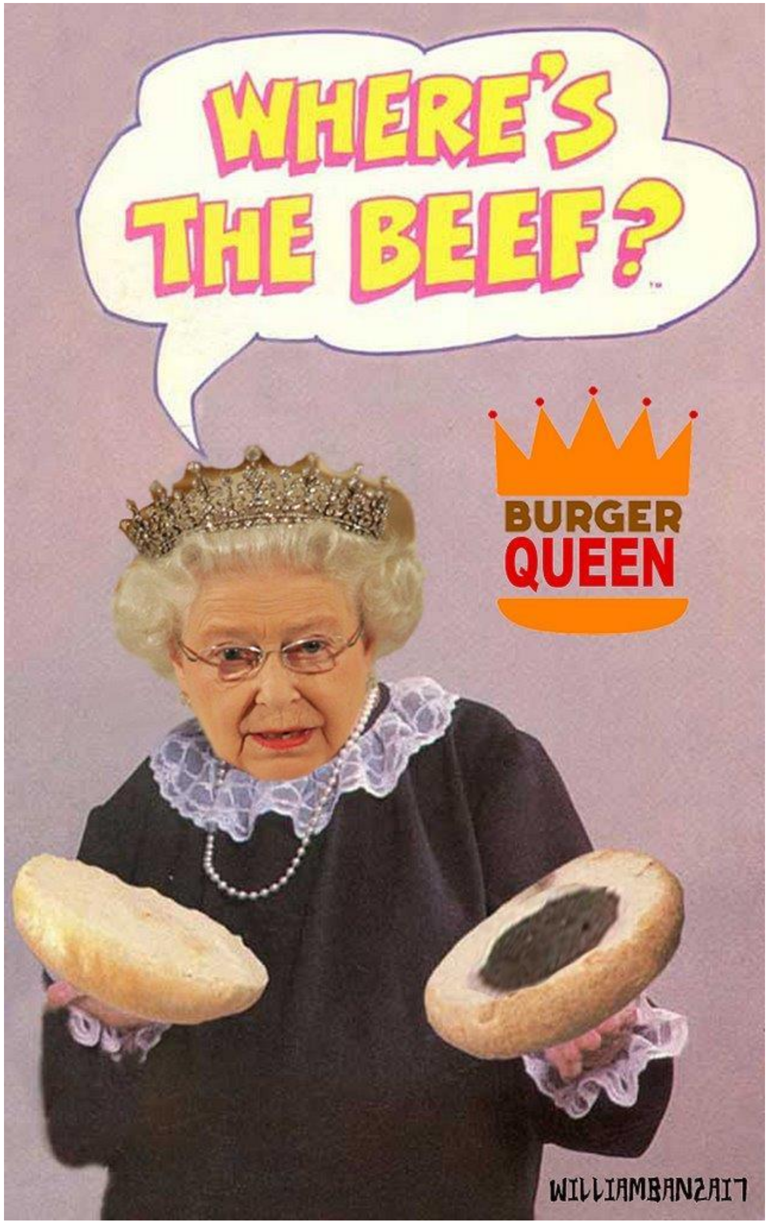
October 20, 2015

Where's the Growth?

By Howard Newman, President and CEO

PINE BROOK

The Question of The Day



The Question of The Day

Today's Talk

1. Is There a Growth Problem?

2. Conundrum for the FED

3. The Great Debt Debate

4. Investment and Productivity

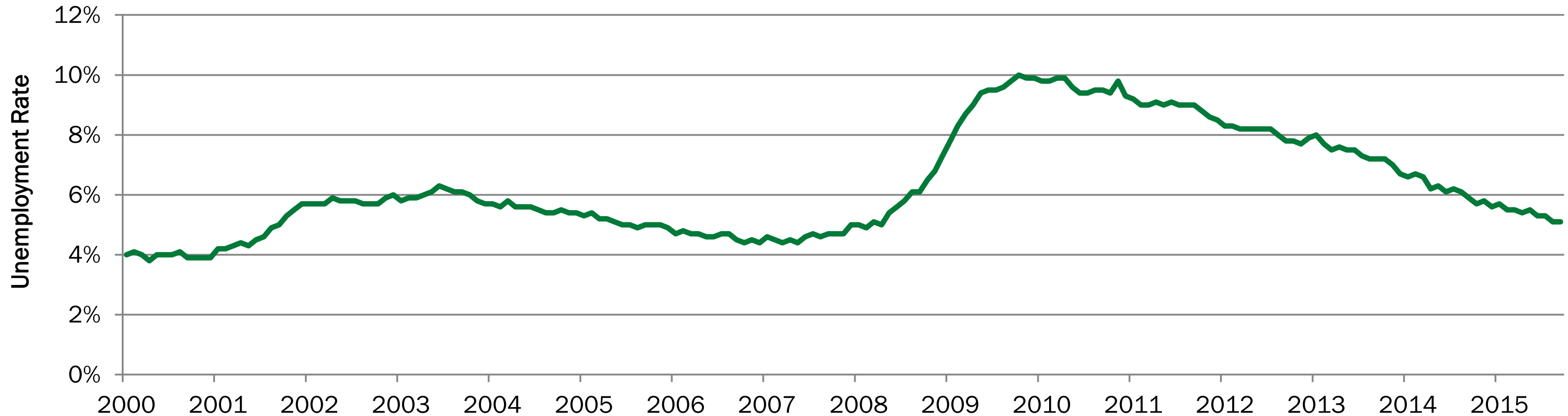
Is There a Growth Problem?

Growth Is on Everybody's Mind

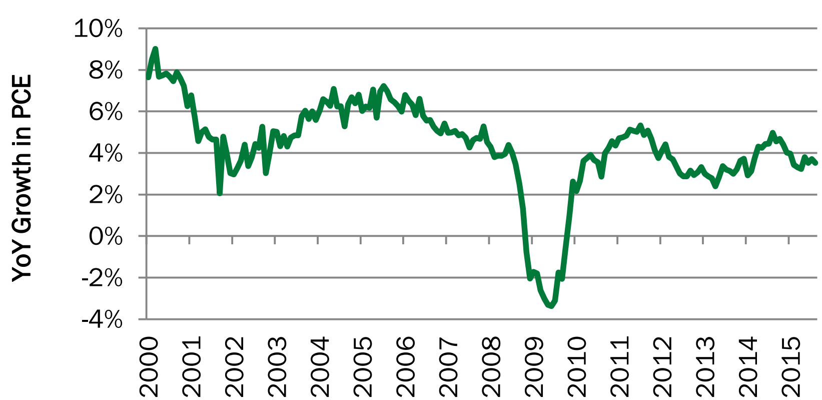
- IMF predicting lower growth globally
- FED delayed raising rates because of global growth and stability concerns
- Even the Democratic debate participants are running against the economic record of the past 7 years

