



ToolTech 2013:

What You Need to Know About the Economy

4-23-2013

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University of Southern California



1. The State of the US Economy

- a. Real GDP vs. Trend GDP (average long term trend growth since 1870)
- b. Real GDP Growth, 2006-2012
- c. Unemployment in the Great Recession and the Anemic Recovery
- d. Long Term Unemployment
- e. Discouraged Workers
- f. Labor Force Participation Rate
- g. The Great Recession versus Other Post-WWII Recessions
- h. Index of Leading Economic Indicators
- i. How Good are Economists at Forecasting?
- j. How is the U.S. Economy Doing?

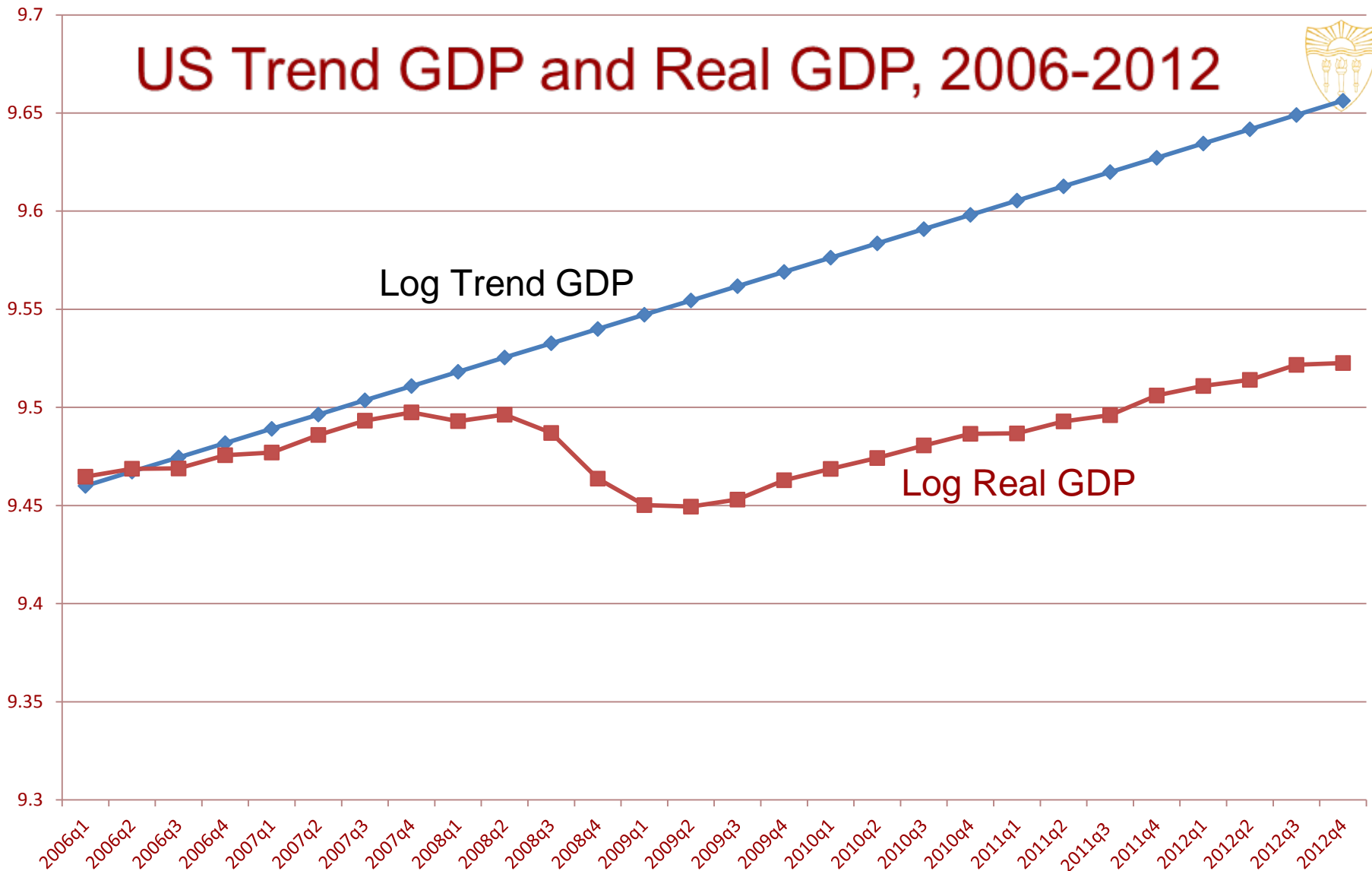
2. How Is the U.S. Auto Industry—Cars and Parts—Doing?

3. Investment, Saving and Monetary Policy

4. Rules vs. Discretion: Dueling Monetary Policies

5. The Best Books to Read

US Trend GDP and Real GDP, 2006-2012



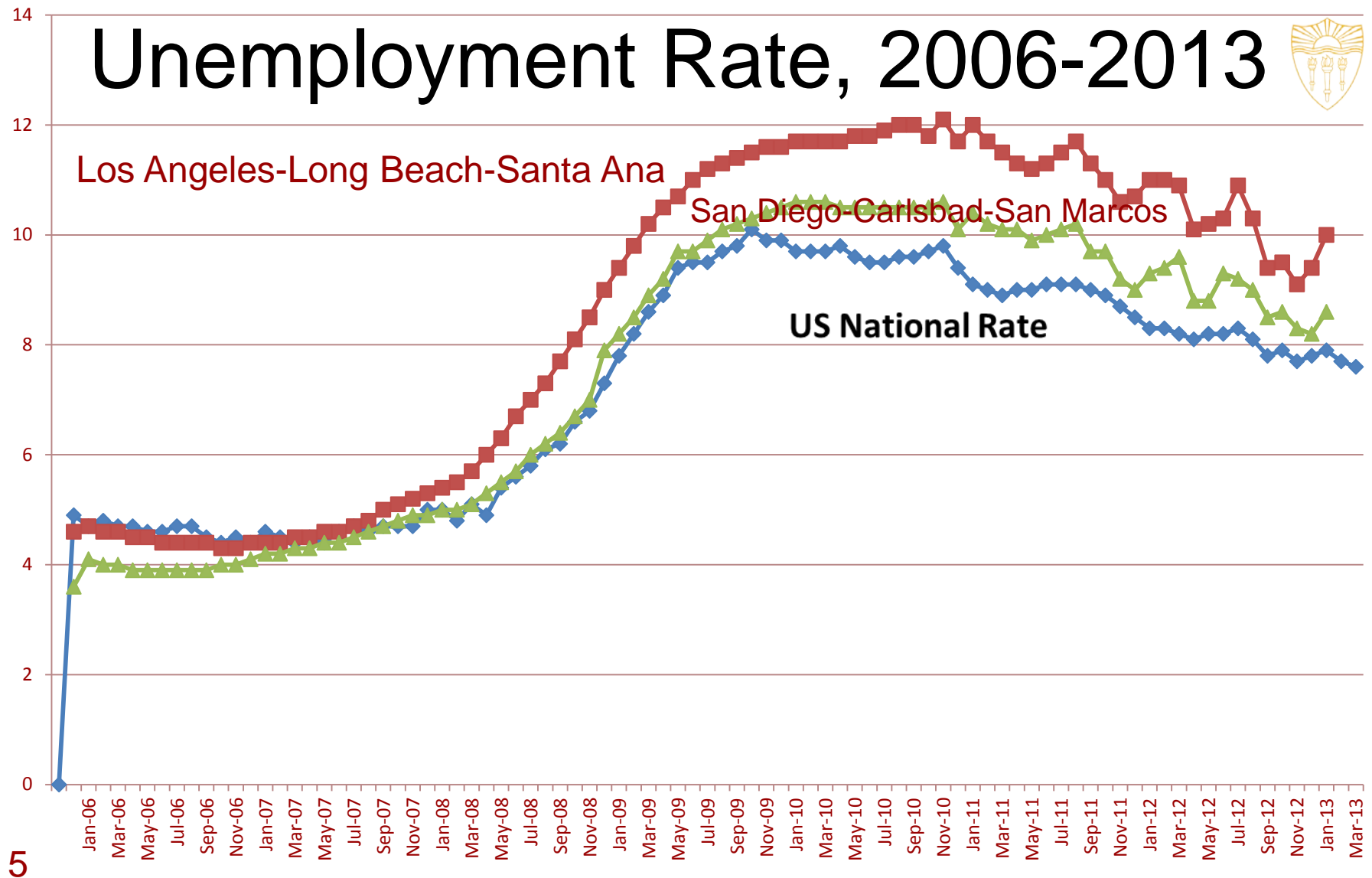


Real GDP Growth, 2006-2012





Unemployment Rate, 2006-2013



Long-Term Unemployment at Record Levels

Number unemployed for more than 26 weeks as a share of total unemployed



Sources: Bureau of Labor Statistics and National Bureau of Economic Research.

Center on Budget and Policy Priorities | cbpp.org



Discouraged Workers in Thousands, 2006-2013

These are people who used to look for work, but have stopped looking and are not currently employed. Discouraged Workers cause the unemployment rate to be an understatement.

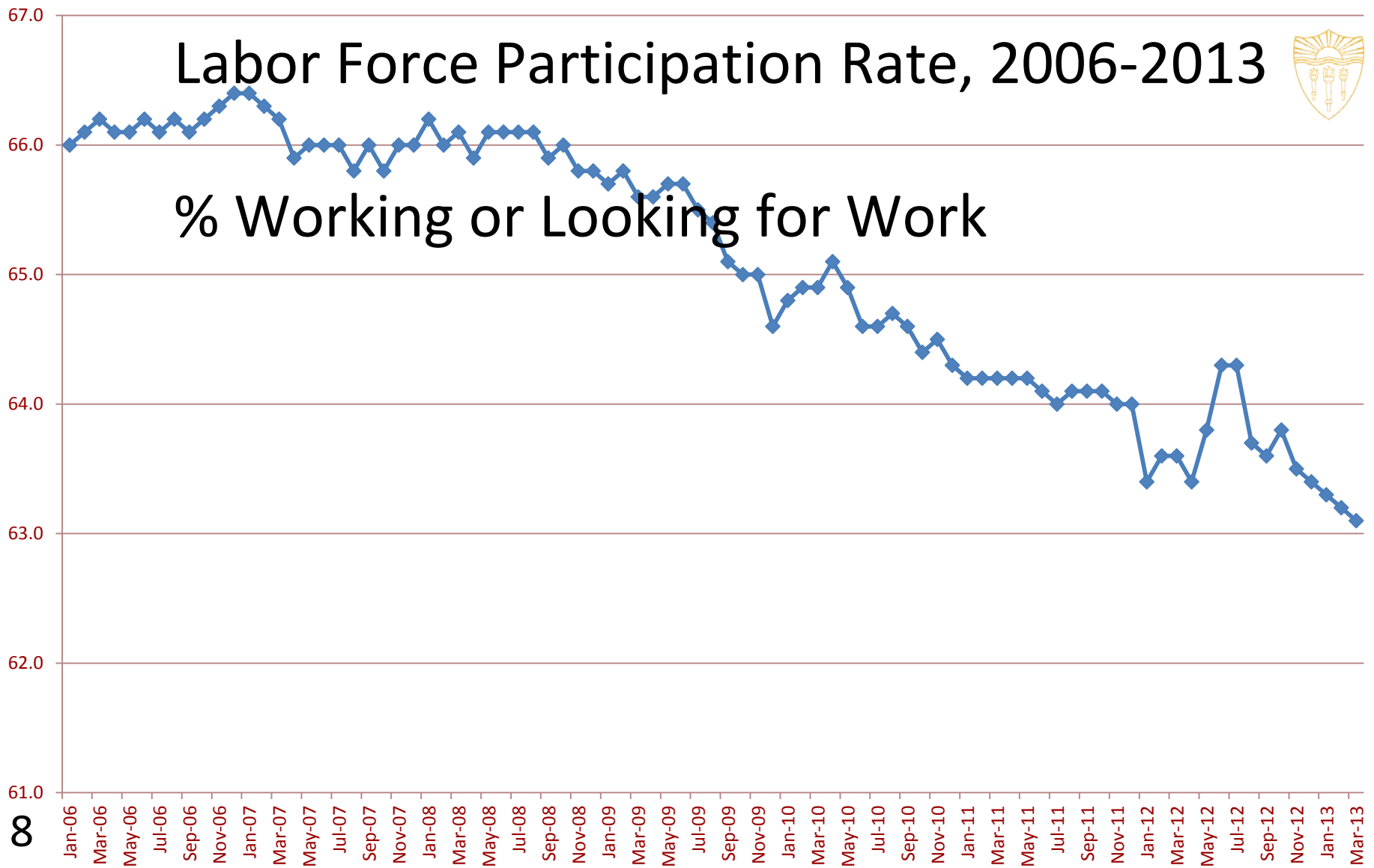
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Labor Force Participation Rate, 2006-2013



