



# *Inforum Economic Outlook*



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**December 12, 2013**



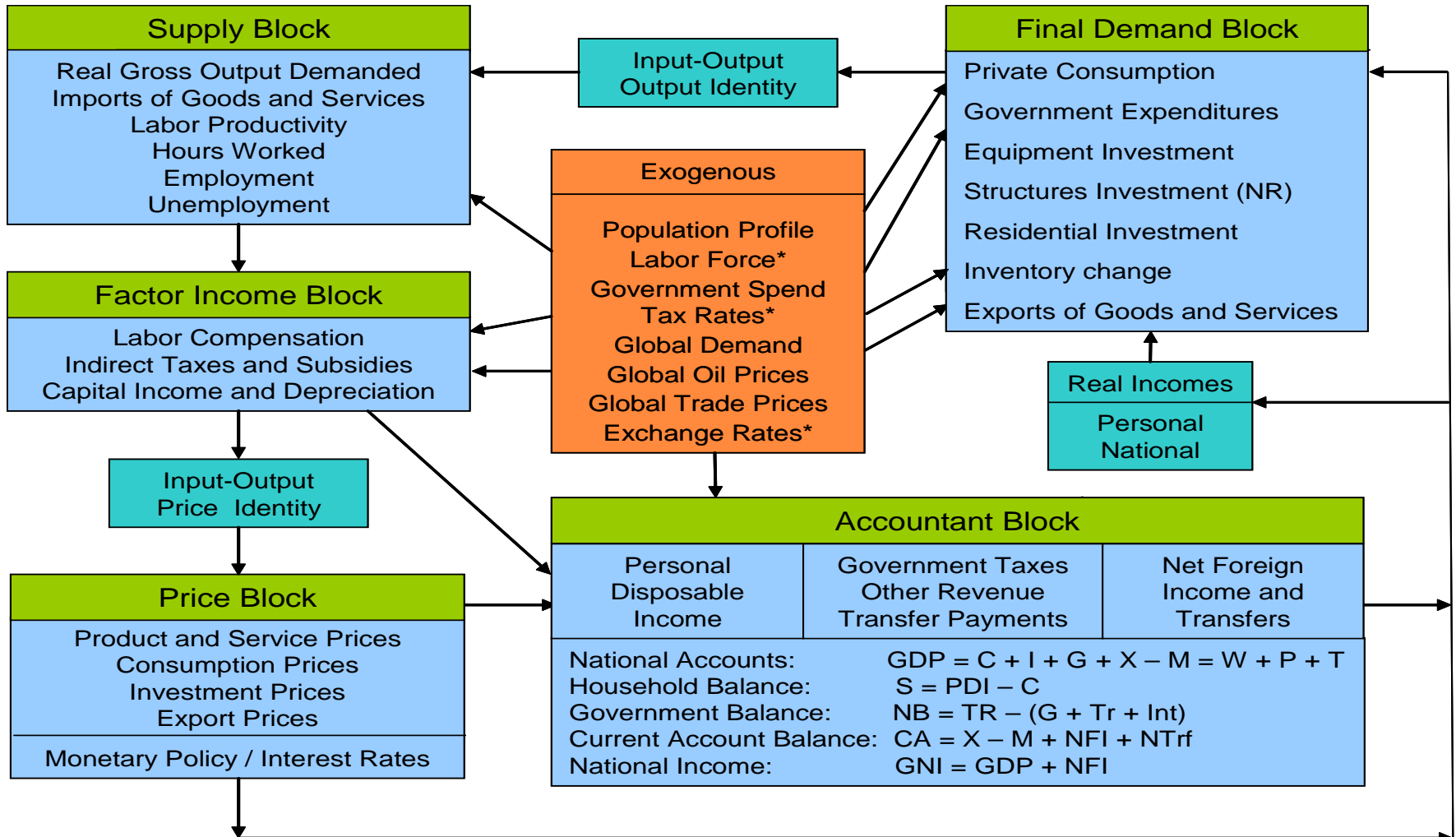


## *The Newest Generation of LIFT: IDLIFT2*

- ✦ Interindustry structure and information derived from BEA benchmark 2002 IO and 1998-2010 annual IO tables.
- ✦ Time series of REAL IO Tables from 1998.
- ✦ Industry and commodity definitions harmonized with BEA NAICS IO and industry data.
- ✦ Consistent industry definitions for investment, employment and value added.
- ✦ Industry data integrated and reconciled to latest version of NIPA in real and nominal terms.
- ✦ Built partly with generous support of Center for Medicare and Medicaid Services (CMS).



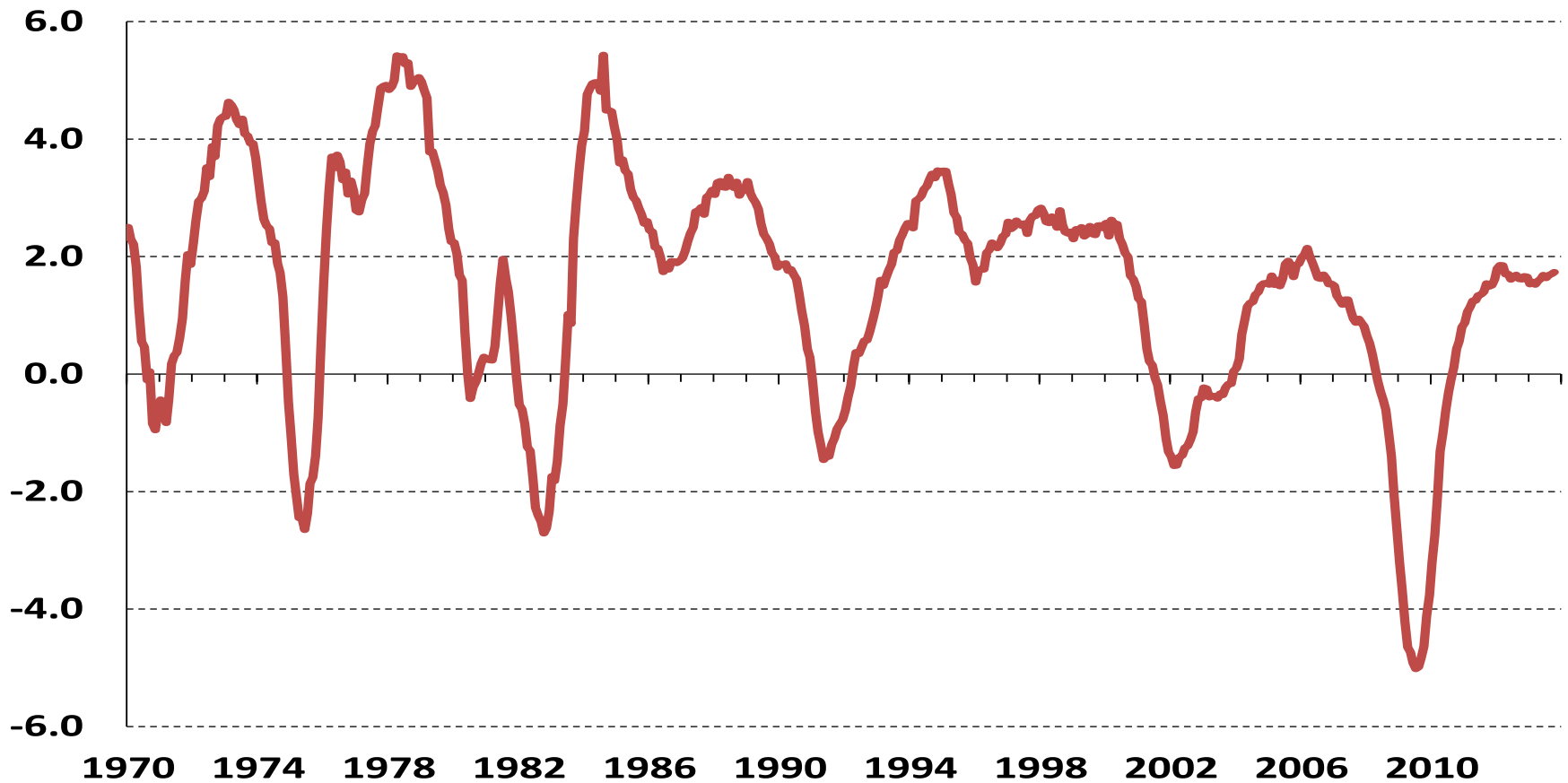
# LIFT Interindustry Macro Model Schematic





