

# Profitis Capital Services LLC



## A REVIEW OF THE MONETARY LANDSCAPE

**MARCH 17, 2011**

## Executive Summary

The financial crisis that arose in the Autumn of 2008 prompted the Federal Reserve to provide an extraordinary amount of liquidity to the capital markets. Two quantitative easing programs were subsequently launched in an effort to provide support for asset markets.

Either the U.S. economy has embarked on a significantly different path or none of these Fed actions have worked. Money supply growth is tepid at best and money multipliers are sitting at multi-decade lows. Financial institutions are holding an unprecedented amount of excess reserves, undermining the Fed's expansion of the monetary base.

Employment gains are weak relative to past economic recoveries and the specter of margin compression is confronting corporate America. Can financial markets continue to thrive in the absence of the "Federal Reserve's Put"?

## Where Are We Now?

- Measures of Money Supply
  - M3
  - M2
  - Reserves
  - Multiplier
- Measures of Price Levels
  - CPI
  - PPI
  - GDP Deflator
- Measures of Debt Levels
  - Federal
  - Corporate
  - Consumer
  - Capital Markets Activity / Securitization

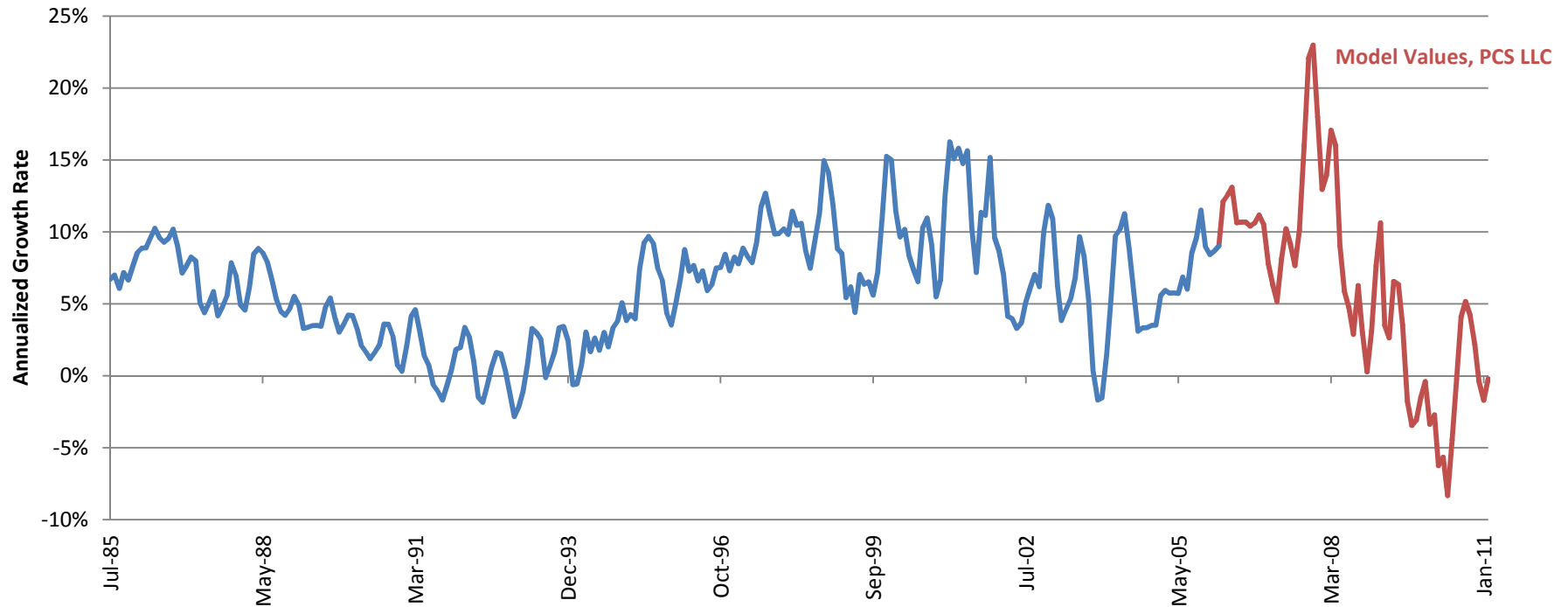
## Where Are We Now? (continued)

- Measures of Economic Activity
  - GDP
  - Employment
- Measures of Corporate Strength
  - Corporate Profits
  - Loan Charge-Offs

# Money Supply<sup>1</sup>

## Quarterly Growth Rate of M3 Money Supply

(Sources: FRED Database, FRB H8, PCS LLC)



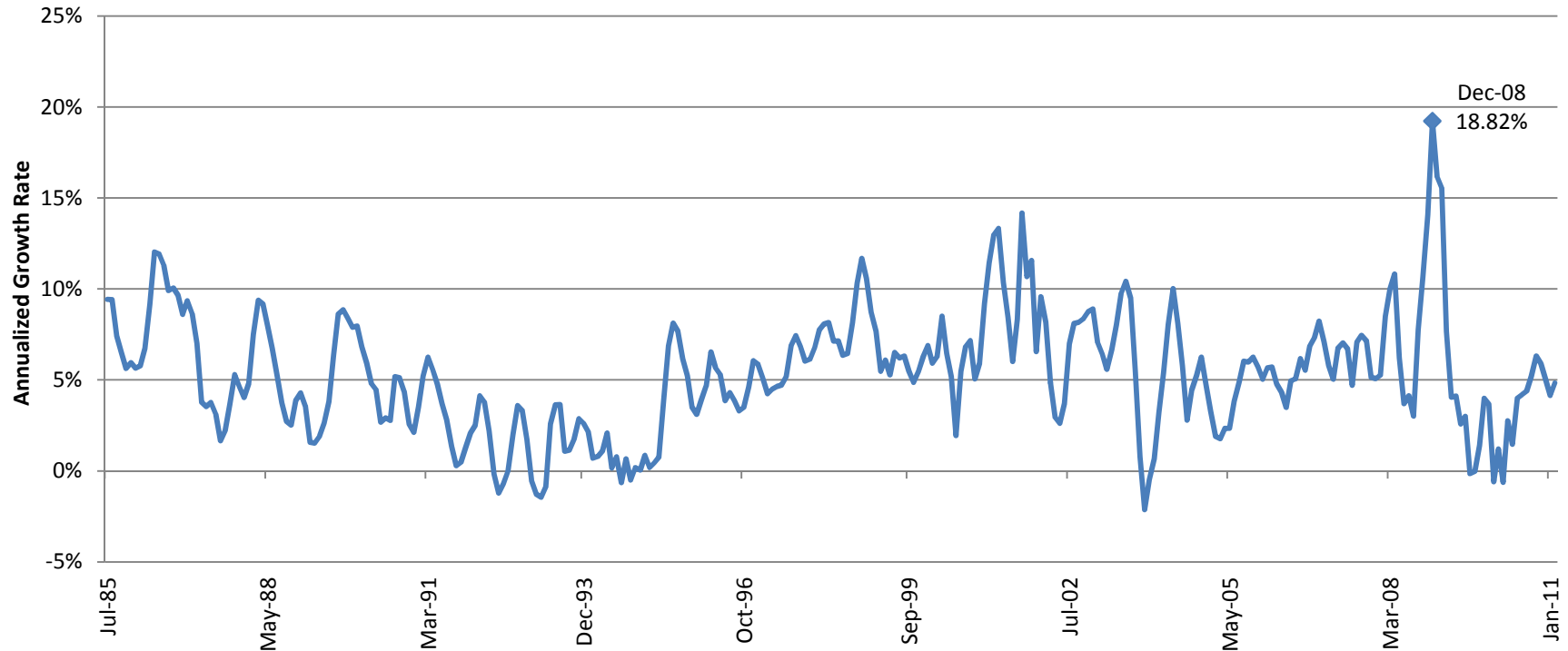
Growth in M3 spooled up dramatically after the Fed's initial actions during the fall of 2007. Between that time and the summer of 2010, growth in M3 was best described as first disinflationary and then deflationary.

<sup>1</sup> The Fed ceased reporting M3 in March of 2006. PCS LLC's model incorporates available Fed data to reasonably recreate the measure.