The U.S. Economy Is Doing Just Fine

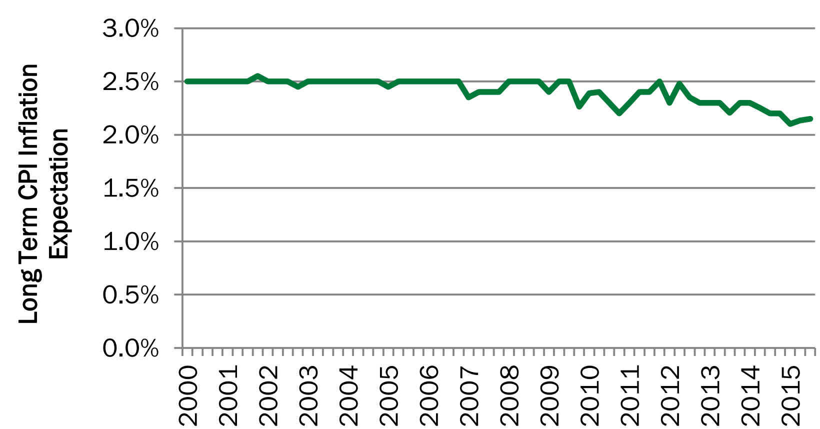
Close to Full Employment



Consumer is Alive and Well



Inflationary Expectations "Well Anchored"



Source: St. Louis Federal Reserve

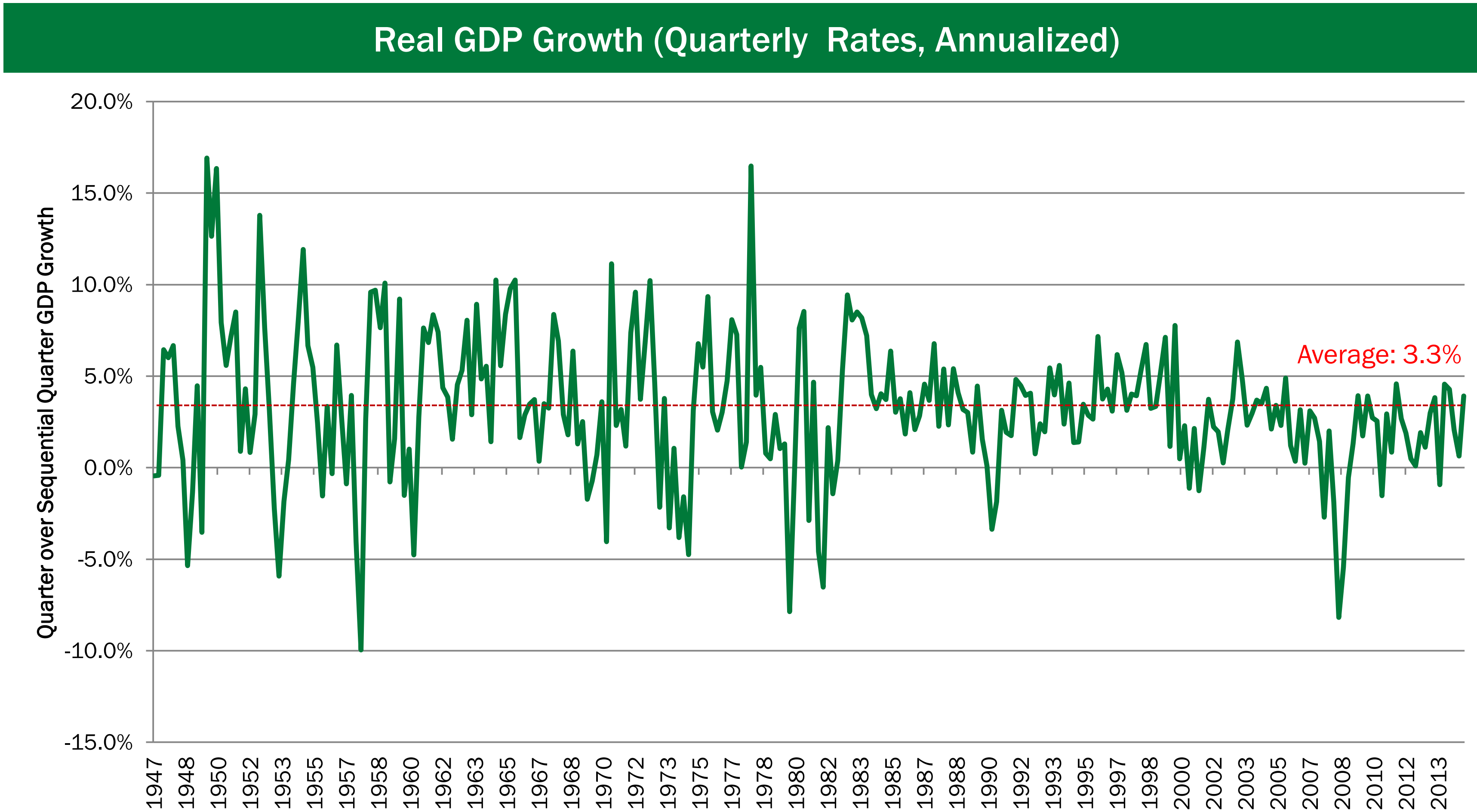
Headwinds? Not Many

Housing?	Recovery proceeding
Credit?	Generally available
Energy?	Stable
Fiscal Policy?	Stable
Slow Growth Abroad?	Some concern