## *Employment: More of the Same*

Employment year-on-year percentage growth

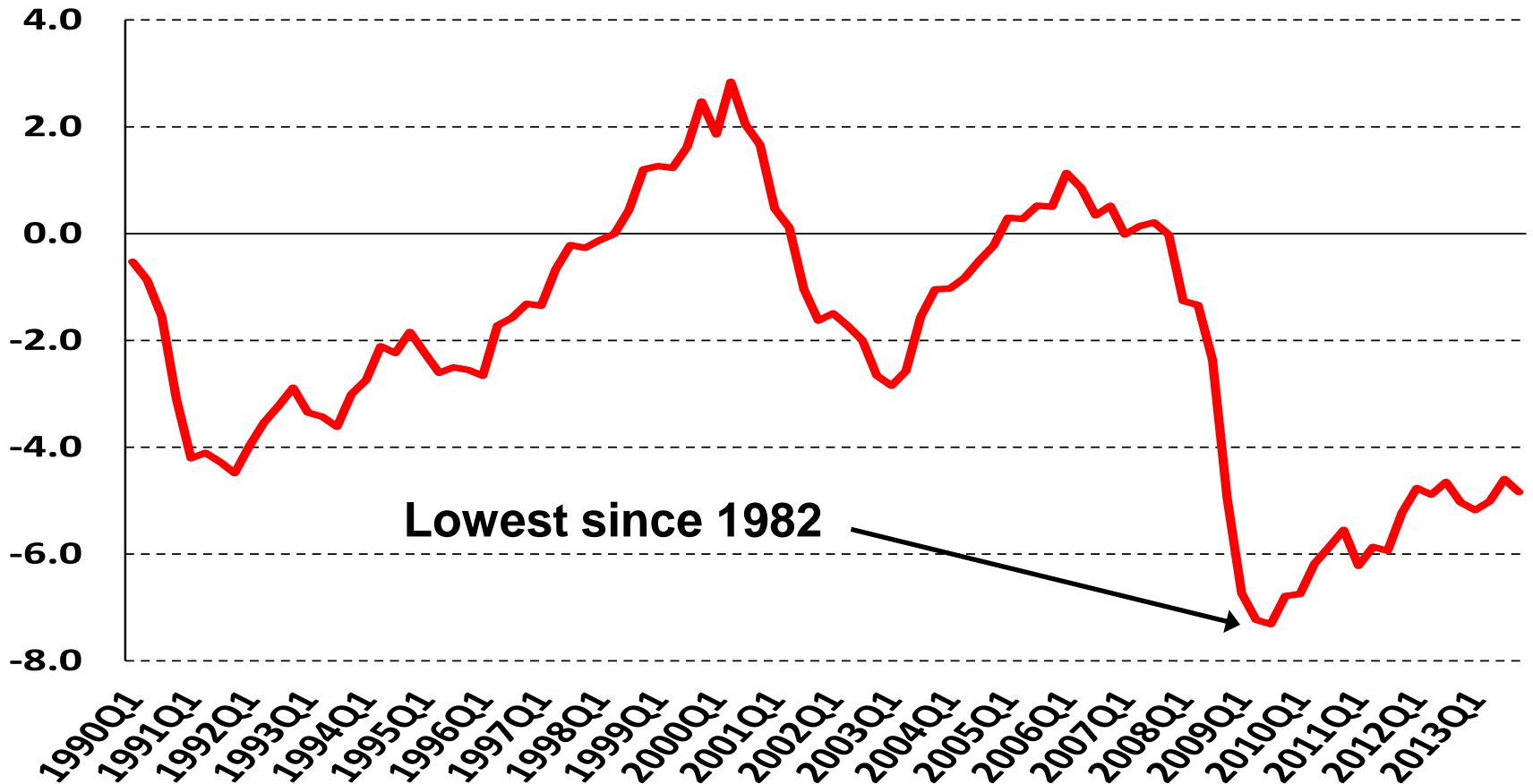


Source: Bureau of Labor Statistics



## *U.S. Economy in 3 Graphs: