

An Analysis of U.S. Automotive Industry: Short-Mid Term Outlook



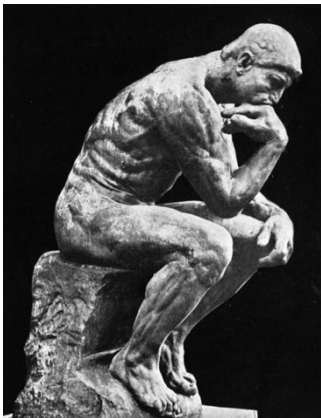
Mark Birmingham

Industry Analyst

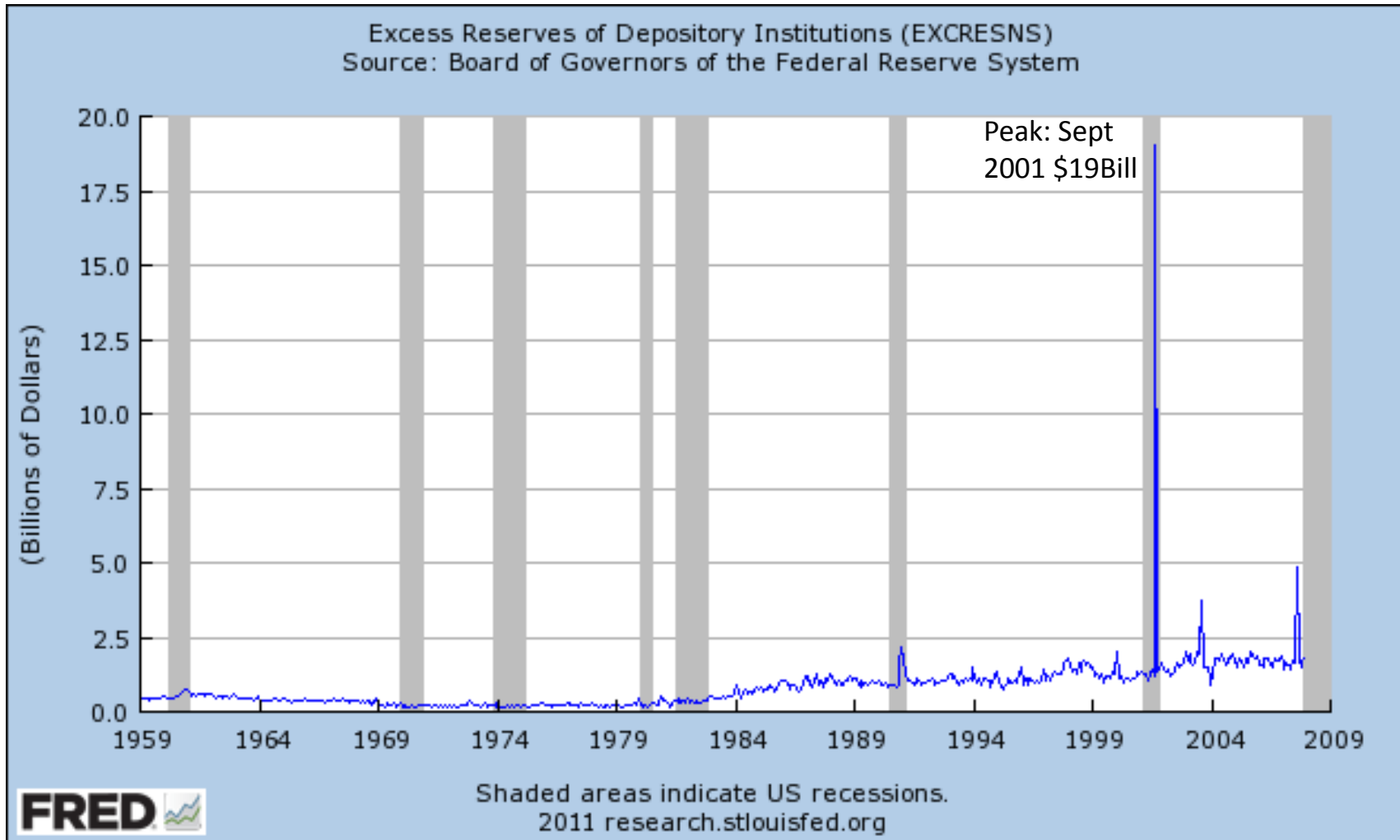
Center for Automotive Research

Outline

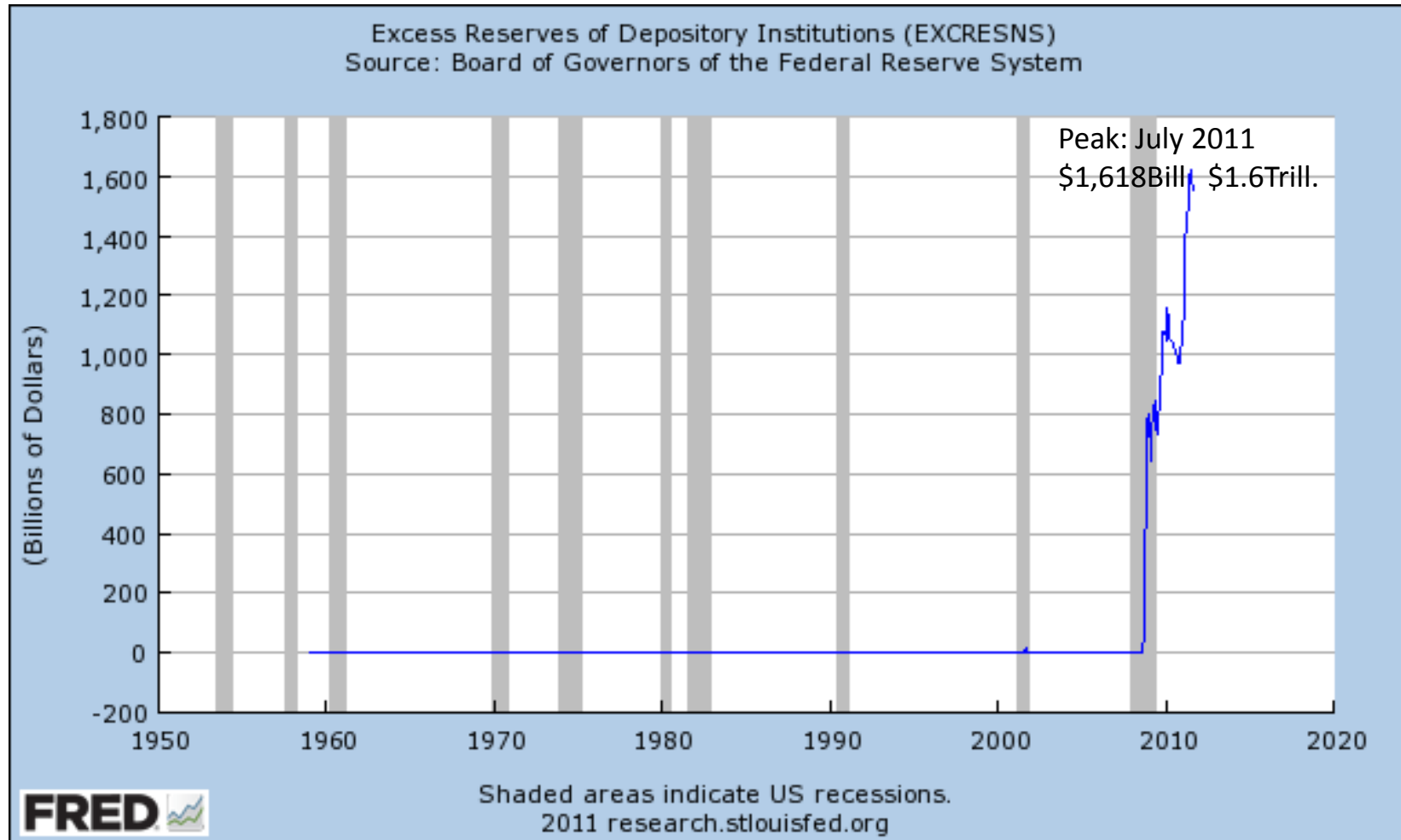
- Uncertainty in the Macro Environment
 - Why that important to the Automotive Industry
- Current State of the Automotive Industry
 - Reasons for Optimism



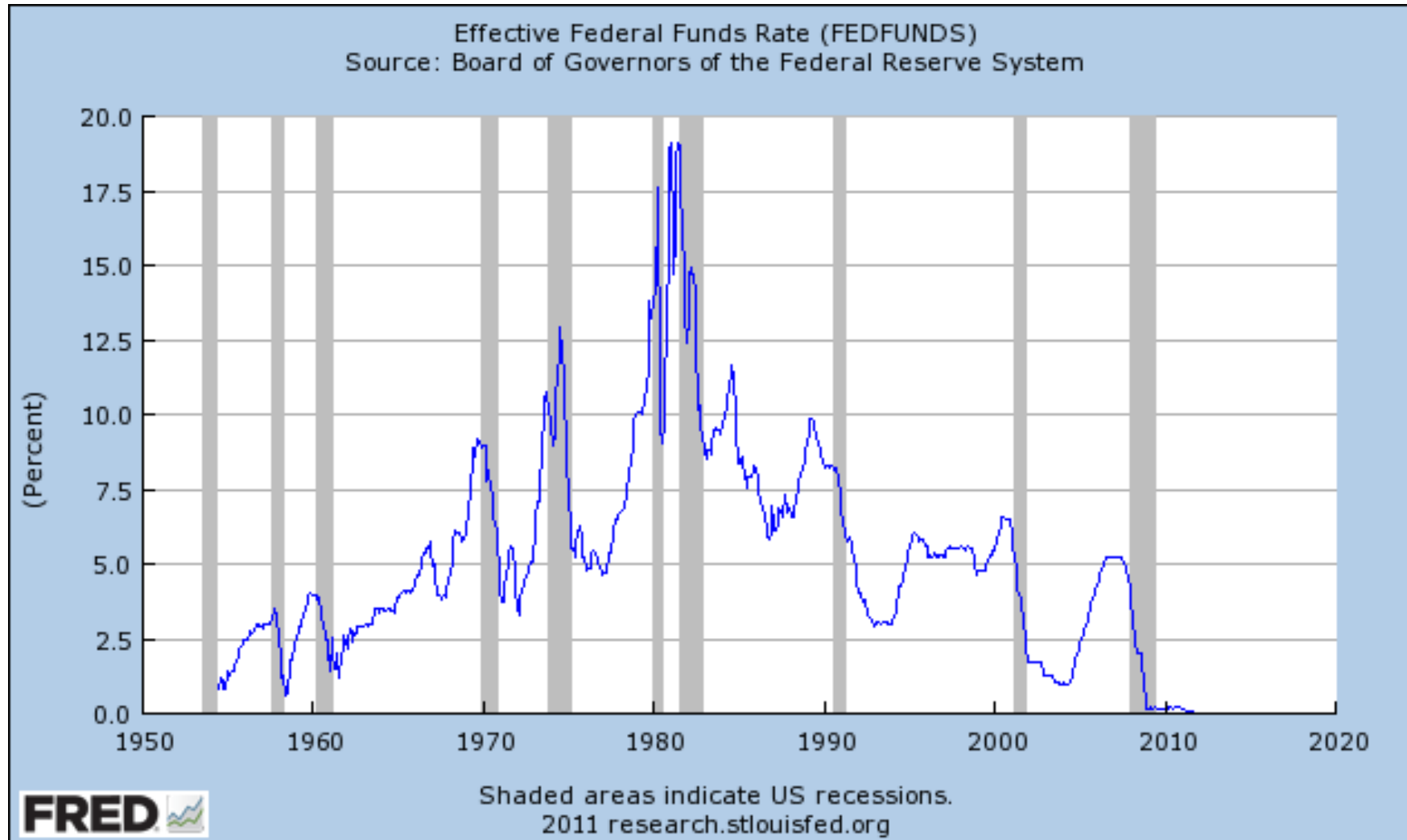
Uncertainty in the Macro Environment: Excess Reserves from 1959 - 2007