Nagging Concerns

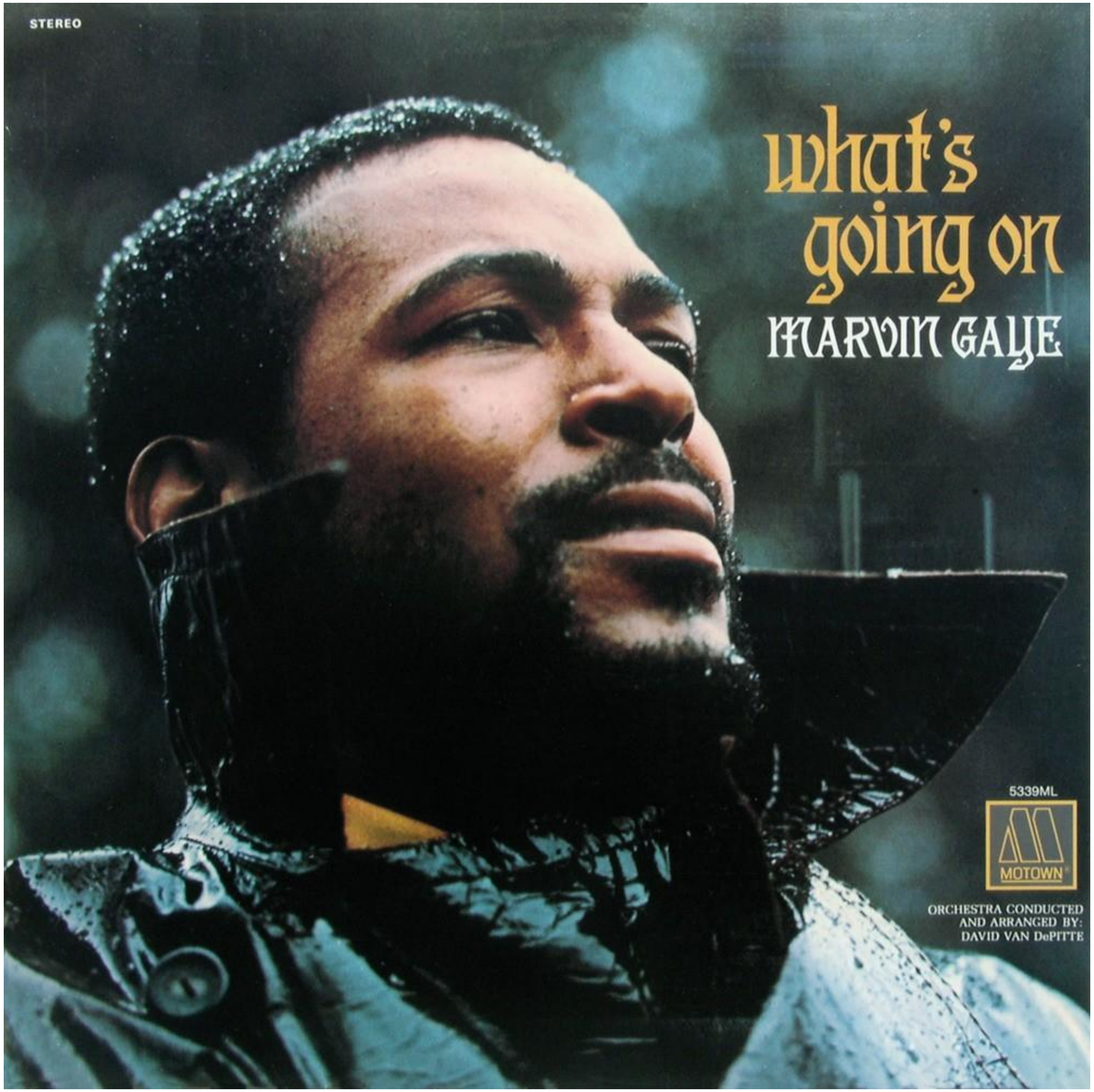
- Real wage growth still inadequate
- Productivity growth remains muted
- Inequality is on everybody's mind
- Strong dollar/problems abroad
- Why didn't the FED tighten?

There Is a Secular Problem, Not a Cyclical One



Source: St. Louis Federal Reserve

So Here is Today's Big Question



The FED

Is Monetary Policy No Longer Effective?

The Decision to Defer

- FED's decision to defer an interest rate increase pleased almost nobody
- Did it signal a concern about the U.S. economy?
- Did it signal a concern about the stability of the global financial system?
- Did it signal that the FED remains trapped in the deflation silo?

The FED's Perspective: Deflation

- Deflation caused the Great Depression
  - Tight money, bank failures and the absence of credit

- Deflationary spiral impossible to address after it begins due to the "zero rate bound" constraint

- Growth requires credit-especially consumer and mortgage credit

- Focus on the health of the financial sector

- Cannot address the underlying macro causes of a crisis after it begins

The FED's Perspective: Inflation

- Need some inflation so that monetary policy can be effective when needed
- Inflationary expectations are well rooted-and need to stay well rooted
- Current inflation is below the 2% target in adopted in 2012
- Real interest rates reflect expectations about inflation
- Deflation still a major concern given the persistence of low inflation

The FED's Longer Term Problem

- Monetary policy works by creating debt
- Debt increases the instability of the system
- Instability reflects the cumulative debt balance in the system
- Using monetary policy to grow the economy creates the very macro prudential risks the FED seeks to avoid-and using monetary policy to slow the economy actualizes those risks as debt holders seek to avoid capital losses

Why Is Monetary Policy Not Working?

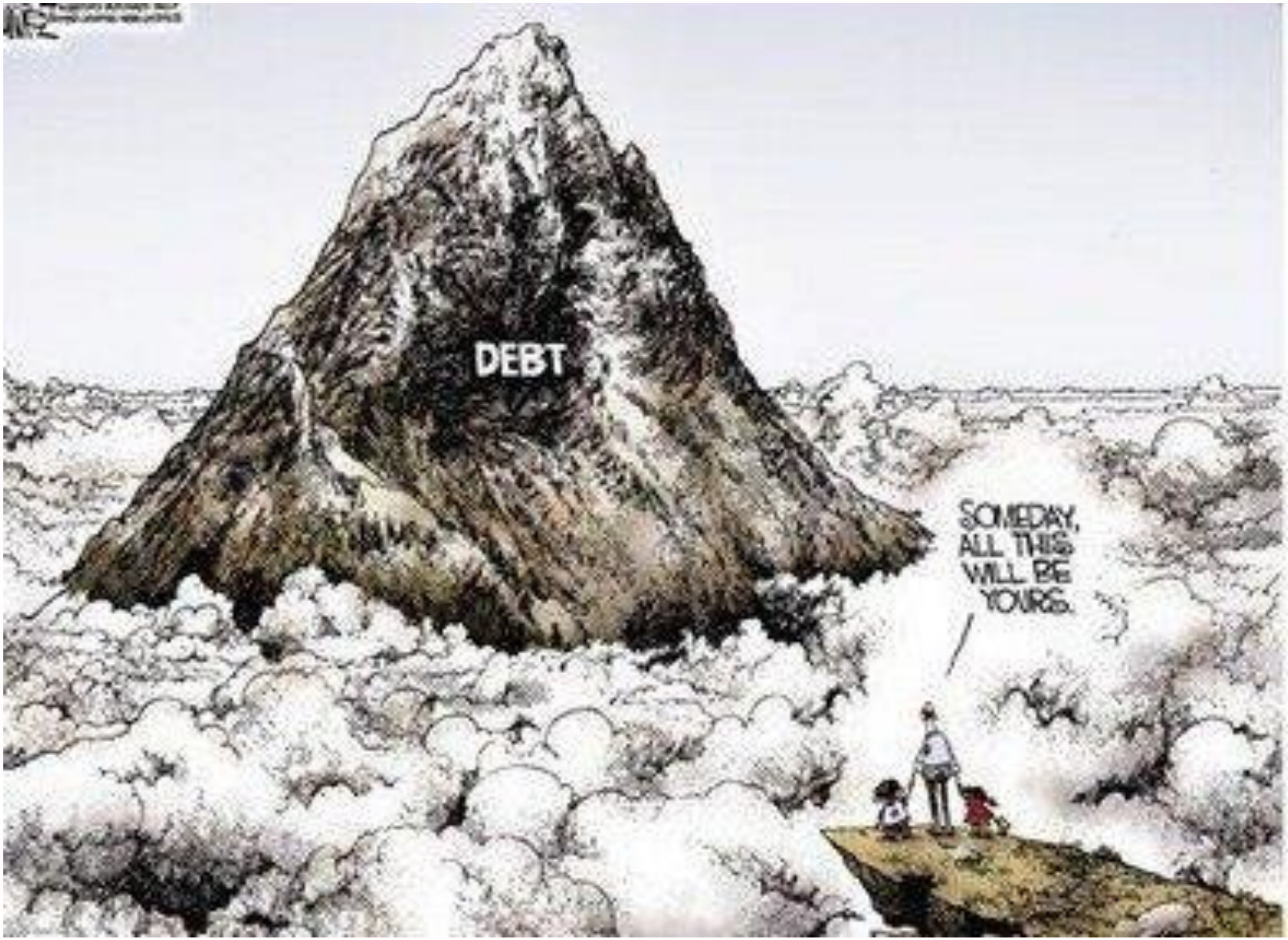
- Rational expectations explanation
  - Inter-temporal budget constraint
- Sticky return requirements of investors
  - Required risk premium is a function of the activity, not the availability of capital
  - Driving returns down means driving asset prices up which makes investment unattractive
- Reduced consumption by savers at zero rates
- Will raising interest rates actually help the economy?