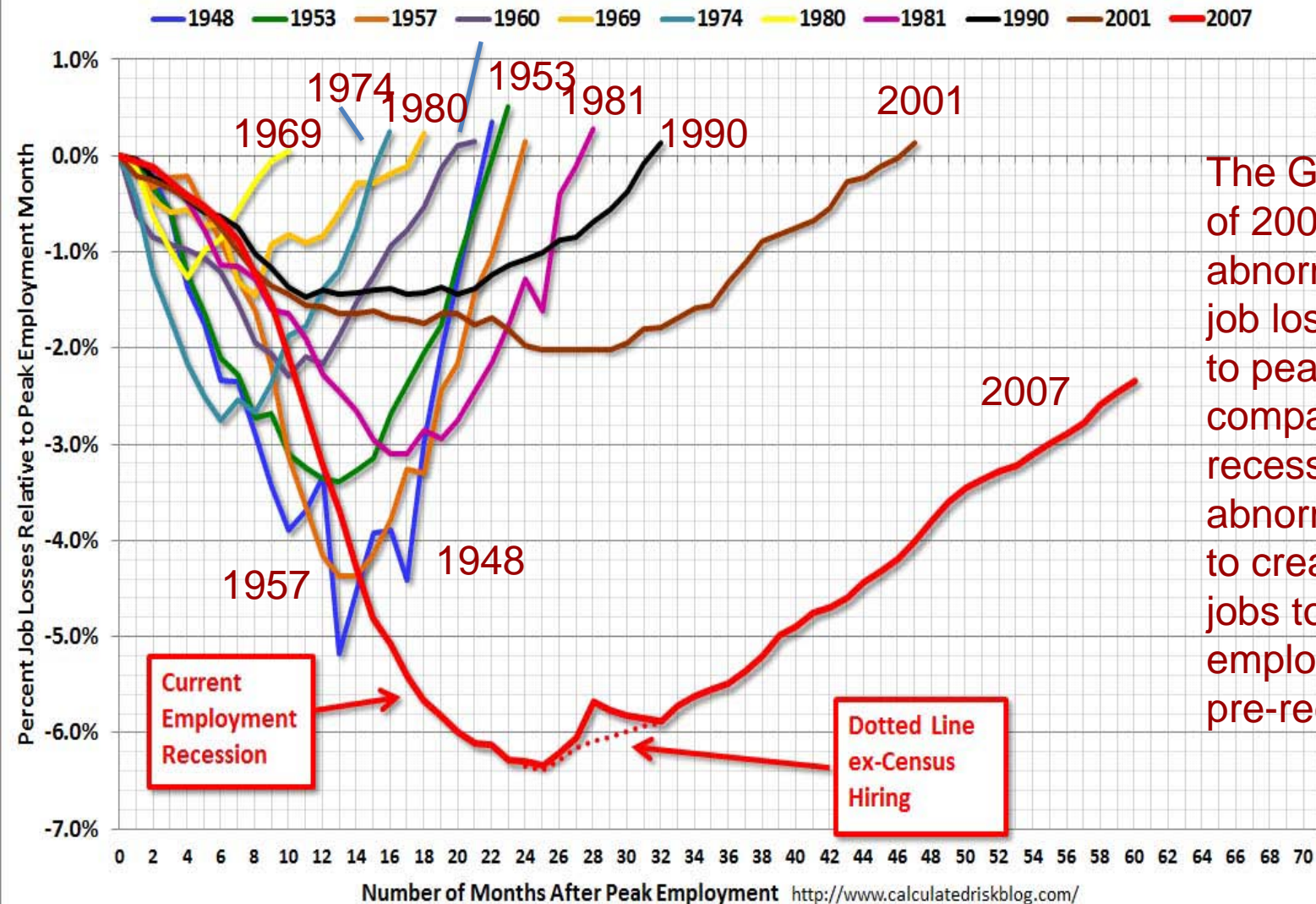
% Working or Looking for Work



8



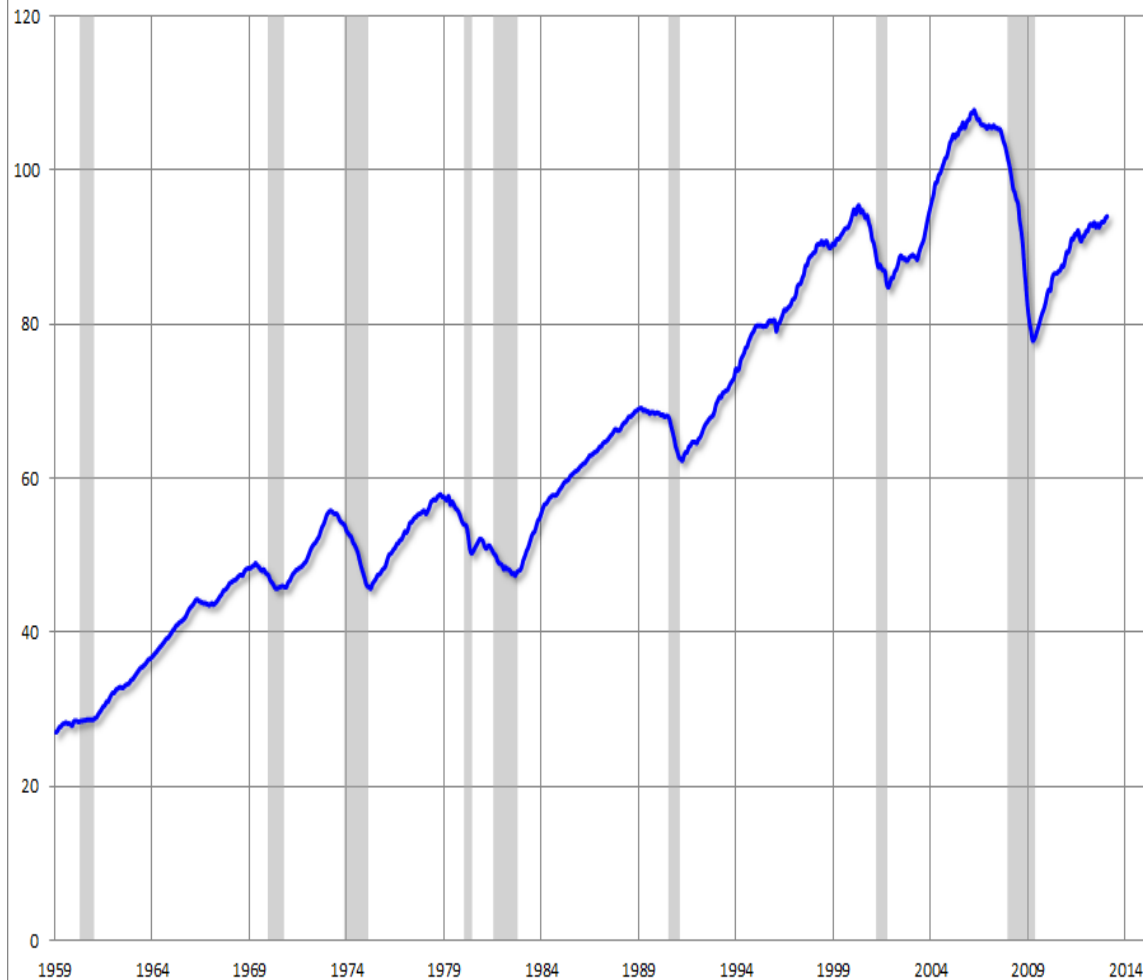
Percent Job Losses in Post WWII Recessions



The Great Recession of 2007-09 did see an abnormal percent of job losses relative to peak employment, compared with other recessions, and an abnormally long time to create sufficient jobs to return employment to the pre-recession levels.

Conference Board Leading Economic Index with Recessions Highlighted

dshort.com
February 2013



The ten components of **The Conference Board Leading Economic Index®** for the U.S. include:

1. Average weekly hours, manufacturing
2. Average weekly initial claims for unemployment insurance
3. Manufacturers' new orders, consumer goods and materials
4. Institute for Supply Management Index of New Orders
5. Manufacturers' new orders, nondefense capital goods excluding aircraft orders
6. Building permits, new private housing units
7. Stock prices, 500 common stocks
8. *Leading Credit Index™*
9. Interest rate spread, 10-year Treasury bonds less federal funds
10. Average consumer expectations for business conditions



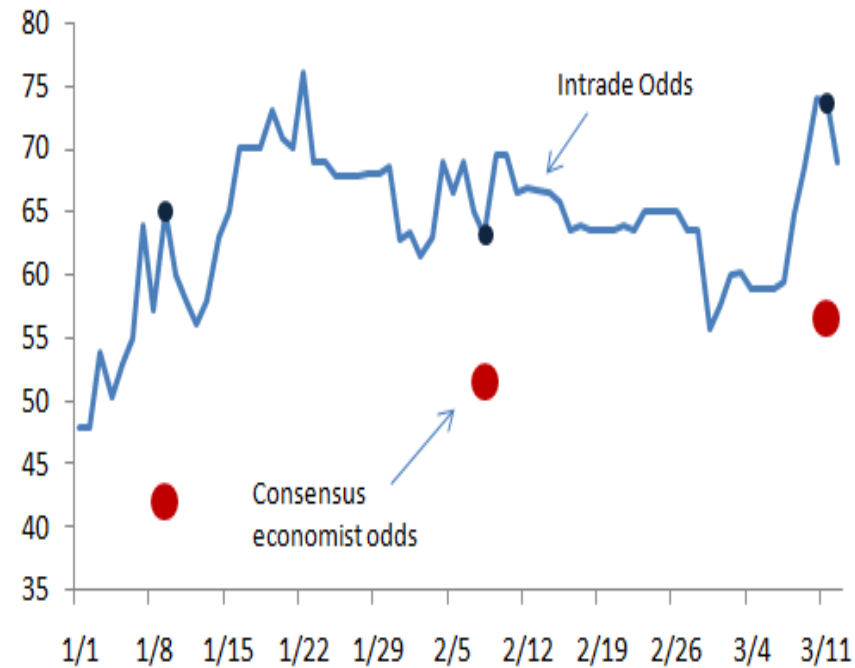
Economists are Not Forecasting a Recession... But Economists are Not Good at Forecasting

Exhibit 4: Economists Can't Forecast for Toffee (GDP % YoY, 4q ma)



Source: Federal Reserve Bank of Philadelphia Actual data through Jun 2010; projection through Sep 2011

Intrade Odds for a Recession vs Consensus Economist Odds





How is the US Economy doing?

Good News: It has been in recovery for years

Bad News: There are no signs of growth

It's like...



2. How Is the U.S. Auto Industry --Cars and Parts--Doing?

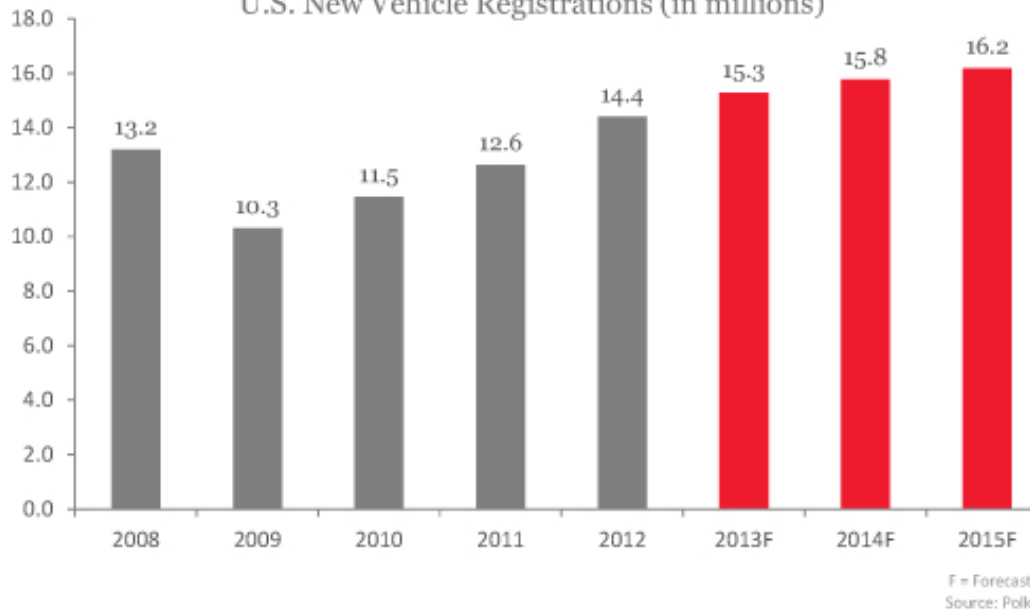


- a. U.S. Auto Industry Prospects: New and Used Autos and Auto Parts
- b. Personal Consumption Expenditures on Autos and Parts
- c. Prices in the Industry
- d. Auto Industry Employment
- e. Auto Industry Employment Growth in the Recovery
- f. Auto Parts Firms Stock Prices
- g. Did the TARP Bailout Prevent Bankruptcy of Chrysler and GM?
- h. Cash for Clunkers Program



U.S. Auto Industry Prospects: New Cars, Used Cars, and Auto Parts

U.S. New Vehicle Registrations (in millions)