The GDP Gap*

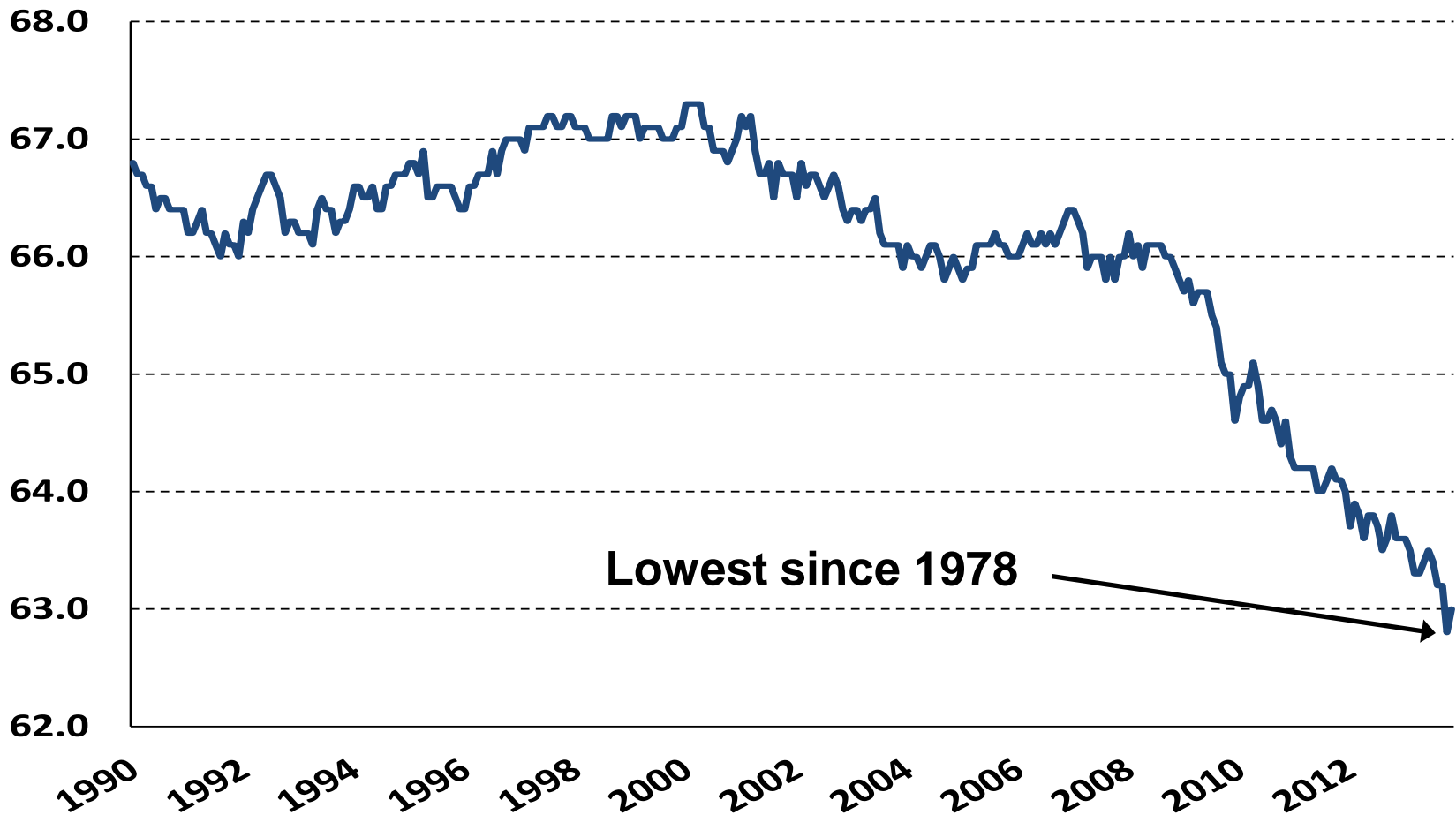
Real GDP – CBO Potential (% of Potential)





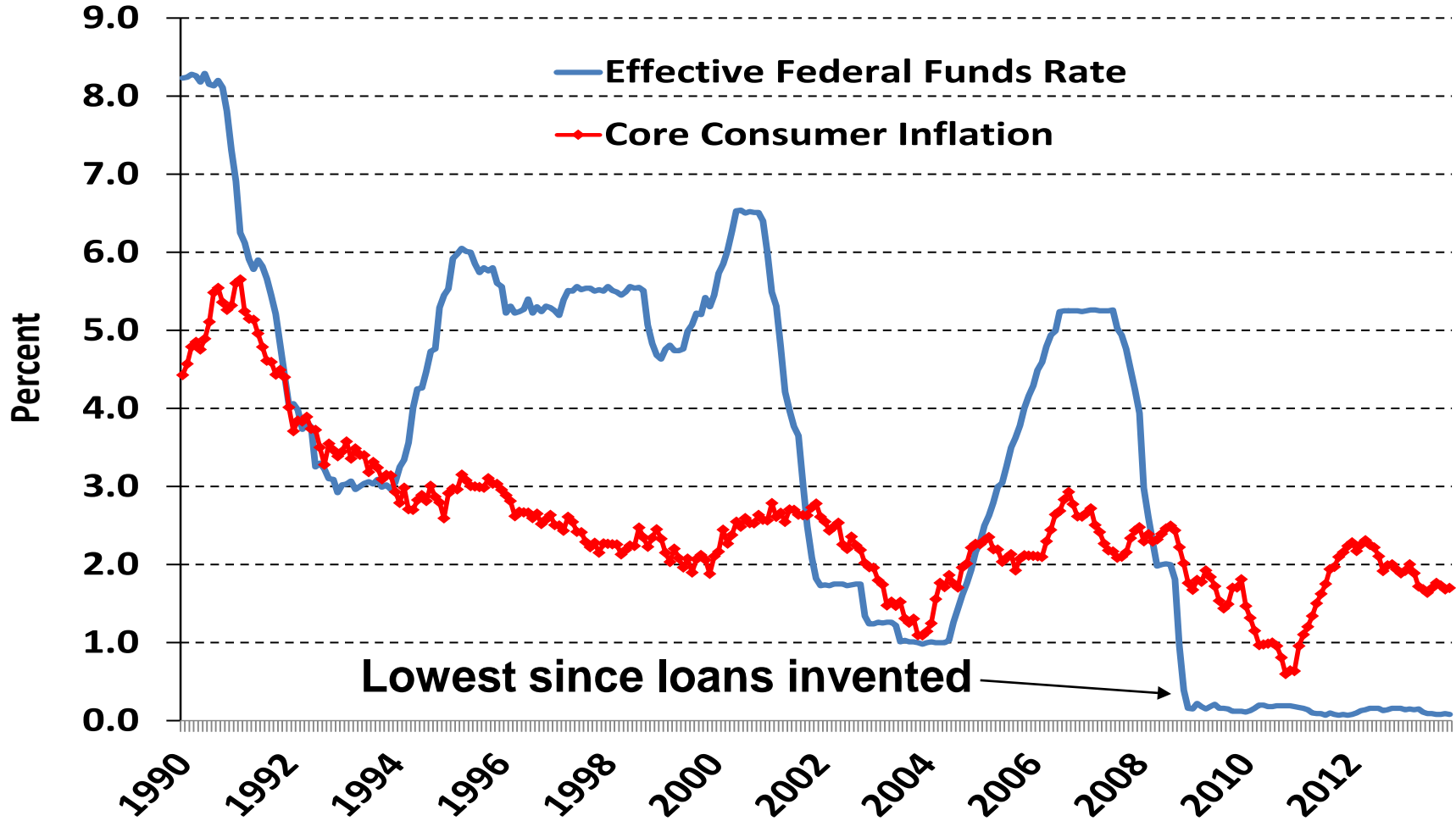
## *U.S. in 3 Graphs: Labor Force Participation*