# Money Supply

## Quarterly Growth Rate of M2 Money Supply

(Source: FRED Database)

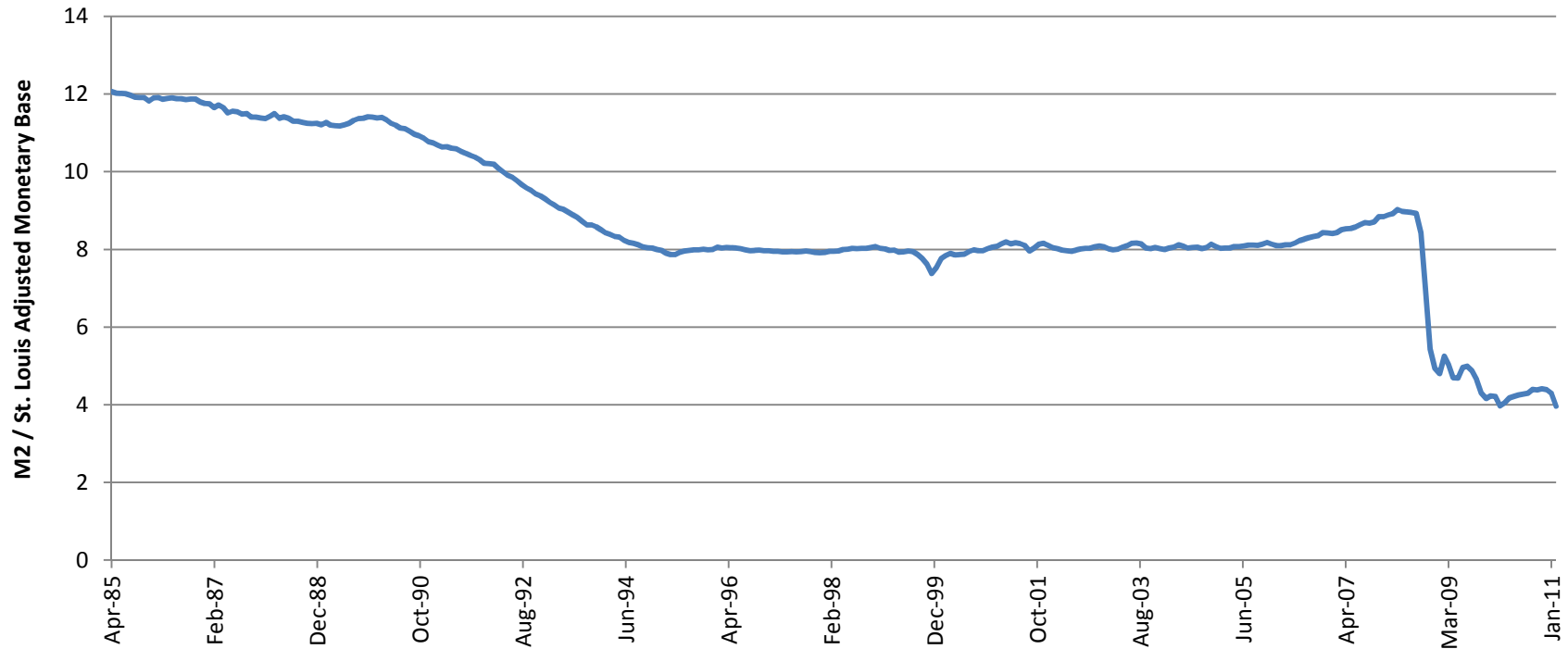


Growth in M2 also dipped into negative territory at points during the last 14 months. The most recent tallies are well within the range of historic observations.

# Money Supply

## M2 Money Multiplier

(Source: FRED Database)

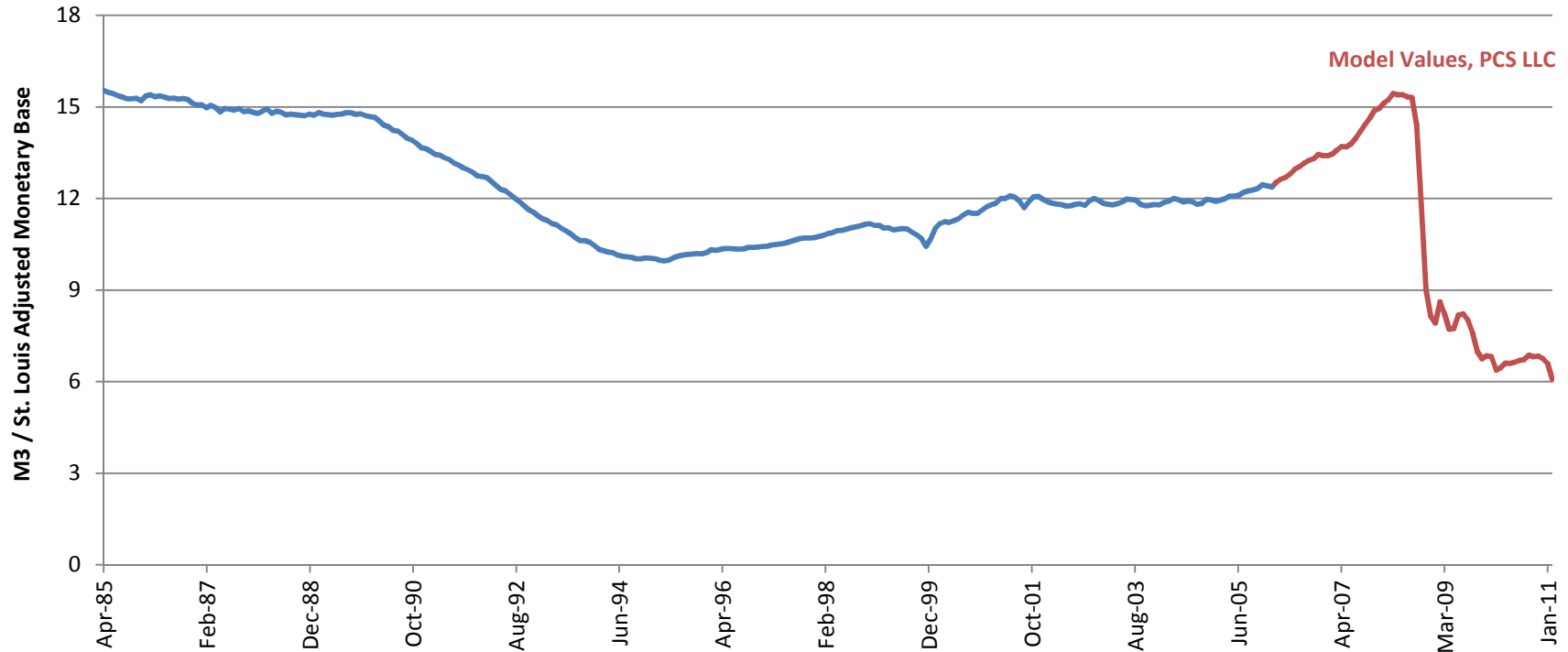


The money multiplier is a ratio of broad money supply to high powered money. This figure illustrates the inability of the Fed to significantly increase money supply, despite materially increasing the monetary base.

# Money Supply

## M3 Money Multiplier

(Sources: FRED Database, PCS LLC)



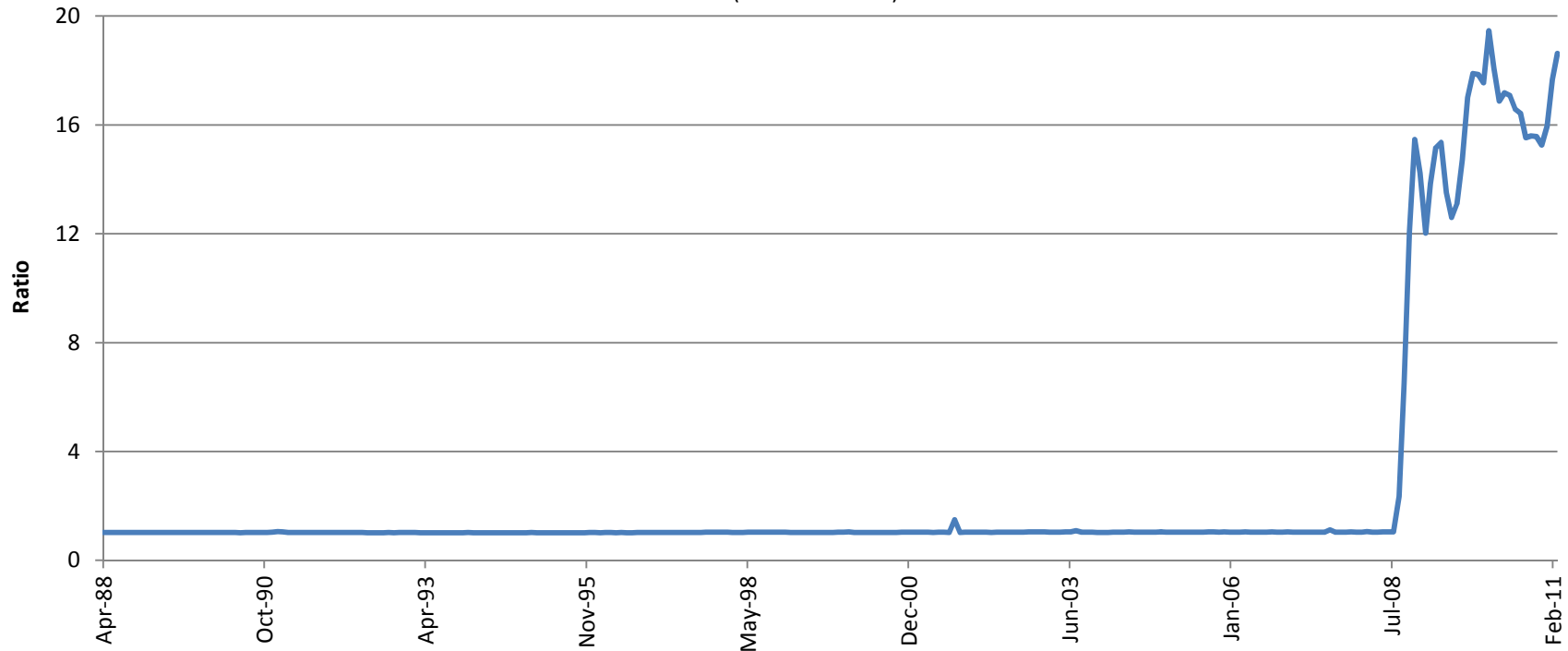
The money multiplier is a ratio of broad money supply to high powered money. This figure illustrates the inability of the Fed to significantly increase money supply, despite materially increasing the monetary base.