Edmunds.com's Auto Sales Forecast 2013

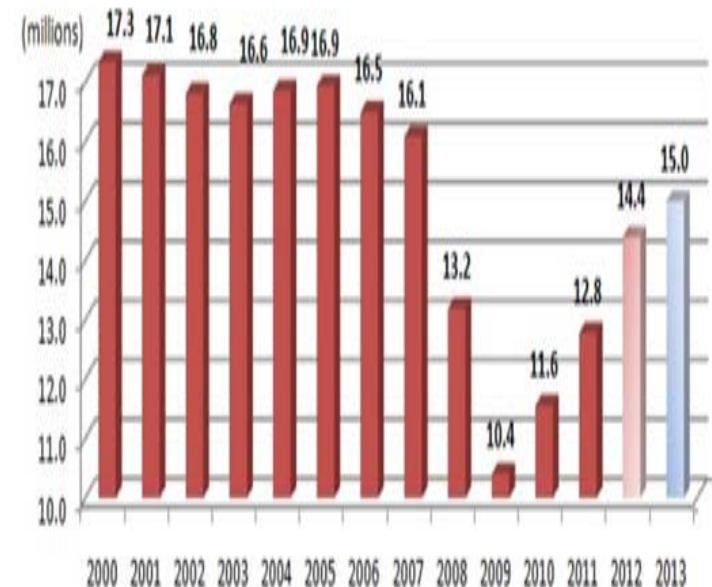
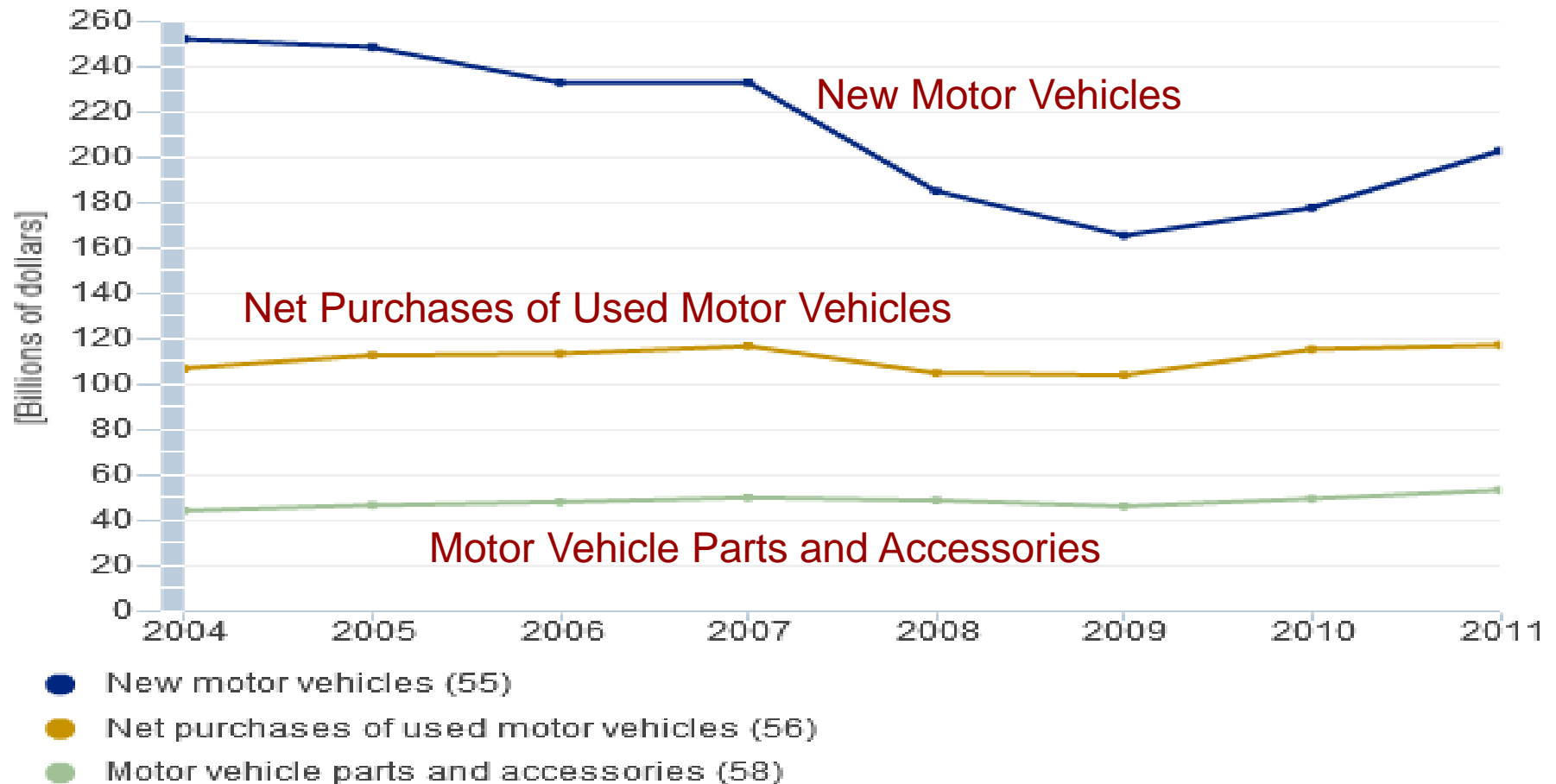


Table 2.4.5. Personal Consumption Expenditures by Type of Product

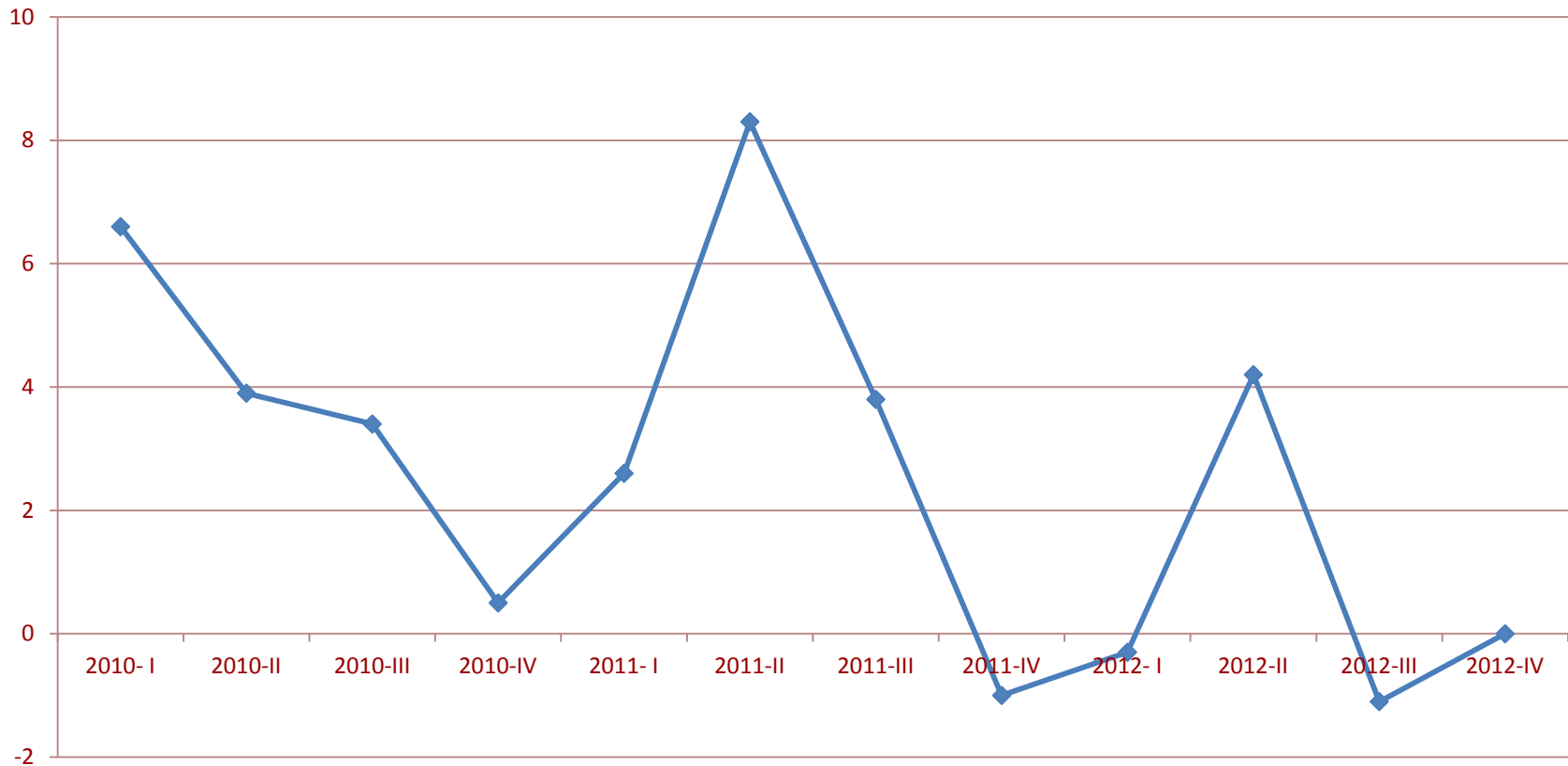
Last Revised on: August 02, 2012



Source: U.S. Bureau of Economic Analysis

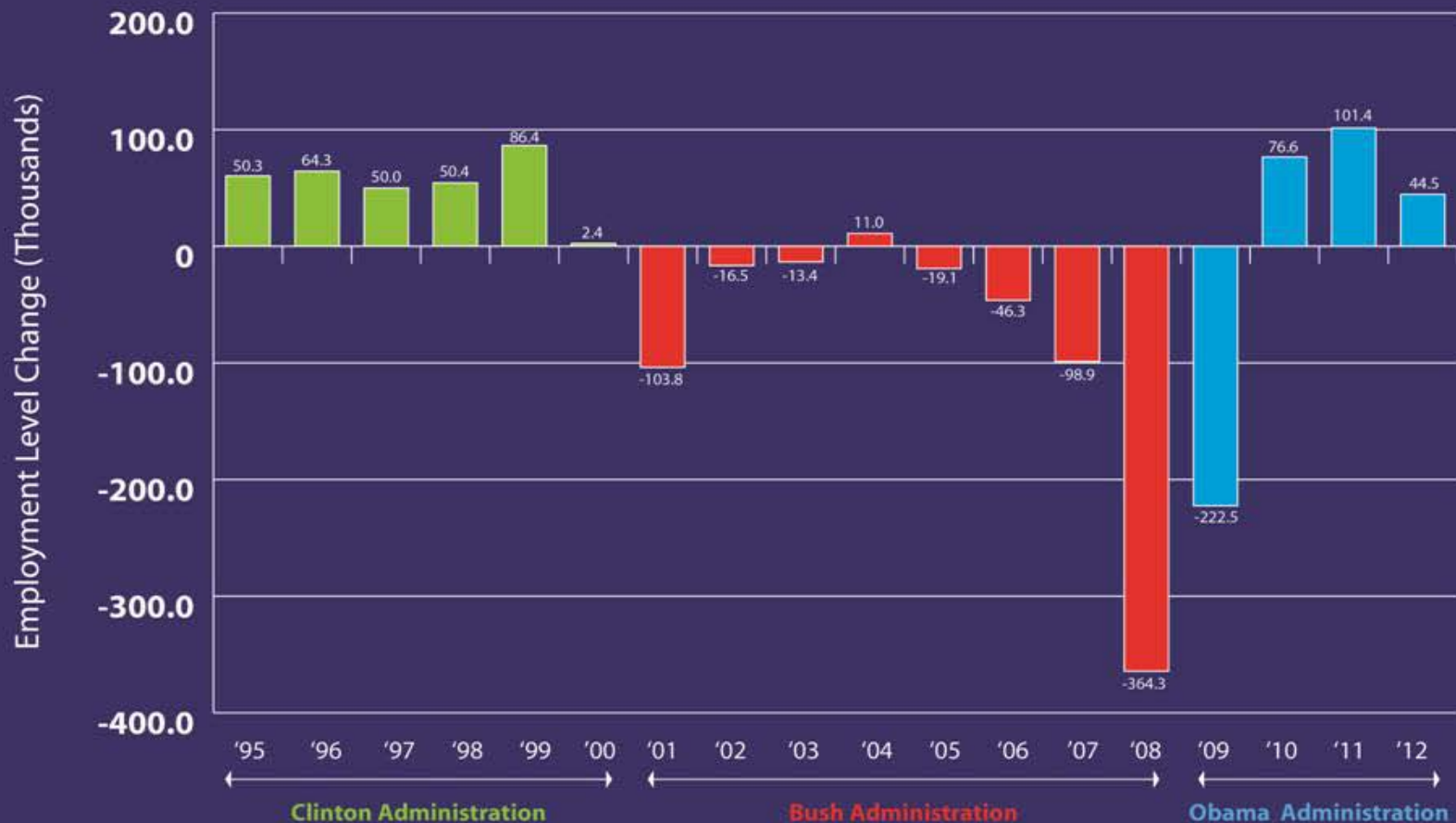
Table 2.3.7. Percent Change from Preceding Period in Prices for Personal Consumption Expenditures by Major Type of Product

[Quarters seasonally adjusted at annual rates] Seasonally adjusted at annual rates. Last Revised on: March 28, 2013 - Next Release Date April 26, 2013



Motor Vehicles and Parts Source: Bureau of Economic Analysis NIPA

Annual Auto Industry Employment Change: 1995-2012*



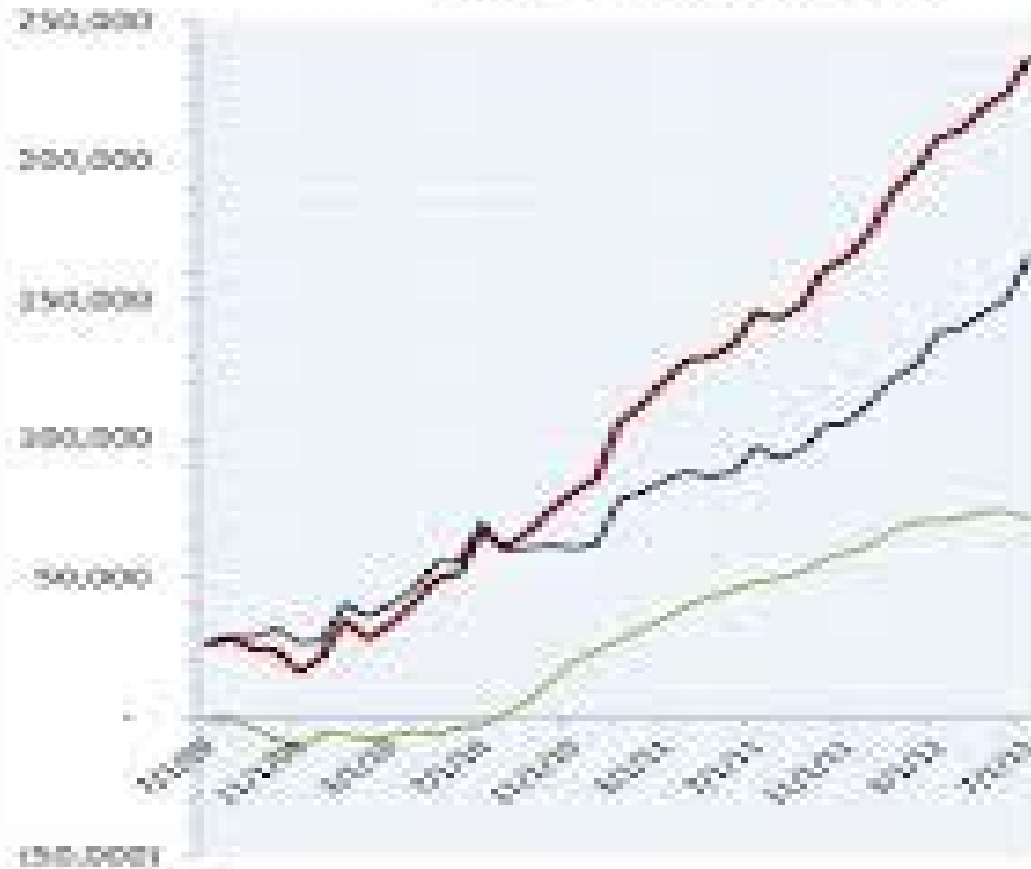
* Change in 2012 employment is YTD to June