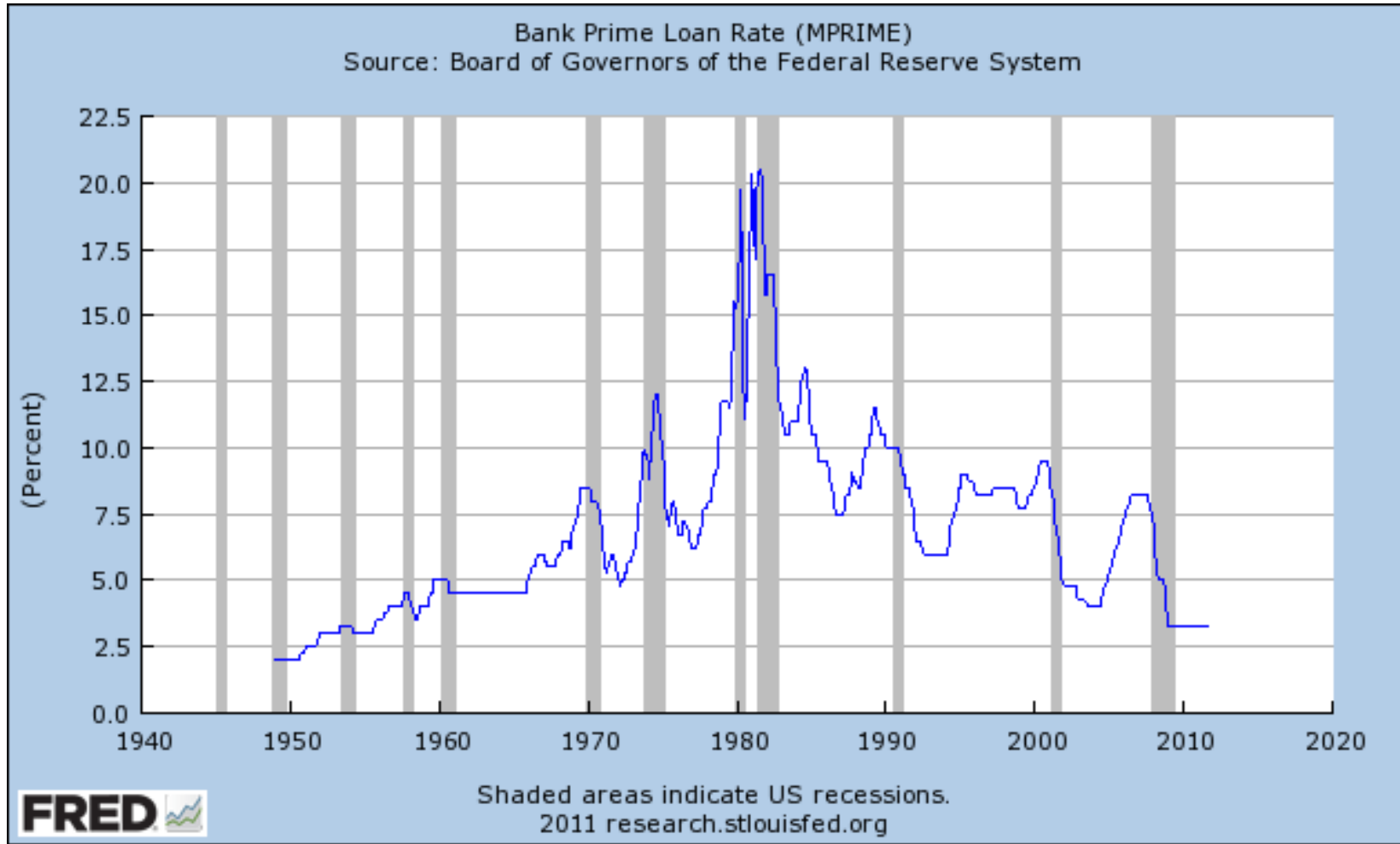
Uncertainty in the Macro Environment: Excess Reserves from 1959 - 2011



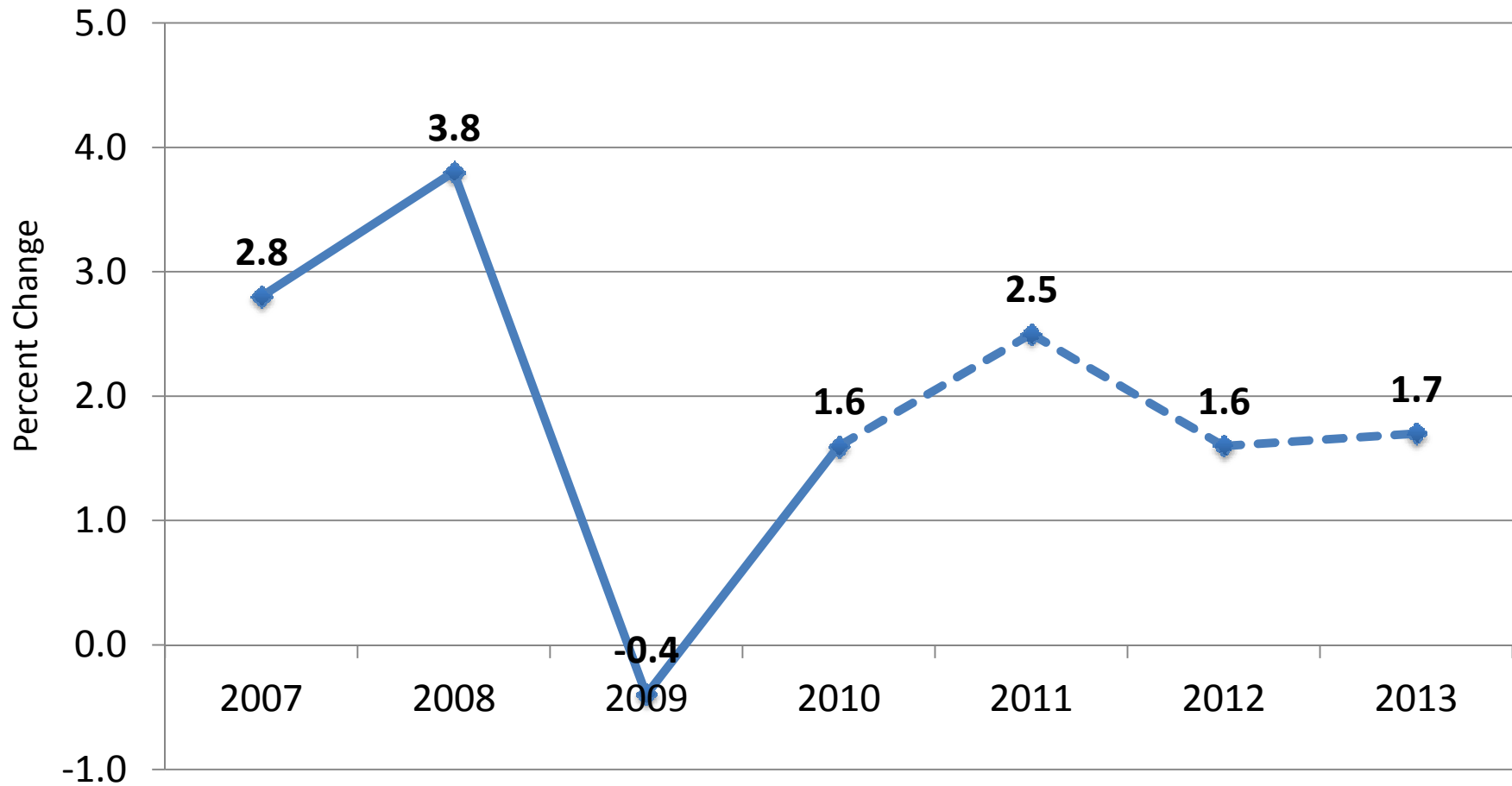
Uncertainty in the Macro Environment: Interest Rates Are at Historic Lows