# Reserves of Fed Member Banks

## Total Reserves / Required Reserves

(Source: FRB H3)



Historically, reserves were held near the required minimum to maximize high margin activity (thereby expanding money supply). In October, 2008, the Fed announced the payment of interest on reserves.

## Modern Money Mechanics

“There is one important difference between the expansion and contraction processes. When the Federal Reserve System adds to bank reserves, expansion of credit and deposits **may** take place up to the limits permitted by the minimum reserve ratio that banks are required to maintain. But when the System acts to reduce the amount of bank reserves, contraction of credit and deposits **must** take place (except to the extent that existing excess reserve balances and/or surplus vault cash are utilized) to the point where the required ratio of reserves to deposits is restored. But the significance of this difference should not be overemphasized. Because excess reserve balances do not earn interest, there is a strong incentive to convert them into earning assets (loans and investments).”

(emphasis in original)

*Modern Money Mechanics*  
Federal Reserve Bank of Chicago

Please Note: publication was written before reserves earned interest.

# U.S. Inflation

## Inflation Indicators

(Source: Bureau of Labor Statistics)

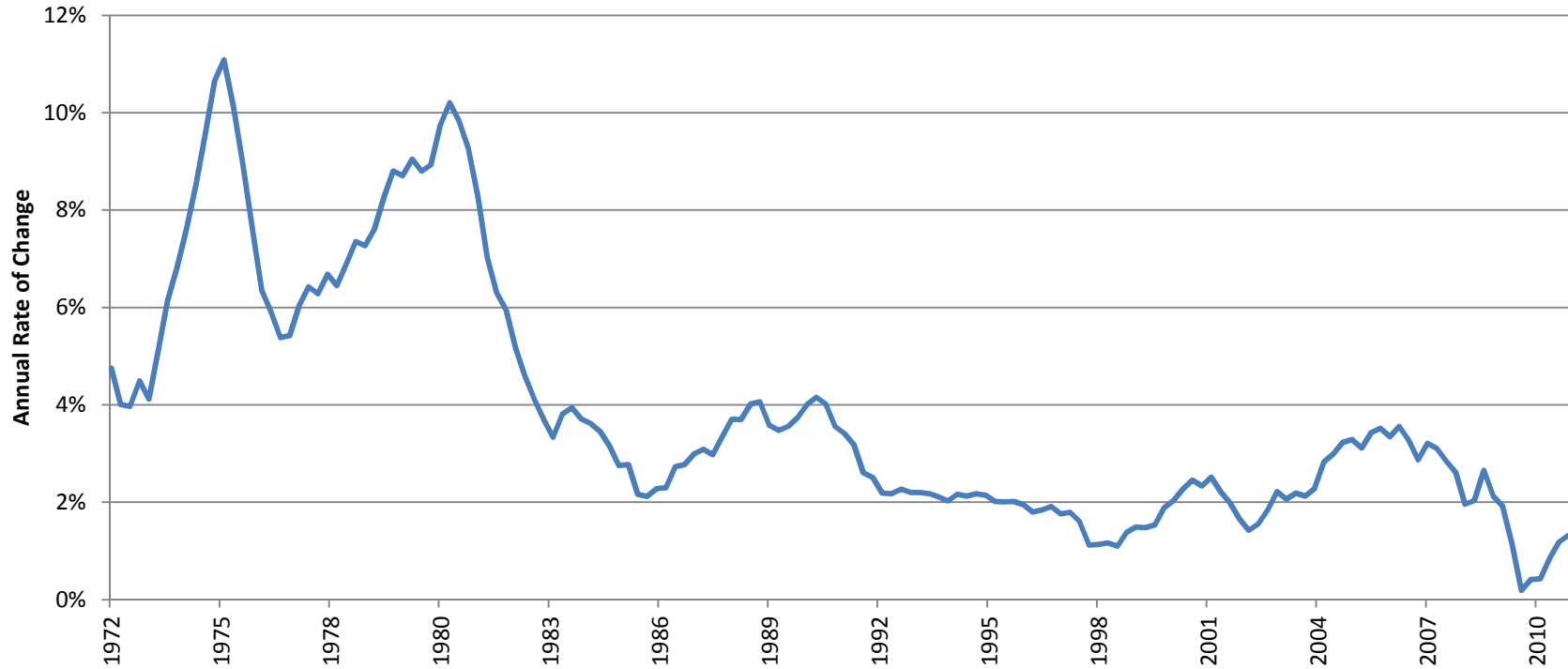


- Recent observations are within historical norms
- Producer prices outstripping consumer prices: lack of pricing power

# U.S. Inflation

## GDP Price Deflator

(Source: Bureau Economic Analysis)

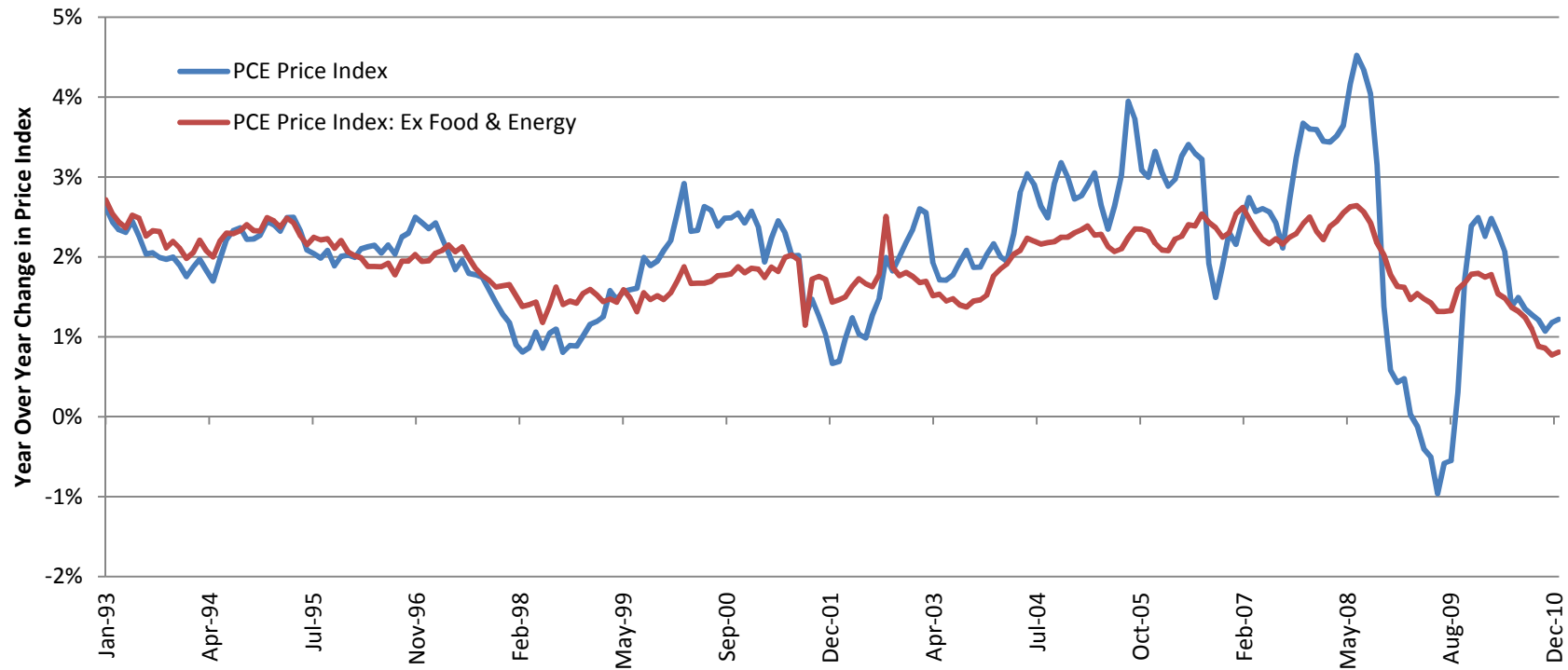


- Recent observations are well below historical norms
- Not based on a fixed basket of goods, unlike CPI