U.S. AUTO SECTOR JOB GROWTH SINCE TROUGH (June 2009)

Source: Bureau of Labor Statistics

July 2012

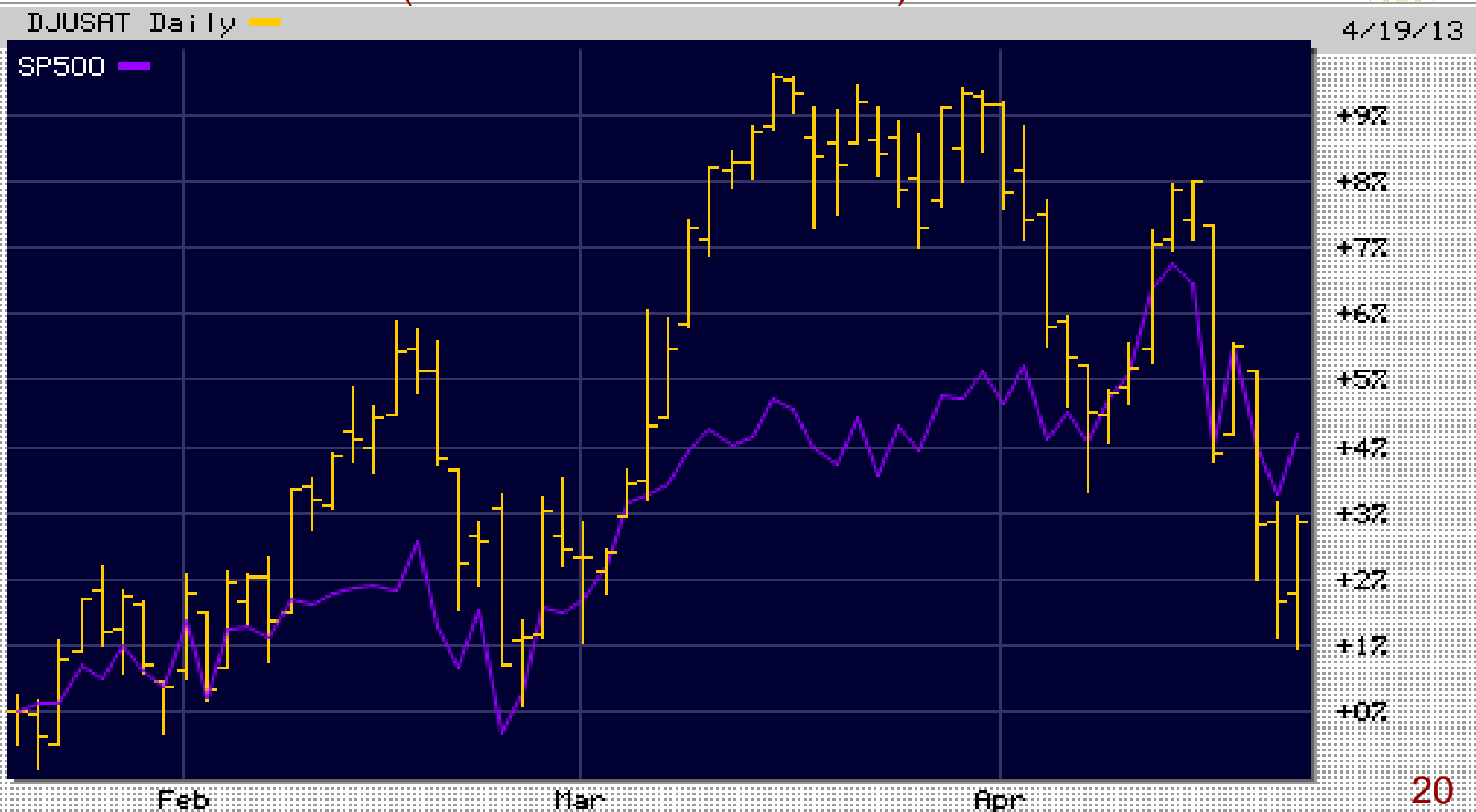


Total Auto Industry
Gain Since Trough = 218,800
Up 14.5%

Motor Vehicles & Parts
Gain Since Trough = 165,000
Up 11.4%

Auto Dealers
Gain Since Trough = 71,700
Up 7.3%

Dow Jones U.S. Auto Parts Stock Price Index 1/19/2013- 4/19/2013 (versus the S & P 500 in blue)



© BigCharts.com

<p>Doc 1 Filed 06/01/09 Entered 06/01/09 07:57:51 Main Document</p> <p style="text-align: center;">United States Bankruptcy Court District of Columbia</p> <p style="text-align: center;">Southern District of New York</p>	<p style="text-align: center;">Voluntary Petition</p>																																																				
<p>Name of Debtor (If individual, enter Last, First, Middle) GENERAL MOTORS CORPORATION</p>																																																					
<p>All Other Names used by the Debtor in the last 8 years (Include married, maiden, and trade names) N/A</p>																																																					
<p>See Schedule 1 Attached</p>																																																					
<p>Last four digits of Sec. No. or Individual-Taxpayer I.D. (ITIN) No./Complete EIN (if more than one, state all): 38-0672515</p>																																																					
<p>Street Address of Debtor (No. and Street, City, and State): 300 Renaissance Center</p>																																																					
<p>Detroit, Michigan</p>	<p>ZIP CODE 48265-3000</p>																																																				
<p>County of Residence or of the Principal Place of Business: Wayne County</p>																																																					
<p>Meeting Address of Debtor (if different from street address): N/A</p>																																																					
<p>ZIP CODE N/A</p>																																																					
<p>Location of Principal Assets of Business Debtor (if different from street address above): N/A</p>																																																					
<p>ZIP CODE 10153</p>																																																					
<p>767 Fifth Avenue, New York, New York</p>																																																					
<p>Type of Debtor (Check one box)</p> <p><input type="checkbox"/> Debtor is Individual</p> <p><input type="checkbox"/> Debtor is Corporation (include LLC and LLP)</p> <p><input type="checkbox"/> Partnership</p> <p><input type="checkbox"/> Other (If other, list name and state type of entity below):</p>																																																					
<p>Notices of Business (Check one box)</p> <p><input type="checkbox"/> Single Asset Real Estate as defined in 11 U.S.C. § 541(c)(2)</p> <p><input type="checkbox"/> Railroad</p> <p><input type="checkbox"/> Air carrier</p> <p><input type="checkbox"/> Financial institution</p> <p><input type="checkbox"/> Securities broker</p> <p><input type="checkbox"/> Commodity broker</p> <p><input type="checkbox"/> Insurance broker</p> <p><input type="checkbox"/> Other _____</p>																																																					
<p>Automatic Stay (Check box, if applicable)</p> <p><input type="checkbox"/> Debtor is a tax-exempt organization as under Title 26 of the United States Code (the Internal Revenue Code)</p>																																																					
<p>Filing Fee (Check one box)</p> <p><input checked="" type="checkbox"/> Filing Fee waived</p> <p><input type="checkbox"/> Filing fee will be paid in installments (attach schedule showing debtors' ability to pay in installments. Last installment due: _____)</p> <p><input type="checkbox"/> Filing fee waived because the debtor's unsecured claim is less than \$100.00. See Official Form 3A.</p> <p><input type="checkbox"/> Filing fee waived because the debtor is exempt from fee liability. Must attach signed application for fee waiver. See Official Form 3B.</p>																																																					
<p>Statistical/Analytical Information</p> <p><input type="checkbox"/> Debtor estimates that 40% or less of debtors is distributed to secured creditors.</p> <p><input type="checkbox"/> Debtor estimates that, after any exempt property is distributed to exempted creditors, there will be funds available for distribution to unsecured creditors.</p>																																																					
<p>Estimated Number of Creditors (on a Consolidated Basis)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>1-50</td> <td>51-100</td> <td>101-150</td> <td>151-200</td> <td>201-250</td> <td>251-300</td> <td>301-350</td> <td>351-400</td> <td>401-450</td> <td>451-500</td> <td>501-550</td> <td>551-600</td> <td>601-650</td> <td>651-700</td> <td>701-750</td> <td>751-800</td> <td>801-850</td> <td>851-900</td> <td>901-950</td> <td>951-1,000</td> <td>More than 1,000</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>		1-50	51-100	101-150	151-200	201-250	251-300	301-350	351-400	401-450	451-500	501-550	551-600	601-650	651-700	701-750	751-800	801-850	851-900	901-950	951-1,000	More than 1,000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										
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<p>Estimated Assets (on a Consolidated Basis)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>\$0</td> <td>\$0 - \$100,000</td> <td>\$100,001 - \$250,000</td> <td>\$250,001 - \$500,000</td> <td>\$500,001 - \$750,000</td> <td>\$750,001 - \$1,000,000</td> <td>\$1,000,001 - \$2,500,000</td> <td>\$2,500,001 - \$5,000,000</td> <td>\$5,000,001 - \$10,000,000</td> <td>\$10,000,001 - \$25,000,000</td> <td>\$25,000,001 - \$50,000,000</td> <td>\$50,000,001 - \$100,000,000</td> <td>\$100,000,001 - \$250,000,000</td> <td>\$250,000,001 - \$500,000,000</td> <td>\$500,000,001 - \$1,000,000,000</td> <td>\$1,000,000,001 - \$2,500,000,000</td> <td>\$2,500,000,001 - \$5,000,000,000</td> <td>\$5,000,000,001 - \$10,000,000,000</td> <td>\$10,000,000,001 - \$25,000,000,000</td> <td>\$25,000,000,001 - \$50,000,000,000</td> <td>\$50,000,000,001 - \$100,000,000,000</td> <td>\$100,000,000,001 - \$250,000,000,000</td> <td>\$250,000,000,001 - \$500,000,000,000</td> <td>\$500,000,000,001 - \$1,000,000,000,000</td> <td>\$1,000,000,000,001 - \$2,500,000,000,000</td> <td>\$2,500,000,000,001 - \$5,000,000,000,000</td> <td>\$5,000,000,000,001 - \$10,000,000,000,000</td> <td>\$10,000,000,000,001 - \$25,000,000,000,000</td> <td>\$25,000,000,000,001 - \$50,000,000,000,000</td> <td>\$50,000,000,000,001 - \$100,000,000,000,000</td> <td>\$100,000,000,000,001 - \$250,000,000,000,000</td> <td>\$250,000,000,000,001 - \$500,000,000,000,000</td> <td>\$500,000,000,000,001 - \$1,000,000,000,000,000</td> <td>\$1,000,000,000,000,001 - \$2,500,000,000,000,000</td> <td>\$2,500,000,000,000,001 - \$5,000,000,000,000,000</td> <td>\$5,000,000,000,000,001 - \$10,000,000,000,000,000</td> <td>\$10,000,000,000,000,001 - \$25,000,000,000,000,000</td> <td>\$25,000,000,000,000,001 - \$50,000,000,000,000,000</td> <td>\$50,000,000,000,000,001 - \$100,000,000,000,000,000</td> <td>\$100,000,000,000,000,001 - \$250,000,000,000,000,000</td> <td>\$250,000,000,000,000,001 - \$500,000,000,000,000,000</td> <td>\$500,000,000,000,000,001 - \$1,000,000,000,000,000,000</td> <td>\$1,000,000,000,000,000,001 - \$2,500,000,000,000,000,000</td> <td>\$2,500,000,000,000,000,001 - \$5,000,000,000,000,000,000</td> <td>\$5,000,000,000,000,000,001 - \$10,000,000,000,000,000,000</td> <td>\$10,000,000,000,000,000,001 - \$25,000,000,000,000,000,000</td> <td>\$25,000,000,000,000,000,001 - \$50,000,000,000,000,000,000</td> <td>\$50,000,000,000,000,000,001 - \$100,000,000,000,000,000,000</td> <td>\$100,000,000,000,000,000,001 - \$250,000,000,000,000,000,000</td> <td>\$250,000,000,000,000,000,001 - \$500,000,000,000,000,000,000</td> <td>\$500,000,000,000,000,000,001 - \$1,000,000,000,000,000,000,000</td> <td>\$1,000,0</td></tr></table>		\$0	\$0 - \$100,000	\$100,001 - \$250,000	\$250,001 - \$500,000	\$500,001 - \$750,000	\$750,001 - \$1,000,000	\$1,000,001 - \$2,500,000	\$2,500,001 - \$5,000,000	\$5,000,001 - \$10,000,000	\$10,000,001 - \$25,000,000	\$25,000,001 - \$50,000,000	\$50,000,001 - \$100,000,000	\$100,000,001 - \$250,000,000	\$250,000,001 - \$500,000,000	\$500,000,001 - \$1,000,000,000	\$1,000,000,001 - \$2,500,000,000	\$2,500,000,001 - \$5,000,000,000	\$5,000,000,001 - \$10,000,000,000	\$10,000,000,001 - \$25,000,000,000	\$25,000,000,001 - \$50,000,000,000	\$50,000,000,001 - \$100,000,000,000	\$100,000,000,001 - \$250,000,000,000	\$250,000,000,001 - \$500,000,000,000	\$500,000,000,001 - \$1,000,000,000,000	\$1,000,000,000,001 - \$2,500,000,000,000	\$2,500,000,000,001 - \$5,000,000,000,000	\$5,000,000,000,001 - \$10,000,000,000,000	\$10,000,000,000,001 - \$25,000,000,000,000	\$25,000,000,000,001 - \$50,000,000,000,000	\$50,000,000,000,001 - \$100,000,000,000,000	\$100,000,000,000,001 - \$250,000,000,000,000	\$250,000,000,000,001 - \$500,000,000,000,000	\$500,000,000,000,001 - \$1,000,000,000,000,000	\$1,000,000,000,000,001 - \$2,500,000,000,000,000	\$2,500,000,000,000,001 - \$5,000,000,000,000,000	\$5,000,000,000,000,001 - \$10,000,000,000,000,000	\$10,000,000,000,000,001 - \$25,000,000,000,000,000	\$25,000,000,000,000,001 - \$50,000,000,000,000,000	\$50,000,000,000,000,001 - \$100,000,000,000,000,000	\$100,000,000,000,000,001 - \$250,000,000,000,000,000	\$250,000,000,000,000,001 - \$500,000,000,000,000,000	\$500,000,000,000,000,001 - \$1,000,000,000,000,000,000	\$1,000,000,000,000,000,001 - \$2,500,000,000,000,000,000	\$2,500,000,000,000,000,001 - \$5,000,000,000,000,000,000	\$5,000,000,000,000,000,001 - \$10,000,000,000,000,000,000	\$10,000,000,000,000,000,001 - \$25,000,000,000,000,000,000	\$25,000,000,000,000,000,001 - \$50,000,000,000,000,000,000	\$50,000,000,000,000,000,001 - \$100,000,000,000,000,000,000	\$100,000,000,000,000,000,001 - \$250,000,000,000,000,000,000	\$250,000,000,000,000,000,001 - \$500,000,000,000,000,000,000	\$500,000,000,000,000,000,001 - \$1,000,000,000,000,000,000,000	\$1,000,0
\$0	\$0 - \$100,000	\$100,001 - \$250,000	\$250,001 - \$500,000	\$500,001 - \$750,000	\$750,001 - \$1,000,000	\$1,000,001 - \$2,500,000	\$2,500,001 - \$5,000,000	\$5,000,001 - \$10,000,000	\$10,000,001 - \$25,000,000	\$25,000,001 - \$50,000,000	\$50,000,001 - \$100,000,000	\$100,000,001 - \$250,000,000	\$250,000,001 - \$500,000,000	\$500,000,001 - \$1,000,000,000	\$1,000,000,001 - \$2,500,000,000	\$2,500,000,001 - \$5,000,000,000	\$5,000,000,001 - \$10,000,000,000	\$10,000,000,001 - \$25,000,000,000	\$25,000,000,001 - \$50,000,000,000	\$50,000,000,001 - \$100,000,000,000	\$100,000,000,001 - \$250,000,000,000	\$250,000,000,001 - \$500,000,000,000	\$500,000,000,001 - \$1,000,000,000,000	\$1,000,000,000,001 - \$2,500,000,000,000	\$2,500,000,000,001 - \$5,000,000,000,000	\$5,000,000,000,001 - \$10,000,000,000,000	\$10,000,000,000,001 - \$25,000,000,000,000	\$25,000,000,000,001 - \$50,000,000,000,000	\$50,000,000,000,001 - \$100,000,000,000,000	\$100,000,000,000,001 - \$250,000,000,000,000	\$250,000,000,000,001 - \$500,000,000,000,000	\$500,000,000,000,001 - \$1,000,000,000,000,000	\$1,000,000,000,000,001 - \$2,500,000,000,000,000	\$2,500,000,000,000,001 - \$5,000,000,000,000,000	\$5,000,000,000,000,001 - \$10,000,000,000,000,000	\$10,000,000,000,000,001 - \$25,000,000,000,000,000	\$25,000,000,000,000,001 - \$50,000,000,000,000,000	\$50,000,000,000,000,001 - \$100,000,000,000,000,000	\$100,000,000,000,000,001 - \$250,000,000,000,000,000	\$250,000,000,000,000,001 - \$500,000,000,000,000,000	\$500,000,000,000,000,001 - \$1,000,000,000,000,000,000	\$1,000,000,000,000,000,001 - \$2,500,000,000,000,000,000	\$2,500,000,000,000,000,001 - \$5,000,000,000,000,000,000	\$5,000,000,000,000,000,001 - \$10,000,000,000,000,000,000	\$10,000,000,000,000,000,001 - \$25,000,000,000,000,000,000	\$25,000,000,000,000,000,001 - \$50,000,000,000,000,000,000	\$50,000,000,000,000,000,001 - \$100,000,000,000,000,000,000	\$100,000,000,000,000,000,001 - \$250,000,000,000,000,000,000	\$250,000,000,000,000,000,001 - \$500,000,000,000,000,000,000	\$500,000,000,000,000,000,001 - \$1,000,000,000,000,000,000,000	\$1,000,0		

