - Shrinks the available labor pool
  - Reduces driver income/reduces incentives
- Reduces fleet profit
- Increases barriers to entry
  - Owner-operators are declining

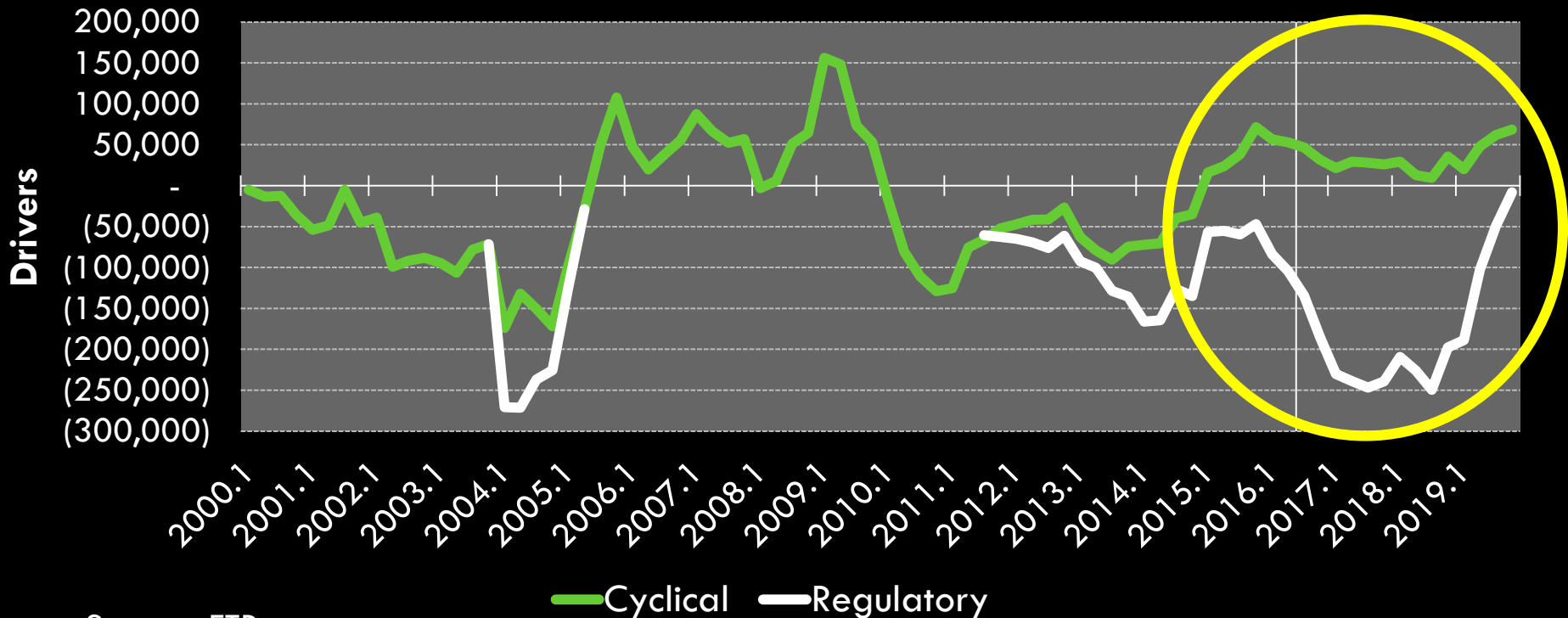


# GREEN HOUSE GAS (GHG) REGULATIONS – PHASE II

- Covers the entire system
  - Includes truck and trailers in the equation
- Implementation to start around 2020 depending on the equipment
- Fleets would expect to see significant improvements in fuel economy
  - Unsure of the technology and design of the equipment at the moment

# FTR CALCULATES SHORTAGE AND SURPLUS BY CYCLICAL AND REGULATORY CAUSES

## Cumulative Shortage or Surplus



Source: FTR

>>>> This time the shortage is regulatory driven. Last time it was the economic cycle.

# PRODUCTIVITY & CONGESTION HAS A BIG IMPACT ON AMOUNT OF TRUCKS ON THE ROAD

- Heavy truck population is over 3.2 million
- Currently 2.9 million heavy trucks active on the road today and moving freight
- For every 1 mile per hour (MPH) drop in speed you need to add 67,000 more trucks in the system to move the same amount of freight

Source: FTR

# ITEMS TO WATCH GOING FORWARD...

- Now/Short-term
  - Virtual Environment
  - Ecommerce
- Mid-term
  - Truck of the Future
  - Uberization of Trucking
  - Drones
  - 3-D Manufacturing/Printing
  - Autonomous (semi-driverless) Trucks

# WINNERS WILL BE THOSE THAT FOCUS ON THE SHIPPER'S NEEDS

- Shippers don't care about mode...they care about...
  - Cost
  - Service
  - Predictability
- Transportation is now a cost center to shippers and they are keenly aware how transportation fits within their overall business strategy

# SUMMARY CONCLUSIONS

- Short-term economy showing mixed signals. Limited upside in the short-term.
- Freight demand remains stagnant.
- Truck & Rail Capacity are loose.
- Trucking Regulatory changes will have a negative impact on productivity and will be a game changer.

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