PERSI

Public Employee Retirement System of Idaho

Presentation to Economic Outlook and Revenue Assessment Committee

CAPITAL MARKET OUTLOOK

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Chief Investment Officer

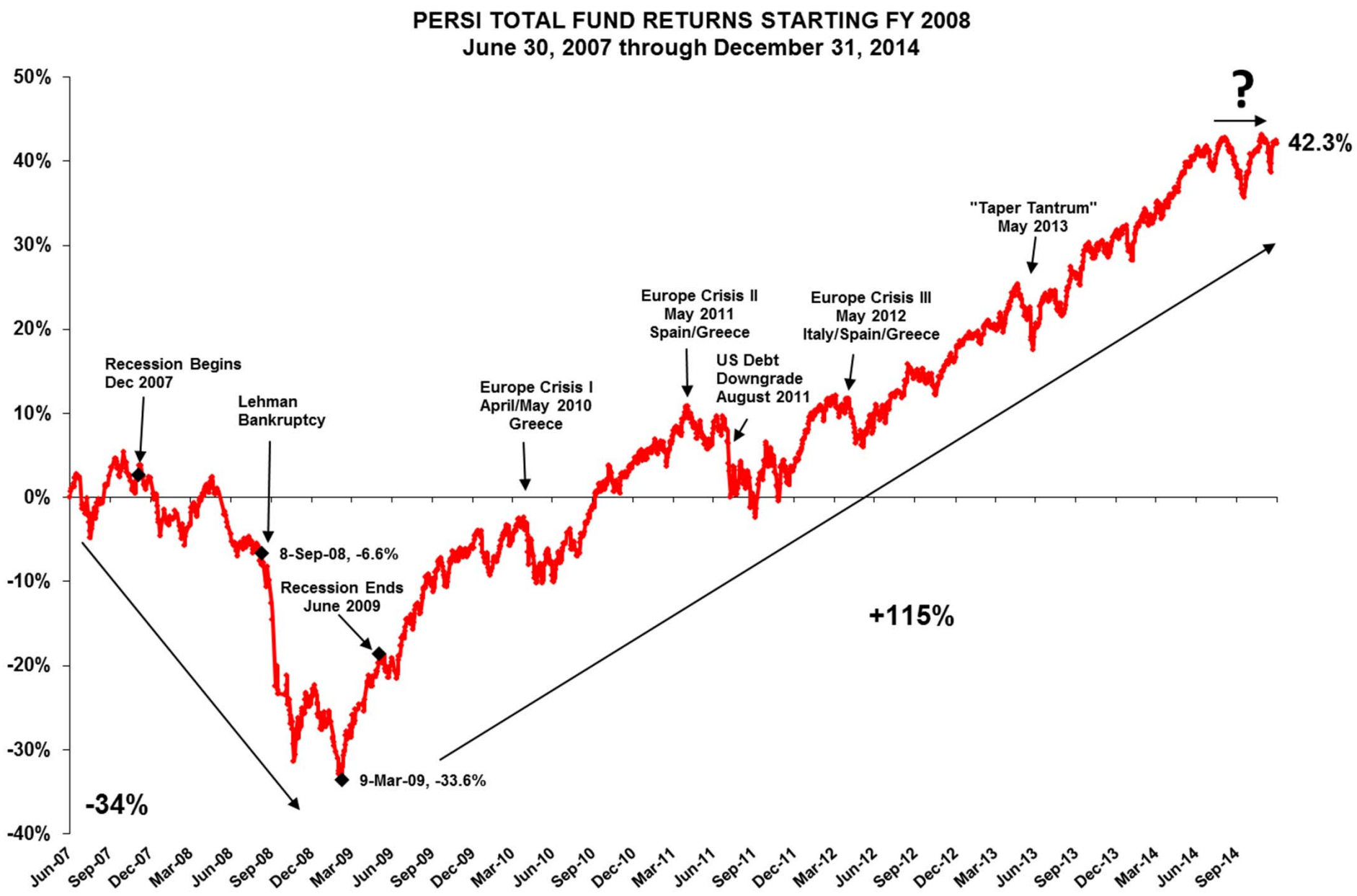
January 8, 2015

MARKET EXPECTATIONS

- **PAST: MEDIOCRE ECONOMY, GOOD MARKETS**
- **FUTURE: GOOD ECONOMY, AVERAGE MARKETS**

- ECONOMY: 3.0% Real GDP, 1.5% Inflation, 5.5% Unemployment
- EQUITIES: +11%
- BONDS: DEAD MONEY (-1% to + 2%)

ITS QUIET.....
TOO QUIET.


PERSI TOTAL FUND RETURNS STARTING FY 2008
June 30, 2007 through December 31, 2014
50%
40%
30%
20%
10%
0%
-10%
-20%
-30%
-40%
Recession Begins
Dec 2007
Lehman
Bankruptcy
8-Sep-08, -6.6%
Recession Ends
June 2009
9-Mar-09, -33.6%
-34%
Europe Crisis I
April/May 2010
Greece
Europe Crisis II
May 2011
Spain/Greece
US Debt
Downgrade
August 2011
Europe Crisis III
May 2012
Italy/Spain/Greece
"Taper Tantrum"
May 2013
?
42.3%
+115%
Jun-07
Sep-07
Dec-07
Mar-08
Jun-08
Sep-08
Dec-08
Mar-09
Jun-09
Sep-09
Dec-09
Mar-10
Jun-10
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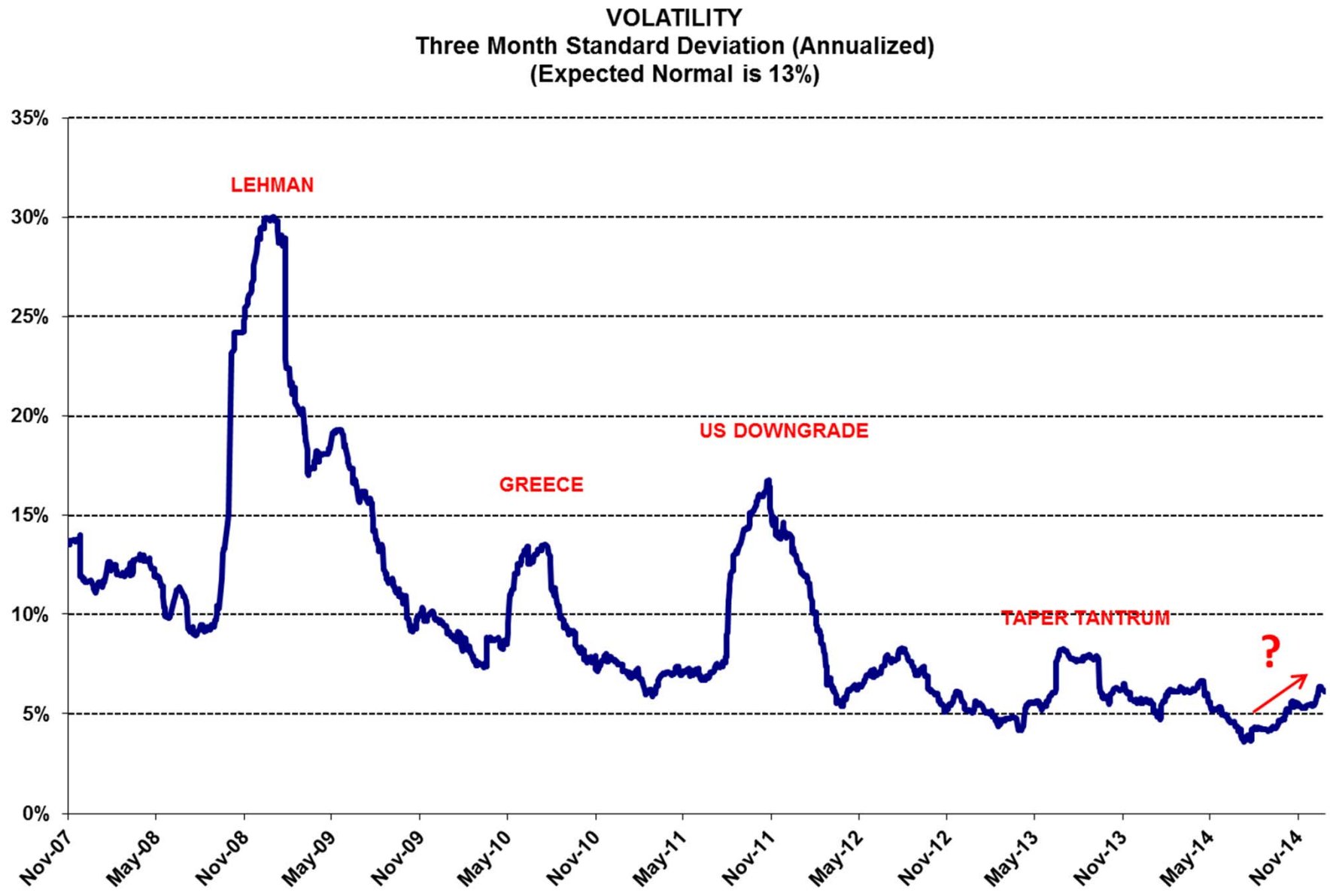
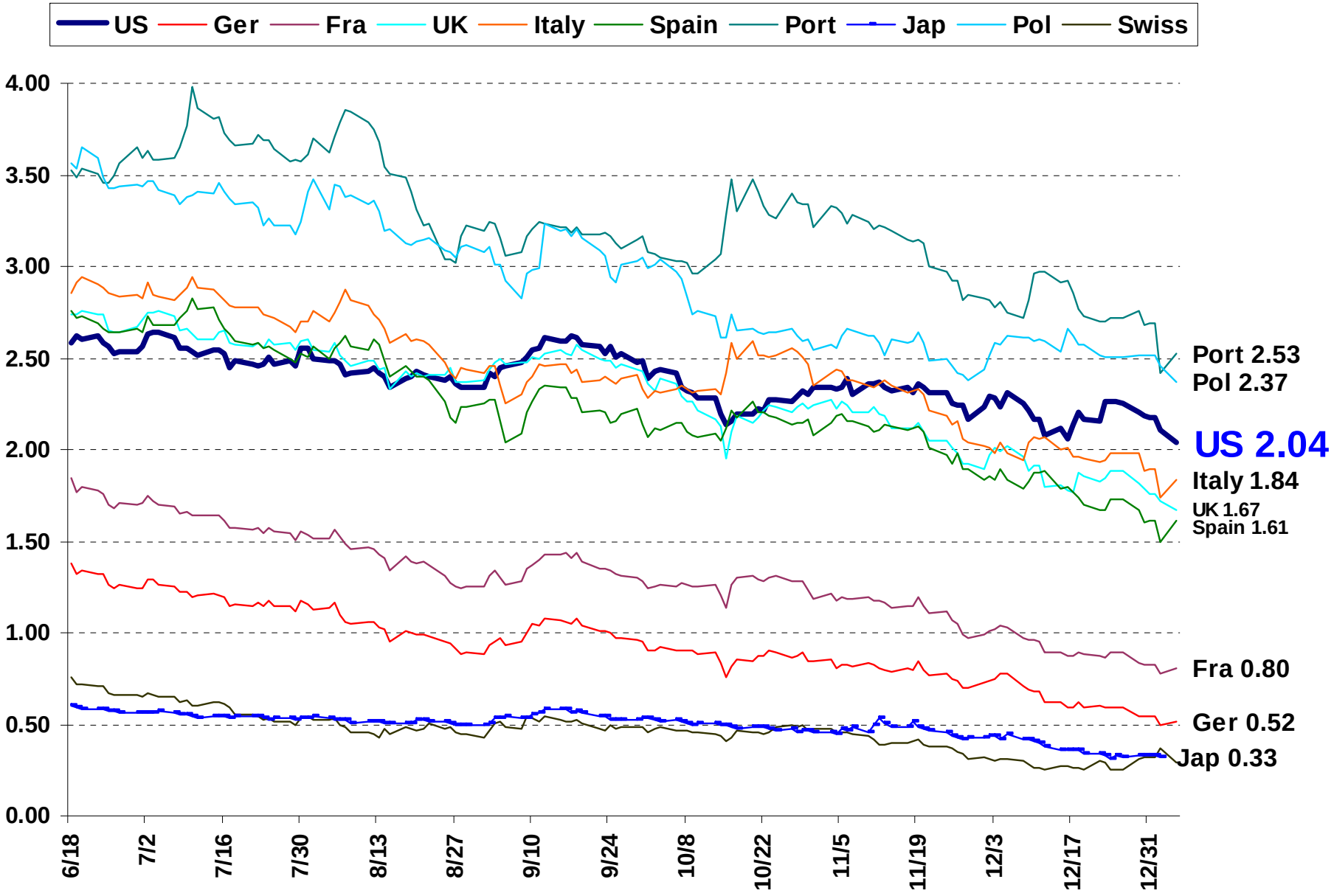
Dec-13
Mar-14
Jun-14
Sep-14