Cash for Clunkers Program



Cash for Clunkers

Get all the info you need about the new CARS program and how to avoid scams.

Visit the official Government website at cars.gov

CARS
car allowance rebate system



The subsidy to buy new cars—and scrap old cars—had short term and long term effects.

Short term, there was a **temporary boost to new car sales**. This boost ended abruptly when the program ended on August 25, 2009, after about a month. Effectively, it moved sales of new cars into the period when the program was in effect, and had little net long term effect on sales of new cars.

Another effect was that **used cars in good running condition were scrapped**. They were not resold and maintained. They were destroyed.

That increased the price of used cars, and the lack of spare parts made it more expensive to maintain them.



3. Investment, Saving and Monetary Policy

- a. Government Income vs. Expenditures
- b. The Fiscal Cliff
- c. Successful and Unsuccessful Ways of Dealing with Deficits
- d. Chairman Bernanke's Discretionary Monetary Policy
- e. Investment and Saving in the Market for Credit:
Change Monetary Policy and You Change the Demand for Investment
- f. Why No Robust Recovery? Lack of Investment
- g. Relationship between Private Sector Investment and Unemployment
- h. Why No Inflation, No Investment? Excess Reserves
- i. Bank Financial Stress Index

4. Rules vs. Discretion: Dueling Monetary Policies

- j. Chairman Bernanke's Activist (Discretionary) Policy vs.
Rules Based Policy (Friedman, Taylor)
- k. The Taylor Curve and the Taylor Rule
 - l. Departure from the Rules Policy and the Financial Crisis
- m. Personnel is Policy: Who Will be Making Monetary Policy?
- n. Conclusions

5. The Best Books to Read

Government Income vs Expenditures



Source: Bureau of Economic Analysis

 American Bankers Association

The Fiscal Cliff



The Fiscal Cliff is the latest attempt to reduce the American Federal budget deficit, by a combination of tax increases and spending cuts.

Most of the economic impact of the fiscal cliff comes from tax increases, primarily the expiration of the Bush tax cuts for upper income households and an increase in the capital gains tax.

The historical record indicates that the **composition of the budget reform matters greatly**. Economists (Alesina and Ardagna) at Harvard looked at more than 100 attempts in 21 OECD nations (rich countries) to cut the ratio of debt to GDP in 1970-2007.

They found that **successful debt reduction program were those that predominantly cut government spending**.

Unsuccessful programs were ones that increased taxes—like the impending fiscal cliff.

25



The empirical evidence **does not support the conventional wisdom that spending cuts are bad for the economy.**

Unemployment compensation, which is extended by the fiscal cliff deal, is linked to higher unemployment duration.

But the empirical evidence does support the idea that **tax increases are bad for the economy.**

Tax increases on “the rich” (individuals making more than \$400,000, or couples making more than \$450,000) from marginal rates of 35% to 39.6% will harm the recovery because they reduce investment.

The **American Taxpayer Relief Act of 2012** (the official name of the fiscal cliff deal) also raises the capital gains tax from 15% to 20% for most taxpayers. This is very likely to deter investment— and low investment is a key reason why the recovery has been the worst on record since the Depression.

Successful and Unsuccessful Ways of Dealing with Deficits



Veronique de Rugy, “The Facts About Spending Cuts, the Debt, and GDP”

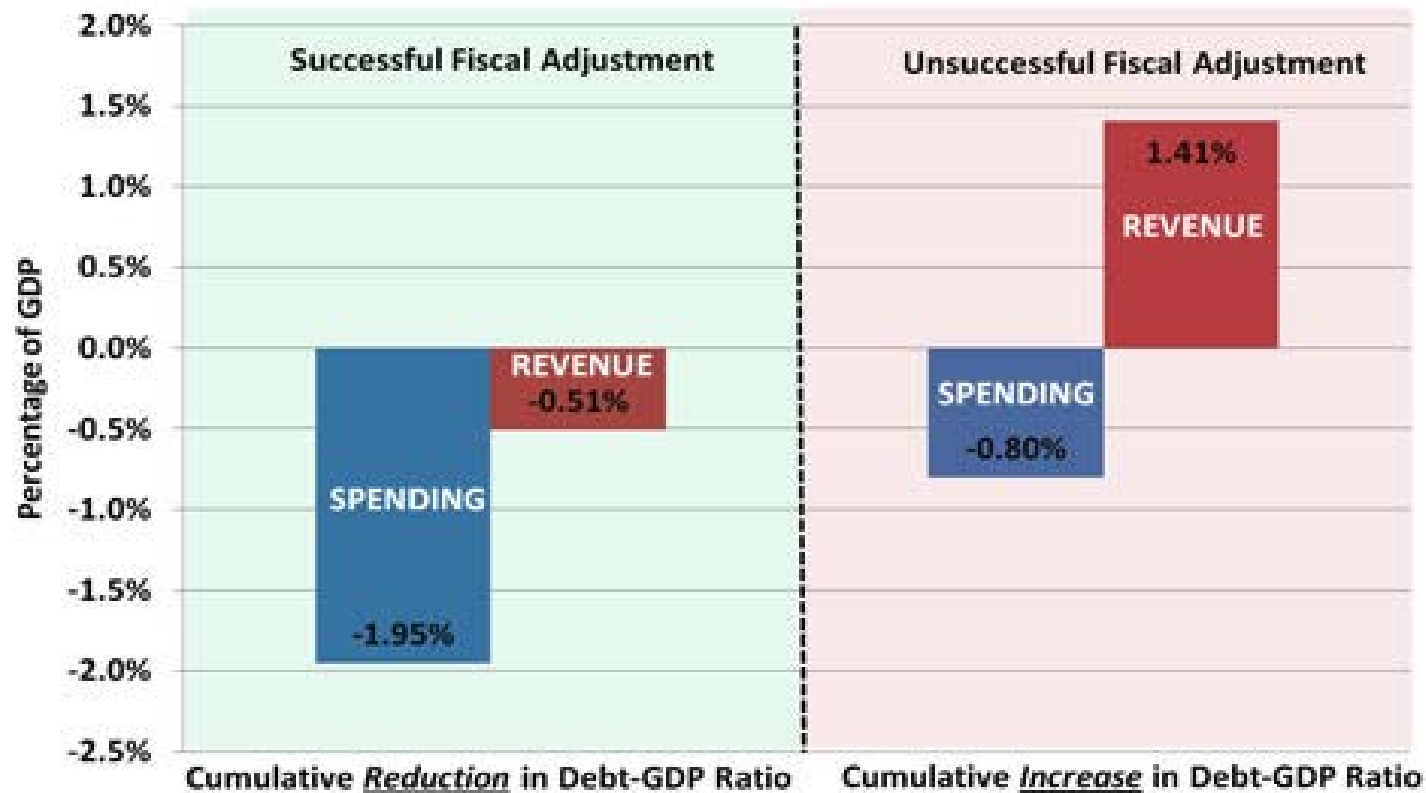
As you can see in this chart [next slide], in cases of **successful fiscal adjustments**—defined by the cumulative reduction in debt-to-GDP ratio three years after fiscal adjustment greater than 4.5 percentage **points**—**spending as a share of GDP fell by about 2 percentage points** while **revenue also fell by half a percentage point** (left bars).

On the other hand, **unsuccessful fiscal adjustment packages**—cumulative increases in debt-to-GDP ratio—were made of **smaller spending reductions** (only 0.8 percentage-point reduction) and **large revenue increases** (right bars).

The most recent deal was entirely tax increases, and no spending cuts. This is **likely to fail**, either to close the deficit or to help the economy recover, based on historical precedents.



Fiscal Adjustments by Spending and Revenue Changes in OECD Countries, 1970 to 2007



Source: Alesina and Ardagna, "Large changes in fiscal policy: taxes versus spending," 2009.
Produced by: Veronique de Rugy, Mercatus Center at George Mason University



Chairman Bernanke's Discretionary Monetary Policy

Critics of Federal Reserve Chairman Ben Bernanke allege that his monetary policy is one of excessive liquidity.