Civilian labor force participation rate (%)





## *U.S. in 3 Graphs: Inflation and Interest Rates*





## *The Good News*

- ⊕ Deleveraging easing, especially for non-financial businesses.
- ⊕ Private business sitting on lots of cash. Non-financials wait for firmer expansion of demand.
- ⊕ Pent-Up demand for housing, rising home prices.
- ⊕ Energy production increases.
- ⊕ In 2014-15 exports accelerate again.
- ⊕ Moderation of sequester. For the moment, political winds improved.
- ⊕ Fiscal Stimulus? Infrastructure deserves a big new spend.





## Outlook Overview

Real (Inflation-Adjusted) Quantities, Average Annual Growth Rates, Percent									
	00-11	11-12	12-13	13-14	14-15	15-16	16-20	20-30	30-40
<b>Demand</b>									
Gross domestic product	1.7	2.8	1.7	2.6	2.9	2.8	2.7	2.4	2.3
Personal consumption	2.1	2.2	1.8	2.4	2.9	2.7	2.5	2.2	2.1
Nonresidential structure	-3.2	12.7	2.8	5.1	7.3	10.9	6.1	2.3	2.2
Equipment investment	1.7	7.2	2.5	5.1	5.1	4.3	3.7	3.3	2.9
Residential investment	-5.1	13.5	13.9	14.1	10.6	3.8	4.0	2.1	1.8
Exports	3.7	3.5	2.1	2.4	4.4	5.2	5.3	4.9	4.2
Imports	2.6	2.2	1.3	1.8	4.2	4.5	4.0	3.3	3.0
Government	1.7	-1.0	-2.0	-0.3	-0.3	0.6	1.0	1.2	1.0
<b>Prices</b>									
GDP deflator	2.1	1.7	1.4	1.6	2.1	2.0	2.4	2.3	2.3
Consumption deflator	2.1	1.8	1.6	1.9	2.1	2.2	2.6	2.4	2.5