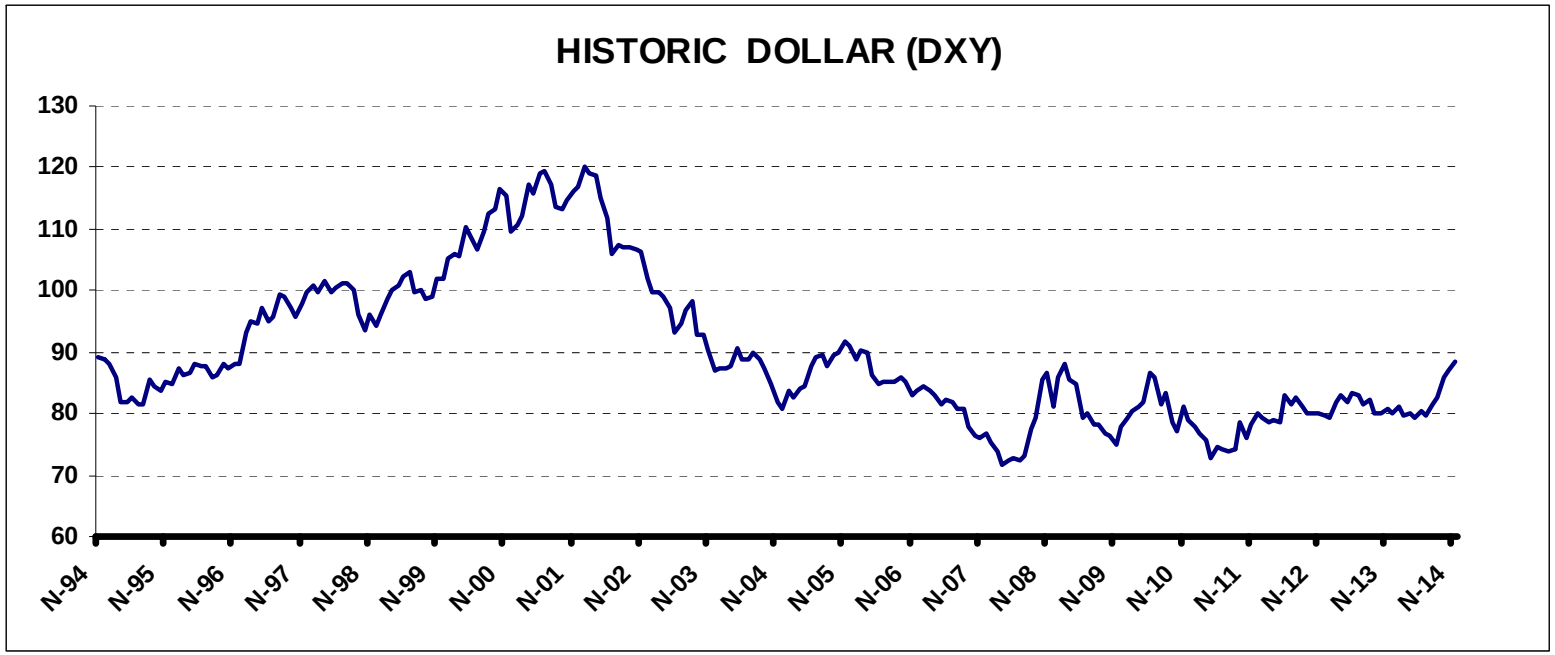

VOLATILITY
Three Month Standard Deviation (Annualized)
(Expected Normal is 13%)
35%
30%
25%
20%
15%
10%
5%
0%
LEHMAN
GREECE
US DOWNGRADE
TAPER TANTRUM
?
Nov-07
May-08
Nov-08
May-09
Nov-09
May-10
Nov-10
May-11
Nov-11
May-12
Nov-12
May-13
Nov-13
May-14
Nov-14

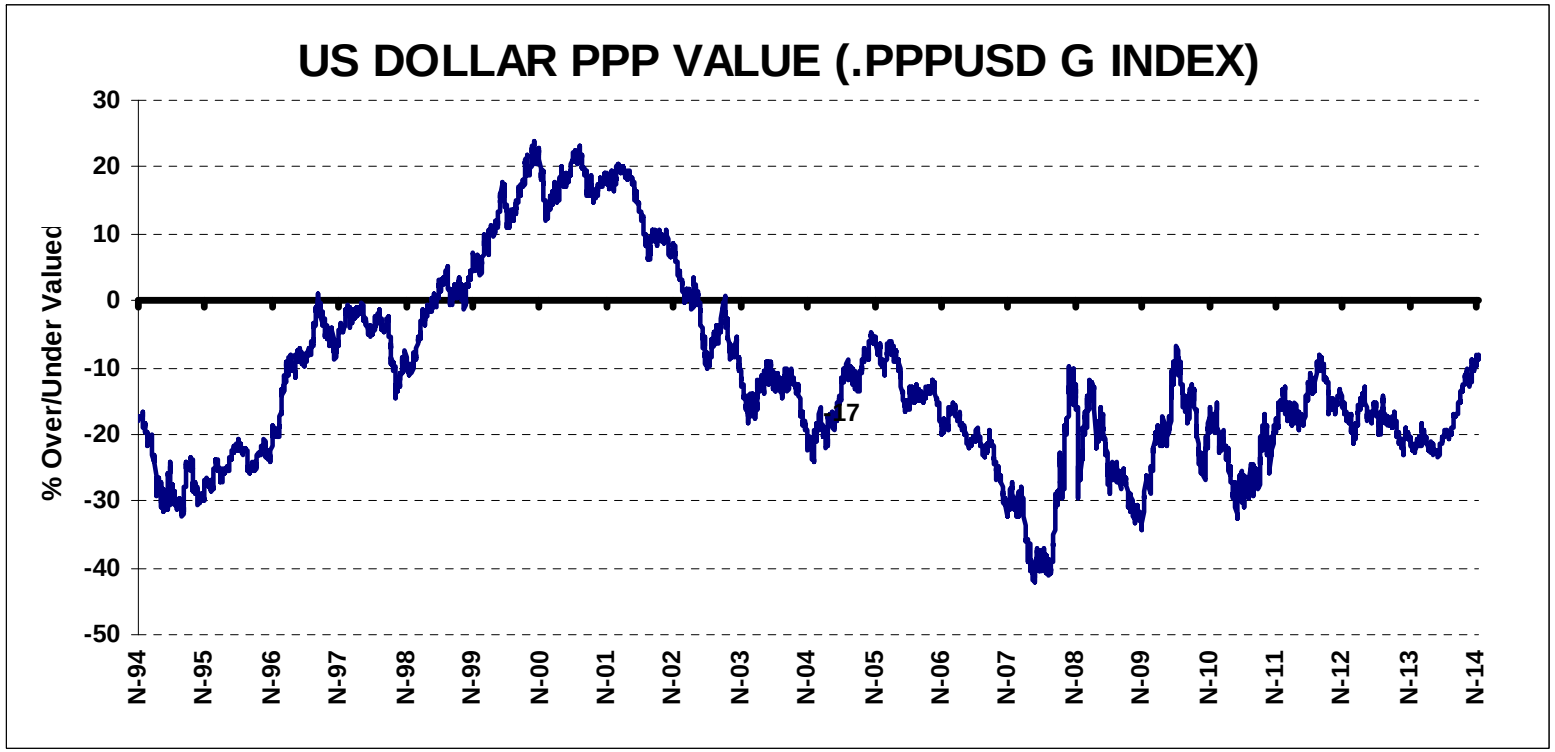
KEY CONDITIONS STILL SUPPORTIVE

- Easy Financial Conditions
- Corporate Profitability at all time highs
- World Liquidity and Potential Cash
- No Apparent “Bubbles”

10YR Bond Yields







Dollar Rising

But Not

Historically

Overvalued

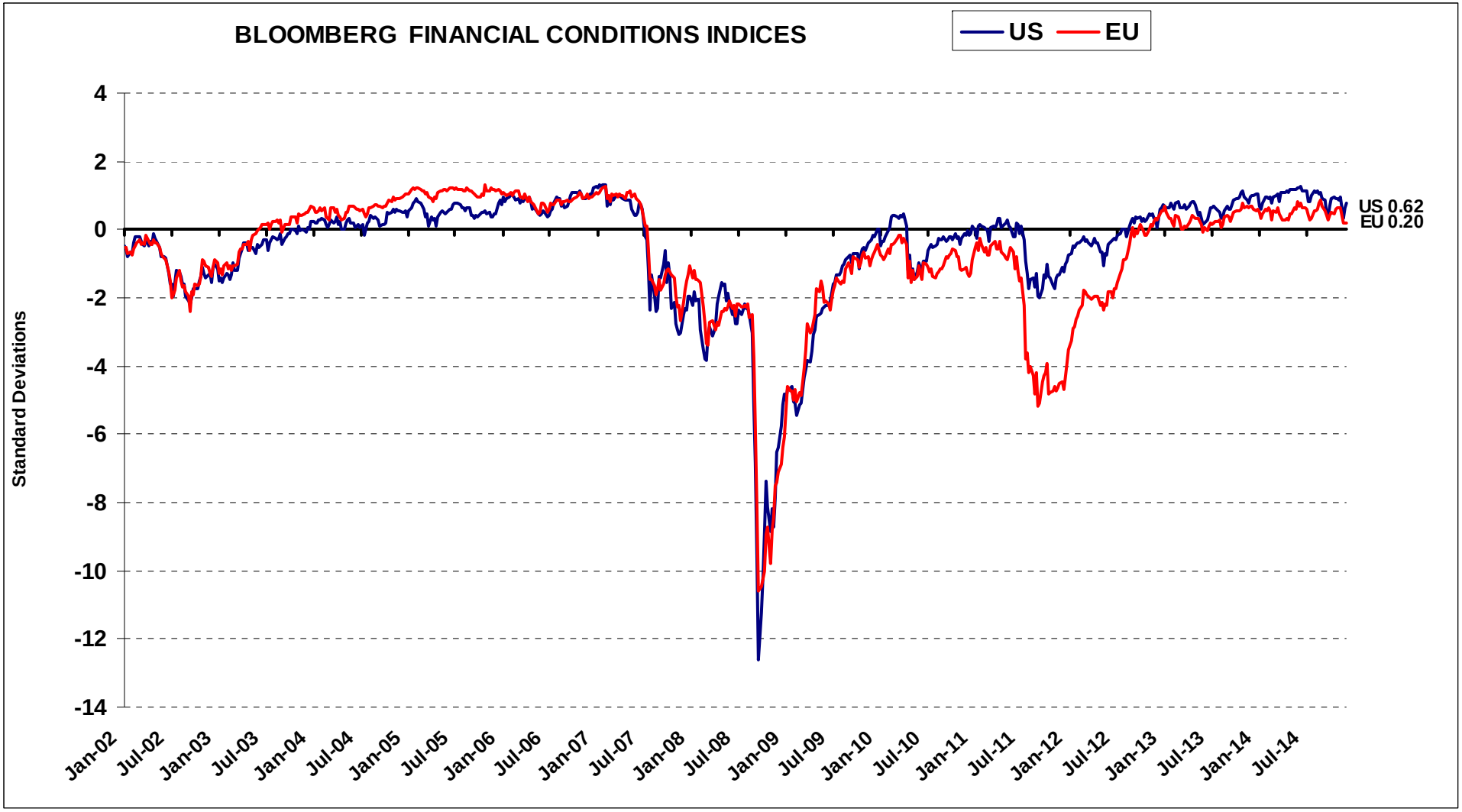
BLOOMBERG FINANCIAL CONDITIONS INDICES – UNITED STATES