The FED's Conundrum

- The FED is caught between its two policy goals (full employment and price stability) and its macro prudential obligations.
- Macro prudential issues will always tilt the decision toward easing
- Deflation concerns tilt toward easing
- Cumulative easing may hurt animal spirits, investing and growth
- Short term stimulus may create a long term problem for the economy

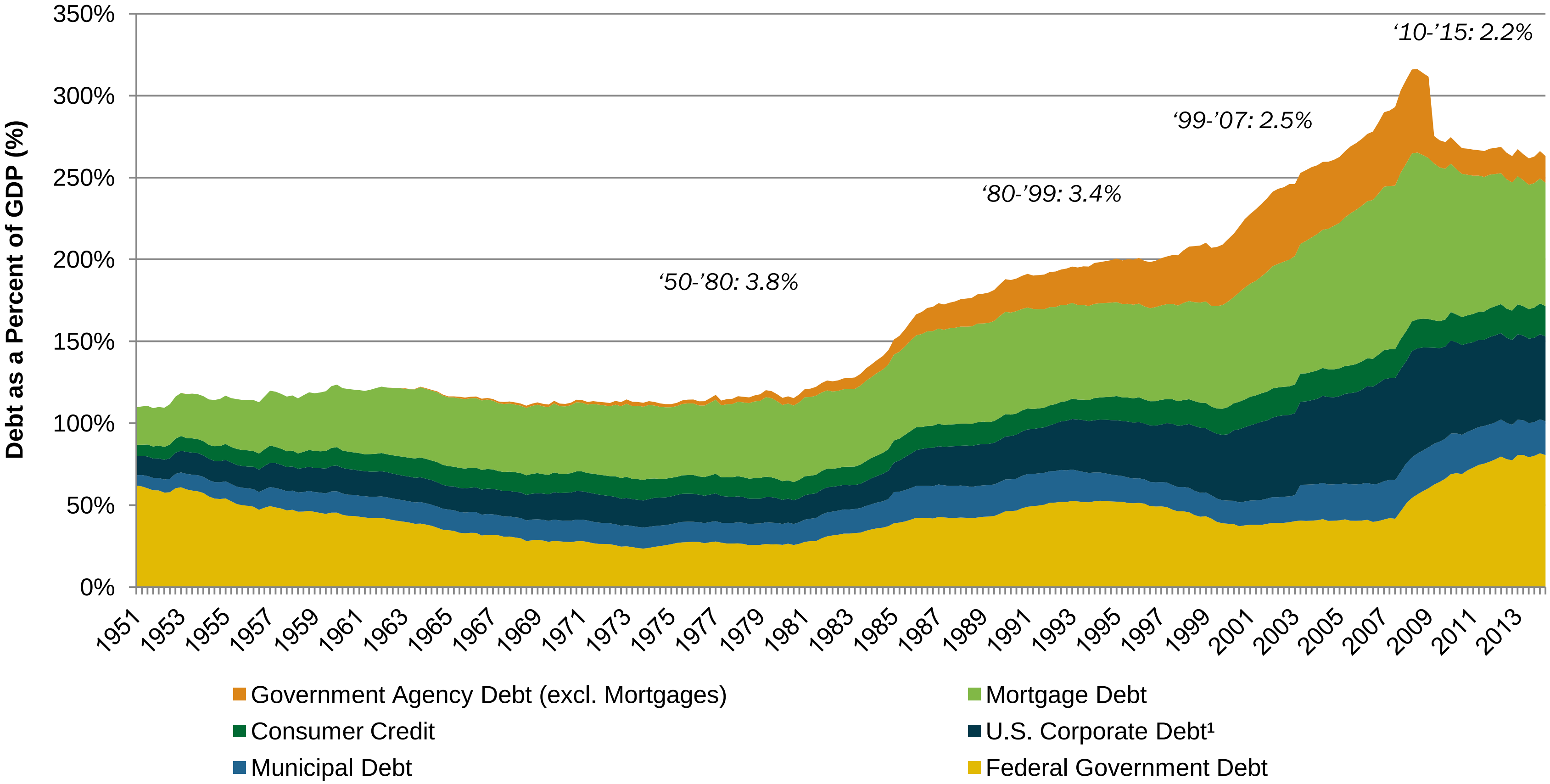
The Great Debt Debate

Crushed by Debt?



Aggregate Debt and Growth Negatively Correlated

Selected Credit Classes as a Percent of GDP



Source: Federal Reserve Board, St. Louis Federal Reserve
Note: Italicized numbers indicated compounded real GDP growth during the period.
1) Excludes U.S held debt of foreign institutions.

Growth Seems to Have Been Hurt by Relying on Consumption

	Average Personal Consumption Share of Gross GDP	Average Percent Increase in Real GDP[1]
Year	**Share**	**Growth**
1960 – 1970	59.8%	4.5%
1970 – 1980	60.5%	3.4%
1980 – 1990	62.5%	3.2%
1990 – 2000	64.7%	3.4%
2000 – 2010	67.3%	1.7%
2010 – 2015	68.4%	2.2%

Source: St. Louis Federal Reserve

1) *Real GDP growth calculated by annualizing quarter over sequential quarter growth.*

Investing Is Not Down Enough to Explain Subdued Growth

	Average Private Investment Share of Gross GDP	Average Percent Increase in Real GDP[1]
Year	**Share**	**Growth**
1960 – 1970	16.5%	4.5%
1970 – 1980	17.9%	3.4%
1980 – 1990	18.5%	3.2%
1990 – 2000	17.3%	3.4%
2000 – 2010	17.8%	1.7%
2010 – 2015	15.4%	2.2%

Source: St. Louis Federal Reserve

1) Real GDP growth calculated by annualizing quarter over sequential quarter growth.

Government Spending Not A Factor

	Average Government Spend Share of Gross GDP	Average Percent Increase in Real GDP[1]
Year	**Share**	**Growth**
1960 – 1970	23.1%	4.5%
1970 – 1980	21.8%	3.4%
1980 – 1990	20.8%	3.2%
1990 – 2000	19.2%	3.4%
2000 – 2010	19.3%	1.7%
2010 – 2015	19.4%	2.2%

Source: St. Louis Federal Reserve

1) Real GDP growth calculated by annualizing quarter over sequential quarter growth.