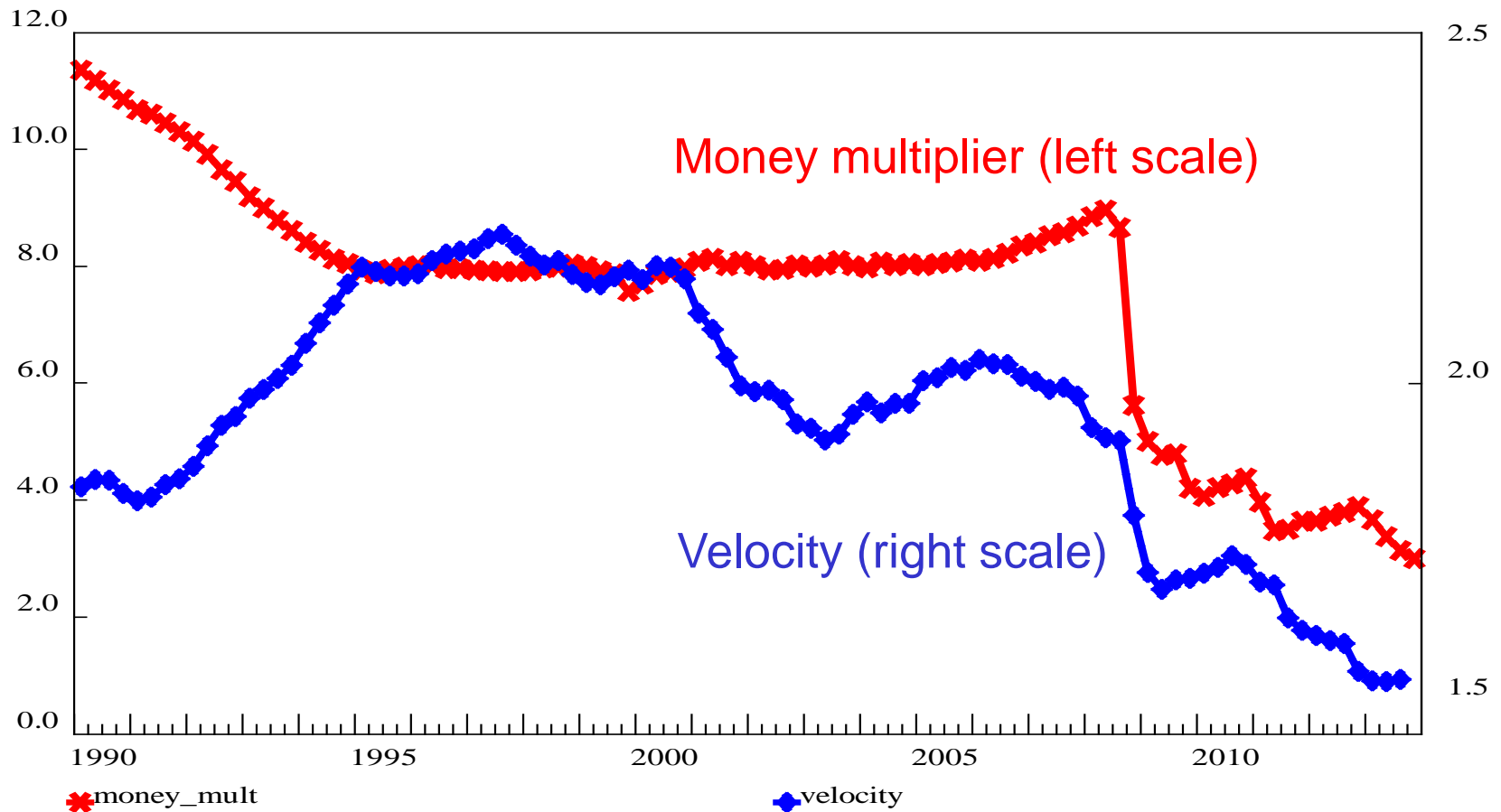
## Outlook Overview

	00-11	11-12	12-13	13-14	14-15	15-16	16-20	20-30	30-40
<b>Supply (Percent Growth)</b>									
Population	0.9	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.8
Labor force	0.7	0.9	0.8	1.0	1.0	0.8	0.9	1.0	0.8
Employment	-0.1	1.6	1.4	1.7	1.5	1.2	1.0	1.0	0.8
Labor productivity	1.8	0.9	0.3	0.5	0.9	1.3	1.5	1.3	1.3
Potential GDP (Real)	2.6	1.7	1.8	1.9	2.1	2.3	2.4	2.3	2.3
	2011	2012	2013	2014	2015	2016	2020	2030	2040
Unemployment Rate (%)	8.9	8.1	7.5	6.9	6.3	5.9	5.5	5.2	5.2
<b>Interest Rates</b>									
Treasury Bills, 3-month	0.1	0.1	0.1	0.1	0.5	1.5	3.5	3.8	4.0
Yield, 10 yr. Treasury bond	2.8	1.8	2.4	3.0	3.5	4.3	5.2	5.3	5.3
<b>Nominal Quantities, Billions of Dollars</b>									
Current account	-457.0	-438.9	-479.8	-500.2	-560.8	-644.7	-738.7	-572.6	-379.7
(% of GDP)	-2.9	-2.7	-2.9	-2.9	-3.1	-3.4	-3.1	-1.5	-0.6
Federal net borrowing	-1400.1	-1214.8	-971.4	-856.2	-793.1	-814.8	-839.0	-675.3	-1205.8
(% of GDP)	-9.0	-7.5	-5.8	-4.9	-4.3	-4.2	-3.6	-1.8	-2.1



# *Is monetary policy effective?*

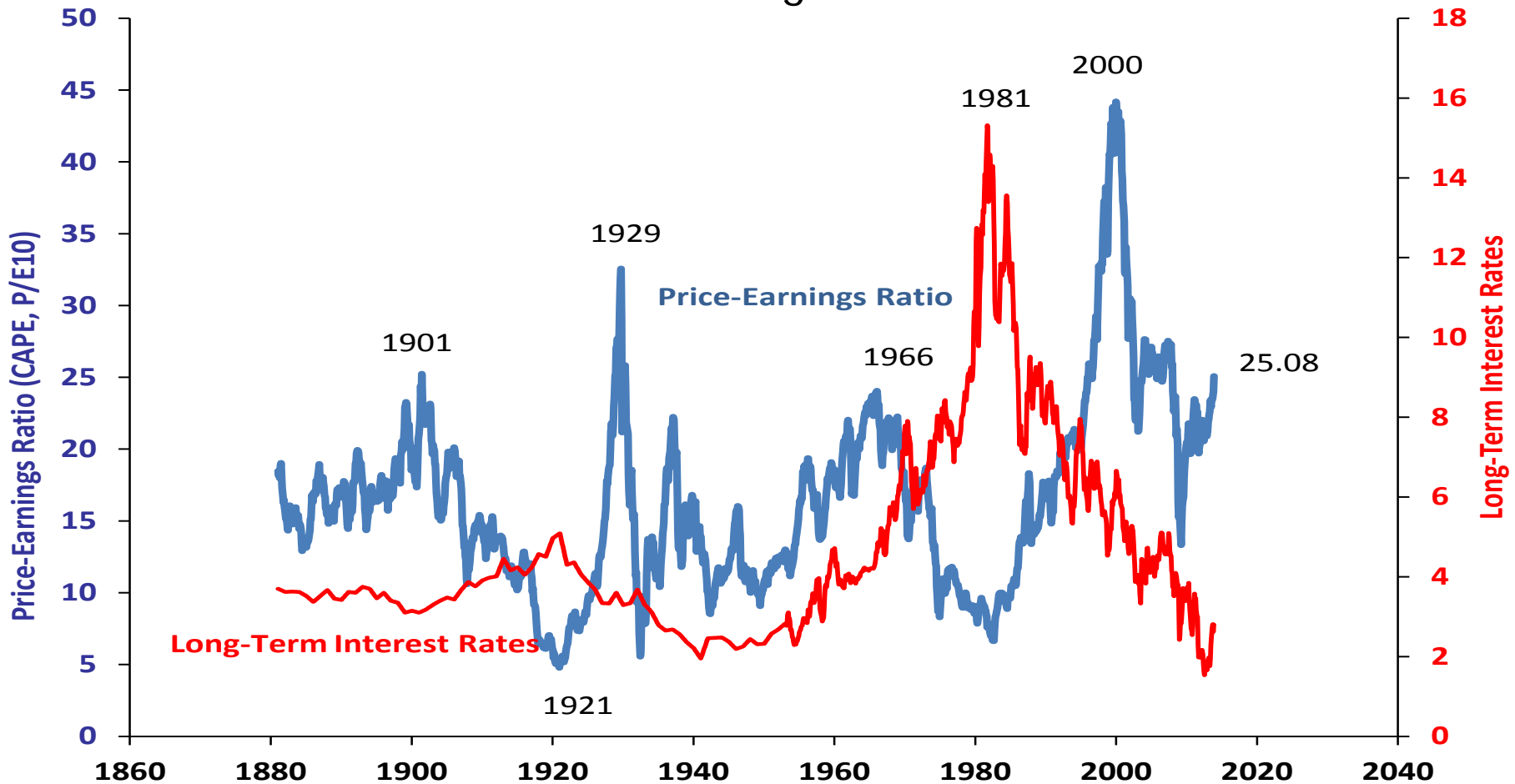
Money multiplier (m2/mbase) and velocity (gdp/m2)