# U.S. Inflation

## Personal Consumption Expenditures: Price Levels

(Source: BEA)

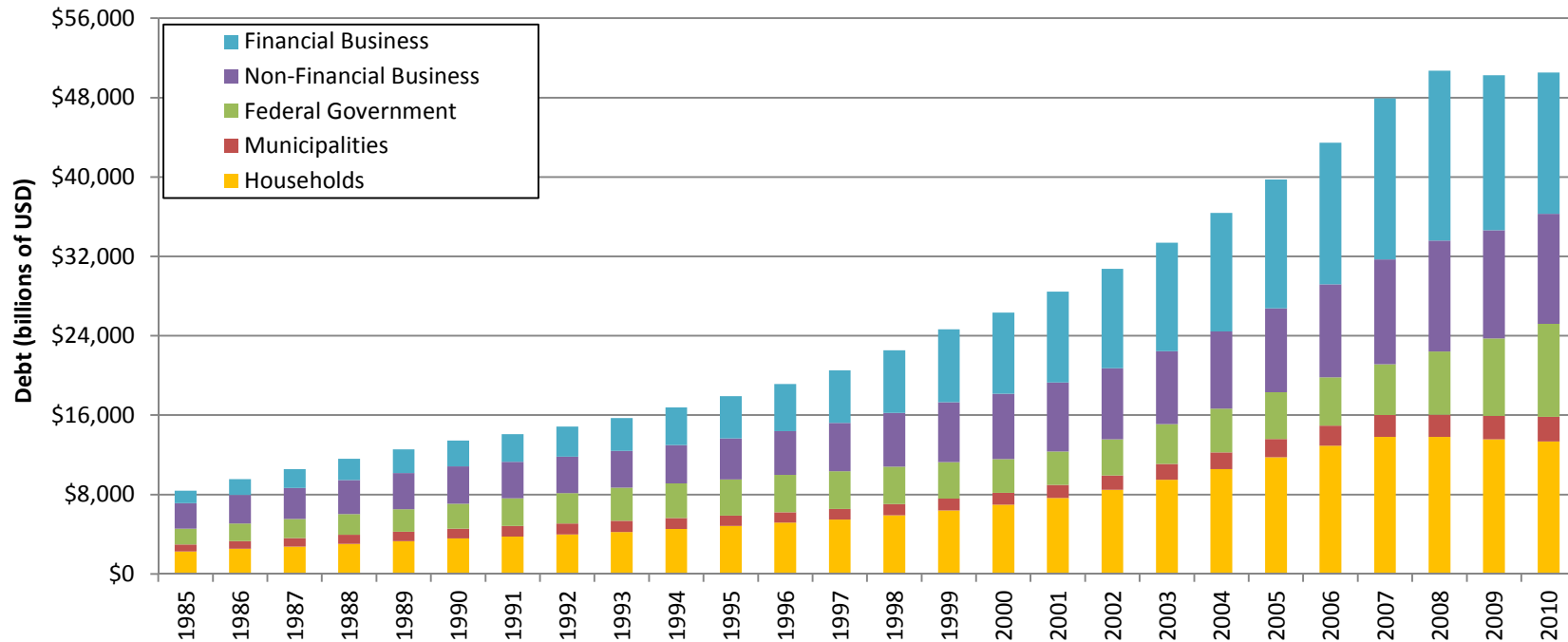


- Recent observations are within historical norms
- Routinely referred to in the press as the Fed's preferred inflation gauge

# D-E-B-T in the U.S.A.

## Debt Outstanding

(Source: FRB Z1)



- Compounded annual growth rate since 1985: 7.45%
- This Fed data release only includes debt held by the public
- Deleveraging has only just begun

## **D-E-B-T in the U.S.A.**

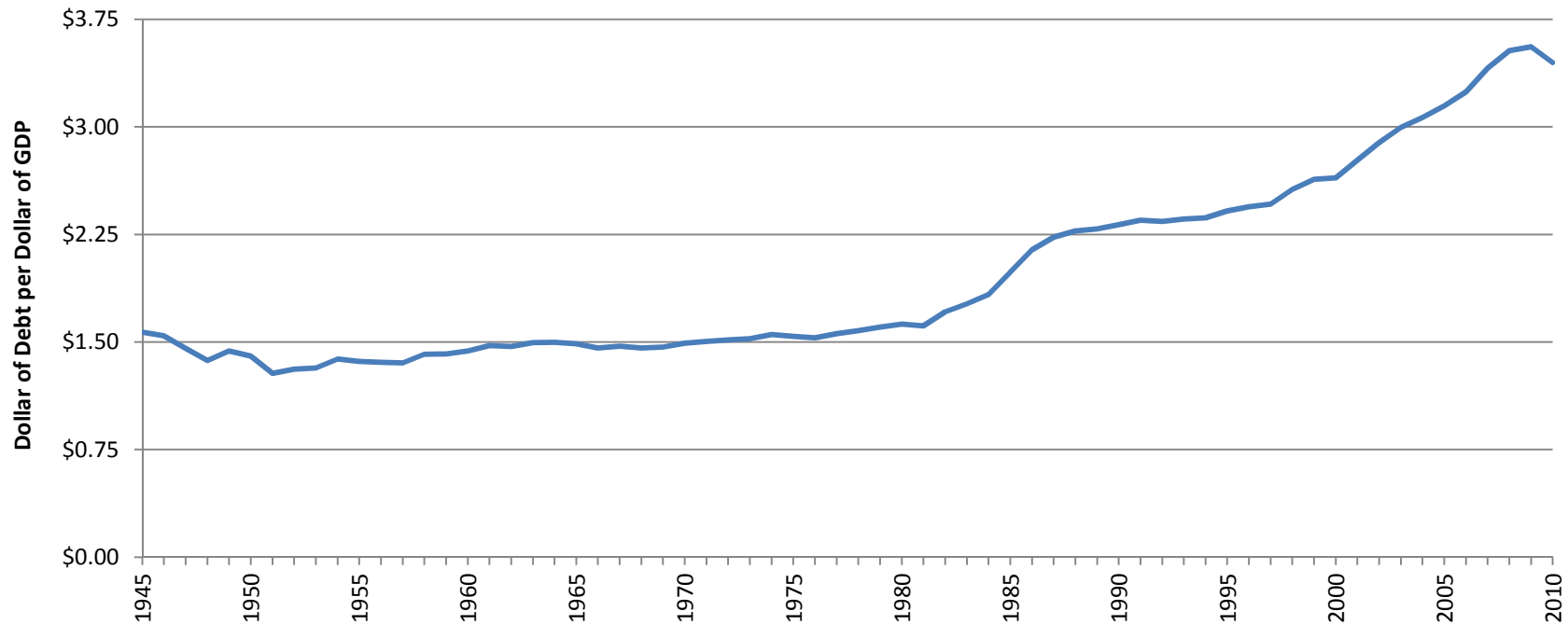
### **Compounded Annual Growth Rates**

	<u>20 Years</u>	<u>10 Years</u>	<u>5 Years</u>
Total	6.84%	6.74%	4.91%
Households	6.80%	6.69%	2.61%
Municipalities	4.68%	7.48%	5.85%
Federal Government	6.84%	10.74%	14.83%
Non-Financial Business	5.54%	5.33%	5.54%
Financial Business	8.84%	5.73%	1.84%

# Debt: Relative Basis

## Leverage Ratio: Debt to Nominal GDP

(Sources: FRB Z1, BEA)