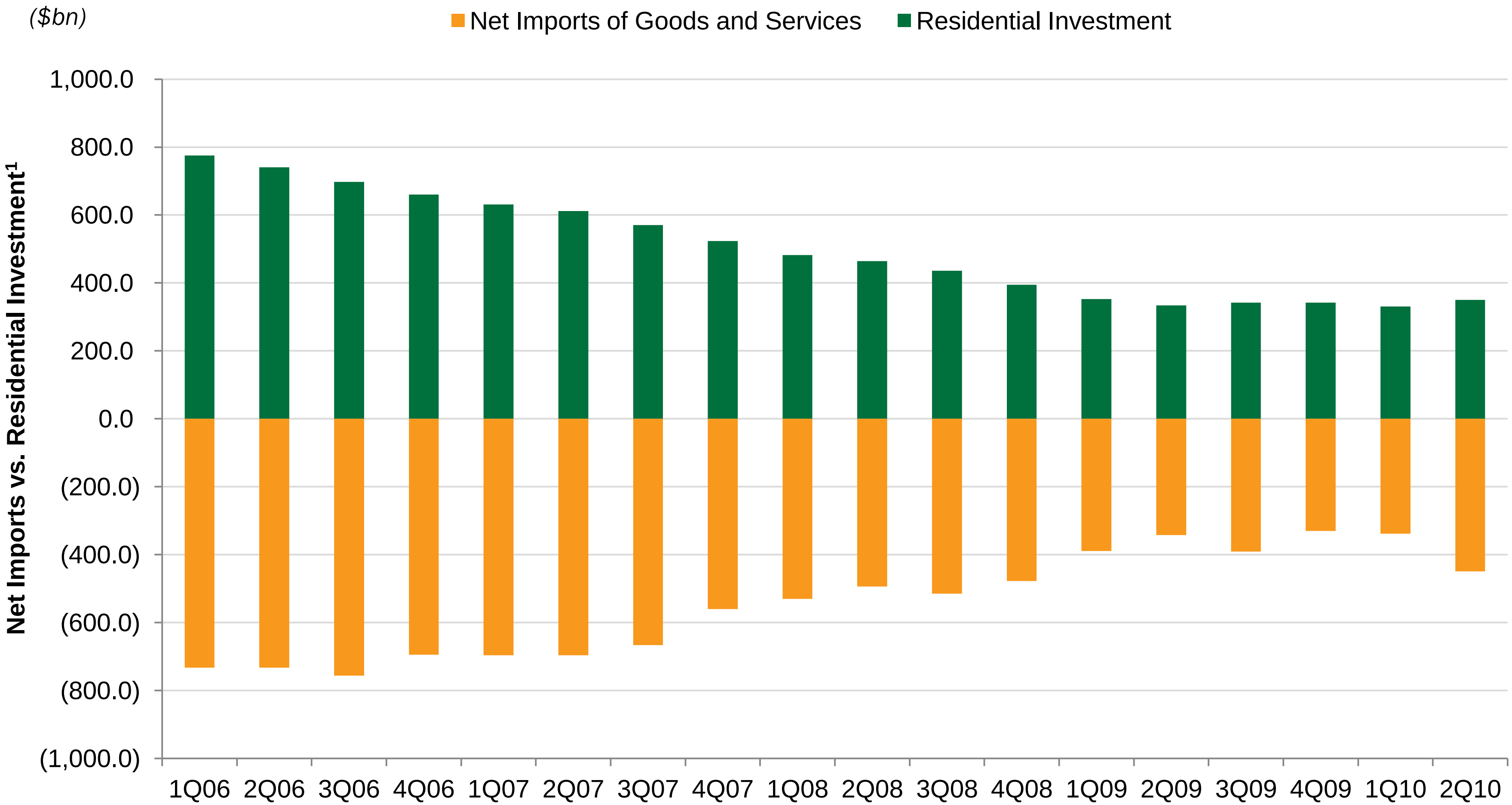
Net Exports Have Had an Impact

	Average Net Exports Share of Gross GDP	Average Percent Increase in Real GDP[1]
Year	**Share**	**Growth**
1960 – 1970	0.6%	4.5%
1970 – 1980	(0.2)%	3.4%
1980 – 1990	(1.7)%	3.2%
1990 – 2000	(1.2)%	3.4%
2000 – 2010	(4.4)%	1.7%
2010 – 2015	(3.2)%	2.2%

Source: St. Louis Federal Reserve

1) Real GDP growth calculated by annualizing quarter over sequential quarter growth.

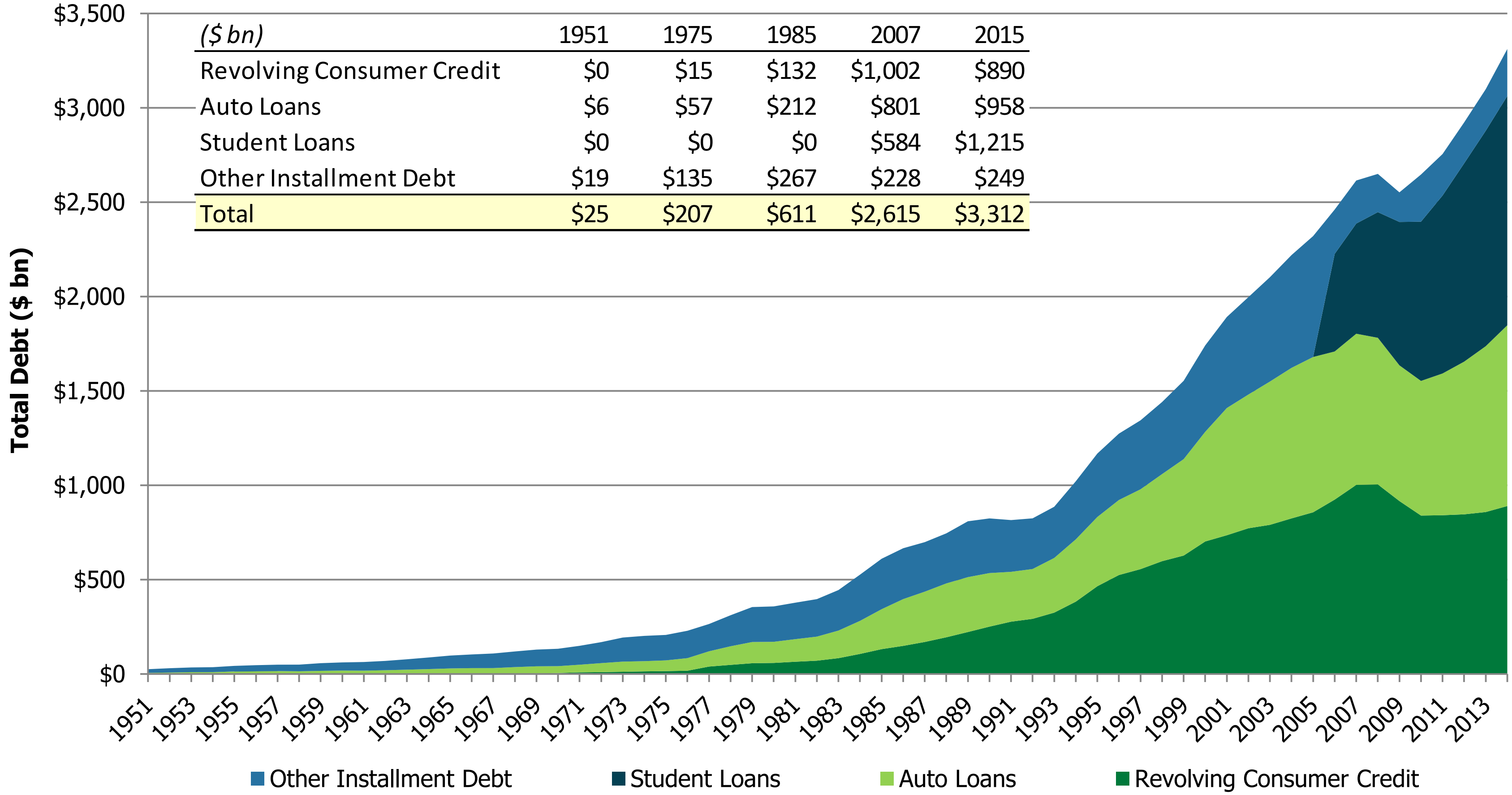
Financing Housing Instead of Financing Investment