# *Is quantitative easing blowing bubbles?*

## Shiller P/E Ratio and Long Term Interest Rates





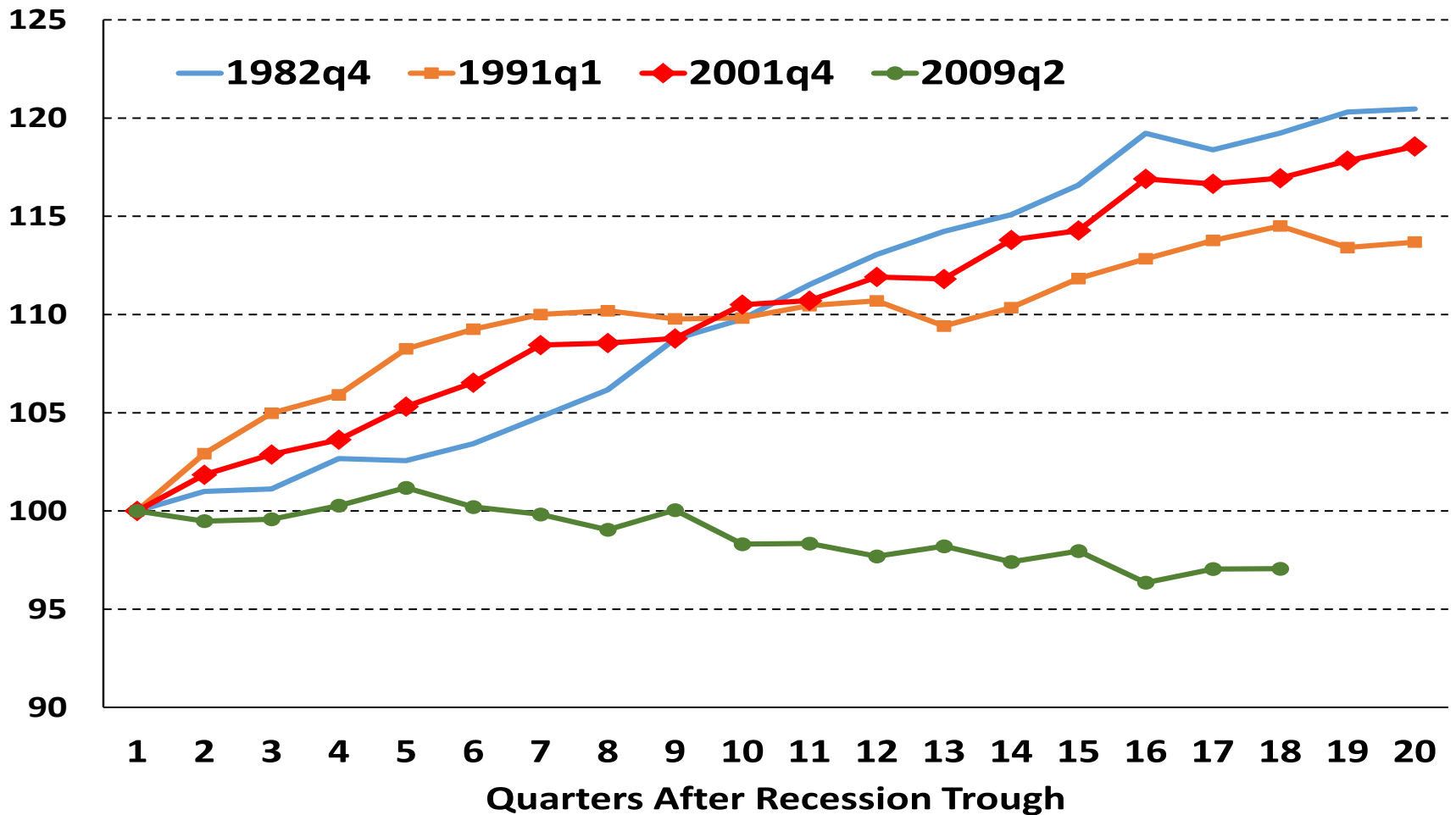
## *The Perils of Tapering*

- ✦ Most dangerous potential effects in emerging markets.
- ✦ Presumably, “tapering” means a gradual adjustment to bond prices. What is the chance of that? (refinance)
- ✦ Mortgage rates will rise, but pent-up demand should keep housing buoyant.
- ✦ Fed will be prepared to reverse drawdown of QE if growth falters.
- ✦ Fed stresses the importance of “communication,” but a lack of “understanding” on the part of market commentators, the media, and congress-persons complicates their task.