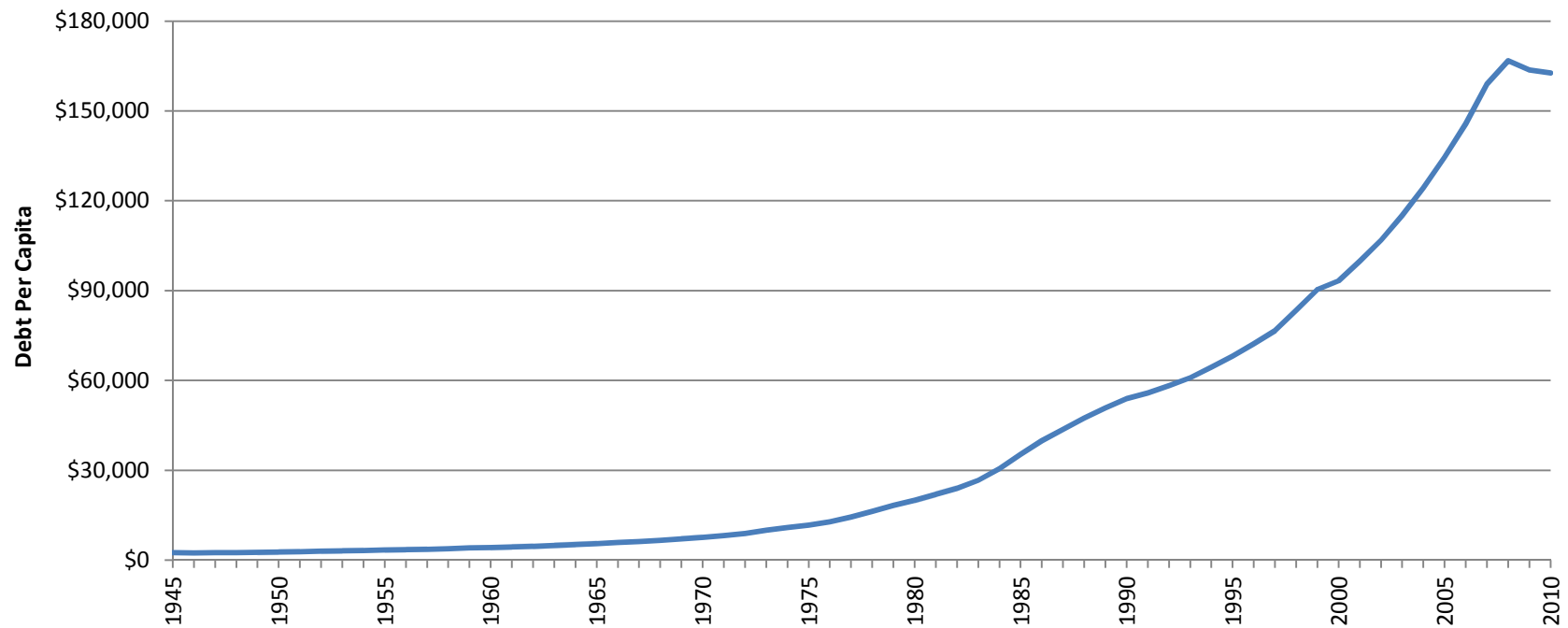
- Ability of debtors to service liabilities depends on income generation
- Has the intertemporal relationship between debt and future production been breached?



# Debt: Relative Basis

## Total Debt Per Capita

(Sources: FRB Z1, U.S. Census Bureau)



Most importantly, debt outstanding has increased on a relative scale. Whether through consumption, taxation or income growth, can households generate sufficient activity for the service of debt?

## Mortgage Debt

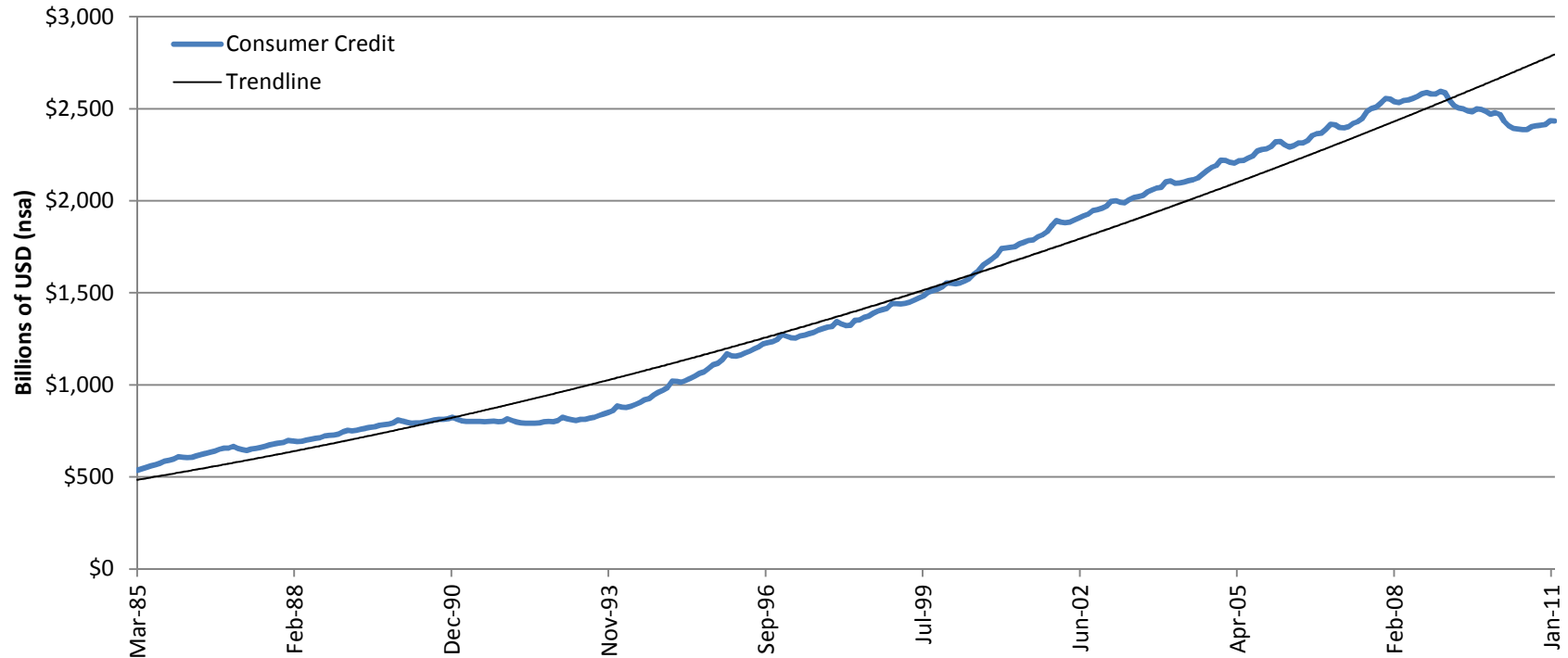
Year End	Home Value (Billions of USD)	Mortgage Debt (Billions of USD)	Owner's Equity
1990	\$6,800.9	\$2,488.8	63.41%
1991	\$6,973.3	\$2,667.0	61.75%
1992	\$7,259.0	\$2,840.0	60.88%
1993	\$7,501.3	\$2,998.7	60.02%
1994	\$7,773.2	\$3,165.3	59.28%
1995	\$8,054.8	\$3,318.9	58.80%
1996	\$8,431.1	\$3,523.8	58.20%
1997	\$8,864.8	\$3,739.3	57.82%
1998	\$9,694.0	\$4,040.6	58.32%
1999	\$10,644.0	\$4,416.3	58.51%
2000	\$12,183.0	\$4,798.4	60.61%
2001	\$13,552.8	\$5,305.4	60.85%
2002	\$14,816.3	\$6,009.9	59.44%
2003	\$16,413.5	\$6,894.4	58.00%
2004	\$18,912.1	\$7,835.3	58.57%
2005	\$22,005.2	\$8,874.3	59.67%
2006	\$22,687.7	\$9,865.0	56.52%
2007	\$20,879.4	\$10,539.9	49.52%
2008	\$17,470.3	\$10,495.5	39.92%
2009	\$17,081.0	\$10,339.8	39.47%
2010	\$16,370.4	\$10,069.6	38.49%

- Compounded annual growth rate of home value: 4.49%
- Compounded annual growth rate of mortgage debt: 7.24%

# Consumer Borrowing

## Consumer Credit Outstanding

(Source: FRB G19)