Source: Bureau of Economic Analysis

Consumer Debt : Cause or Effect?

Aggregate Consumer Debt



($ bn)	1951	1975	1985	2007	2015
Revolving Consumer Credit	$0	$15	$132	$1,002	$890
Auto Loans	$6	$57	$212	$801	$958
Student Loans	$0	$0	$0	$584	$1,215
Other Installment Debt	$19	$135	$267	$228	$249
Total	$25	$207	$611	$2,615	$3,312

Source: St. Louis Federal Reserve

The Two Faces of Debt

- Debt allows current consumption to increase
  - Monetary policy works by encouraging/discouraging consumption

- Debt requires future consumption to decrease
  - Less true if debt finances income
  - Compounded if debt finances consumption, including housing
  - Research shows that it would take a tax rate on future generations of 74% to satisfy the government's inter-temporal budget constraint

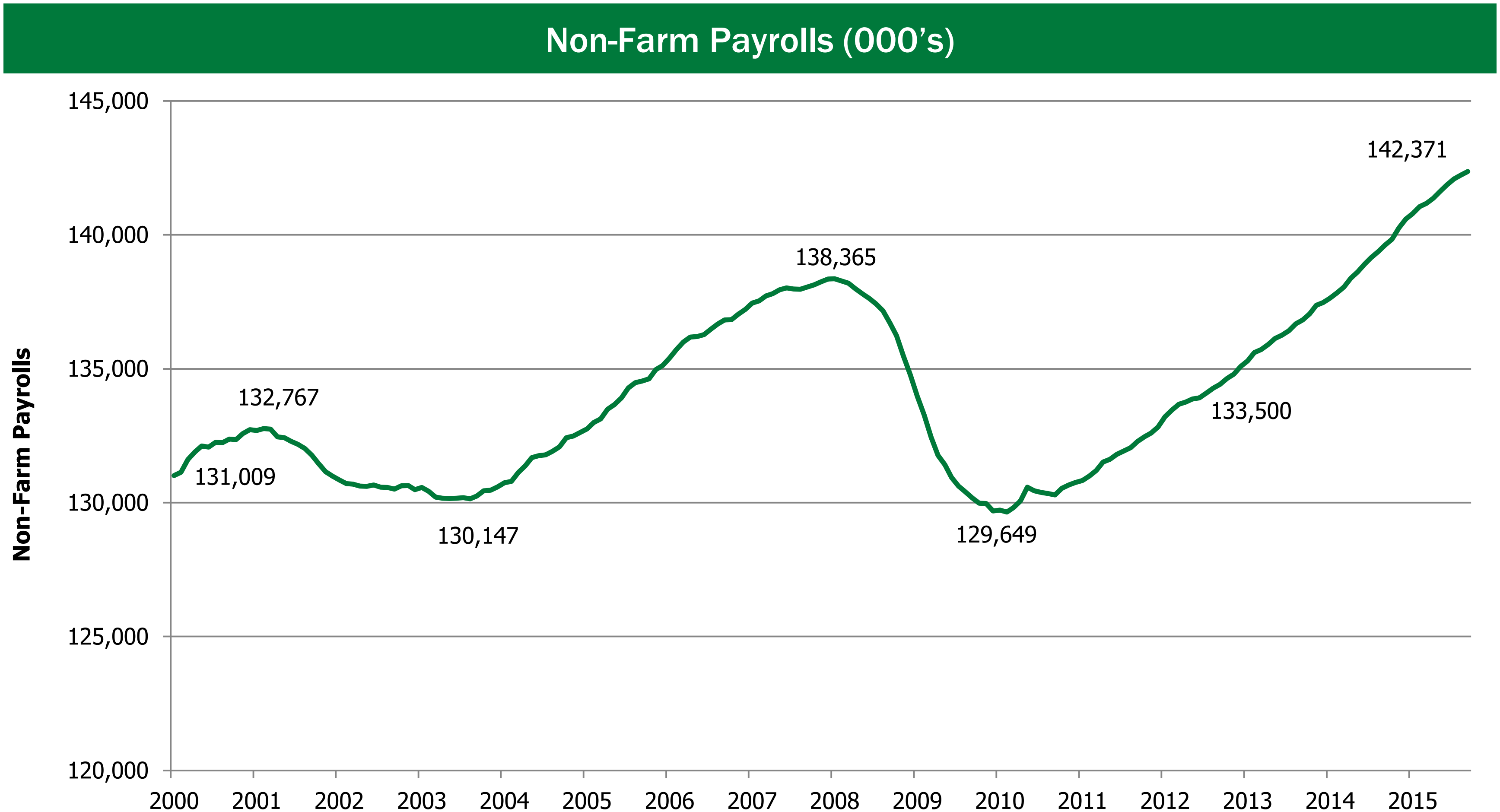
Debt As a Macro Economic Variable

- Aggregate debt increases financial instability
- Aggregate debt ties the hands of the monetary authorities
- Aggregate debt dampens animal spirits and hampers investment