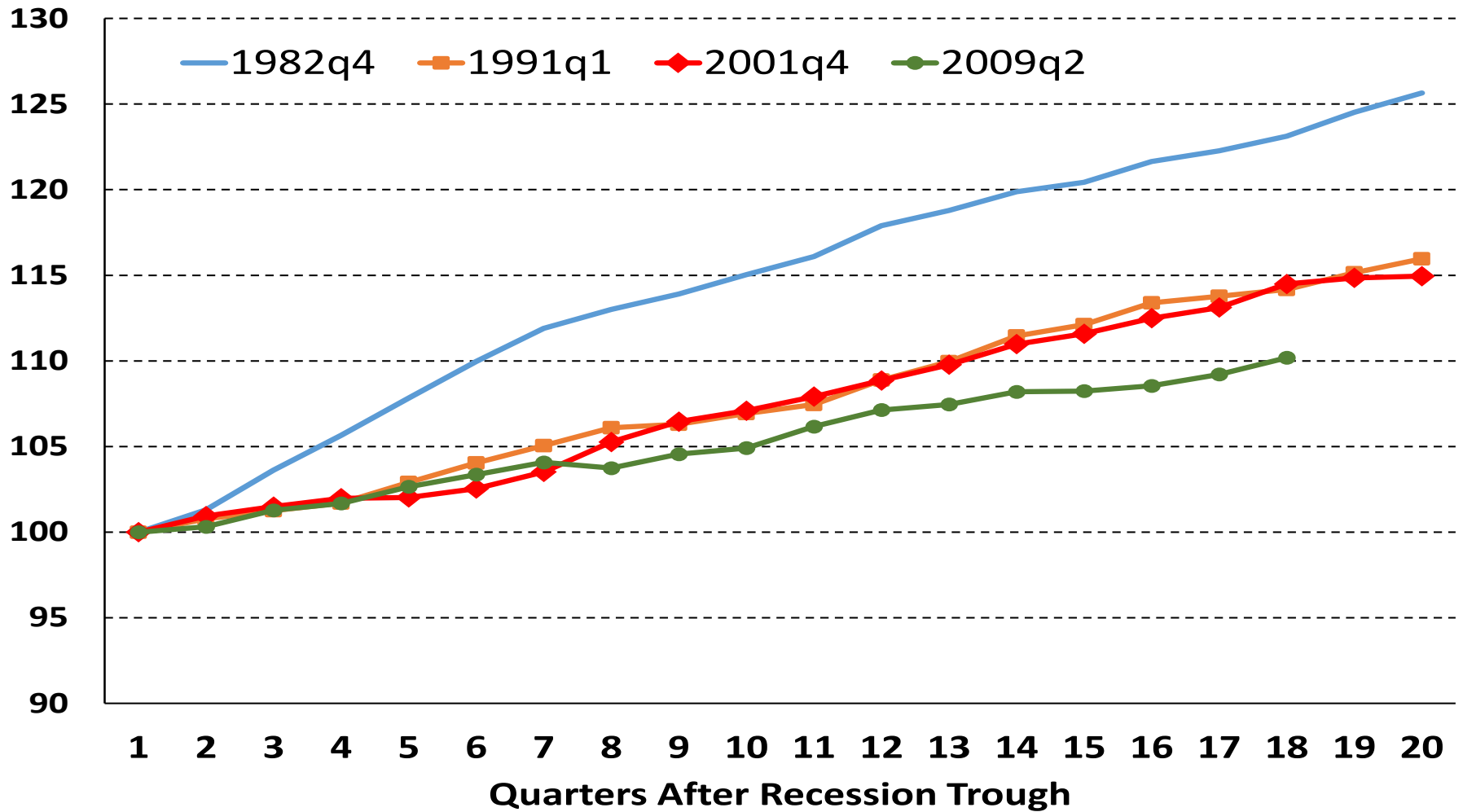
# *Is Fiscal Policy Is More Effective?*

## Real Total Fed + S&L Spending After Recessions



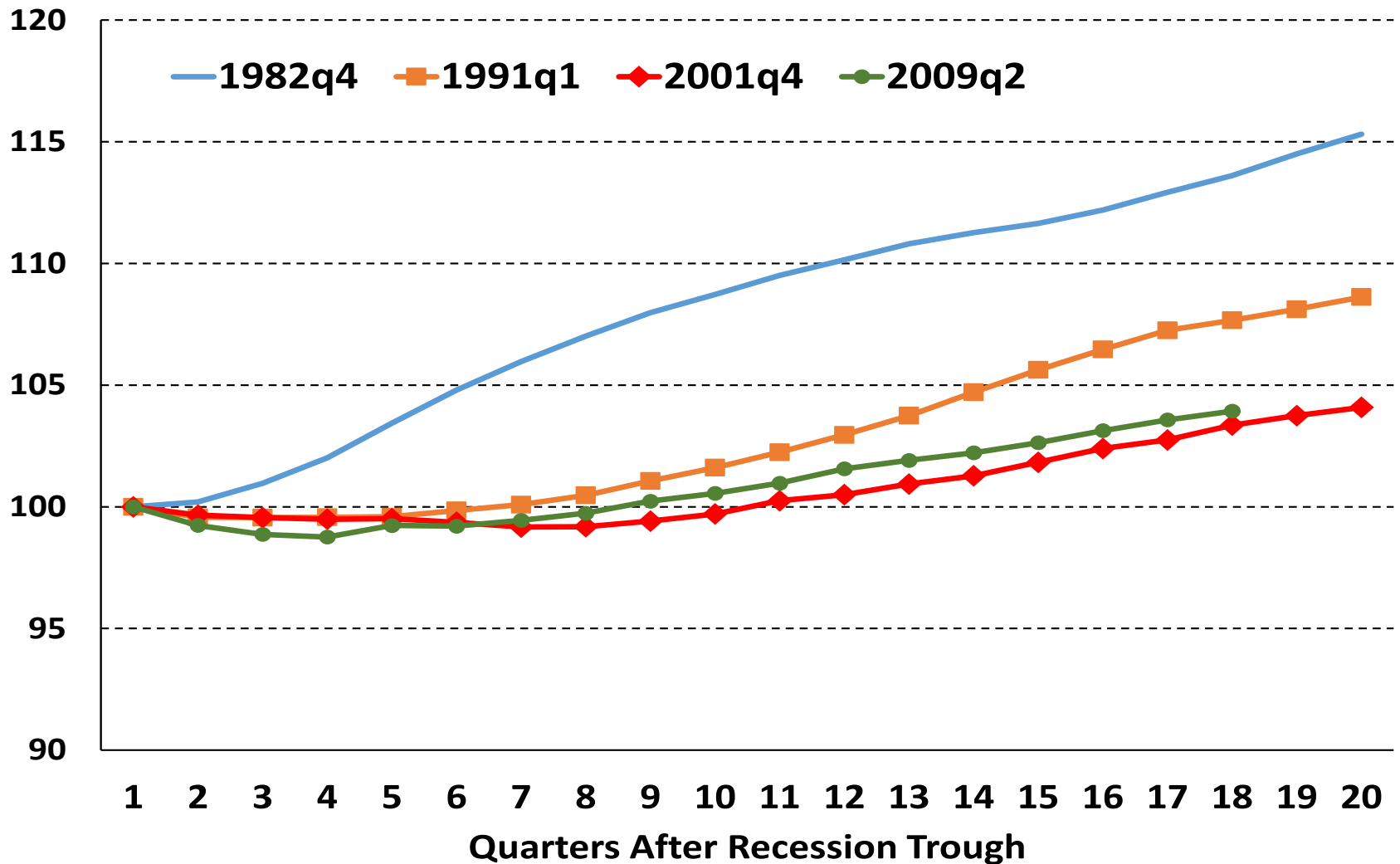


## *GDP Recovery After Recessions*





# Employment Recovery after Recessions







# *Good Short Term Policy Options*

## Monetary

- ⊕ Provide clear guidance on QE taper and Fed rate.
- ⊕ If needed, extraordinary policy still available: Create temporarily high inflation to aid deleveraging. Price level targeting, GDP targeting.