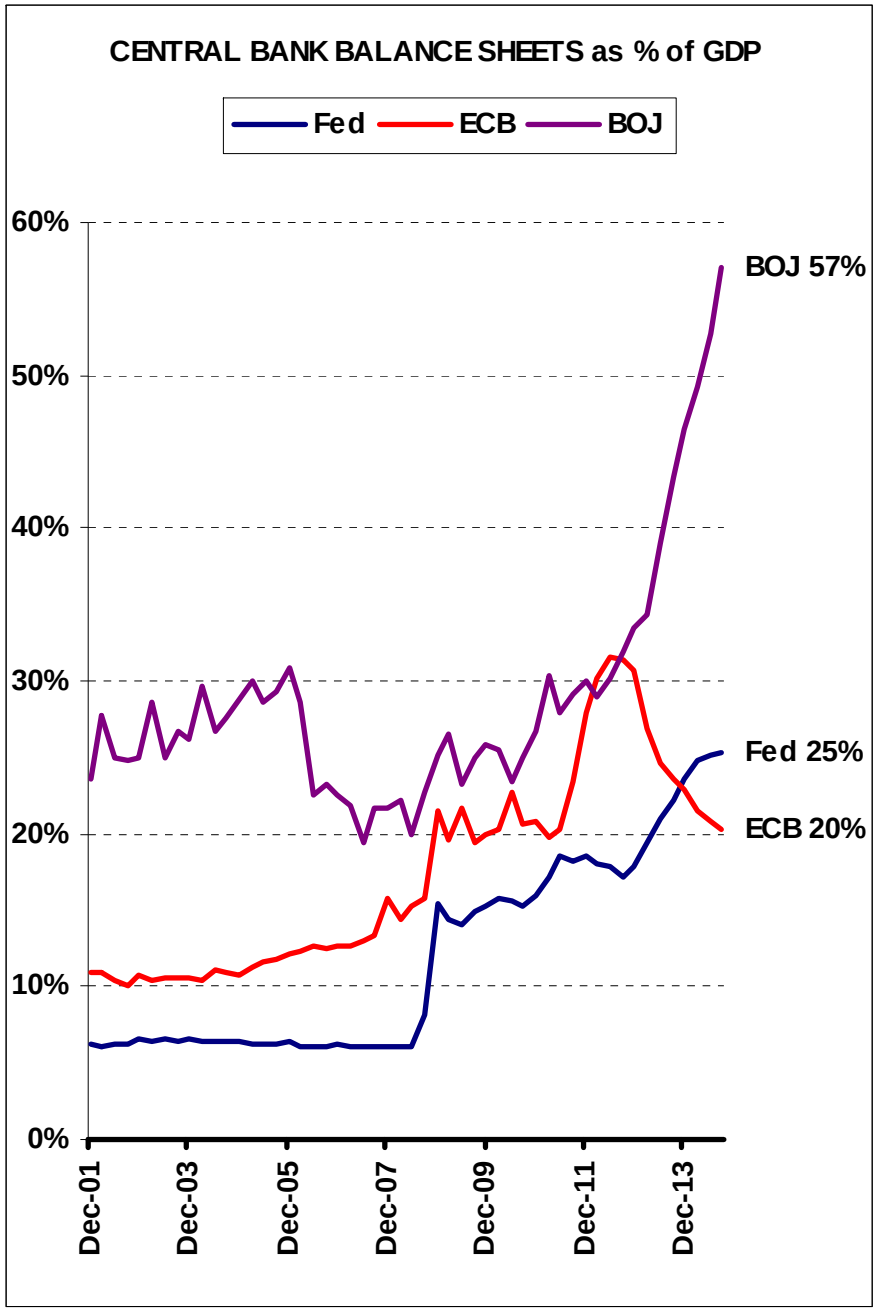
33% MONEY MARKET
TED Spread
Commercial Paper / TBill
Libor / OIS

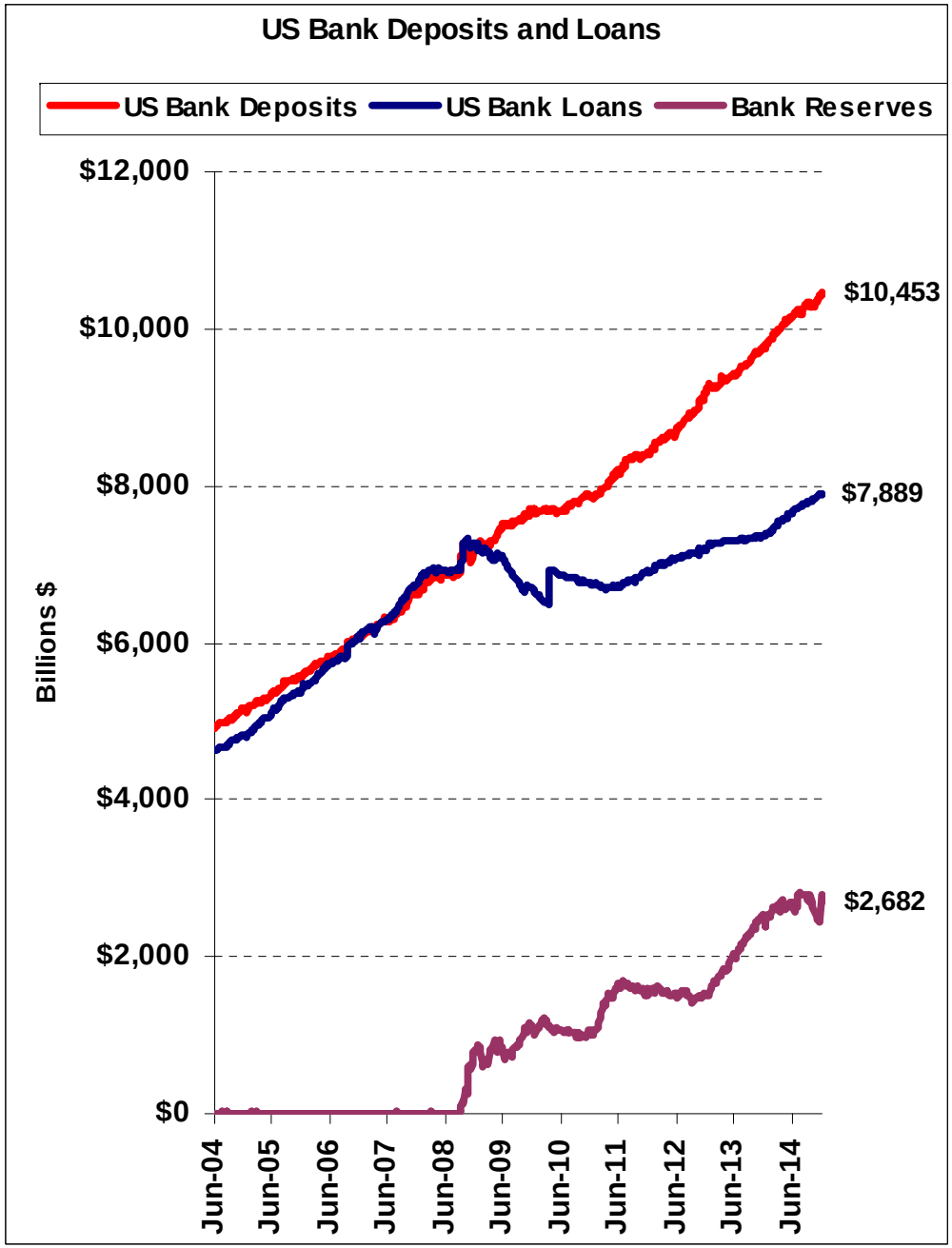
33% BOND MARKET
Corporate / Treasury
Muni / Treasury
Swaps / Treasury
High Yield / Treasury
Agency / Treasury