Investment and Productivity

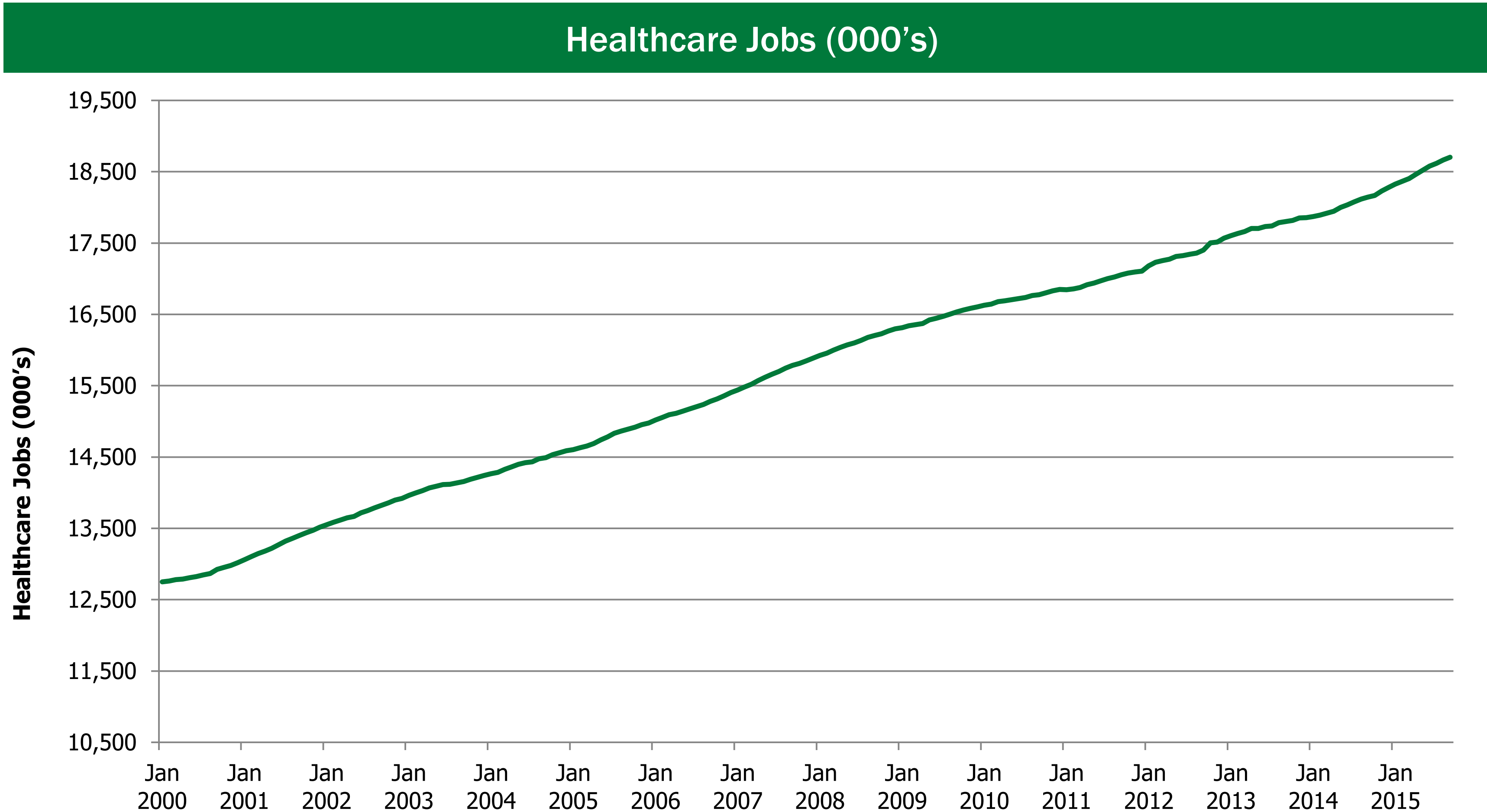
There’s Something About Investing

Since 2000, the U.S. Created 11 Million Jobs



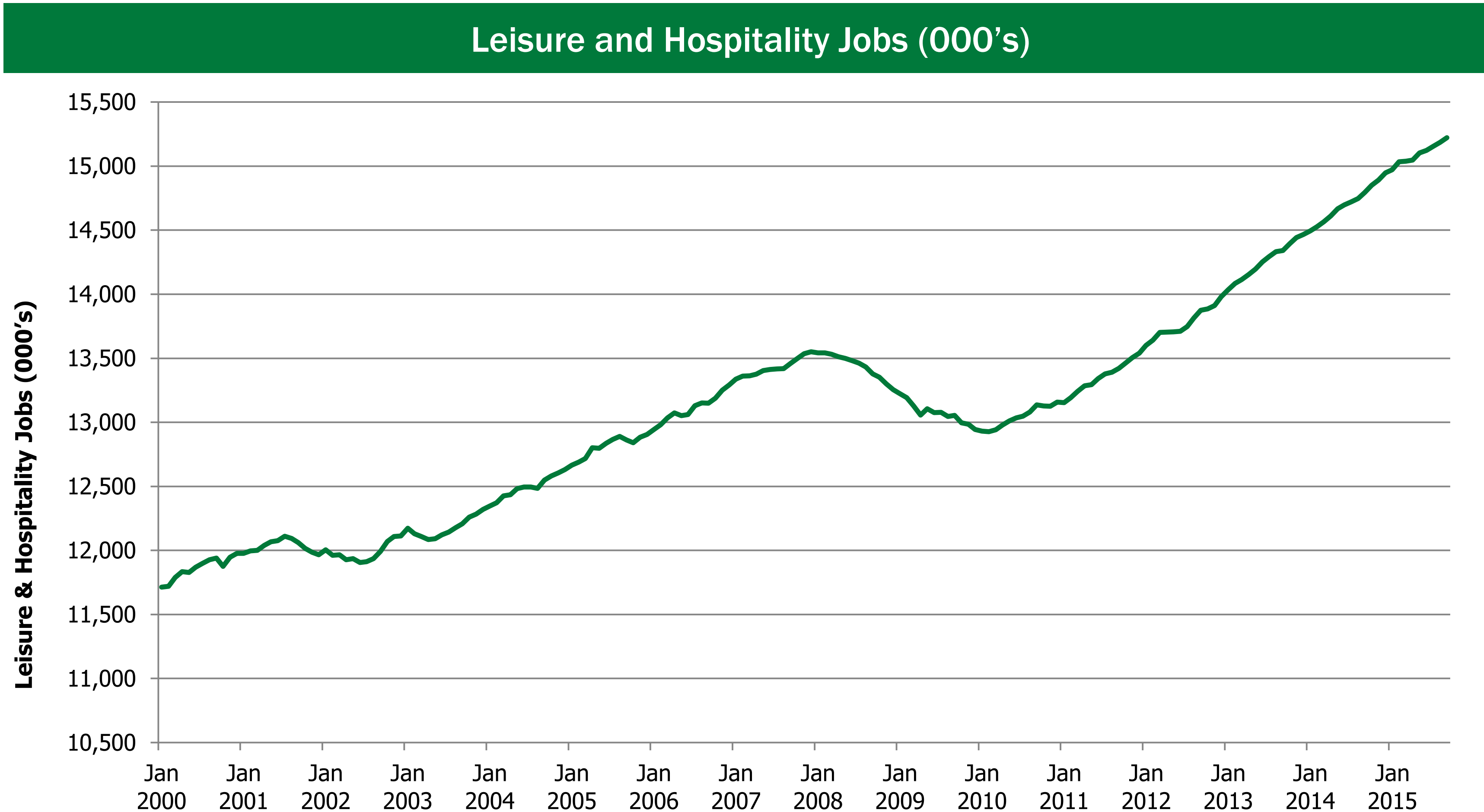
Source: St. Louis Federal Reserve

Secular or Cyclical: **Healthcare**



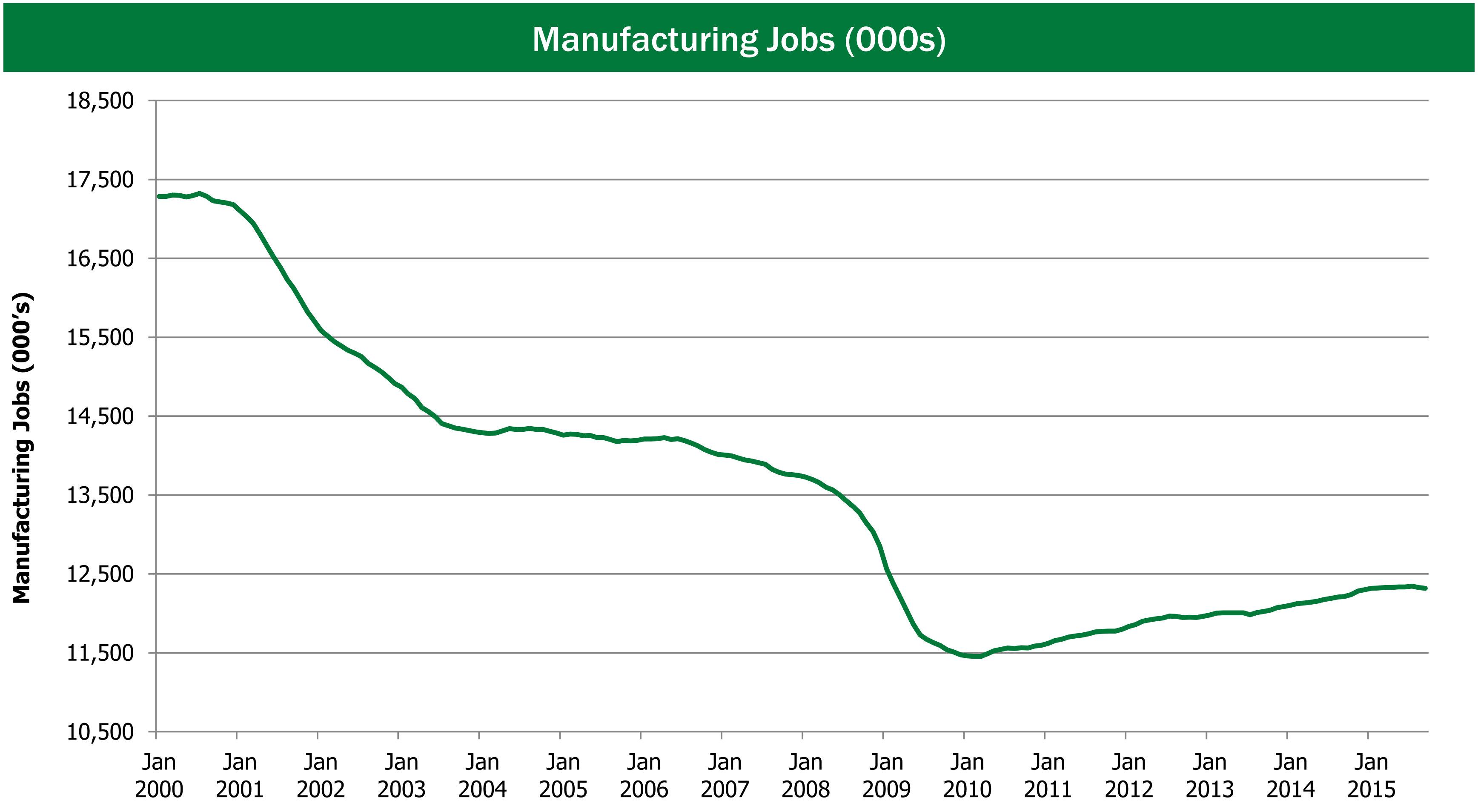
1) *Source: Bureau of Labor Statistics.*

Secular or Cyclical: **Leisure and Hospitality**



Source: Bureau of Labor Statistics.

Secular or Cyclical: **Manufacturing**



Source: Bureau of Labor Statistics.

Where Are Jobs Being Created?

(Jobs in 000's)	January 2000	September 2015	Variance (#)
Secular Growth in Employment	14,959	22,153	7,194
Cyclical Growth in Employment	94,980	105,099	10,119
Declining Employment	20,842	15,119	(5,723)
Total Non-Farm Employment	**130,781**	**142,371**	**11,590**

Source: Bureau of Labor Statistics.

1) Changes shown in real GDP is from 1999 - 2014. GDP is in chained 2009 dollars.

Creating Jobs without Creating Productivity

	Change Between 2000 – 2015		
	Jobs[1]	GDP[2]	Annual Change in Labor Productivity
Secular Growth	48.1%	46.1%	(0.1)%
Cyclical Growth	10.7%	30.8%	1.1%
Declining Employment	(27.5)%	39.1%	4.4%
Total	8.8%	33.3%	1.4%

Source: Pine Brook internal analysis, Bureau of Economic Analysis, and Census.

1) *Change in jobs represents growth from seasonally adjusted annualized data from Jan 200 – Sept 2015.*