Uncertainty in the Macro Environment: Interest Rates Are at Historic Lows

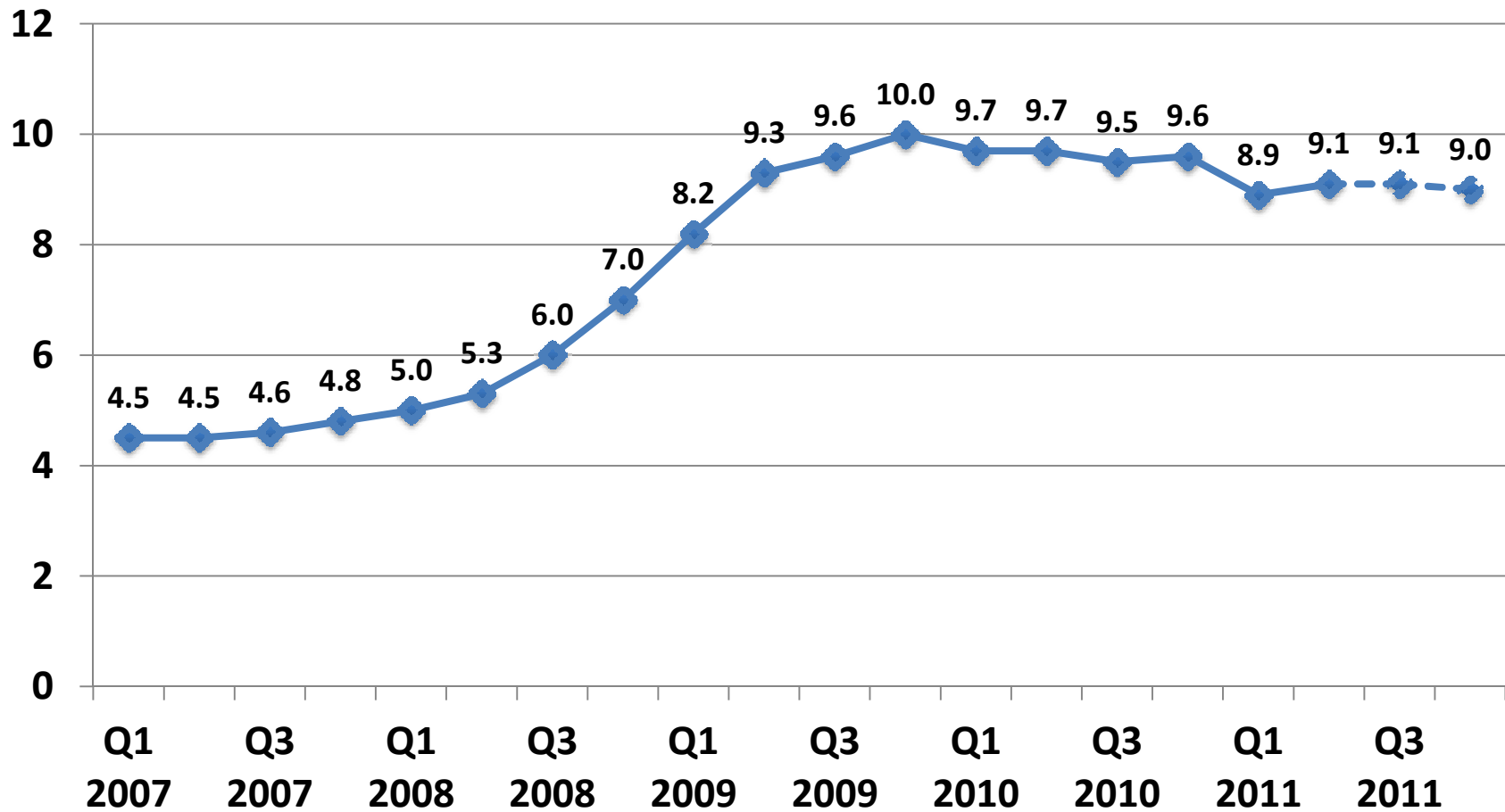


Inflation? Recent and Forecasted U.S. Inflation Rate: CPI-All Items



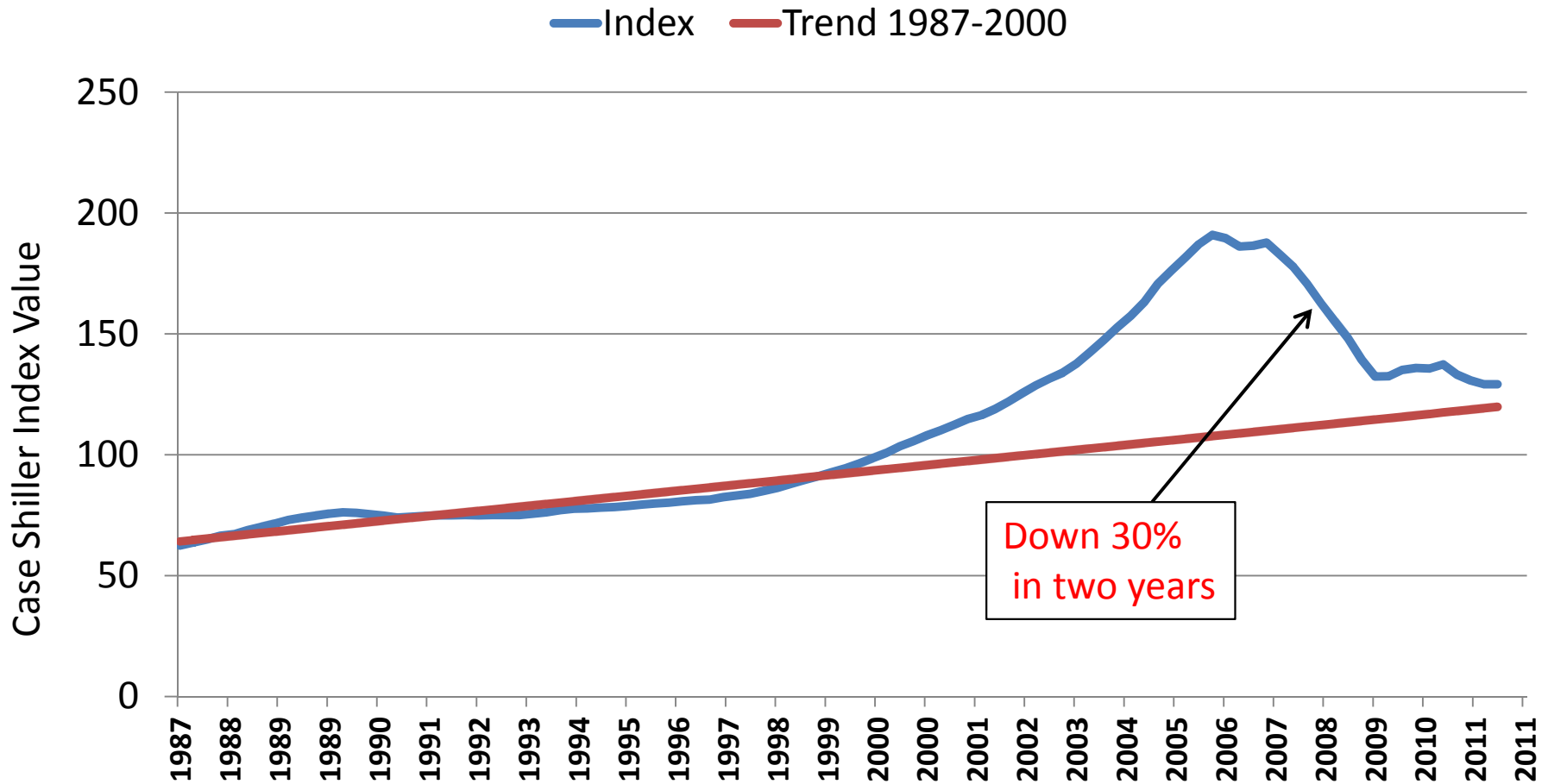
Source: FOMC

U.S. Unemployment Rate and Forecast by Quarter 2007-2011



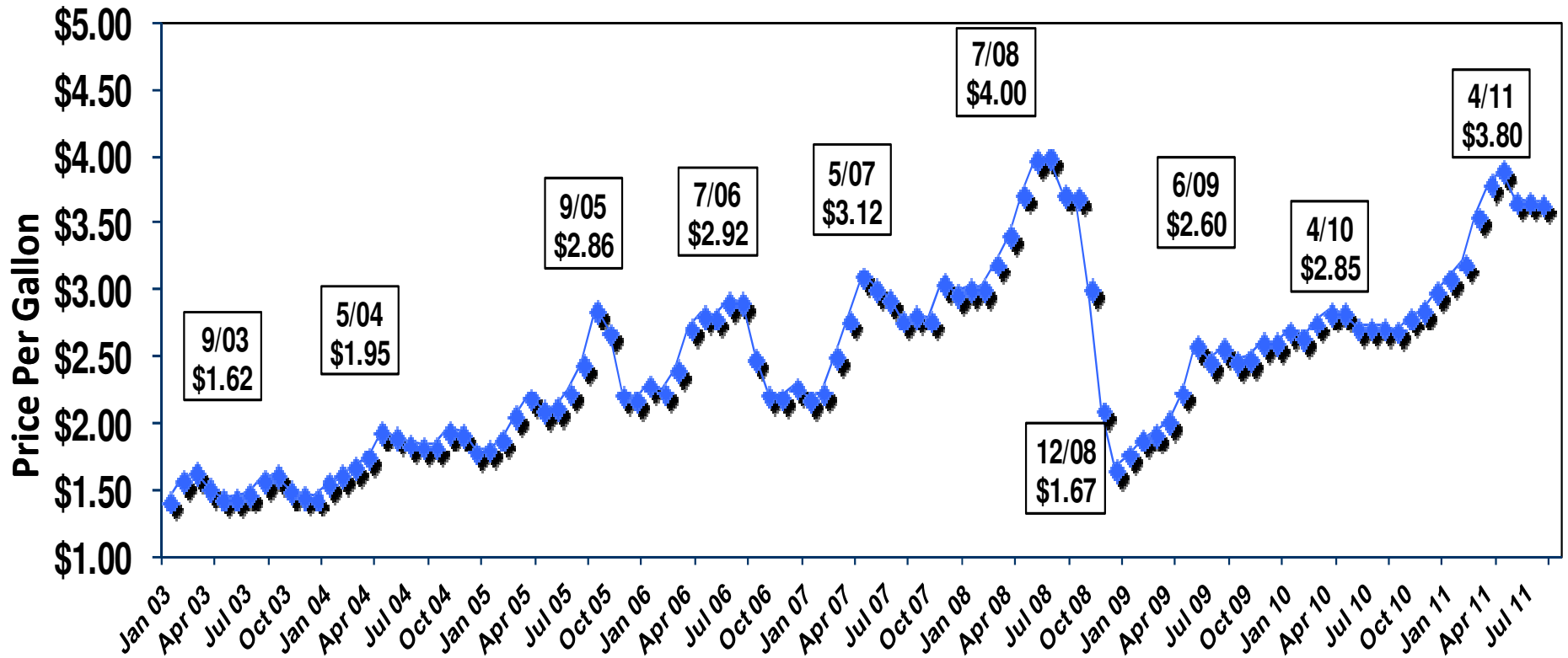
Source: BLS; CAR estimates

Home Prices Have Fallen... Case Shiller Home Price Index



Source: Case Schiller

Annual Spikes With an Upward Trend Gasoline Prices (Nominal)



Source: Energy Information Administration, USDOE,

*Regular Conventional Gasoline
All Price Nominal

Uncertainty in the Macro Environment:

“Sovereign Bond Risk Rises in Europe on Pledge to Support Banks” - Bloomberg 10.10.11

**“S&P downgrades U.S. debt”
- cbsnews.com 8.5.11**

“Time to Say It: Double Dip Recession May Be Happening” - NYTimes 8.4.11

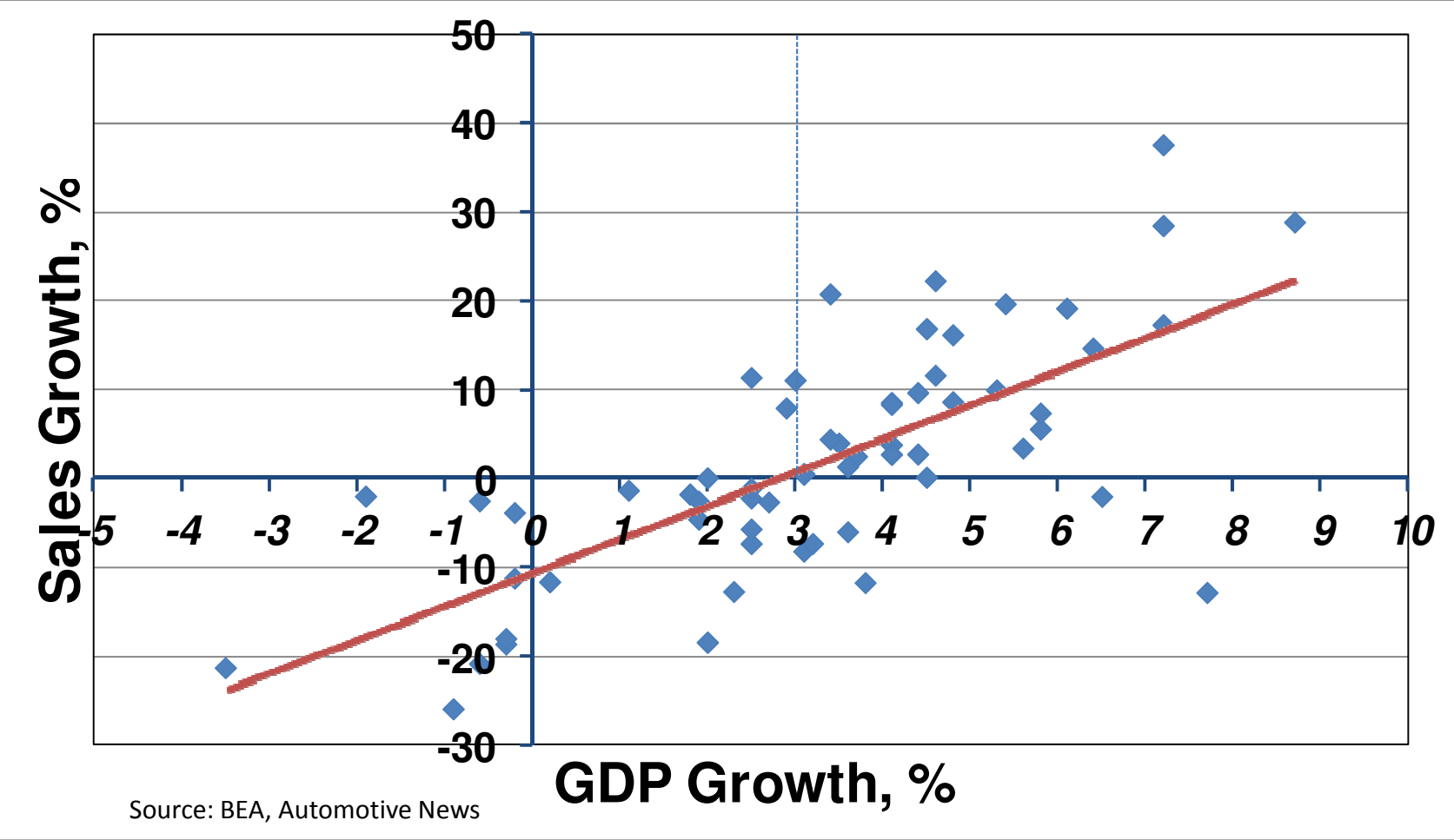
**“Consumer Confidence in U.S. Plunges to Lowest Since 2009 on Jobs Outlook” –
Bloomberg 8.30.11**