33% EQUITY MARKET
S&P 500 Prices
VIX Index

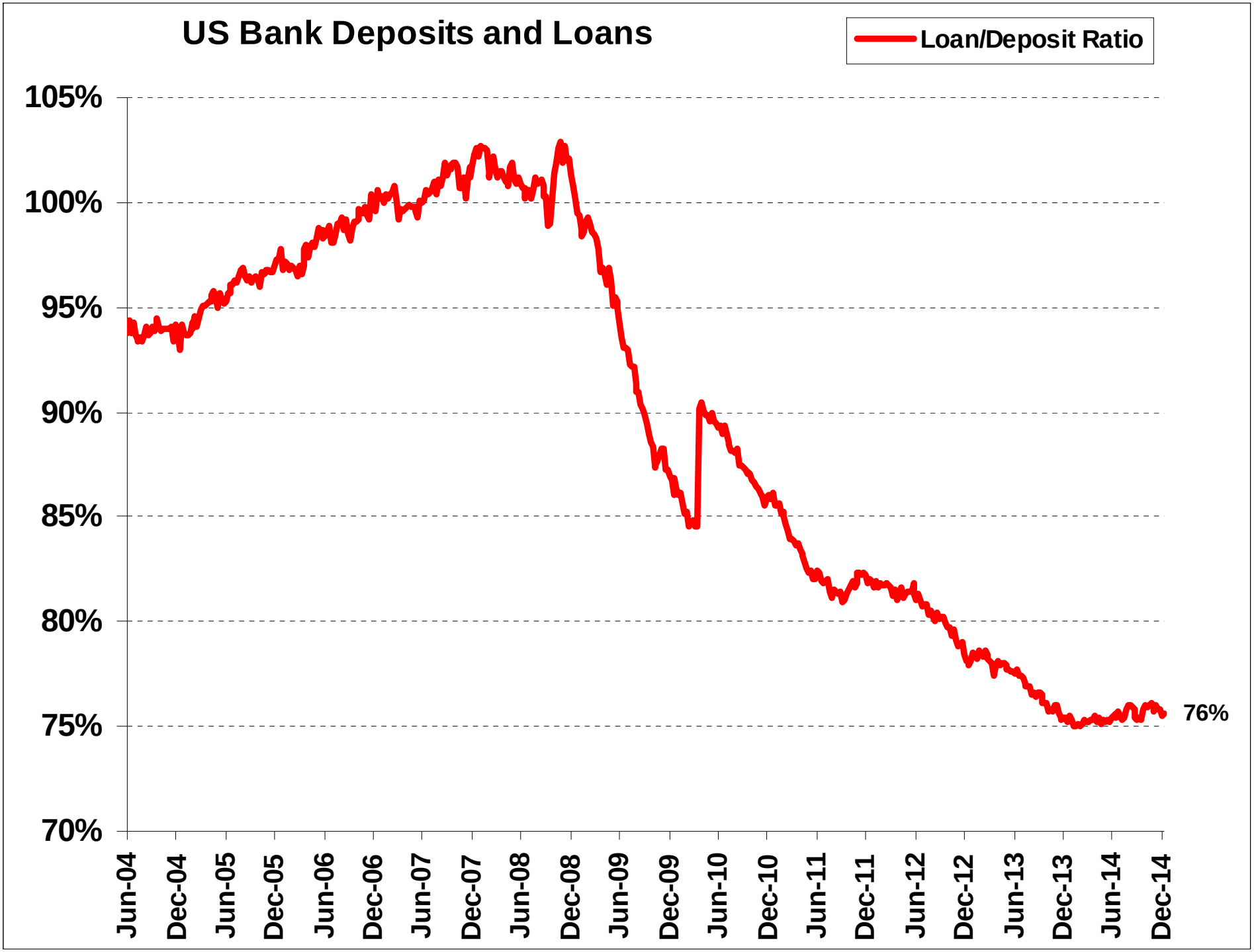
Z-Scores 1992- July 2008 Average







MONEY ISN'T PRINTED UNTIL IT IS LENT AND SPENT


US Bank Deposits and Loans
Loan/Deposit Ratio
105%
100%
95%
90%
85%
80%
75%
70%
76%
Jun-04
Dec-04
Jun-05
Dec-05
Jun-06
Dec-06
Jun-07
Dec-07
Jun-08
Dec-08
Jun-09
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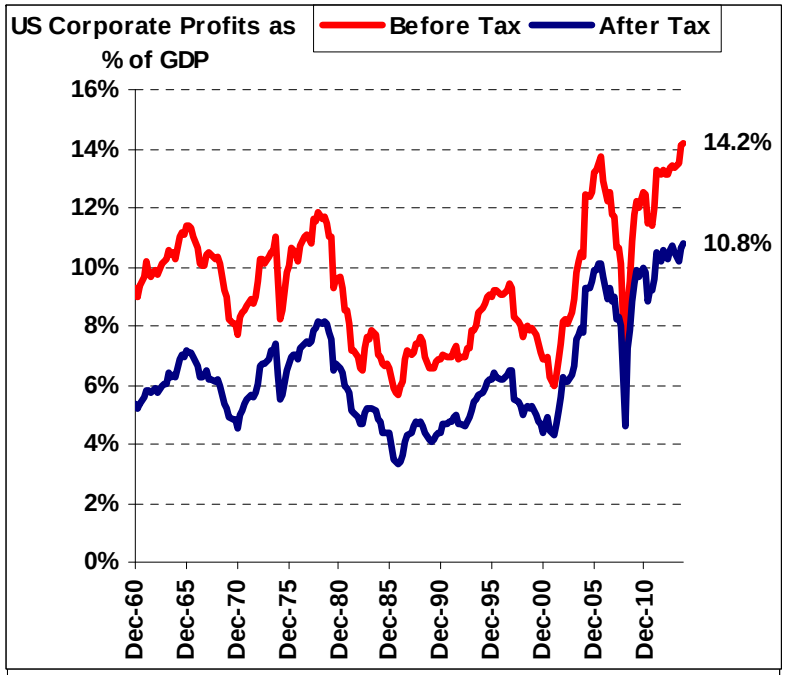
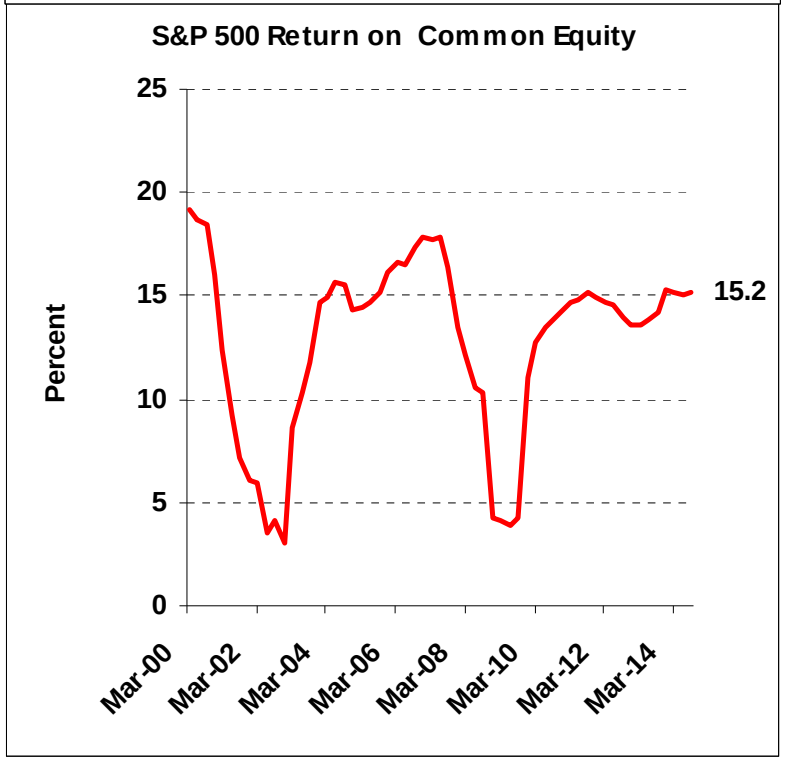
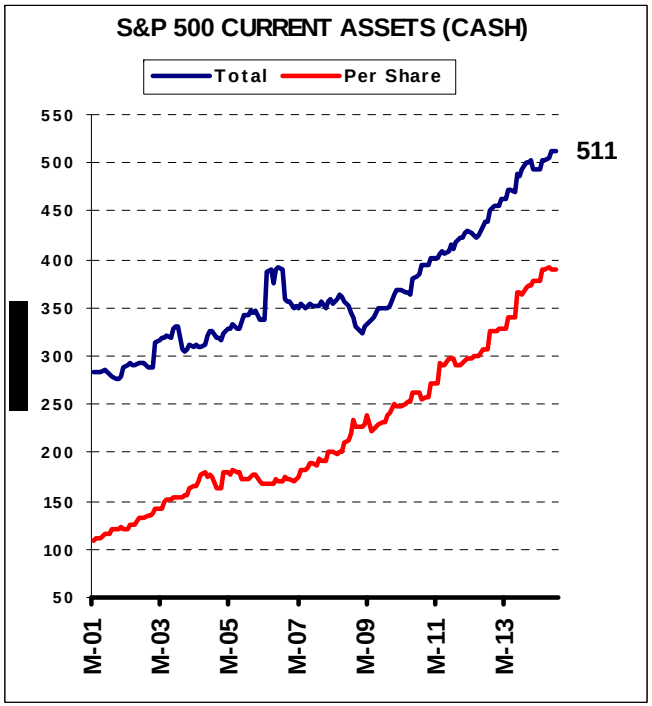
Jun-14
Dec-14