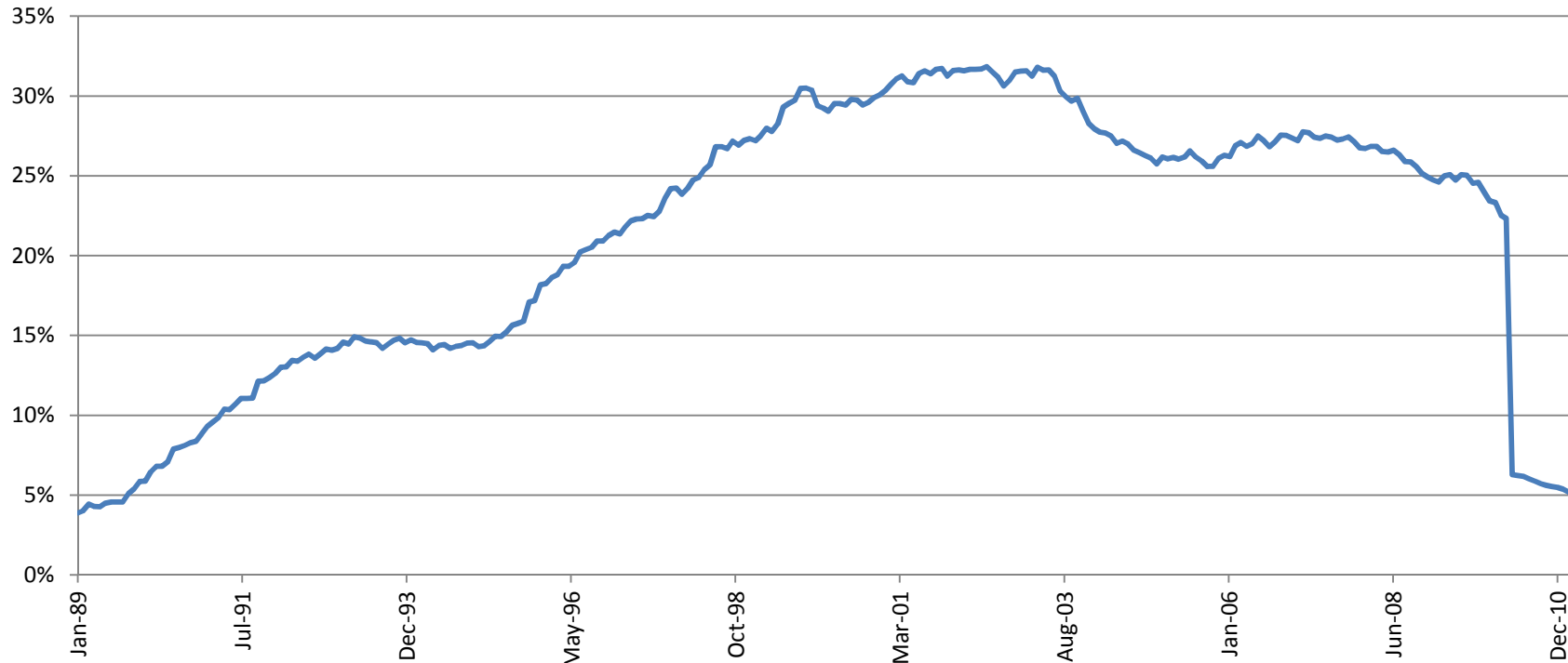


- Consumer Credit = Non-revolving debt + Revolving debt
- Consumer Credit outstanding peaked in December, 2008
- Since that time, revolving debt has decreased at an annualized rate of 9.35%

# Consumer Borrowing

## Portion of Consumer Credit Outstanding Held in Pools of Securitized Assets

(Source: FRB G19)

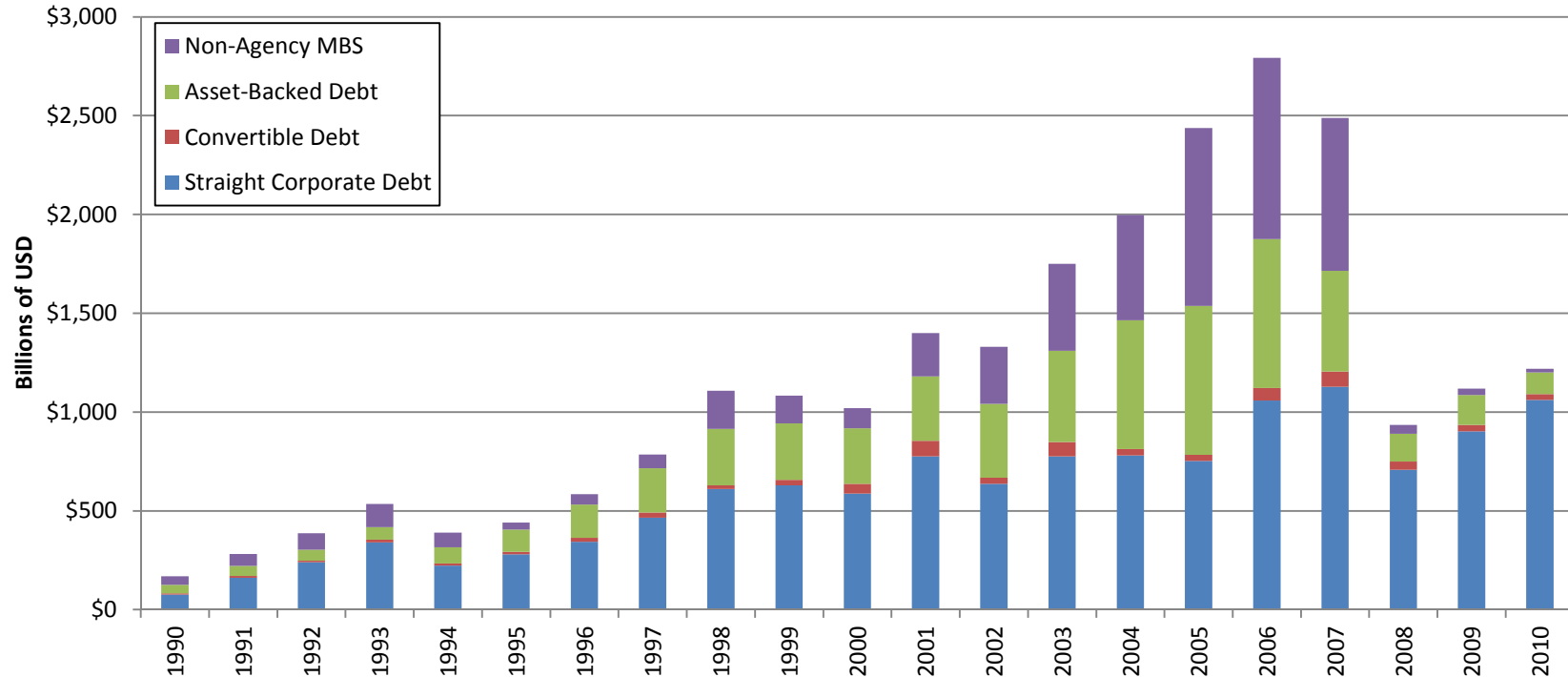


- Regulations (FAS 166 & 167) changed the accounting for certain loans
- How will this impact the growth of consumer credit?

# Corporate Funding

## Corporate Underwriting Activity: Debt

(Source: SIFMA)

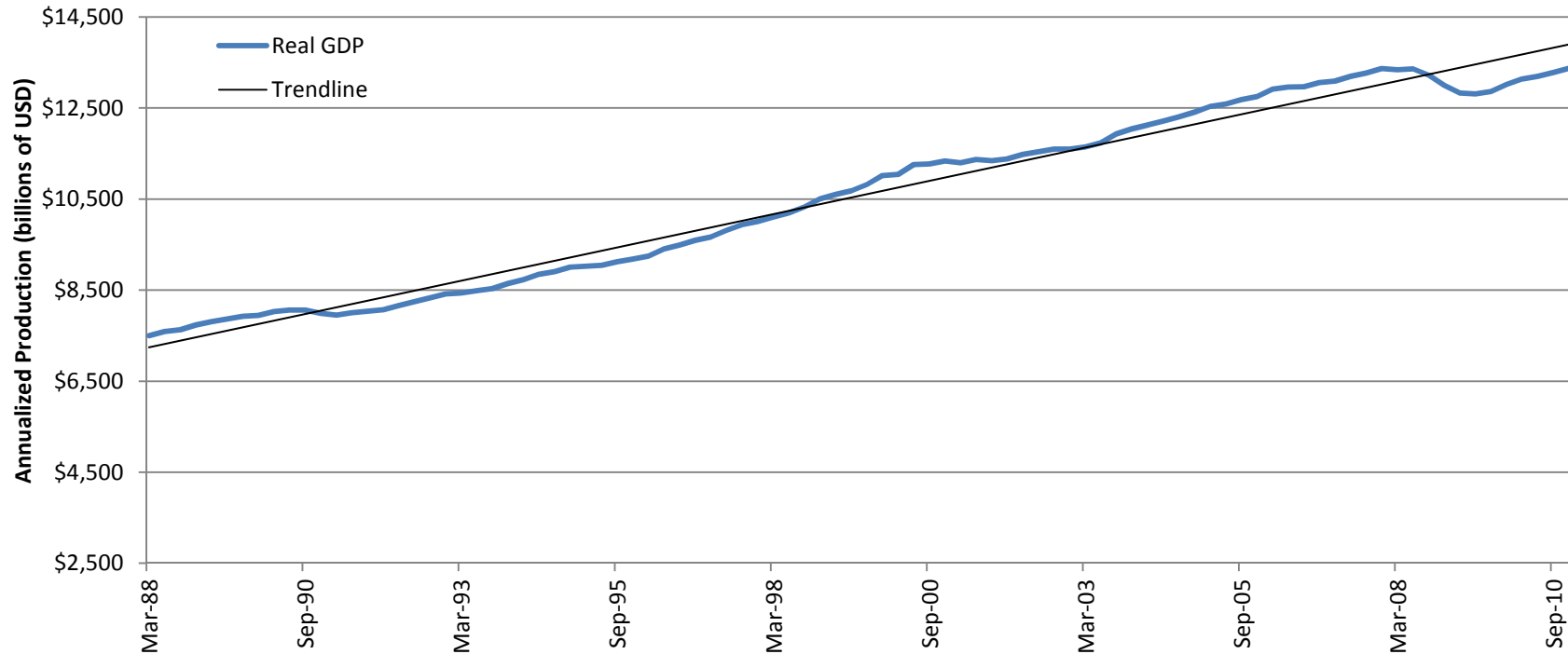


- Demand for securitized debt has fallen dramatically
- Falling dominos: reduced profitability of investment banks