“United States Unemployment Rate at 9.10% in September” – Tradingeconomics.com

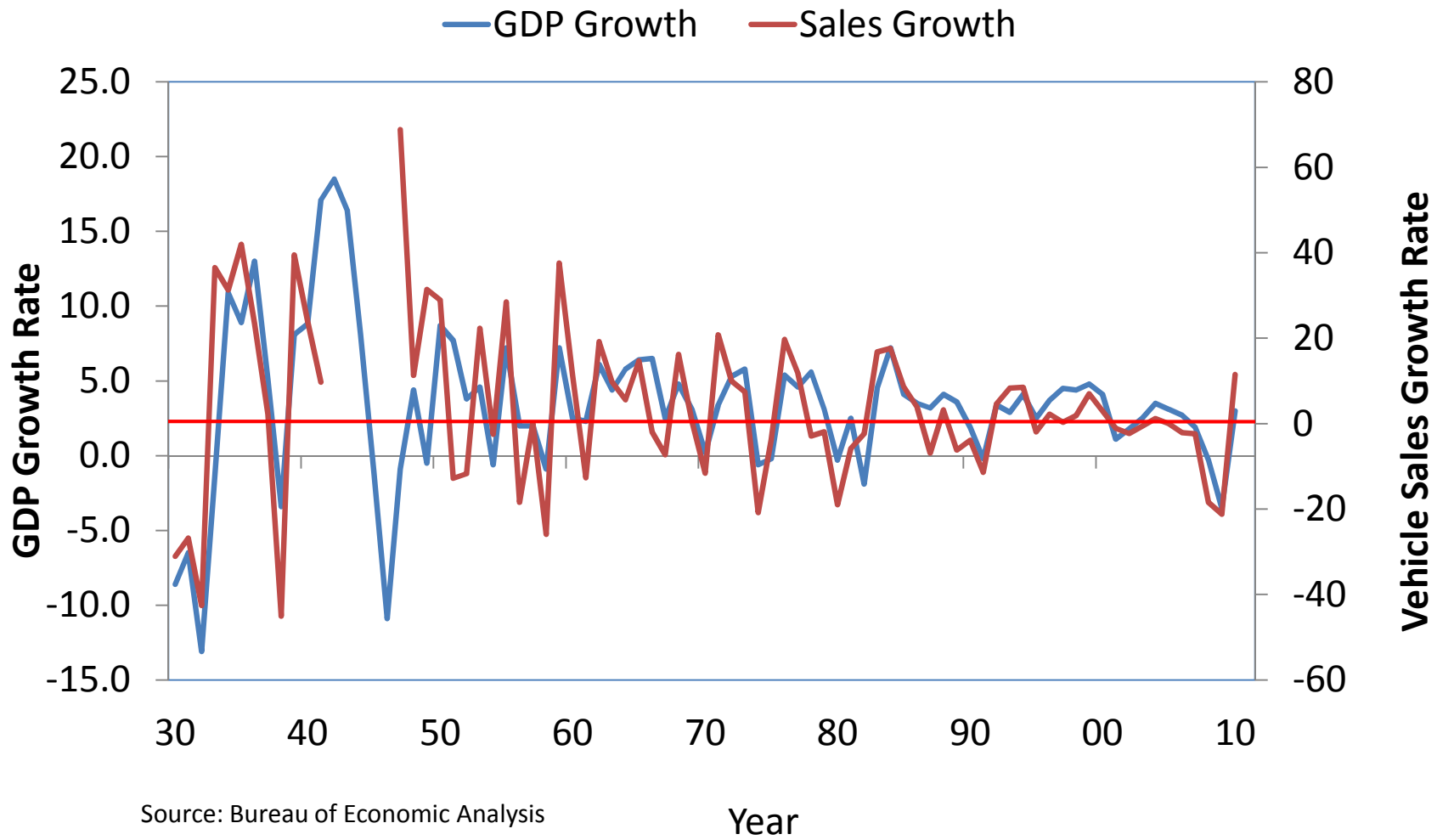
- Monetary Issues/Sovereign Debt Concerns
- Possible Drop Off in Demand Double-Dip?
- Lingering High Unemployment
- Low Consumer Confidence

Need 3% GDP Growth To Have a Positive Sales Growth

GDP Growth Rate and Sales Growth Rate, 1950 - 2010

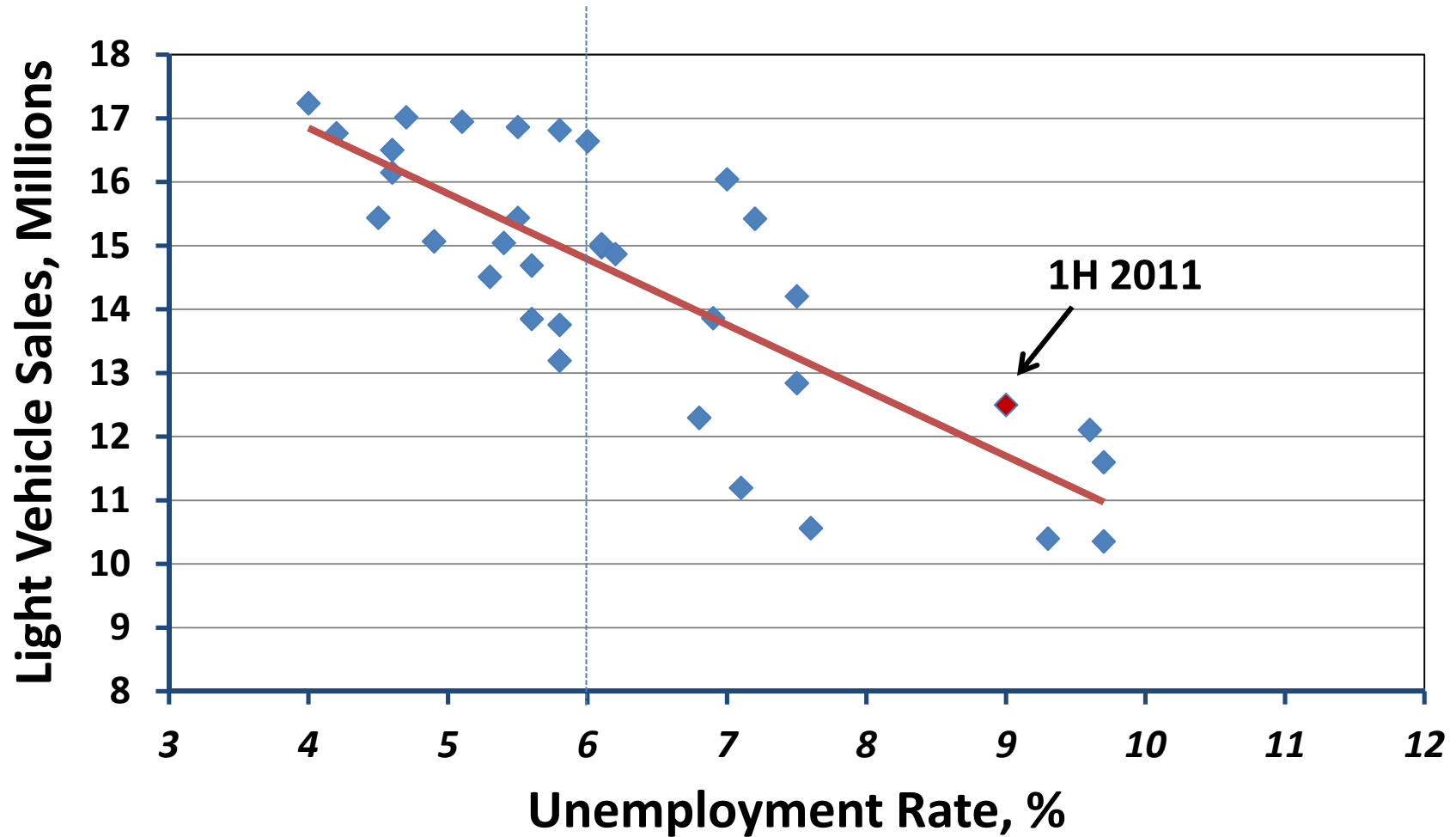


U.S. GDP Growth Rate and Vehicle Sales Growth Rate



Need Unemployment Rate Below 6% to Have Growth?

Light Vehicle Sales and Unemployment Rate, 1978- 1H 2011

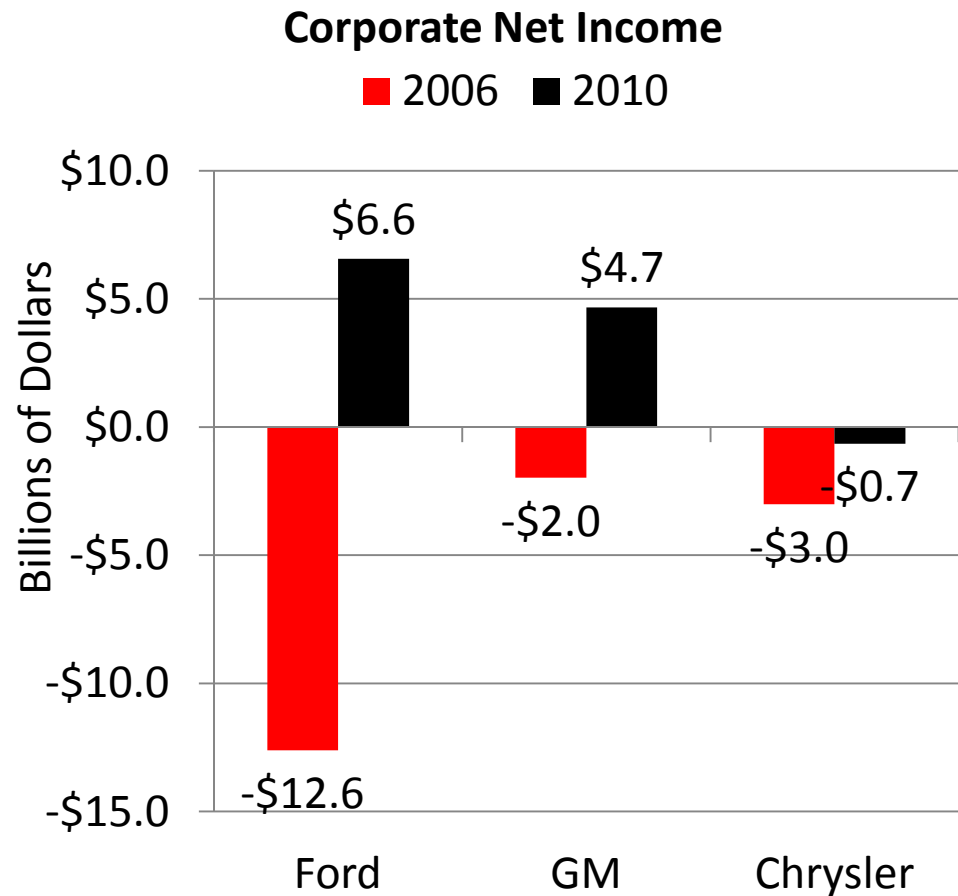
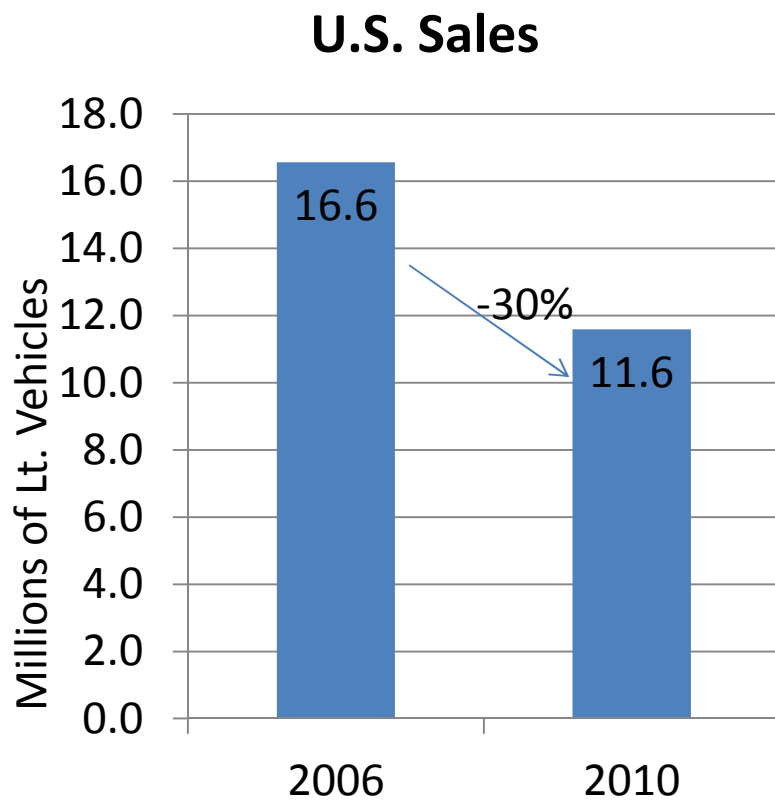