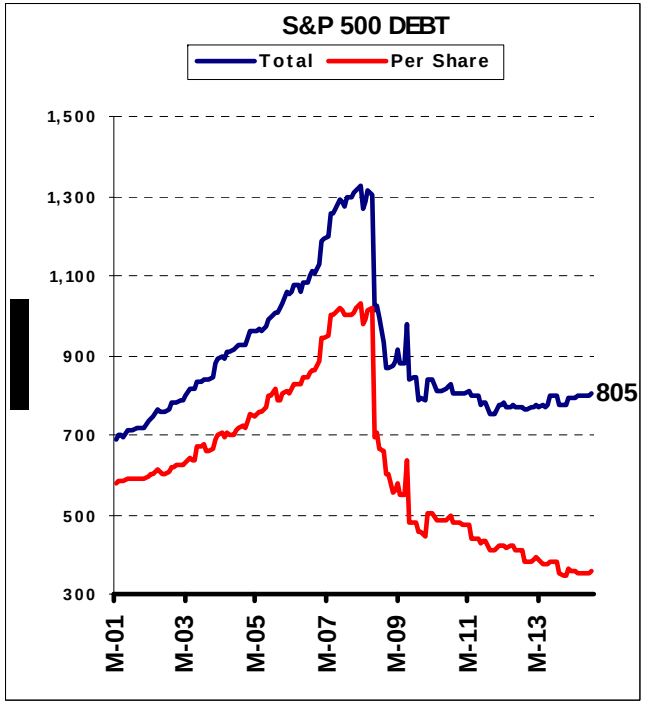




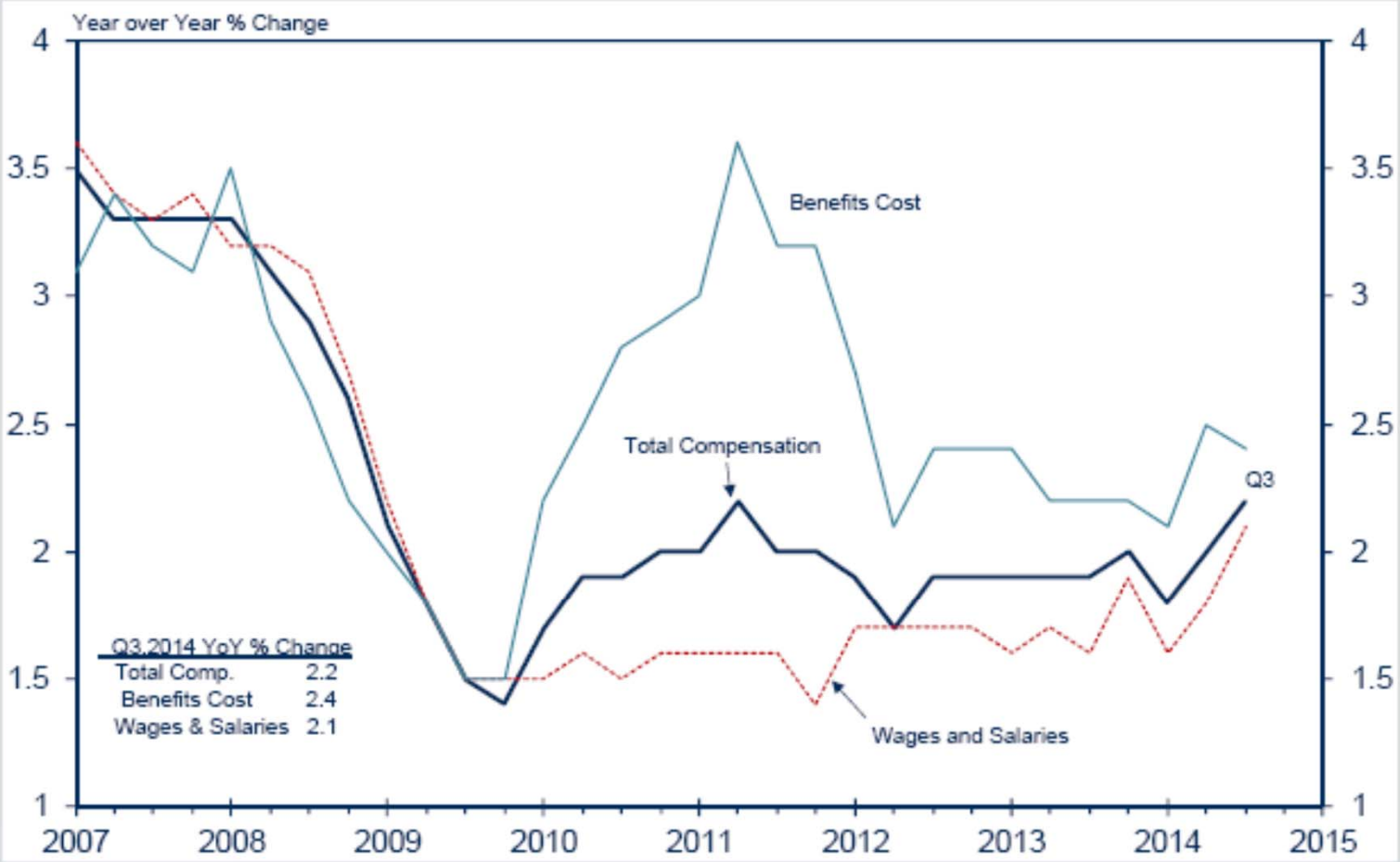
Corporate Profits and Return High

Cash High Debt Low





Employment Cost Index

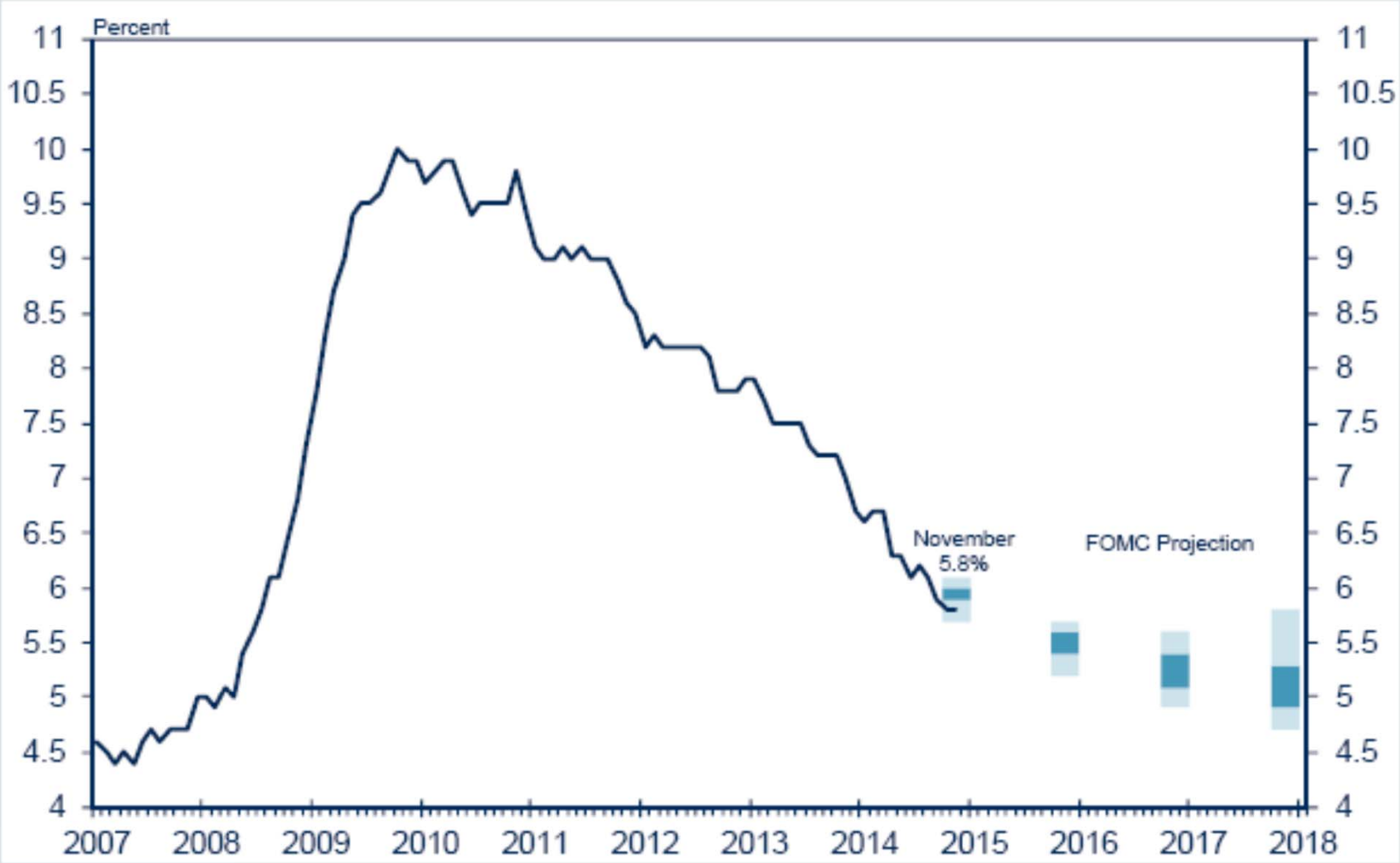


FEDERAL RESERVE BANK OF RICHMOND
Richmond • Baltimore • Charlotte

Source: Bureau of Labor Statistics via Haver Analytics

LABOR COSTS REMAIN LOW BUT PRESSURE IS STARTING TO BUILD

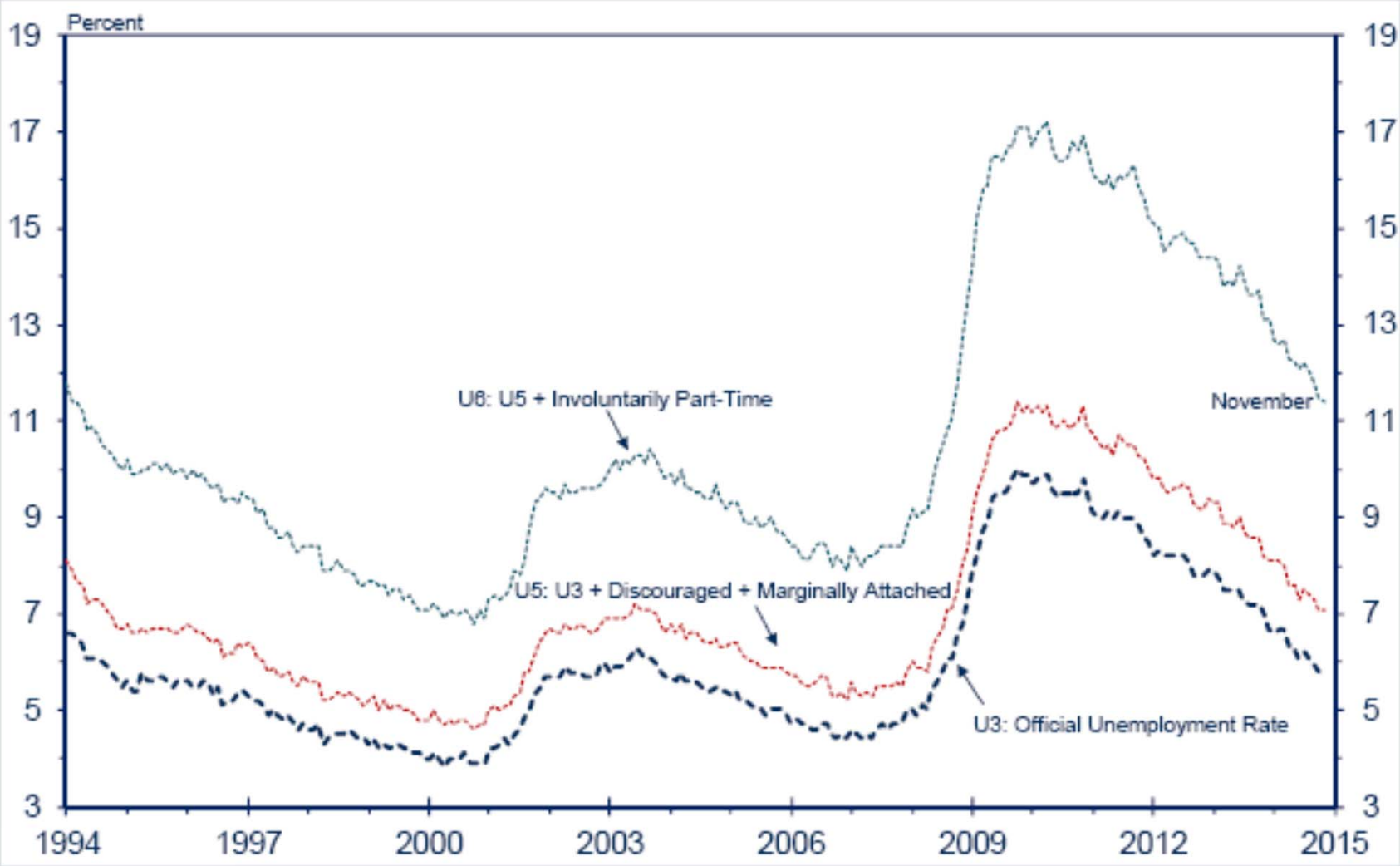
Unemployment Rate



Notes: FOMC projection is the central tendency for the Q4 levels, from the September 17, 2014 meeting.