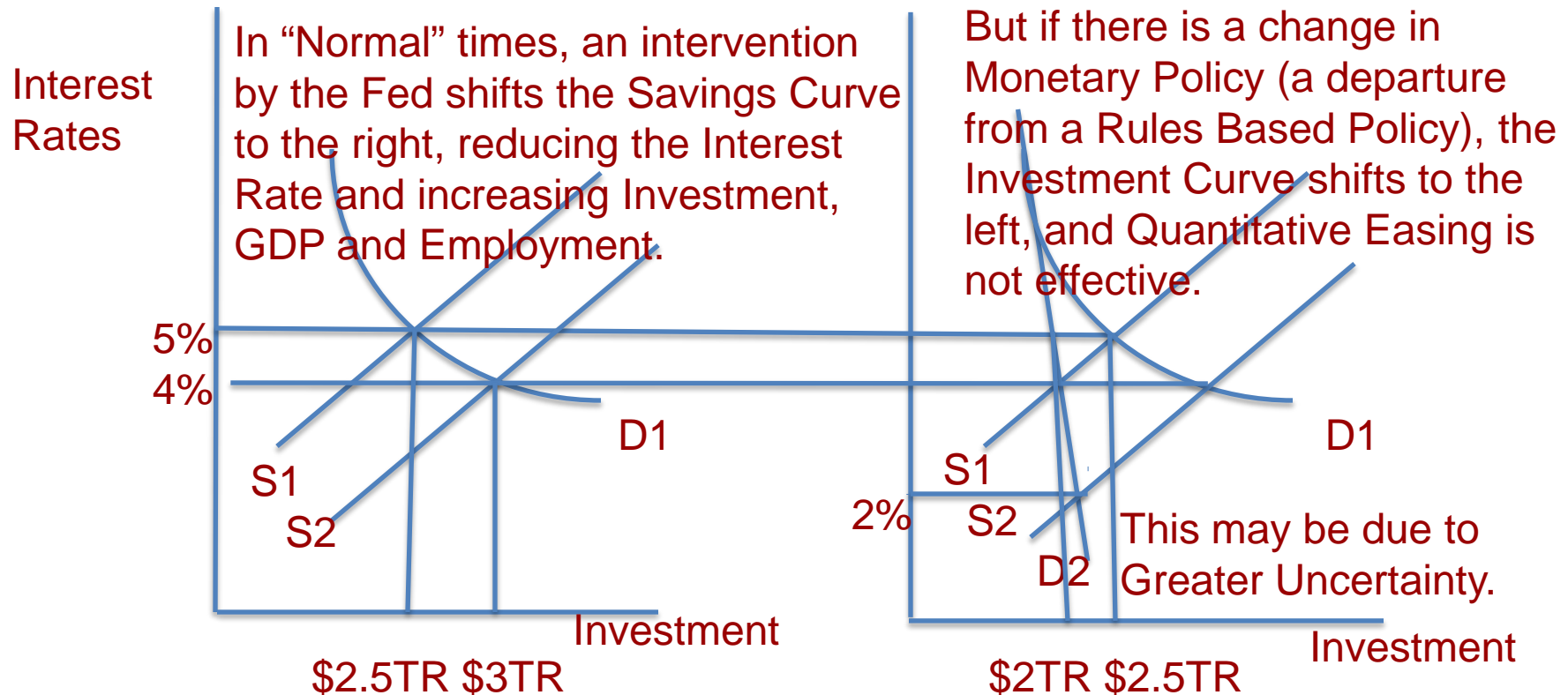
Nominal interest rates have been near Zero (QE1, QE2, QE3) but have not resulted in a rebound in investment.

Advocates of a return to a rules based monetary policy cite an increase in uncertainty stemming from discretionary policy.

Investment and Saving in the Market for Credit: Change Monetary Policy and You Change the Demand for Investment



The Market for Credit, like all markets, has Supply and Demand. Savings is the Supply Curve. Investment is the Demand Curve.



Why has there been no robust recovery? Lack of Investment



If investment I doesn't grow, neither will capital stock K , and thus neither will the demand for labor grow, or the GDP.

We are in the Great Recession (or its aftermath, a jobless recovery), **because of a lack of investment.**

This may be due to **uncertainty** about the economic climate: What will happen in the **Eurozone**, or China? There is great uncertainty about the implementation of the Patient Protection and Affordable Care Act (Obamacare), and how it could affect the cost of hiring.

Discretionary monetary policy creates uncertainty about interest rates and inflation.

Fiscal tax cliff? It could also add to uncertainty, harm investment.

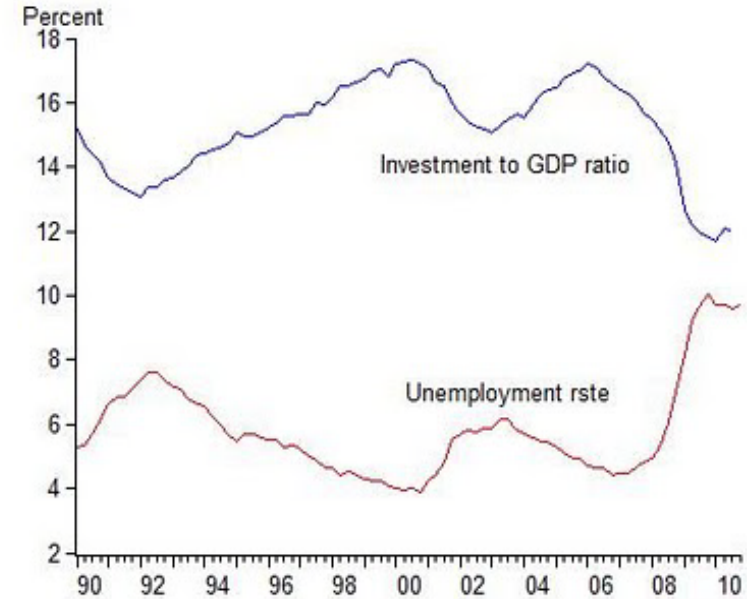
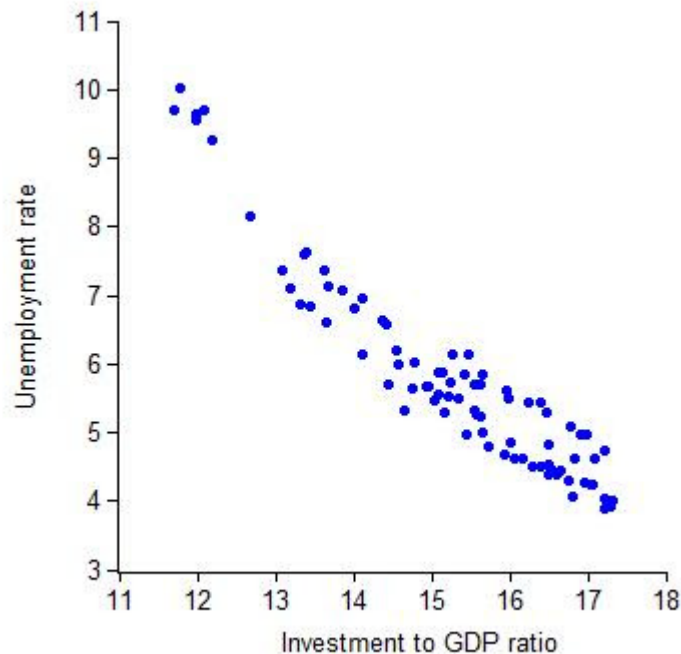


Figure 3: Relationship Between Investment and Unemployment

Above are graphs from the NIPA (John B. Taylor, 2011) showing the relationship between U.S. unemployment and the ratio of net fixed investment to U.S. GDP.

Excess Reserves

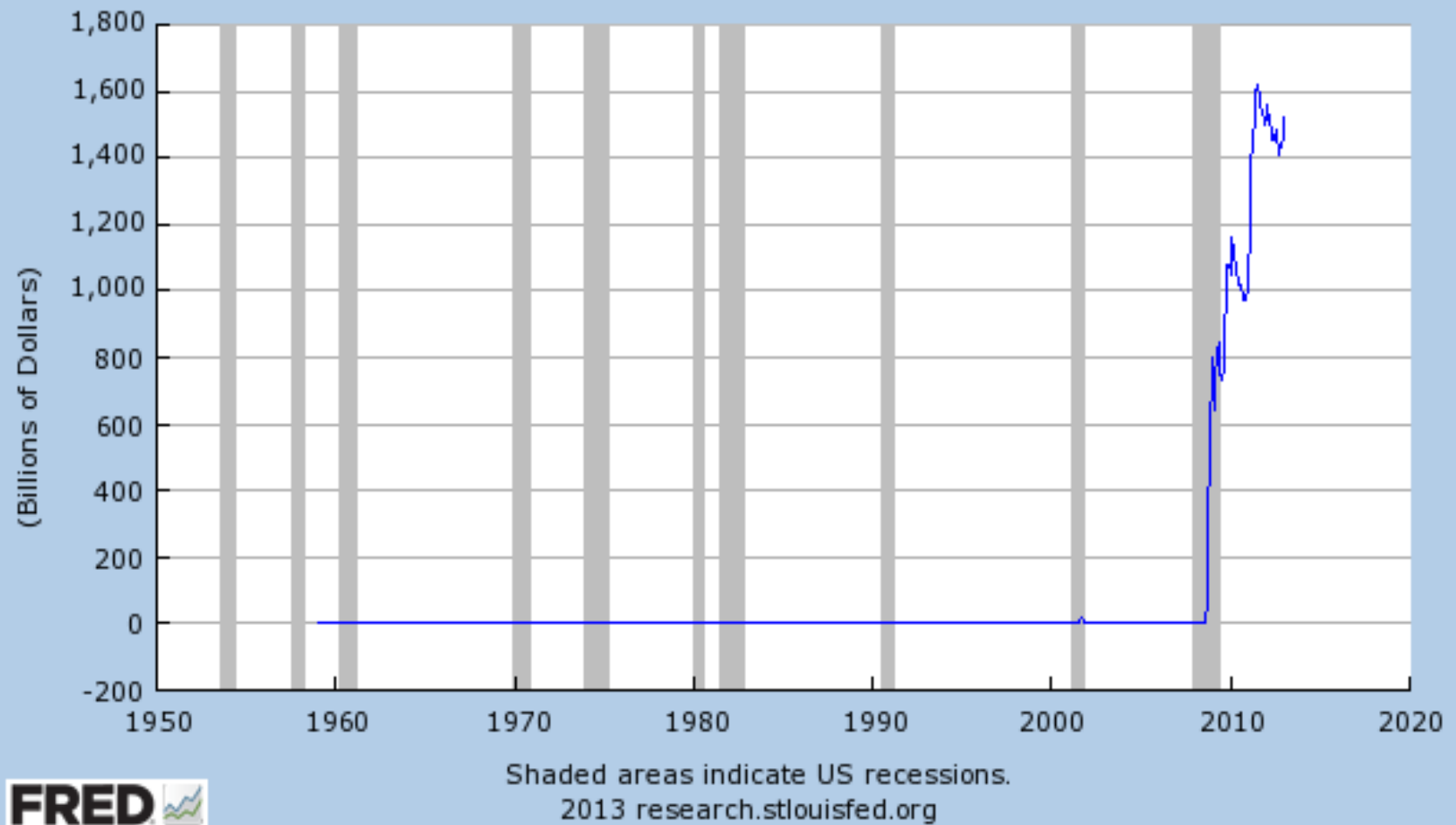


If banks are not lending, what are they doing with their deposits? They are holding reserves in excess of their required ratio of deposits.

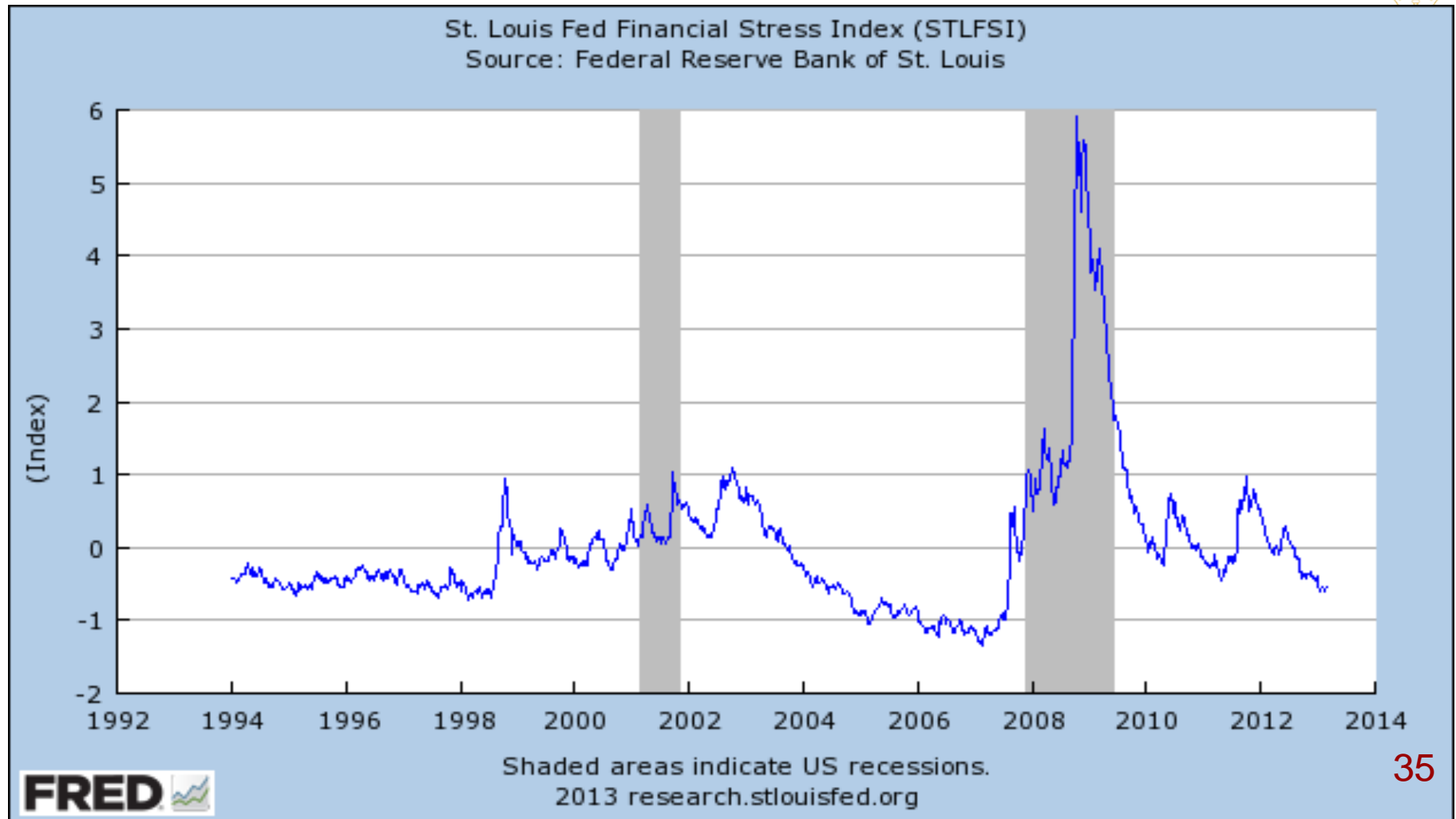
Excess reserves soared, in part as a precaution against bank runs, and in major part as a response to the new regulation (October 9, 2008) under which the Federal Reserve paid interest on reserves held with it, whether required or in excess of the requirement. It was a riskless way to earn a return.