Source: BEA, BLS

A Strengthened Foundation: A Better Business Model

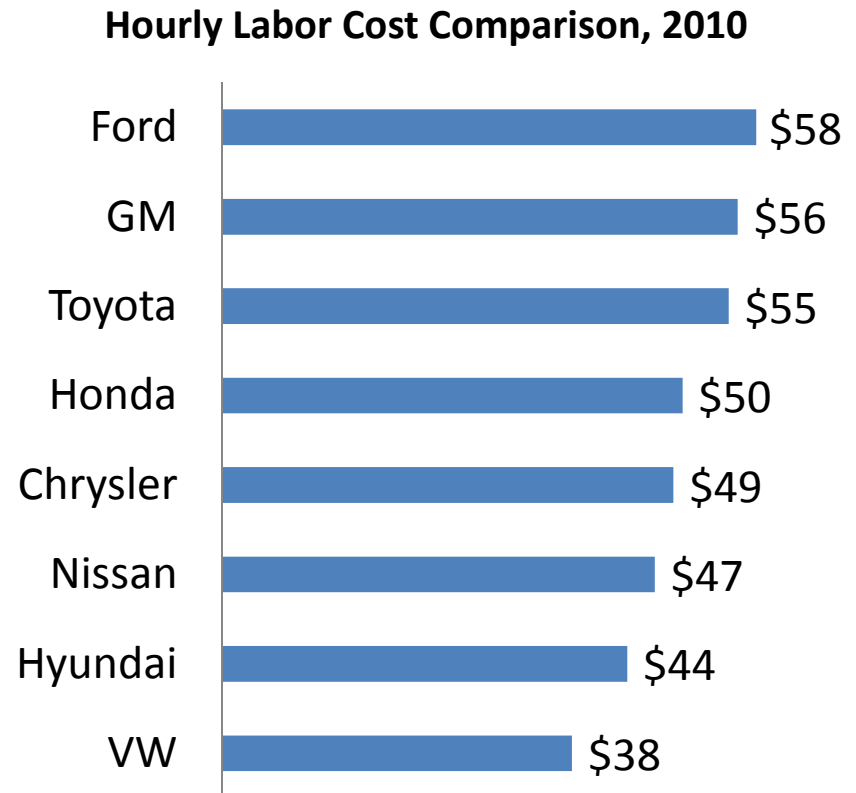
- A Restructured Detroit 3
 - 2007 Negotiations (VEBA and Tiered Wage Structure)
 - Substantial reductions in fixed costs (retiree health)
- Where before the Detroit 3 had problems turning a profit in the U.S. despite a +15Mill. sales environment
- Now they are able to turn a profit at much lower volumes

A Strengthened Foundation: Profitable in Lower Sales Volume Environment 2006 vs. 2010



A Strengthened Foundation: Labor Cost Competitiveness

- \$20-29/hour lower than in 2006
- Factors
 - VEBA
 - 2nd tier
 - Skilled Trades
 - Other
- Internationals
 - Not a monolith
 - “Grow in”
 - May not stand still

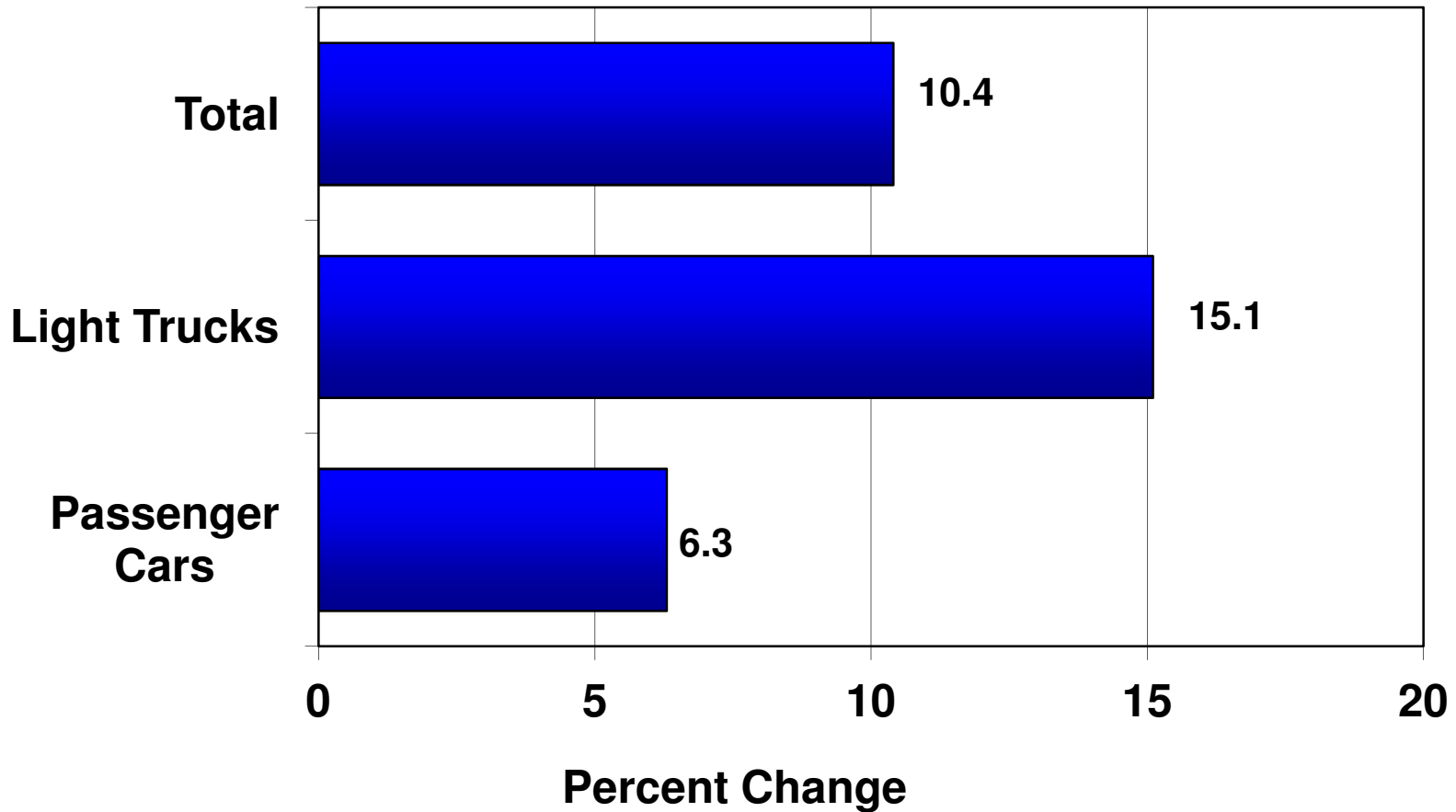


Source: Company reports, CAR research

The Current Situation & Reasons for Optimism

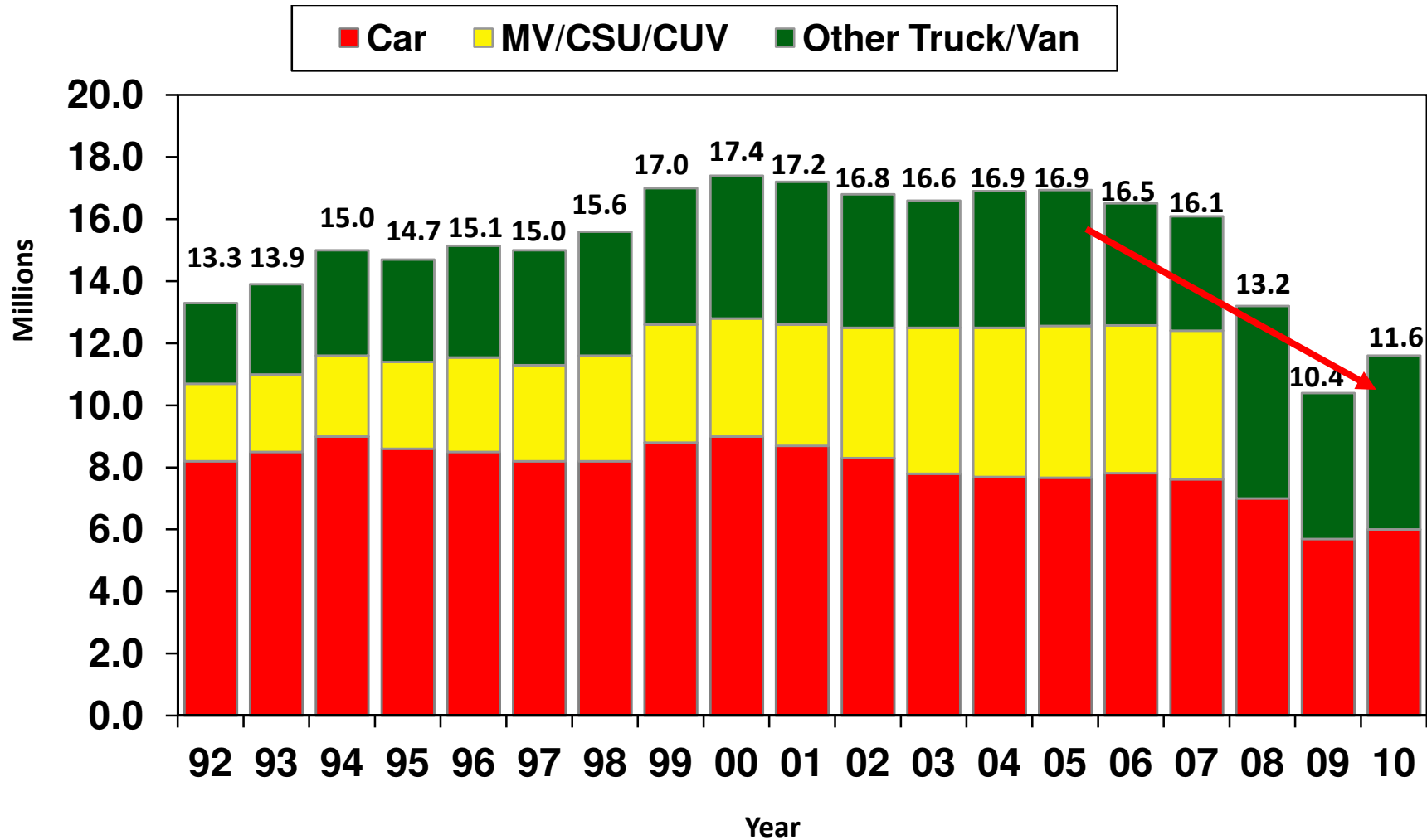
- Sales are up
- Japan Earthquake/Tsunami: Companies are returning to normal output levels
- U.S. automotive industry is ready for expansion and is in an expansion mode
- Foreign direct investment increasing
 - Exchange rates play a key role
- Many variables are still favorable for the U.S. market