# U.S. Gross Domestic Product

## Quarterly Real GDP

(Source: BEA)

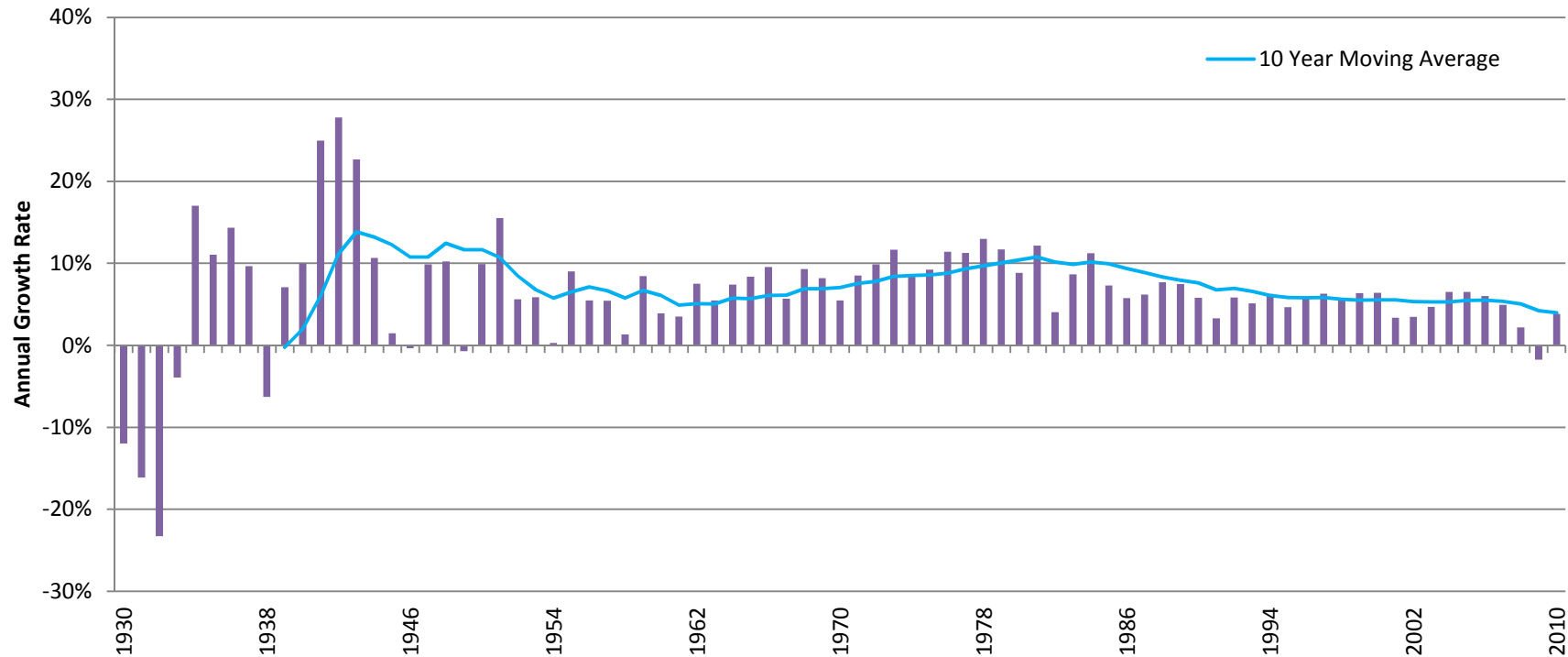


- Q4 2000 to Q4 2010: 1.67% compounded annual growth rate
- Q1 2008 to Q2 2009: negative growth in 5 out of 6 quarters

# U.S. Gross Domestic Product

## Gross Domestic Product: Nominal Terms

(Source: BEA)

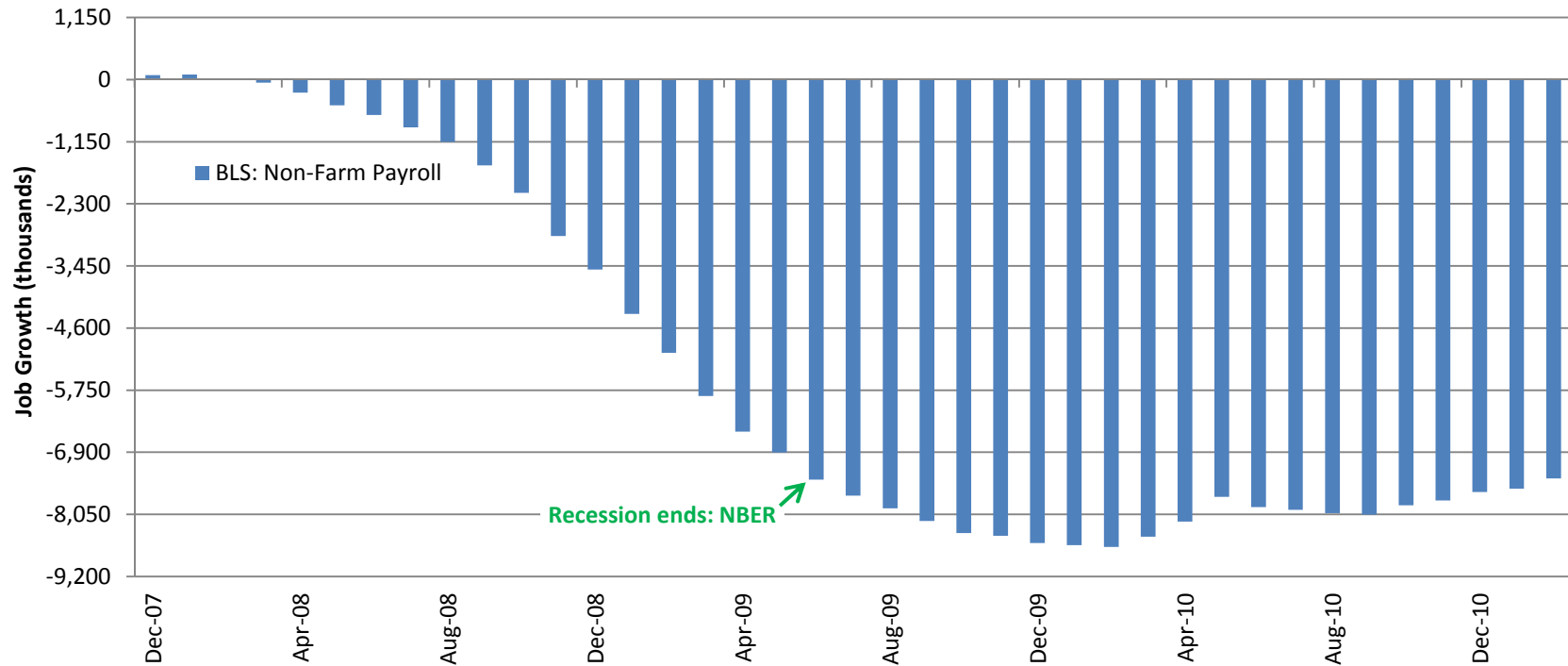


- 2009 Nominal GDP negative for the first time in 60 years
- Combined impact of slowing economy & falling prices

# Employment Situation

## Cumulative Job Growth Since December, 2007

(Sources: BLS)