This is money—more than a trillion dollars-- that was not lent to Main Street. It helps explain why there has been a huge increase in money created by the Fed, without inflation.

Excess Reserves of Depository Institutions (EXCRESNS)
Source: Board of Governors of the Federal Reserve System



Bank Financial Stress Index, 1994-2013



35

4. Rules vs. Discretion: Dueling Monetary Policies



Monetary Policy matters greatly. Chairman Bernanke's **QE3** is one in a continuing program of **activist policy** measures. The theory is that an activist Fed can respond to the latest macroeconomic developments by changing policy quickly.

An alternative to this is a **Rules Based Monetary Policy**. The theory here is that investment will be greater when investors can predict what the monetary policy will be.

More Certainty → More Investment → More Productive Workers
→ Less Unemployment

Perhaps the most successful rules based policy is the Taylor Rule, which has been applied by central banks in many countries. It gives predictability to monetary policy, which fosters investment and hiring.

The Taylor Curve: a Tradeoff Between Variance in Output and Variance in Inflation

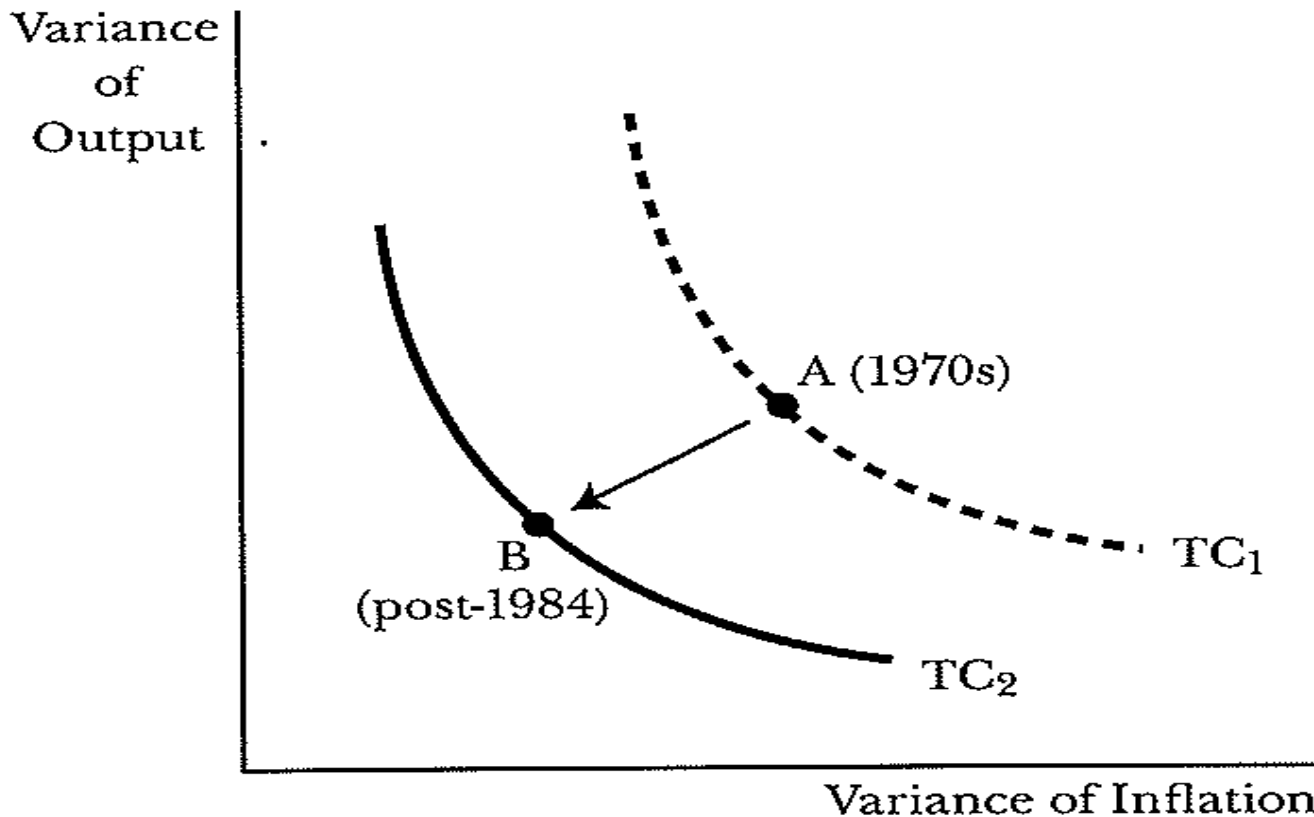


Figure 1. Monetary Policy and the Variability of Output and Inflation



The Taylor Rule: $r = p + 0.5y + 0.5(p - 2) + 2$

where r = the federal funds rate (the rate banks charge each other)

p = the rate of inflation over the previous four quarters

**y = the percent deviation of real GDP from trend growth
(trend GDP growth in the United States is about 3%)**

The recent estimate of the Taylor federal funds target is about 3.25%.

The actual federal funds rate is about 0.16%.

The Taylor Principle: the parameter on inflation, p , should be greater than one. So an increase in inflation should be dealt with by increasing the federal funds rate by more than 1:1. Above, the total parameter on p is $1 + 0.5 = 1.5$. The fed funds rate would rise half again as much as inflation.

Intellectual Influences on the Taylor Rule

- 1. Milton Friedman's Money Supply Growth Rule:** Conduct monetary policy so the M_s grows by 4% per year.
- 2. The Phillips Curve:** a Seeming Tradeoff between the Level of Inflation and the Level of Unemployment



John B. Taylor



Ben Bernanke



Donald L. Kohn

The **Taylor Curve was supported by empirical evidence**, and the publication of the evidence in 1993 after a 1992 conference inspired central bank economists in many countries to see if its policy corollary, the Taylor Rule, could be used as a guide to policy.

The graph in the next slide showing the fit of the Taylor Rule to actual monetary policy of Federal Reserve, is from Kohn, “It’s Not So Simple.”

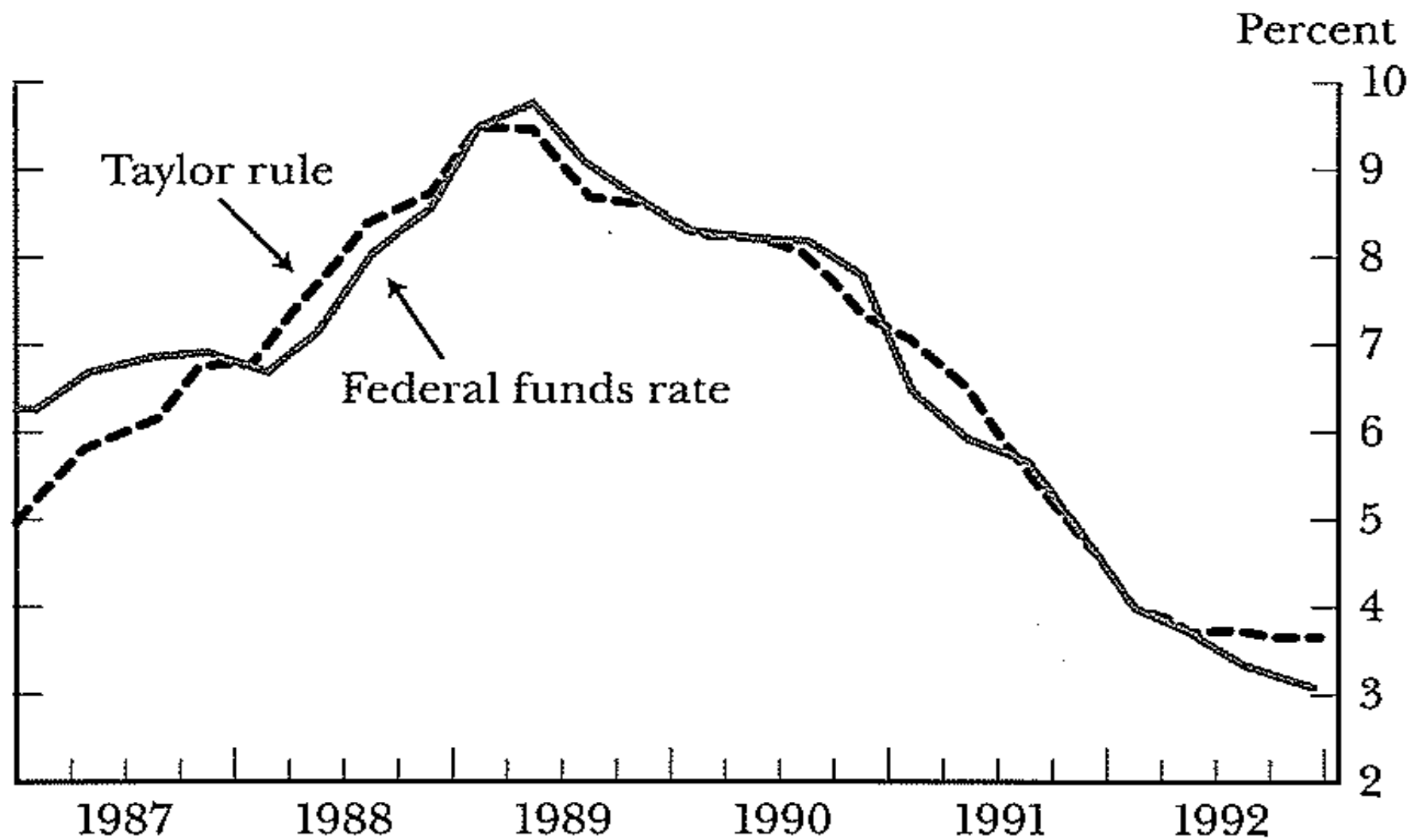


Figure 1A.

Transforming Theory into Central Bank Policy



Could the Taylor Curve/Taylor Rule theory actually work in practice?

Could the variation in both GDP and Inflation be lowered by shifting the Taylor Curve?

Evidence from the United States, under presidents of both major political parties, suggested that the rule was both descriptive (a good approximation of what central banks do) and prescriptive (a good policy to follow to encourage investment, low stable inflation and GDP growth).

The first deliberate, academically supported empirical application of inflation targeting was done by the Reserve Bank of a Pacific Rim country—New Zealand. The evidence supported the Taylor Rule.

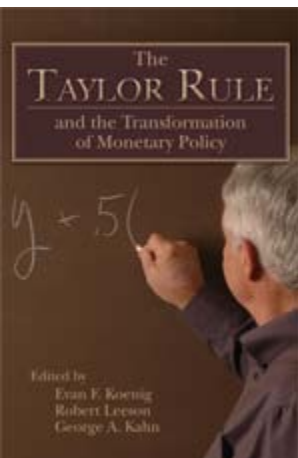
More recently, a departure from this policy to discretionary monetary policy—after 2001—resulted in a housing bubble, a financial crisis, the Great Recession, and anemic growth and persistent high unemployment.



The Taylor Rule and the Financial Crisis

More recently, Taylor has collected evidence that **a departure from the Taylor Rule was a major contributing factor in the financial crisis**. The next three graphs show the

- 1) departure of interest rate policy from the Taylor Rule in the United States,
- 2) a counterfactual “what if” of the housing bubble (could the bubble and crisis have been avoided if the Taylor Rule had been followed in the 2000s?), and
- 3) the departure in the Eurozone, showing that the countries with greatest departures from the rule also had the greatest housing bubbles.
- 4) Book to read: The Taylor Rule and the Transformation of Monetary Policy, edited by Evan F. Koenig, Robert Leeson and George A. Kahn (Stanford, CA: Hoover Institution Press, 2012), 345 pages, \$34.95.