**U.S. Light Vehicle Sales
Percent Change
YTD Through September: 2011 vs. 2010**



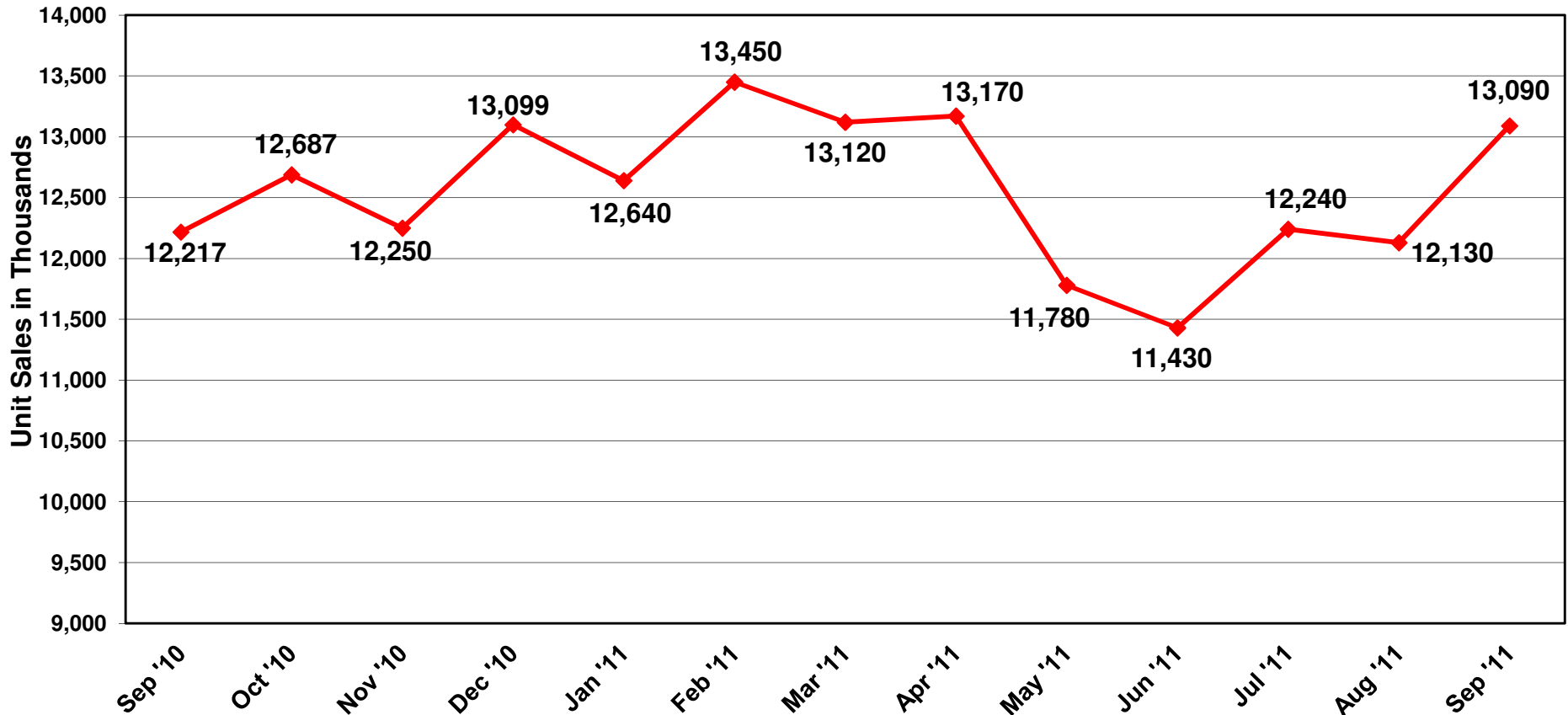
Source: Automotive News

Total U.S. Sales of Light Vehicles: 1992 - 2010



Source: Ward's Automotive Reports

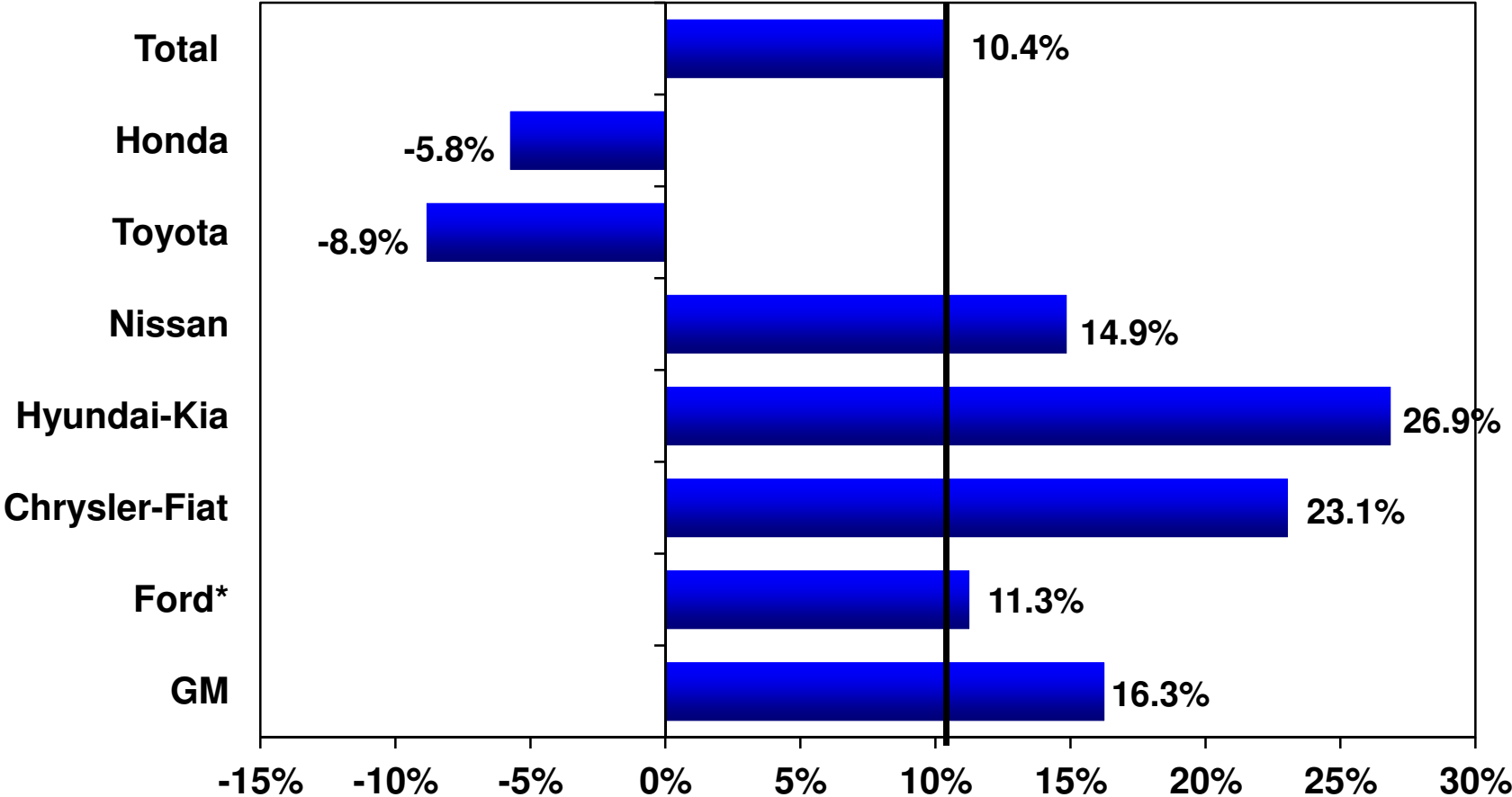
U.S. Light Vehicle Sales Monthly SAAR: September 2010 Through September 2011



Source: Automotive News Data Center

Note: From 1994-2007 Sales were above 15M units each year, except for 1995 (14.7M)

Percent Change in Sales of Light Vehicles Per OEM: YTD Through September: 2011 vs. 2010

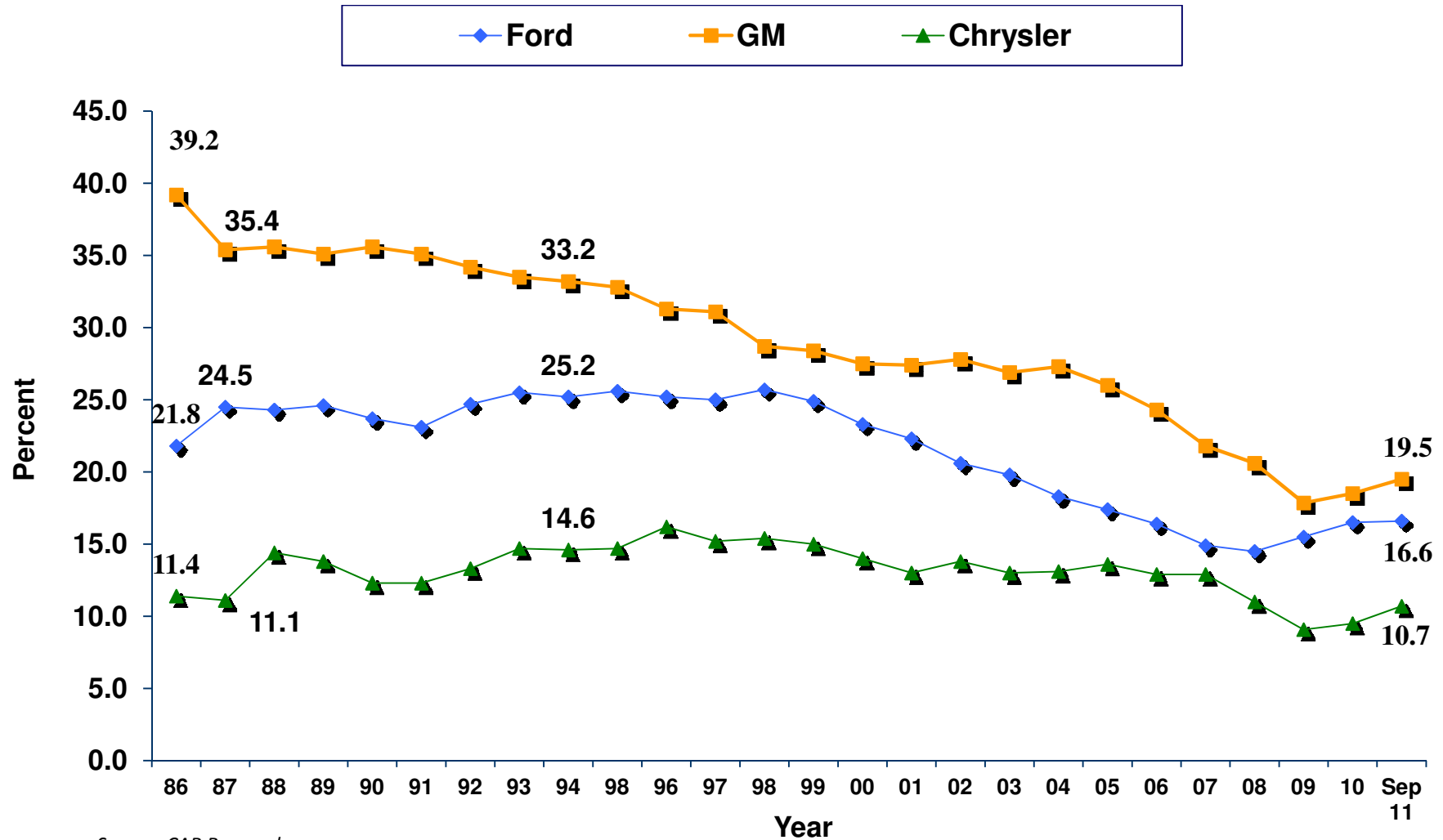


Source: Automotive News

*Ford = Ford, Lincoln, & Mercury divisions only

Down Below 50%: “Detroit 3” U.S. Market Share 1986 – September 2011

(Sales of Detroit 3 N. American “owned” production)