2) *Change in GDP is from 1999-2014. Data set only available annually. GDP is in chained 2009 dollars.*

Investing Creates Productivity and Wage Growth

	Change Between 2000 – 2015			
	Aggregate Capital Expenditure ($bn)	% of Total Aggregate Capital Expenditure	Aggregate Capital Expenditure ($) per Average Worker	Aggregate Capital Expenditure ($) per New Worker
Secular Growth	$1,335	8.7%	$72,367	$185,538
Cyclical Growth	$9,925	64.8%	$139,688	$980,863
Declining Employment	$4,048	26.4%	$243,878	n/a
Total	$15,308	100.0%	–	–

Source: Pine Brook internal analysis, St. Louis Federal Reserve

Summary and Conclusion: Where's the Growth?

Summary

- The U.S. economy is growing, but not at a rate to make everyone happy
- The FED's statutory obligations of full employment and price stability conflict with its macro prudential obligations
- Debt overhang looms large and may be impacting investment
- For most of this century, the US has been creating too many jobs in productivity resistant industries –perhaps because they have not attracted investment, or perhaps because of other factors

The US has a “Use of Proceeds” Problem

- The economy has been creating jobs that are productivity resistant
- Over-investing in housing may be creating drag on US productivity
- Recent drivers of recovery-energy, housing and credit expansion-have done what they can do
- Absent a change in policy and politics, “more of the same” is the most likely outcome for the US economy