Loose fitting

Federal funds rate, actual and counterfactual, %

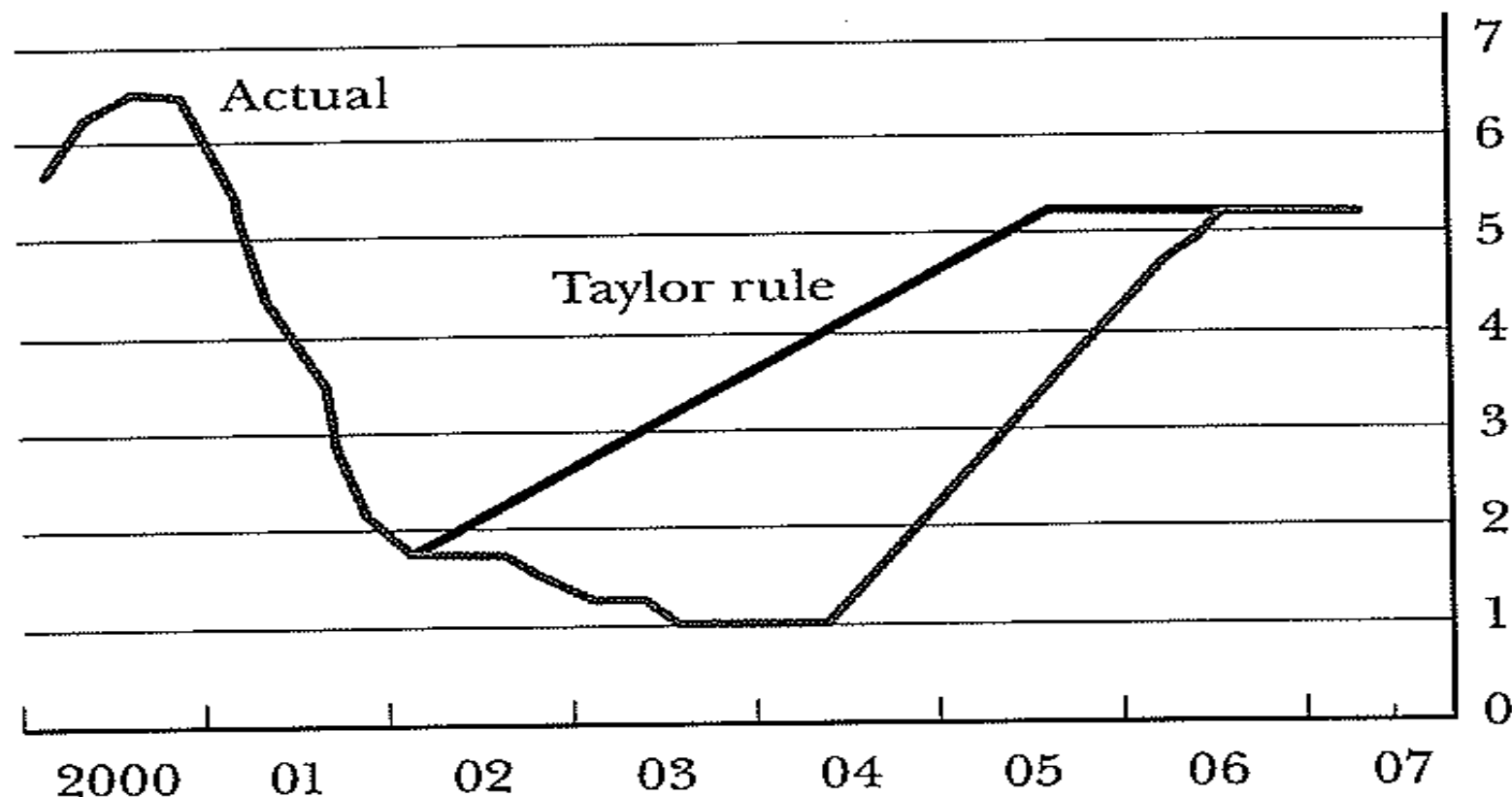


Figure 1. Chart from *The Economist*, October 18, 2007

Source: John Taylor, "Housing and Monetary Policy," Sept. 2007

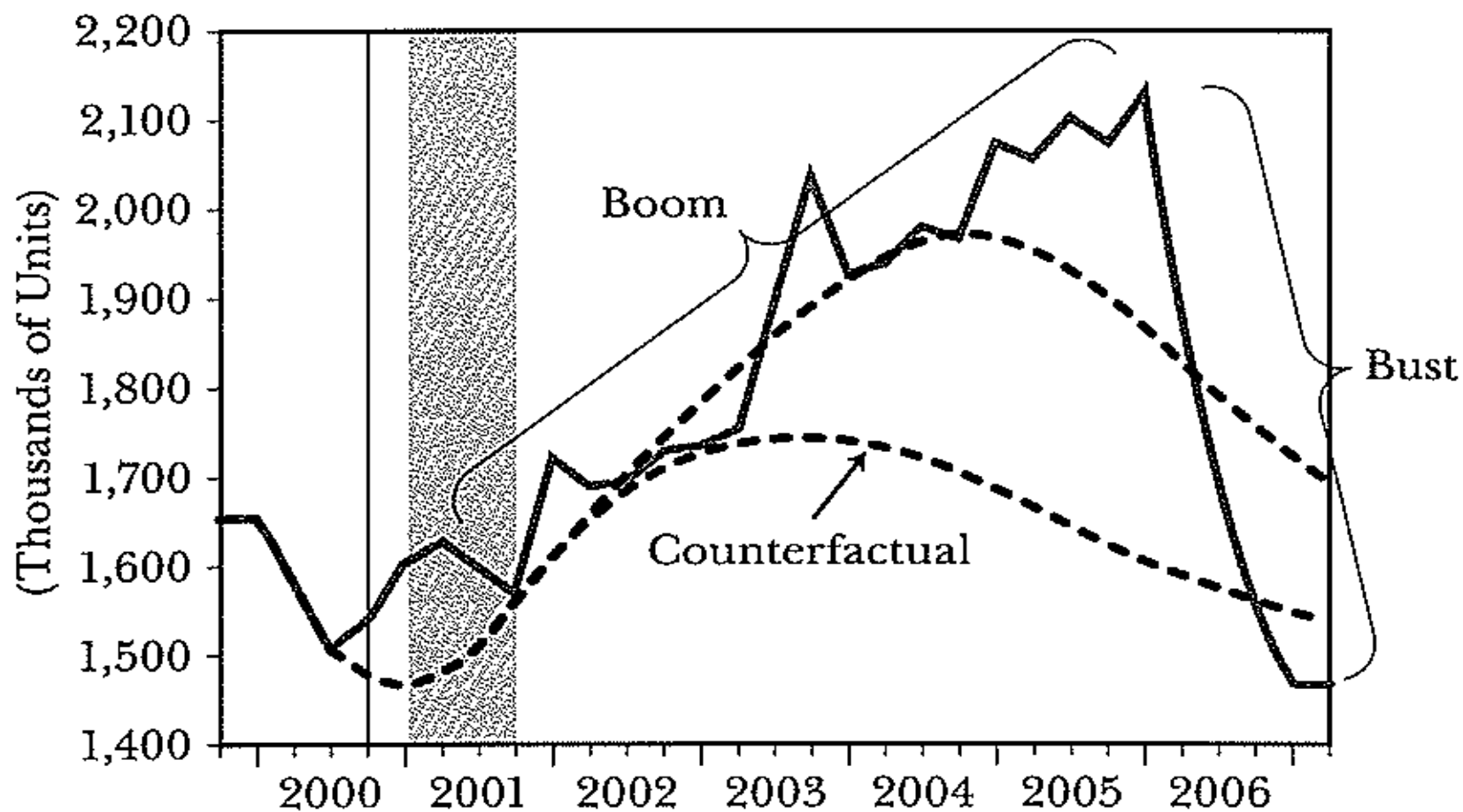


Figure 2. The Boom-Bust in Housing Starts Compared with the Counterfactual

Change in housing investment as a percentage of GDP, 2001q1–2006q4

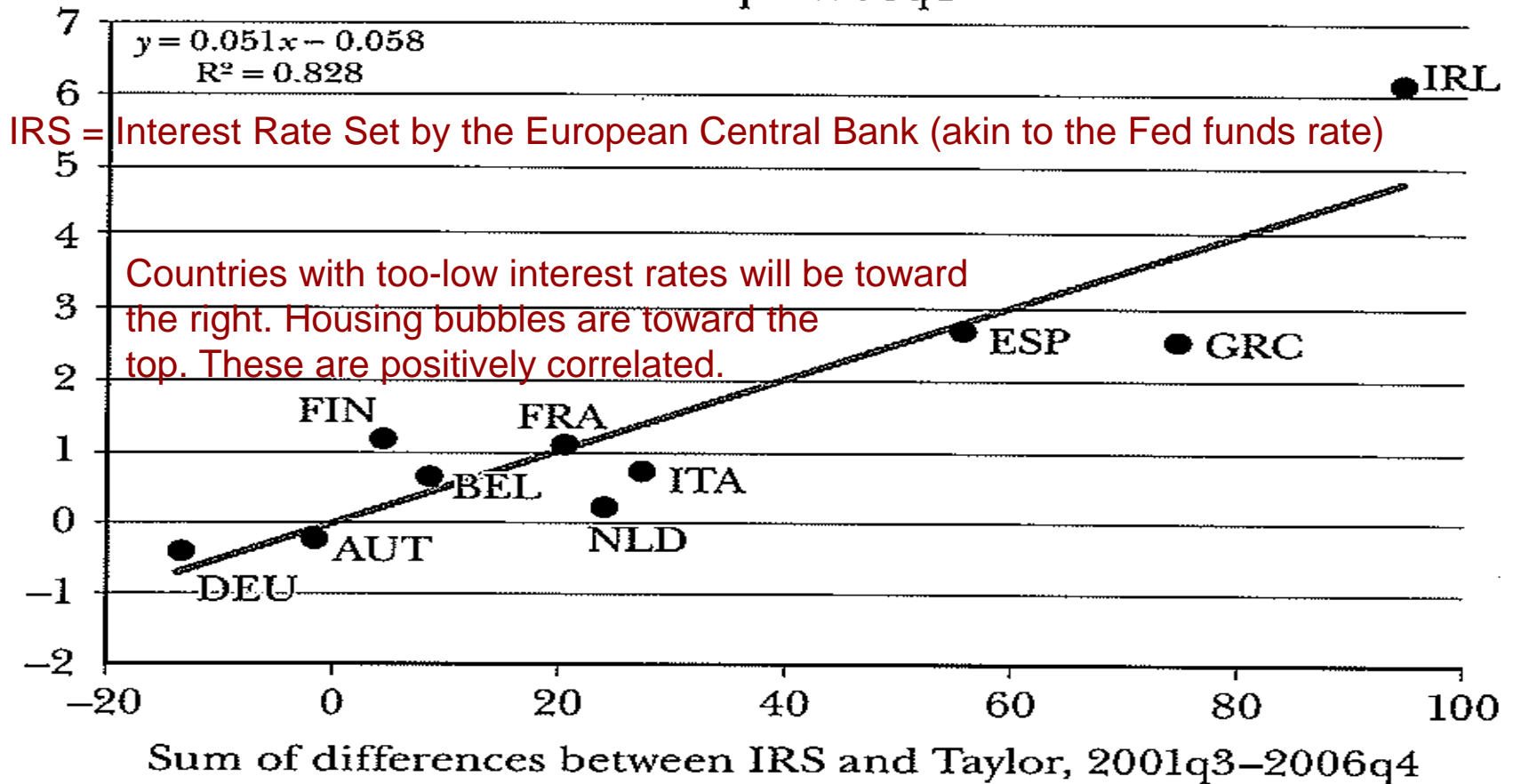
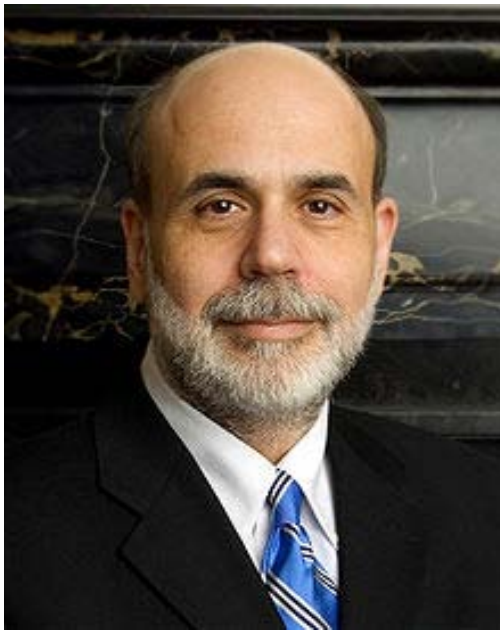


Figure 4. Housing Investment versus Deviations
from the Taylor Rule in Europe

Personnel is Policy: Who Will be Making Monetary Policy?



The most likely candidates to replace Chairman Bernanke are former Treasury Secretary Timothy Geithner, former Treasury Secretary Larry Summers and current Federal Reserve Vice Chairman Janet Yellen. Secretary Geithner has been at the center of several financial bailouts. Former Secretary Summers has pushed for new stimulus packages. Vice Chairman Yellen was an early advocate of research in monetary rules.

Conclusions

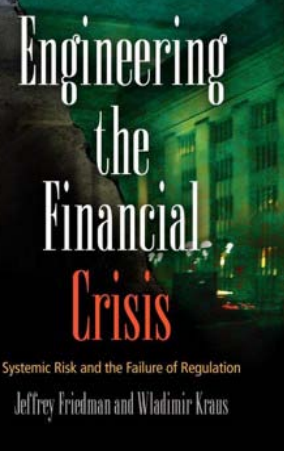


1. **The American Economy** has been underperforming. GDP has been below the long term trend for the longest time period since the Great Depression. The Eurozone has also performed poorly. Japan is in recession, with a third consecutive quarter of contracting GDP.
2. **Job Creation has been lagging.** Discouraged workers, who have given up searching for work, normally at about 400,000, have hovered around 1,000,000. The labor force participation rate has been dropping, even in the recovery.
3. **The Fiscal Cliff** could threaten an already fragile recovery, and push the United States into recession, with unemployment above 9%. **But economists have a poor track record in forecasting.**
4. **The American Taxpayer Relief Act of 2012** (the name of the latest deal) increases marginal tax rates for upper income taxpayers, particularly for capital gains. It continues the extension of unemployment benefits for 99 weeks, and has no spending cuts. It is likely to hamper recovery and not reduce the deficit.



Conclusions

5. Attempts to stimulate the economy through deficit spending have not lived up to hopes. Studies show that the composition of budget reforms matters. **Debt reduction which cuts government spending works.** Debt reduction which increases taxes hurts GDP, and doesn't even reduce debt. The most recent deal is likely to fail either to reduce the deficit or to help the recovery.
6. **The American Auto Industry has been in recovery** since 2009. Government interventions (TARP, Cash for Clunkers) have had little long term success.
7. Uncertainty harms investment, including in the auto industry, which is the key factor that affects productivity, wages and employment. **Fiscal and monetary policies which deter investment keep unemployment high.**
8. **Monetary policy matters.** Activist Monetary Policy, such as Chairman Bernanke has been doing, has a poor track record. **Rules Based Monetary Policy**, such as the Taylor Rule, has a very good track record in many countries. It was the departure from this policy that was followed by a bubble and crisis. A return to this policy could shift the investment demand curve back to its normal position and create real recovery.



5. The Best Books to Read



1. Engineering the Financial Crisis, by Jeffrey Friedman and Wladimir Kraus (Philadelphia: University of Pennsylvania Press, 2011), 212 pages, \$45.00.

2. What Caused the Financial Crisis, edited by Jeffrey Friedman (Philadelphia: University of Pennsylvania Press, 2011), 360 pages, \$29.95.

3. Getting Off Track: How Government Actions and Interventions Caused, Prolonged, and Worsened the Financial Crisis, by John B. Taylor (Stanford, CA: Hoover Institution Press, 2009), 92 pages, \$14.95.

4. The Squam Lake Report: Fixing the Financial System, by Kenneth R. French et al. (Princeton, NJ: Princeton University Press, 2010), 167 pages, \$19.95.