Source: CAR Research

2011 Announced Automaker U.S. & CAN Investments: Almost \$10Billion

Company	City	State	Company	City	State
Ford	Chicago	IL	GM	Warren	MI
GM	Bedford	IN	Ford	Wayne	MI
GM	Fairfax	KS	GM	Wyoming	MI
GM	Bowling Green	KY	Ford	Kansas City	MO
Chrysler	Auburn Hills	MI	GM	Wentzville	MO
GM	Bay City	MI	GM	Rochester	NY
Ford	Dearborn	MI	GM	Tonawanda	NY
Ford	Flat Rock	MI	Chrysler	Toledo	OH
GM	Flint	MI	GM	Defiance	OH
GM	Hamtramck	MI	GM	Toledo	OH
GM	Lansing	MI	Ford	Avon Lake	OH
GM	Pontiac	MI	GM	Oshawa	ONT
GM	Romulus	MI	Chrysler	Brampton	ONT
GM	Saginaw	MI	GM	Spring Hill	TN
Chrysler	Trenton	MI	GM	Arlington	TX

Domestic Automaker Investments:
\$6.1Billion

International Automaker
Investments: \$3.9Billion

Company	City	State
Honda	Lincoln	AL
Hyundai / Kia	Hope Hull	AL
Mercedes	Vance	AL
Toyota	Denver	CO
Toyota	Jacksonville	FL
Hyundai / Kia	West Point	GA
Porsche	Atlanta	GA
Mitsubishi	Normal	IL
Subaru:	Lafayette	IN
Toyota	Ann Arbor	MI
Changan	Plymouth Twp.	MI
Honda	East Liberty	OH
Honda	Marysville	OH
Honda	Raymond	OH
Honda	Anna	OH
Toyota	Cambridge	ONT
Toyota	Woodstock	ONT
Nissan	Decherd	TN
Toyota	Houston	TX
Toyota	Buffalo	WV

The Importance of Exchange Rate Movements

- Quotes from Japan OEM's about Yen

“Toyota looks at carmaking abroad as yen causes ‘difficult time’” – Autonews 10.10.11

“Honda to cut exports from Japan 50% over next decade” –Autonews 10.5.11

“Strong yen hurts Japan automakers’ faster-than-expected recovery” – Onlycars.com 8.4.11

“Ghosn: Japan's yen policy puts output at risk” – Autonews 9.27.11

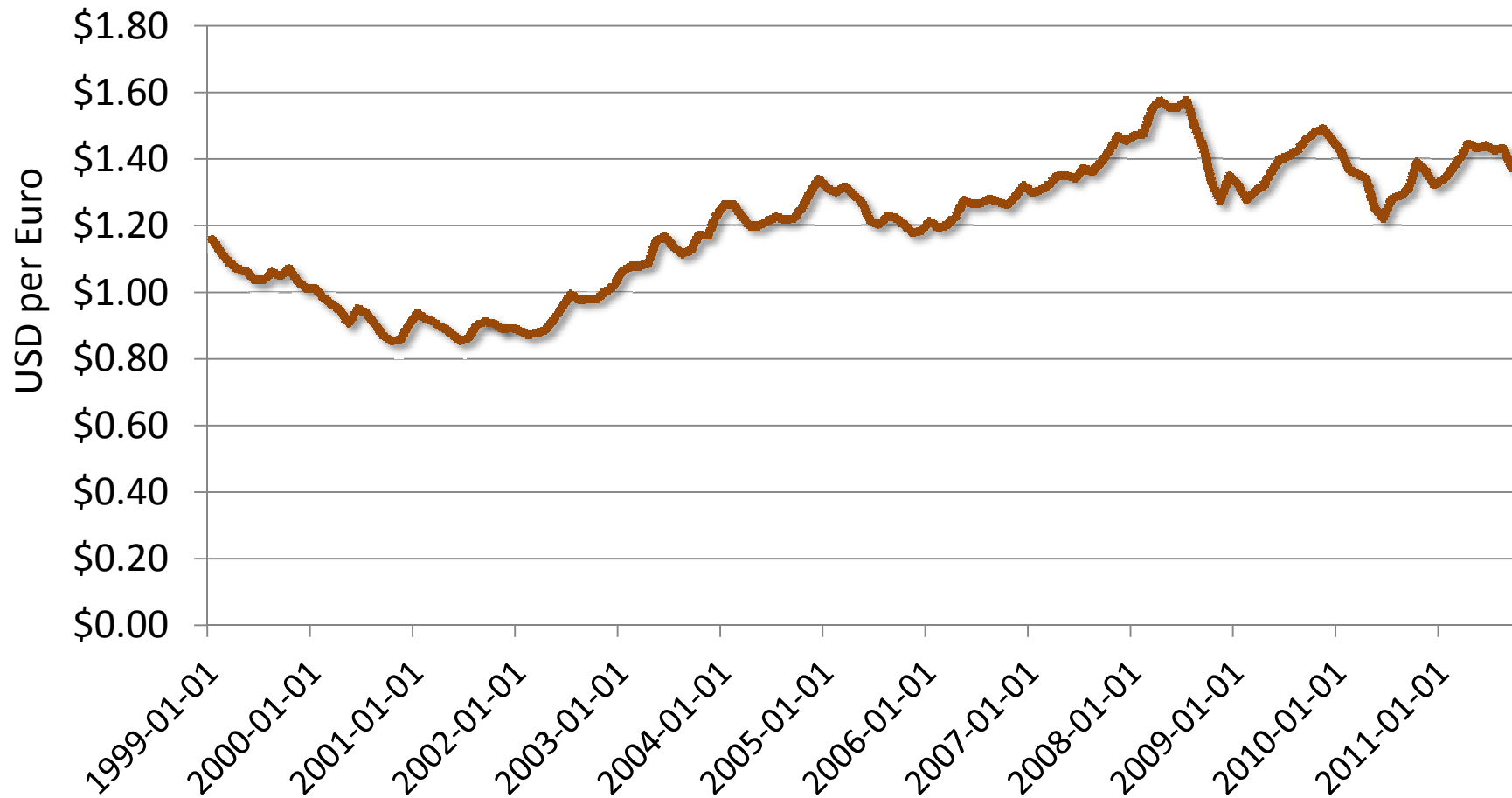
Japan/U.S. Foreign Exchange Rate: Yen per USD Monthly 1971-2011



Source: St. Louis Fred Database

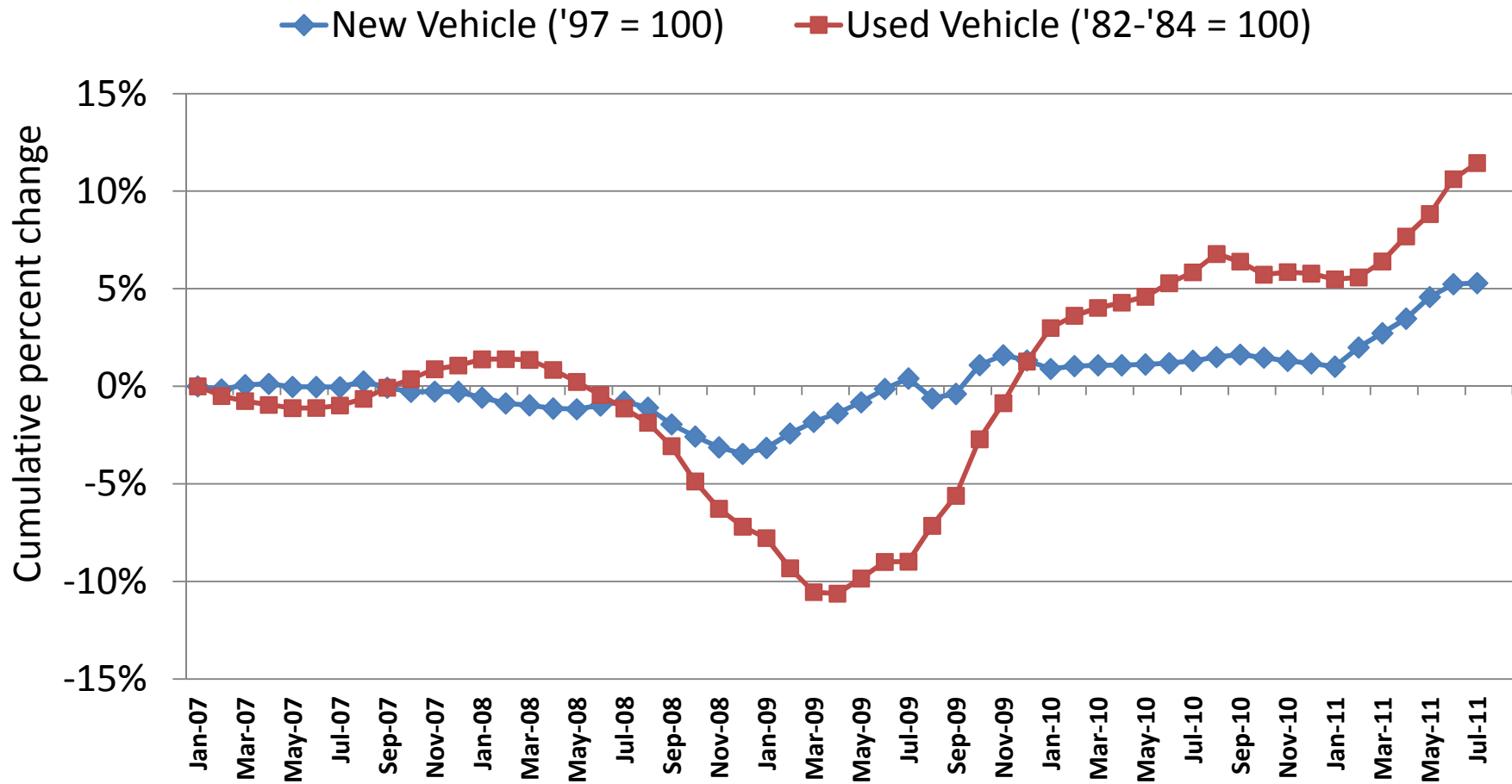
U.S./Euro Foreign Exchange Rate: USD per Euro