Source: Bureau of Labor Statistics & Board of Governors via Haver Analytics

Measures of Labor Utilization



Source: Bureau of Labor Statistics via Haver Analytics

FEDERAL RESERVE BANK OF RICHMOND
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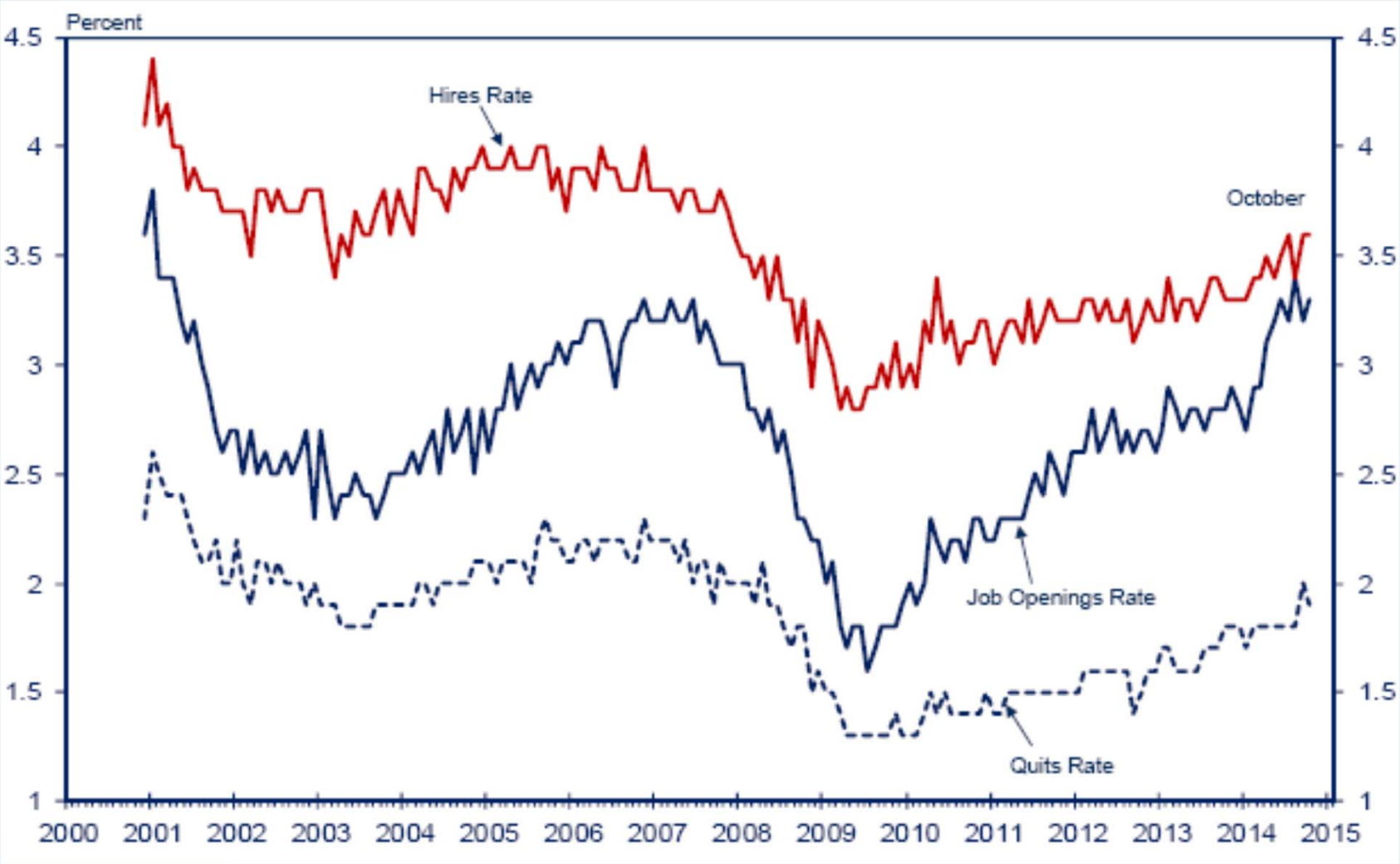
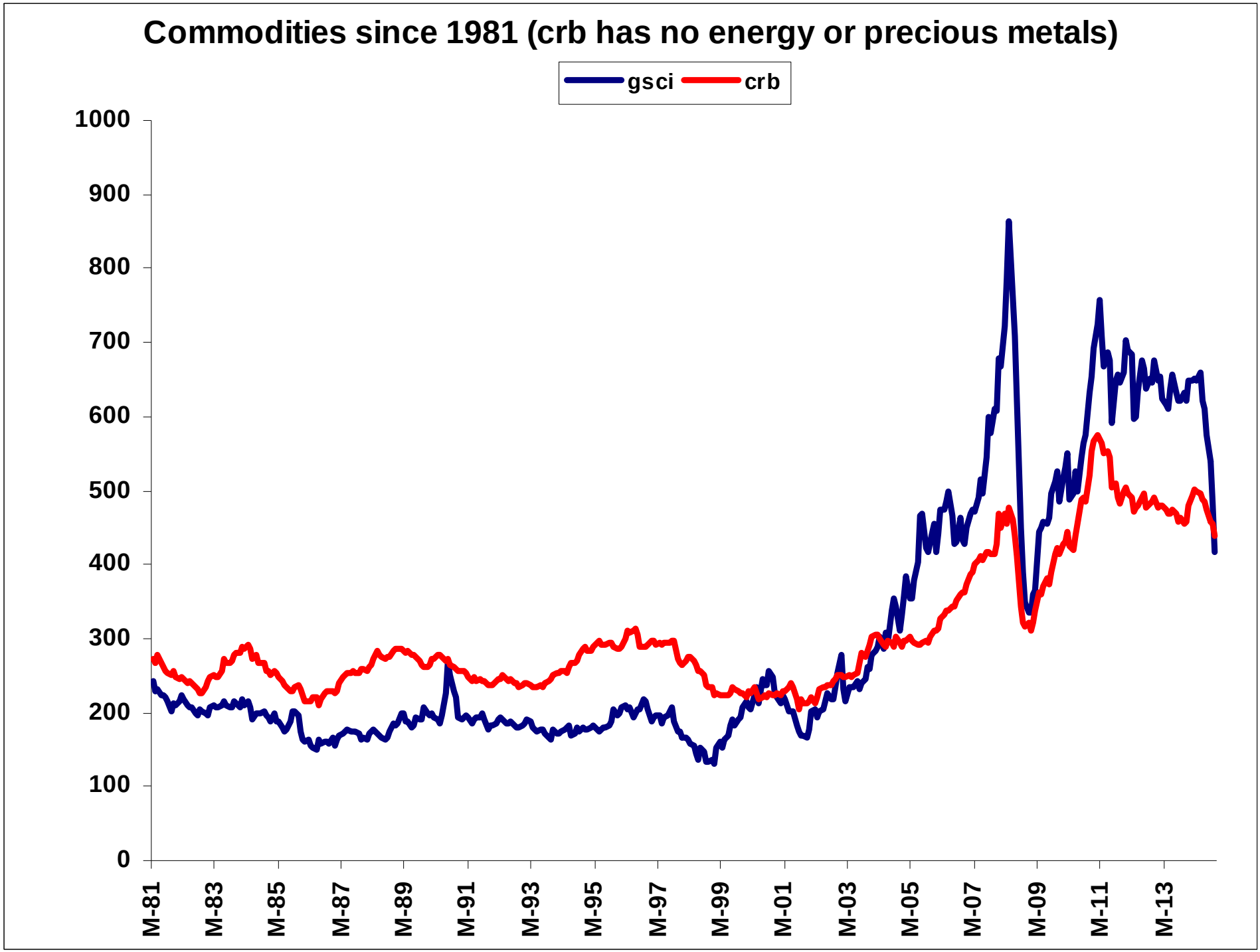
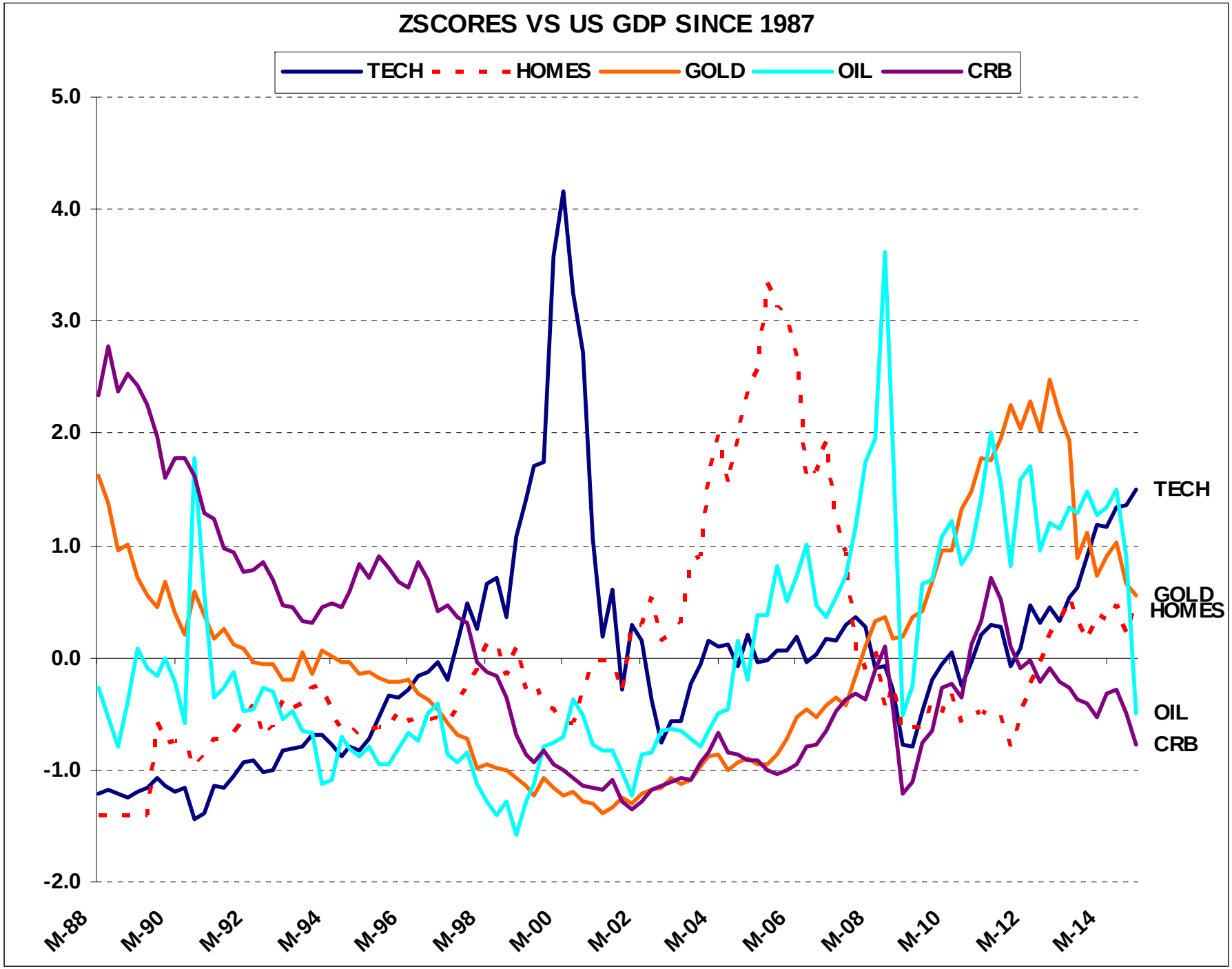
Labor Market Flows



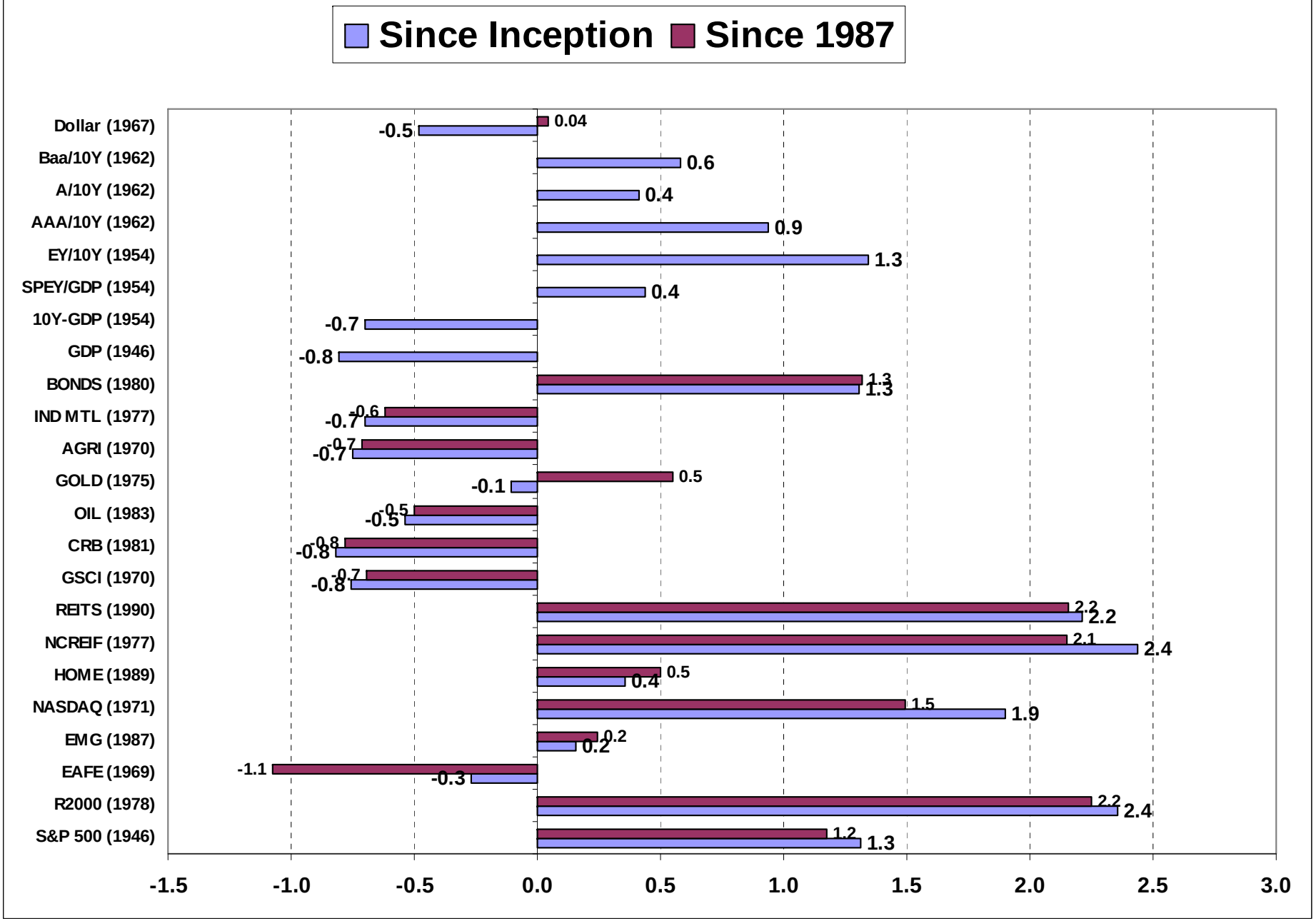
Source: JOLTS via Haver Analytics

FEDERAL RESERVE BANK OF RICHMOND
Richmond • Baltimore • Charlotte


Commodities since 1981 (crb has no energy or precious metals)
gsci
crb
1000
900
800
700
600
500
400
300
200
100
0
M-81
M-83
M-85
M-87
M-89
M-91
M-93
M-95
M-97
M-99
M-01
M-03
M-05
M-07
M-09
M-11
M-13


ZSCORES VS US GDP SINCE 1987
TECH
HOMES
GOLD
OIL
CRB
5.0
4.0
3.0
2.0
1.0
0.0
-1.0
-2.0
M-88
M-90
M-92
M-94
M-96
M-98
M-00
M-02
M-04
M-06
M-08
M-10
M-12
M-14
TECH
GOLD
HOMES
OIL
CRB

Z SCORES INDEX



2014 Economy and 2015 Expectations

- **World Economies "Muddled Through"**
  - US slightly slower than expected, but mildly so, with better employment and strong end of year
  - Europe did not come out of doldrums
  - China cooled inflation, avoiding hard landing, but slowing noticeably

- **Next year expected to be better with stronger labor market**
  - Real GDP 3.0%
  - Inflation 1.5%
  - Unemployment 5.5%

- **MOST INTERESTING ISSUES:**
  - **IMPACT OF OIL AND COMMODITIES**
  - **INTERACTION WITH OVERSEAS ECONOMIES – can US continue to be an "Oasis of Prosperity"**