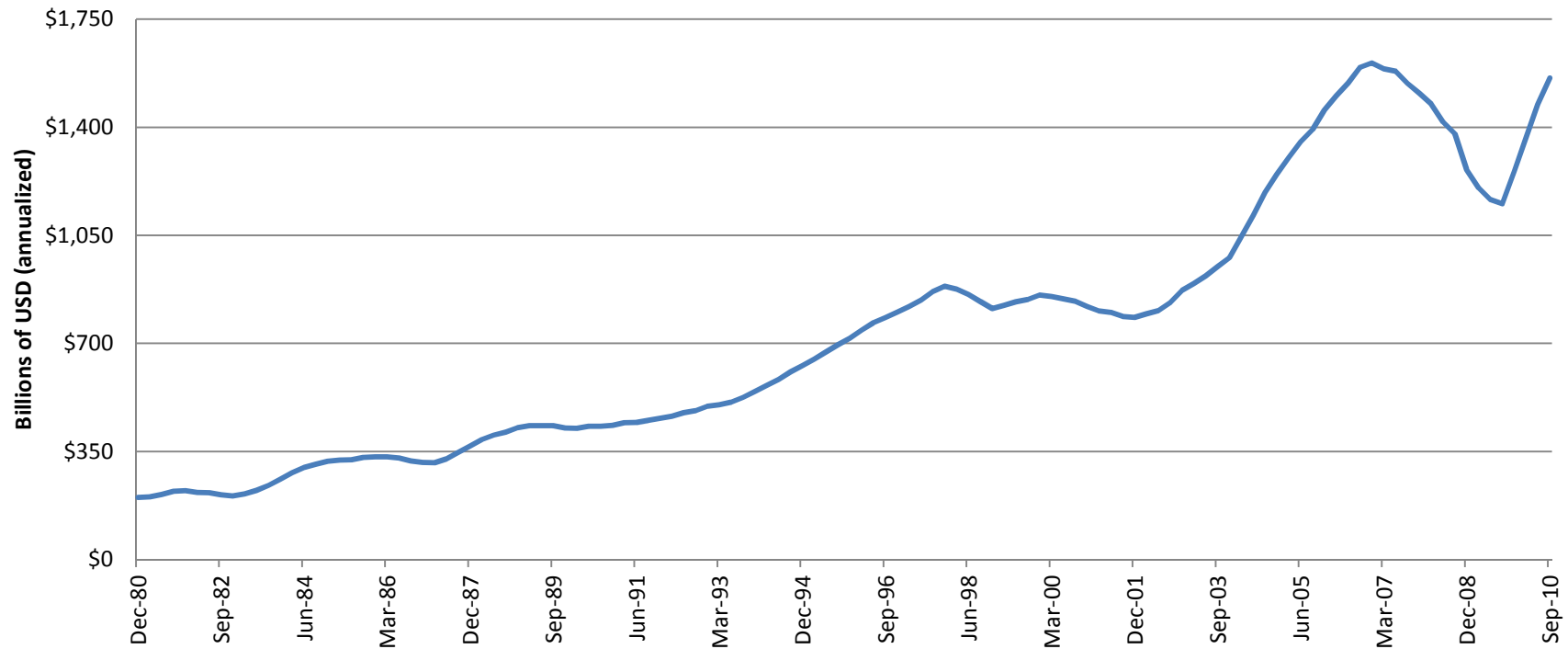
- Dramatic job loss begs the question: Will these jobs come back?
- Most severe & persistent jobs bear market since the Great Depression



# Corporate Profits

## Corporate Profits: 12 Month Moving Average

(Source: BEA)

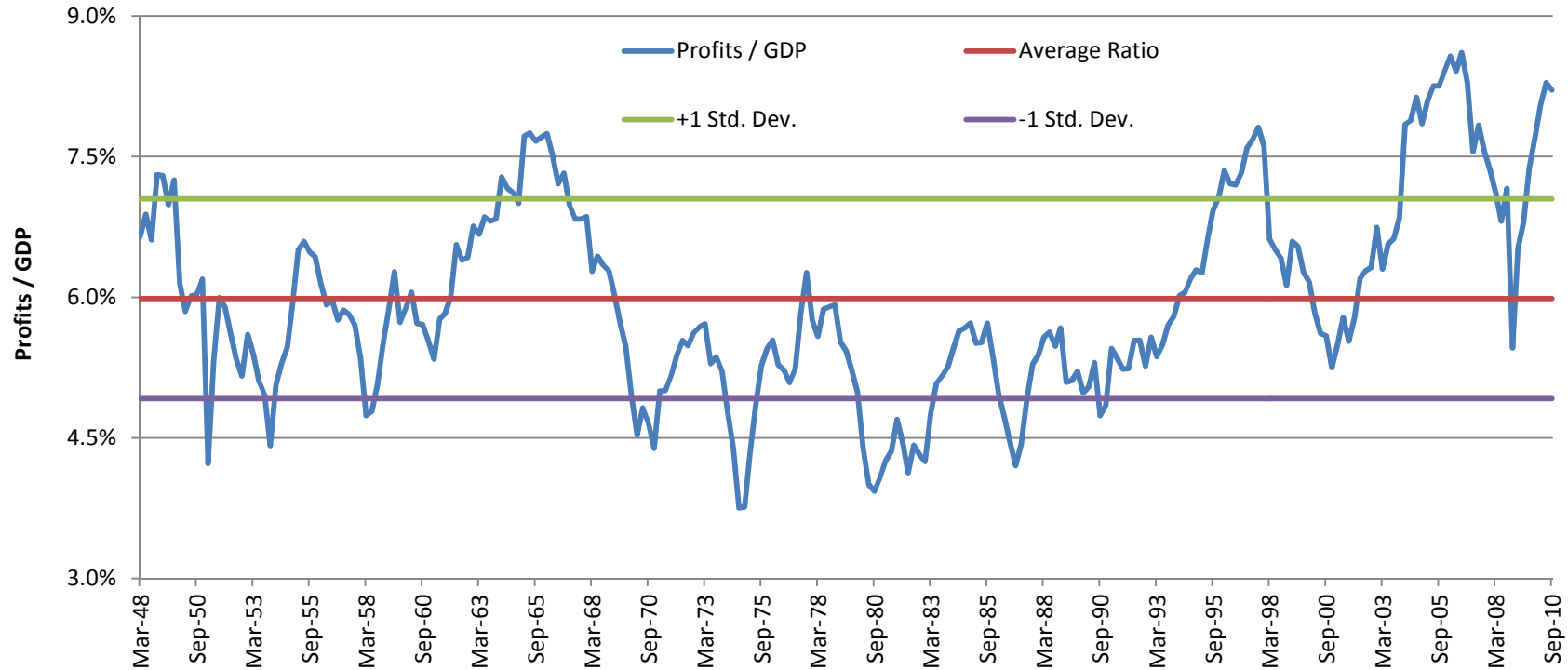


- Corporate profit growth has resumed
- Absent job cuts, can Corporate America generate profit growth from an expanding top line?

# Corporate Profits

## Corporate Profits / Nominal GDP

(Source: BEA)

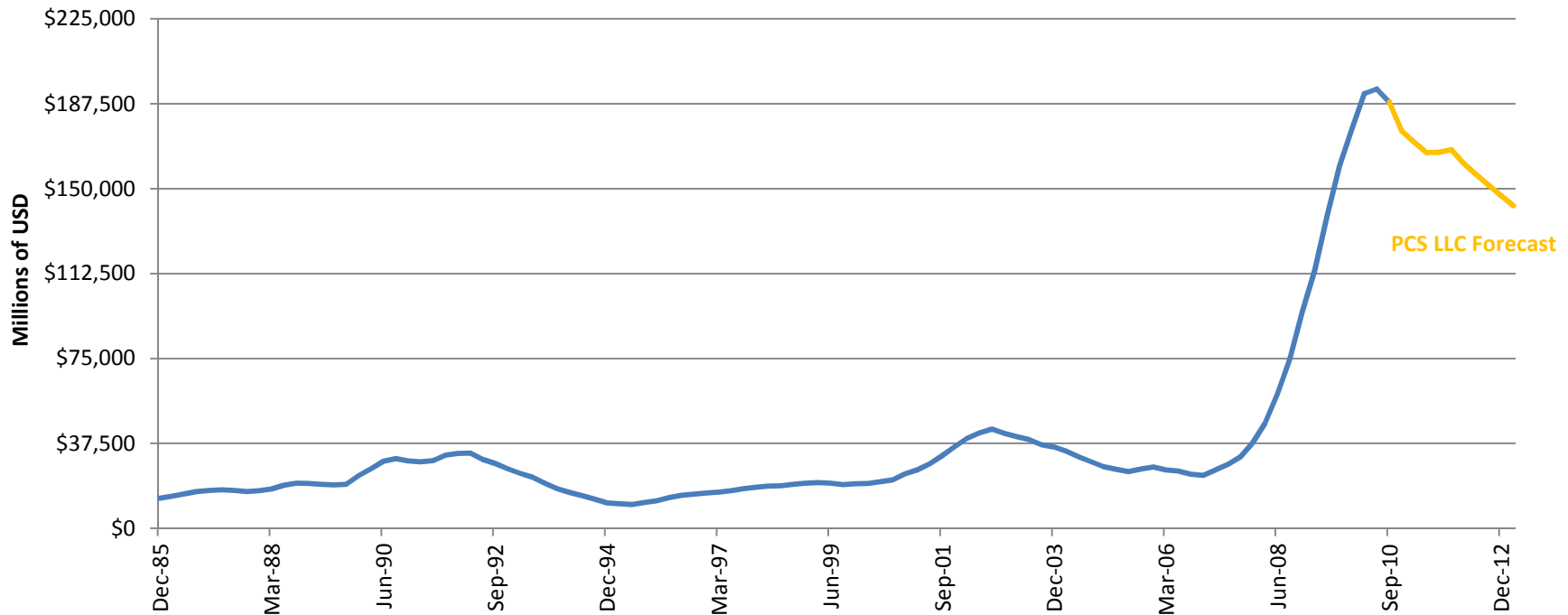


- Have corporate earnings reached an inflection point?

# Bank Charge-Offs

## Net Charge-Offs (12 Month Trail): Commercial Banks

(Sources: Federal Reserve, PCS LLC)



- Although charge-offs may have peaked, financial institutions are reluctant to expand lending activity

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