Monthly Jan. 1999- Sep. 2011



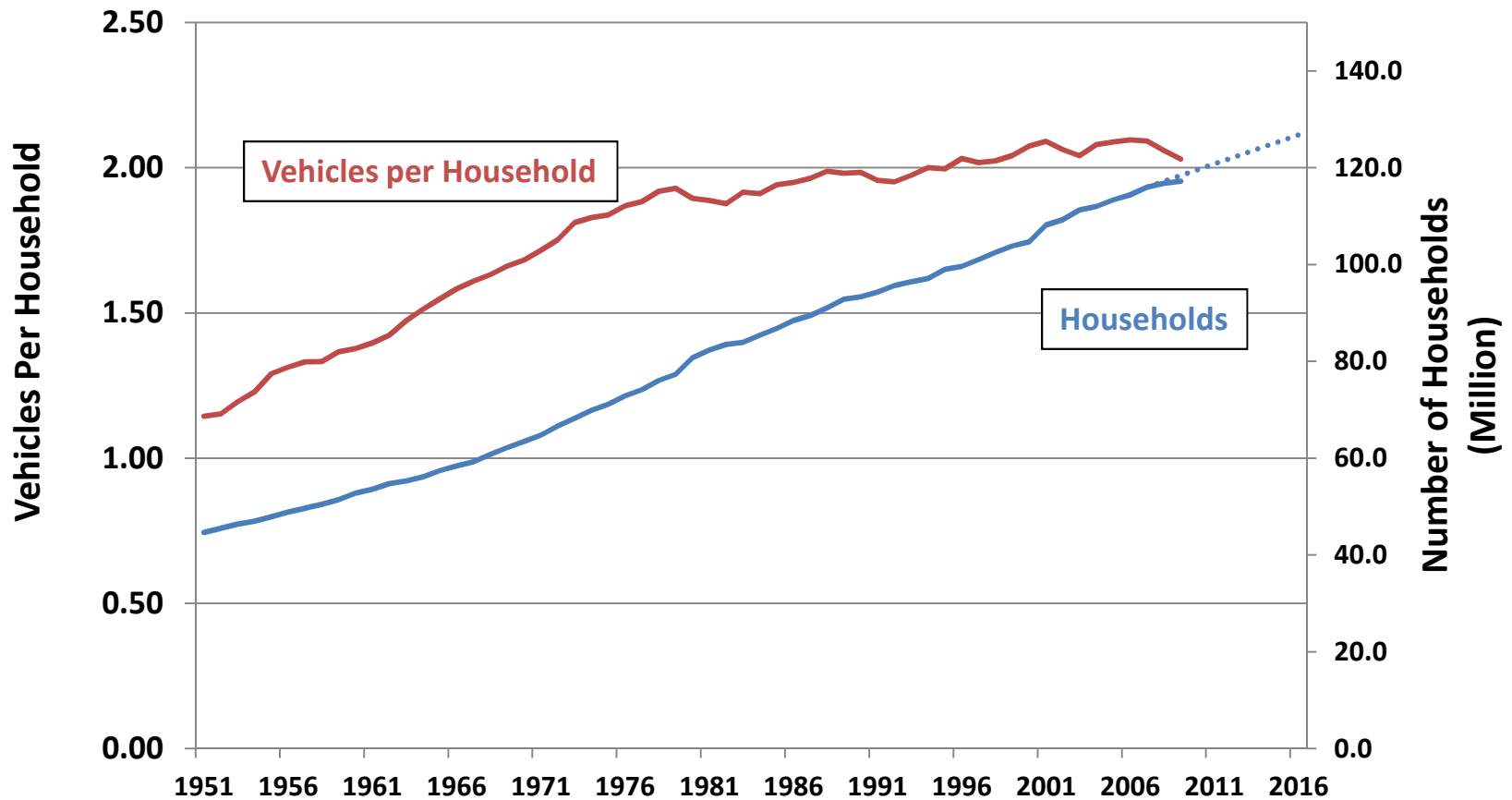
Source: St. Louis Fred Database

Changes from Jan '07: CPI-New Vehicle and CPI-Used Vehicle



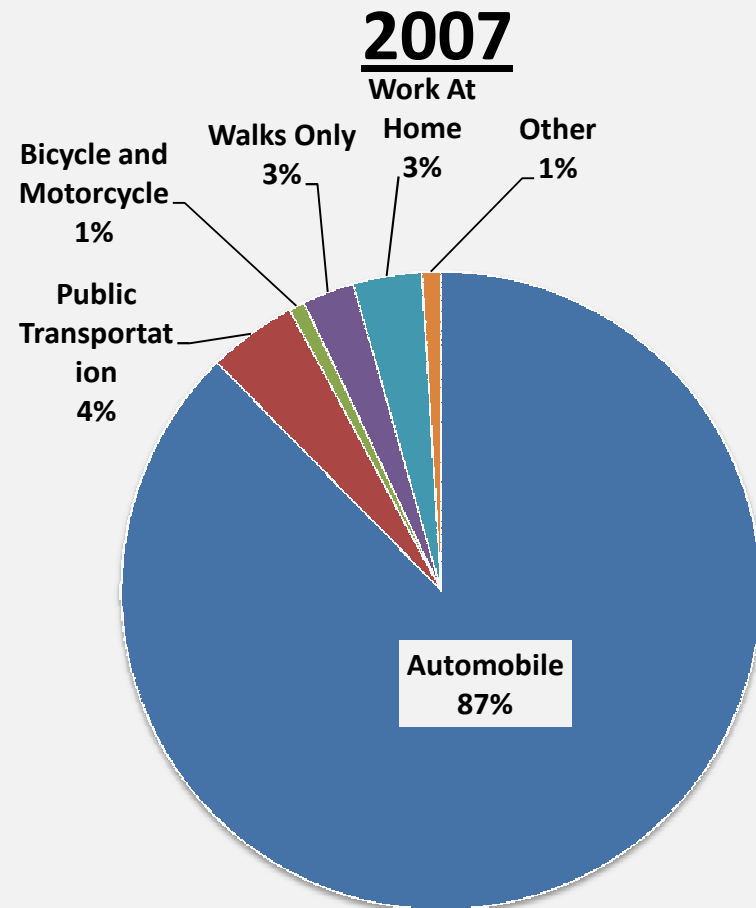
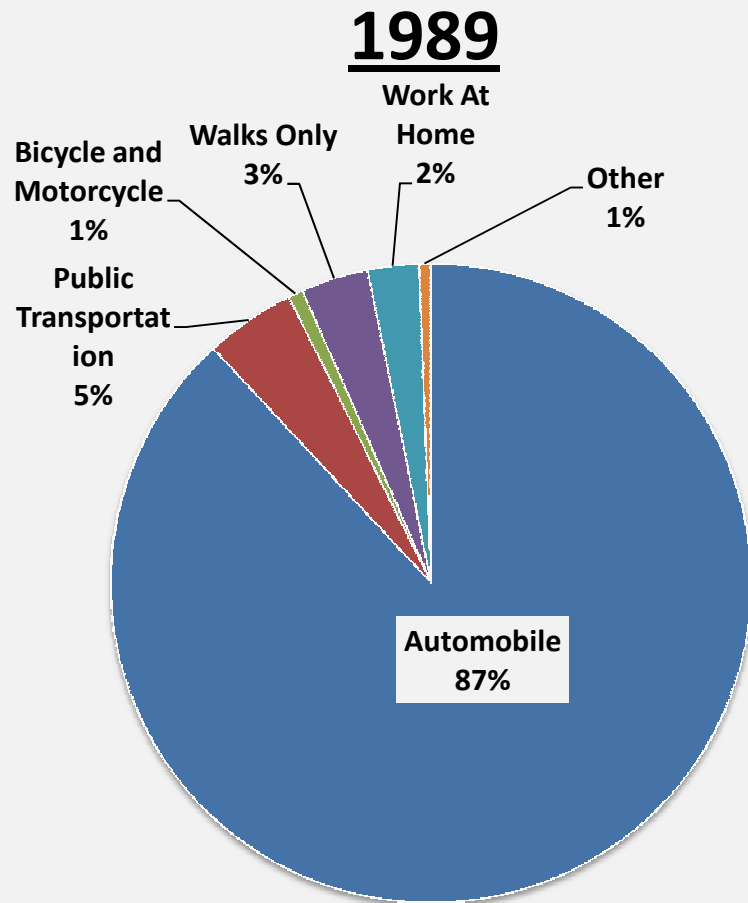
Number of Households and Vehicles Per Household

(adding 10 million households means 20 million+ more operating vehicles by 2016)



Source: U.S. Census Bureau, Current Population Reports, "Families and Living Arrangements";
U.S. Federal Highway Administration, Highway Statistics

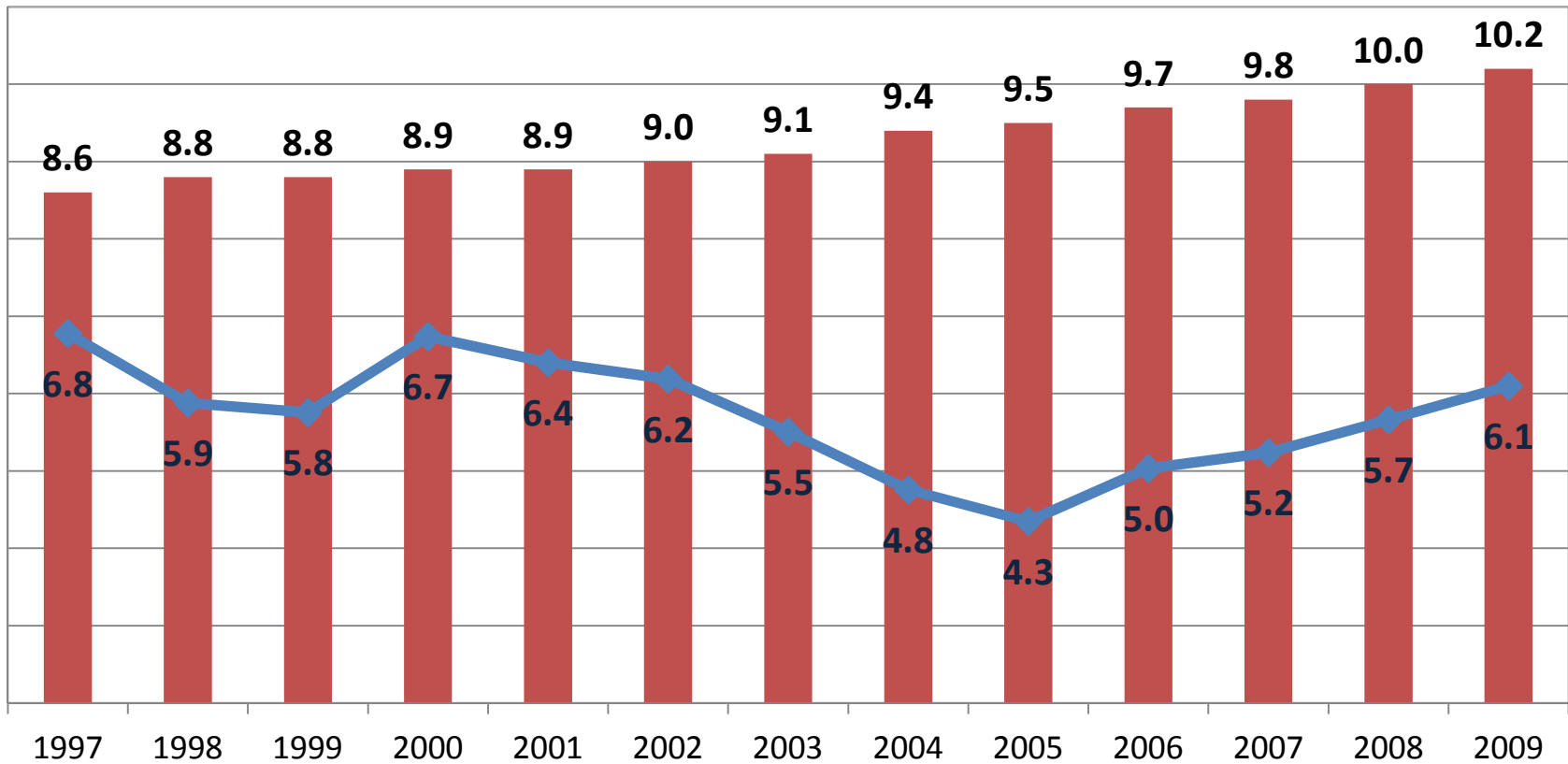
U.S. Principal Means of Transportation to Work



Source: U.S. Department of Housing and Urban Development, American Housing Survey, 1989 and 2007, U.S. Census Bureau

U.S. Light Vehicle Age and Scrappage Rate

■ Average Age ◆ Scrappage Rate (%)



Source: R.L. Polk

Thank You!



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