ECONOMIC EXPECTATIONS

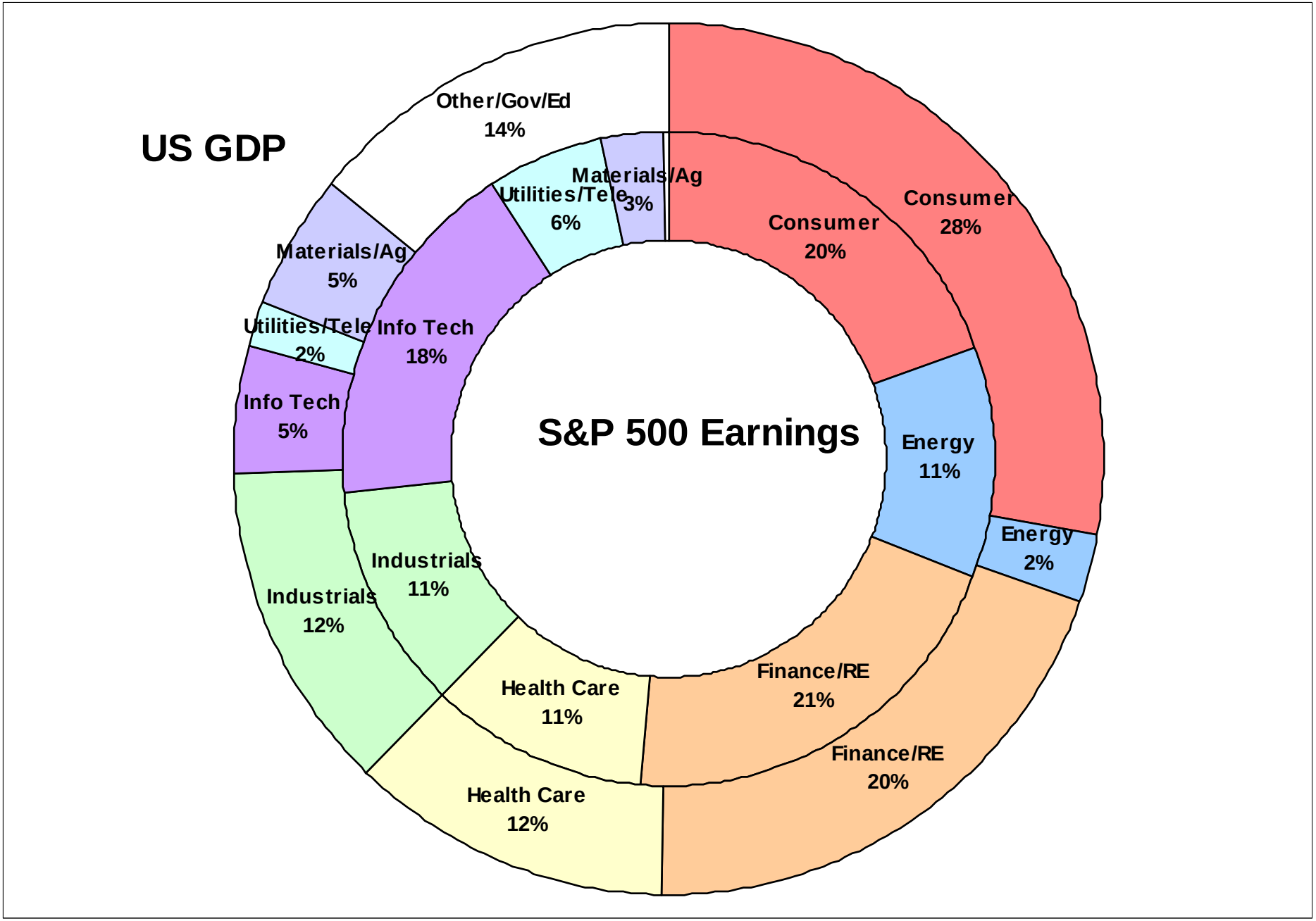
	Projected 2014	Actual 2014	Projected 2015
Real GDP	2.6%	2.3%	3.0%
Nominal GDP	4.2%	3.8%	4.7%
Real Consumption	2.5%	2.3%	2.9%
Real Business Spending	4.6%	6.1%	5.8%
Real Ind. Product	3.0%	4.0%	3.5%
Unemployment	6.8%	5.8%	5.5%
Housing Starts	1,120,000	1,000,000	1,118,000
Core CPI Inflation	1.7%	1.7%	1.5%
Europe Real GDP	1.0%	0.8%	1.1%
Europe Inflation	1.1%	0.6%	0.7%
China Real GDP	7.5%	7.3%	7.0%
China Inflation	3.1%	2.1%	2.1%

BASIC CAPITAL MARKET CONCEPTS

- **EXPECTATIONS**
  - **Not Current Conditions**
  - **Current Economic Expectations Moderate**

- **RELATIVE VALUE**
  - **Not absolute value in itself**
  - **What are people willing to pay for expected earnings**
  - **Current alternative – bonds – unattractive**

- **PROFITS**
  - **Not general economy**
  - **Good balance sheets, lean operating conditions, little current pressure on labor costs**

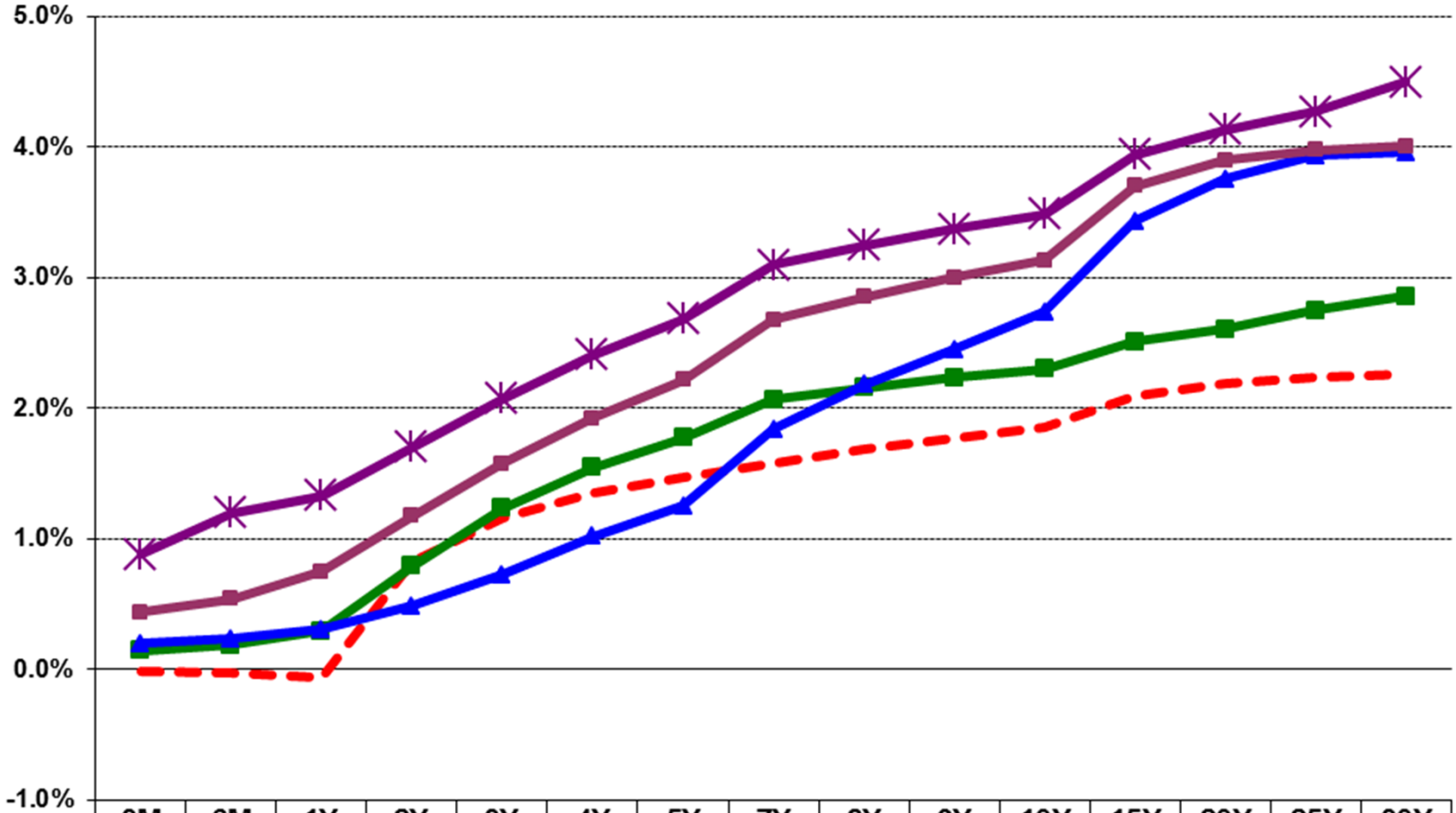


Information Technology, Utilities and Energy 35% of Stock Market vs. 9% of GDP

2014 CAPITAL MARKETS AND 2015 EXPECTATIONS

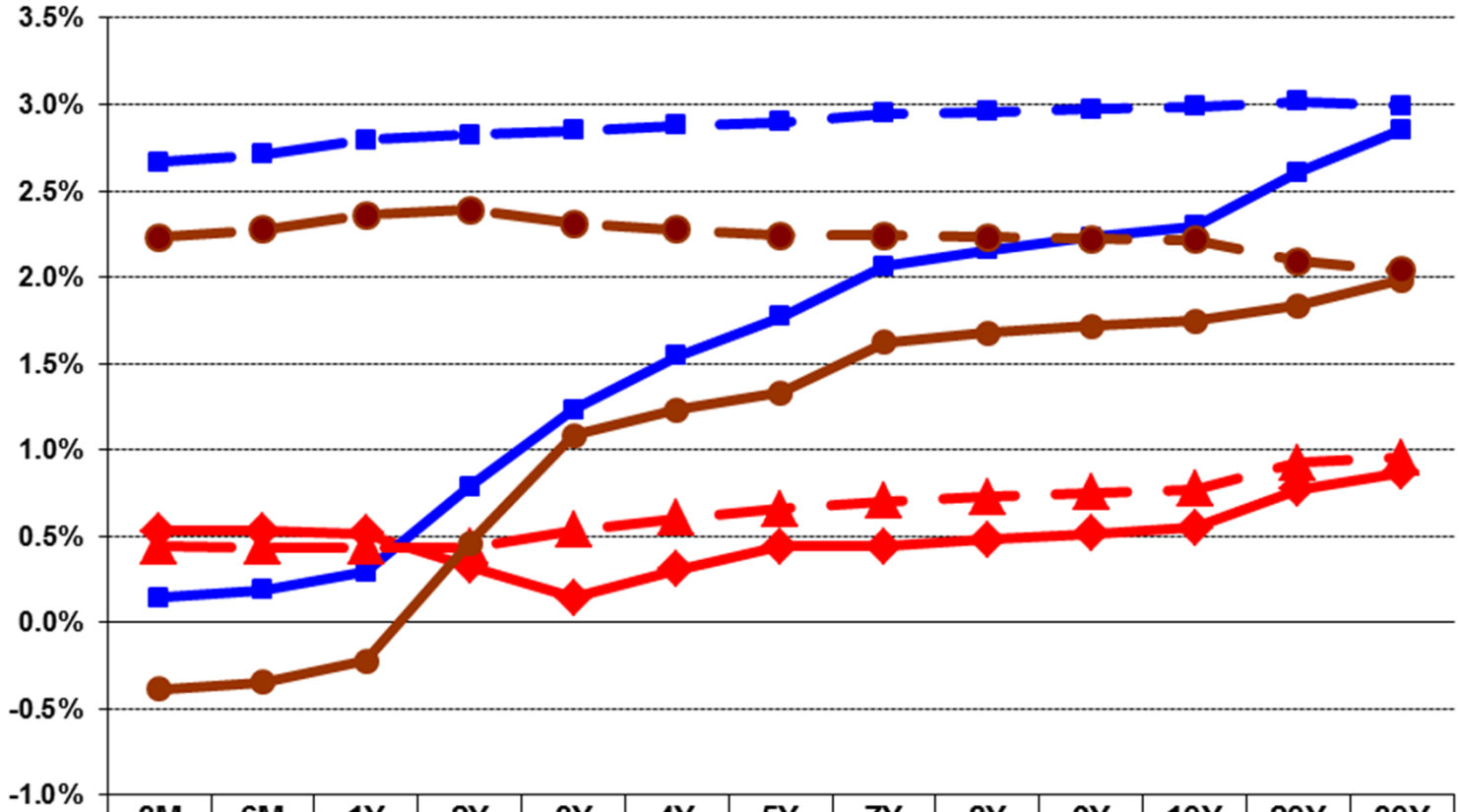
- **Capital Markets Good for US, Poor elsewhere**
  - **S&P 500 +13.7% vs expected +12%**
    - EPS +9.5% (2.0% Stock Buyback, 7.5% Profit Growth)
    - Dividends +2.0%
    - PE ratio (current) from 16.5 to 16.8 (+1.8%) accounts for difference (EPS and dividends as expected) (multiply not add)
    - R2500 +7%, REITS +32%. EAFE -4.5%, Emerging -1.8%, Commodities -31%
  - **Investment Grade bonds unexpectedly rose +6% vs expected 0%**
    - Yields dropped instead of moderately rising.
- **Markets again expect around 11% equity markets, flat bond markets**

Expected Inflation and Current Yield Curves

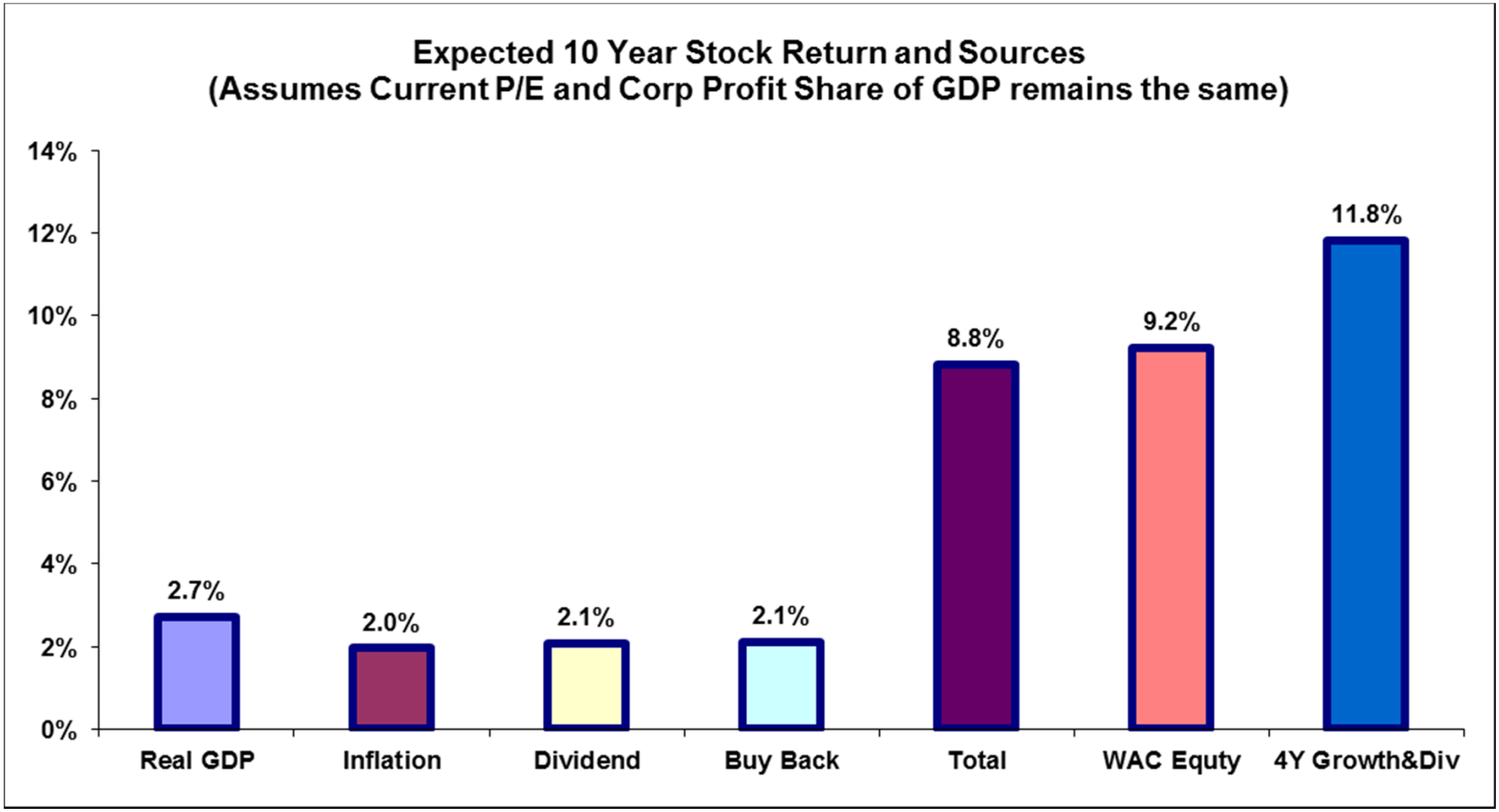


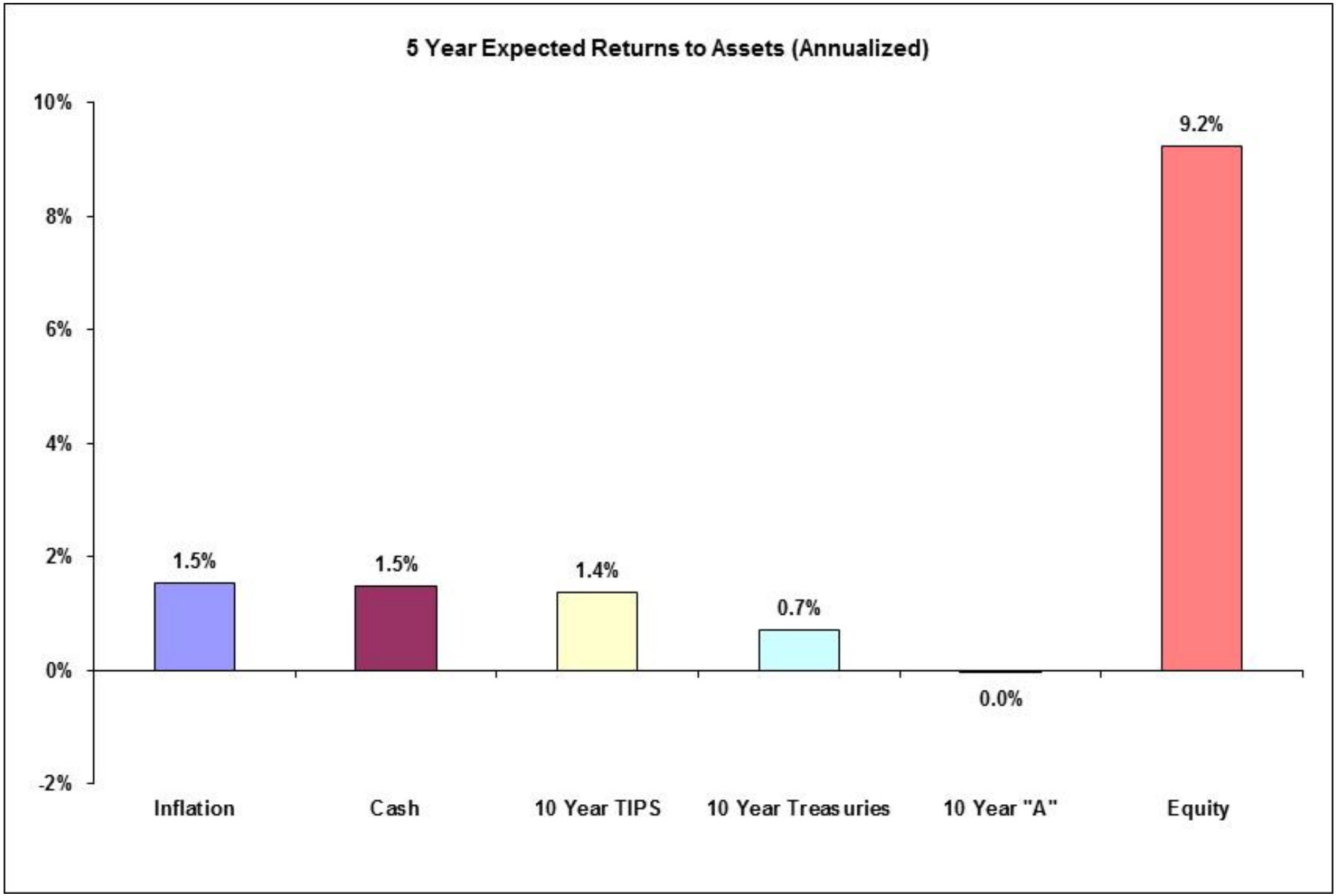
	3M	6M	1Y	2Y	3Y	4Y	5Y	7Y	8Y	9Y	10Y	15Y	20Y	25Y	30Y
Inflation	0.0%	0.0%	-0.1%	0.8%	1.2%	1.3%	1.5%	1.6%	1.7%	1.8%	1.9%	2.1%	2.2%	2.2%	2.3%
Treasury	0.1%	0.2%	0.3%	0.8%	1.2%	1.5%	1.8%	2.1%	2.2%	2.2%	2.3%	2.5%	2.6%	2.7%	2.9%
AAA	0.2%	0.2%	0.3%	0.5%	0.7%	1.0%	1.2%	1.8%	2.2%	2.4%	2.7%	3.4%	3.8%	3.9%	4.0%
A	0.4%	0.5%	0.7%	1.2%	1.6%	1.9%	2.2%	2.7%	2.9%	3.0%	3.1%	3.7%	3.9%	4.0%	4.0%
BBB	0.9%	1.2%	1.3%	1.7%	2.1%	2.4%	2.7%	3.1%	3.2%	3.4%	3.5%	3.9%	4.1%	4.3%	4.5%

Current and Expected Yield Curves in 5 Yrs



	3M	6M	1Y	2Y	3Y	4Y	5Y	7Y	8Y	9Y	10Y	20Y	30Y
Current TIPS	0.5%	0.5%	0.5%	0.3%	0.1%	0.3%	0.4%	0.4%	0.5%	0.5%	0.6%	0.8%	0.9%
Current Treasury	0.1%	0.2%	0.3%	0.8%	1.2%	1.5%	1.8%	2.1%	2.2%	2.2%	2.3%	2.6%	2.9%
TIPS in 5	0.4%	0.4%	0.4%	0.4%	0.5%	0.6%	0.7%	0.7%	0.7%	0.8%	0.8%	0.9%	1.0%
Treasury in 5	2.7%	2.7%	2.8%	2.8%	2.8%	2.9%	2.9%	2.9%	3.0%	3.0%	3.0%	3.0%	3.0%
Current Breakever	-0.4%	-0.3%	-0.2%	0.5%	1.1%	1.2%	1.3%	1.6%	1.7%	1.7%	1.7%	1.8%	2.0%
Breakeven in 5	2.2%	2.3%	2.4%	2.4%	2.3%	2.3%	2.2%	2.2%	2.2%	2.2%	2.2%	2.1%	2.0%


Expected 10 Year Stock Return and Sources
(Assumes Current P/E and Corp Profit Share of GDP remains the same)
14%
12%
10%
8%
6%
4%
2%
0%
2.7%
2.0%
2.1%
2.1%
8.8%
9.2%
11.8%
Real GDP
Inflation
Dividend
Buy Back
Total
WAC Equty
4Y Growth&Div


5 Year Expected Returns to Assets (Annualized)
10%
8%
6%
4%
2%
0%
-2%
1.5%
1.5%
1.4%
0.7%
0.0%
9.2%
Inflation
Cash
10 Year TIPS
10 Year Treasuries
10 Year "A"
Equity

Expectations : Bonds Will be "Dead Money"

- **Cash: Yields will rise from 0.2% to 0.8% for a +0.3% return**
- **TIPS: Yields stay around current 0.4% real yield for a 2.0% return**
  - **Will get 1.5% for CPI Inflation**
- **10Y Treasury: 2.1% Yield will go to 2.5%, for a negative -1.3% return**
- **10Y Corporate "A": Yields from 3.0% to 3.3%, for a negative 0.7% return**

Expectations : Another Double Digit Equity Year

- US Equities: +11% to +12%
  - Dividend at 2.1%
  - Expected Earnings Per Share Increase: 9.1%
    - Earnings increase : 7.0%
      - Around Historic Average of 7.5%
    - Net Share Repurchase: 2.1%
  - Assumes Current P/E stays around 16.8
    - Probably goes higher if economic growth healthy

- EQUITY MARKETS WERE BEING DRIVEN BY RELATIVE VALUES AND FINANCIAL CONDITIONS, TURNING TO PROFIT GROWTH

MARKET EXPECTATIONS

	2014 Level	2015 Level	Return
GDP	2.3%	3.0%	
Inflation	1.7%	1.5%	
Unemployment	5.8%	5.5%	
Cash	0.2%	0.8%	0.3%
10 Y TIPS	0.4%	0.4%	2.0%
10Y Treasury	2.1%	2.5%	-1.3%
10Y Corporate A	3.0%	3.3%	-0.7%
S&P 500	2059	2244	11%

QUESTIONS?