## Fiscal

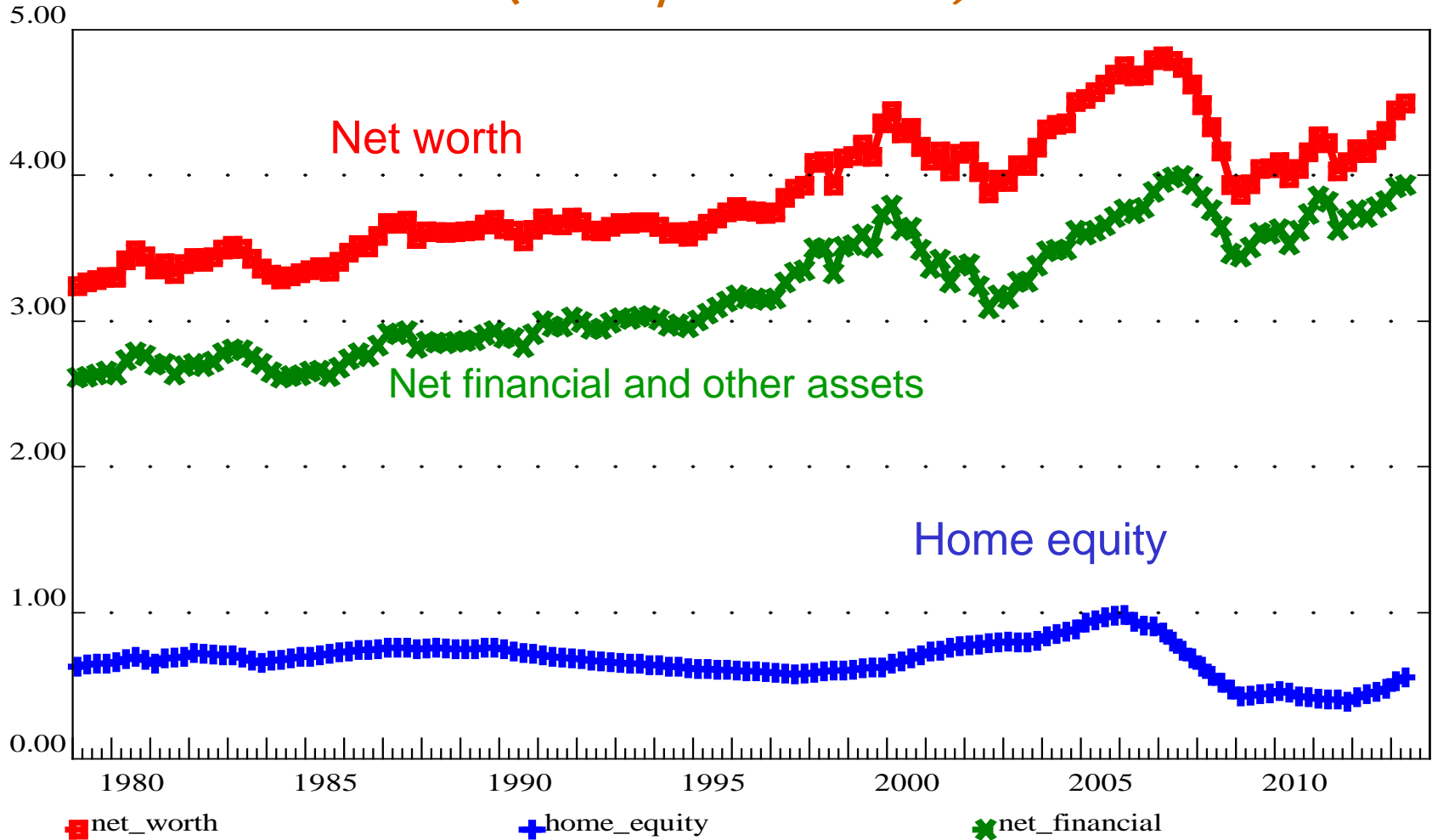
- ⊕ More fiscal stimulus to fill AD hole: Bond yields remain low, education and infrastructure provide “bang for the buck.”
- ⊕ Stimulus combined with deal on raising revenue with tax reform and reducing future entitlements would be most effective.

## Structural

- ⊕ Tax reform (eliminate loopholes, reduce rates).
- ⊕ Relax regulations and other restrictions.
- ⊕ New labor market measures (job matching, increase mobility).

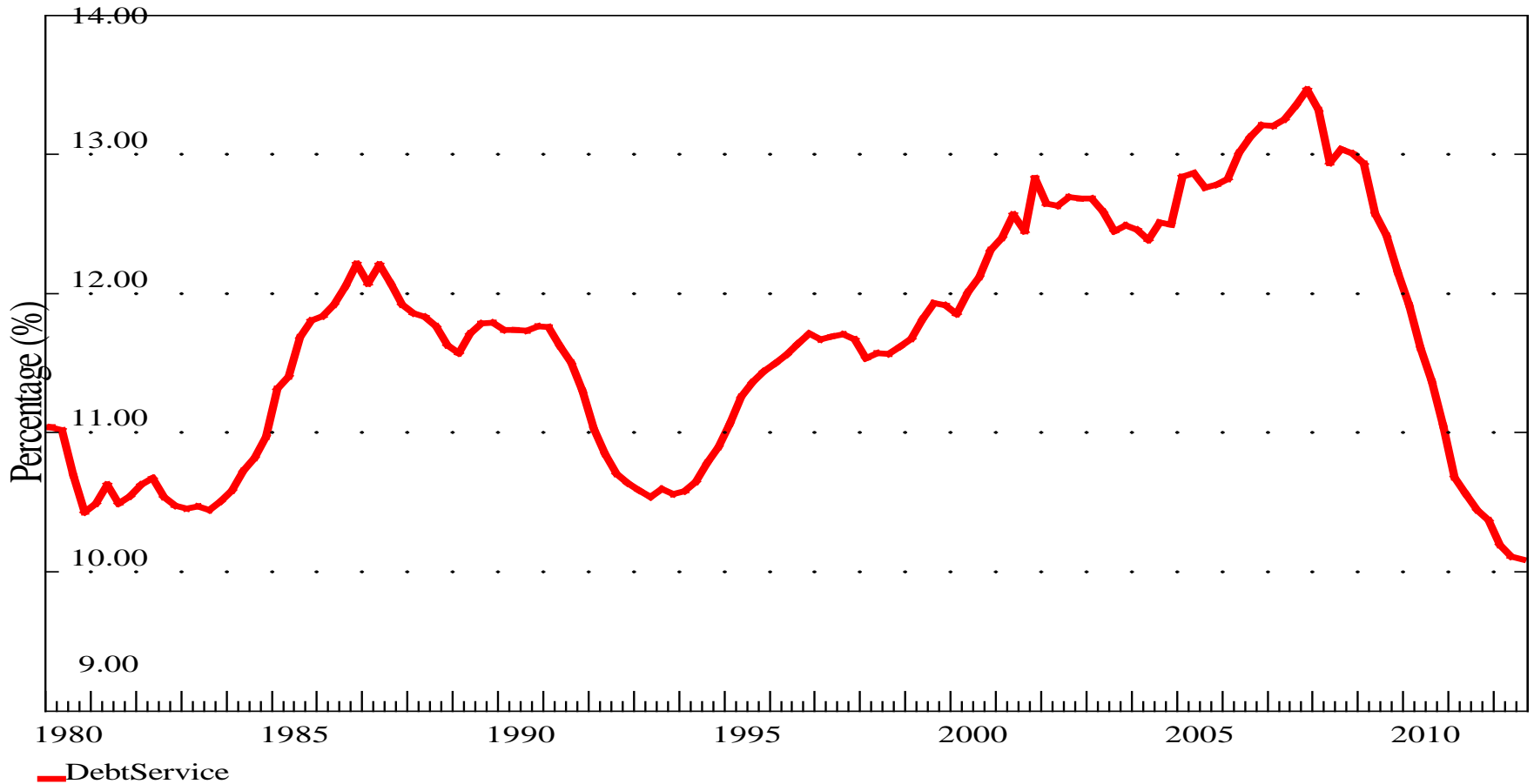


## Household Net Worth (Multiple of GDP)





## *Household Debt Service Percent of Household Disposable Income*





## *Europe will grow again, slowly*

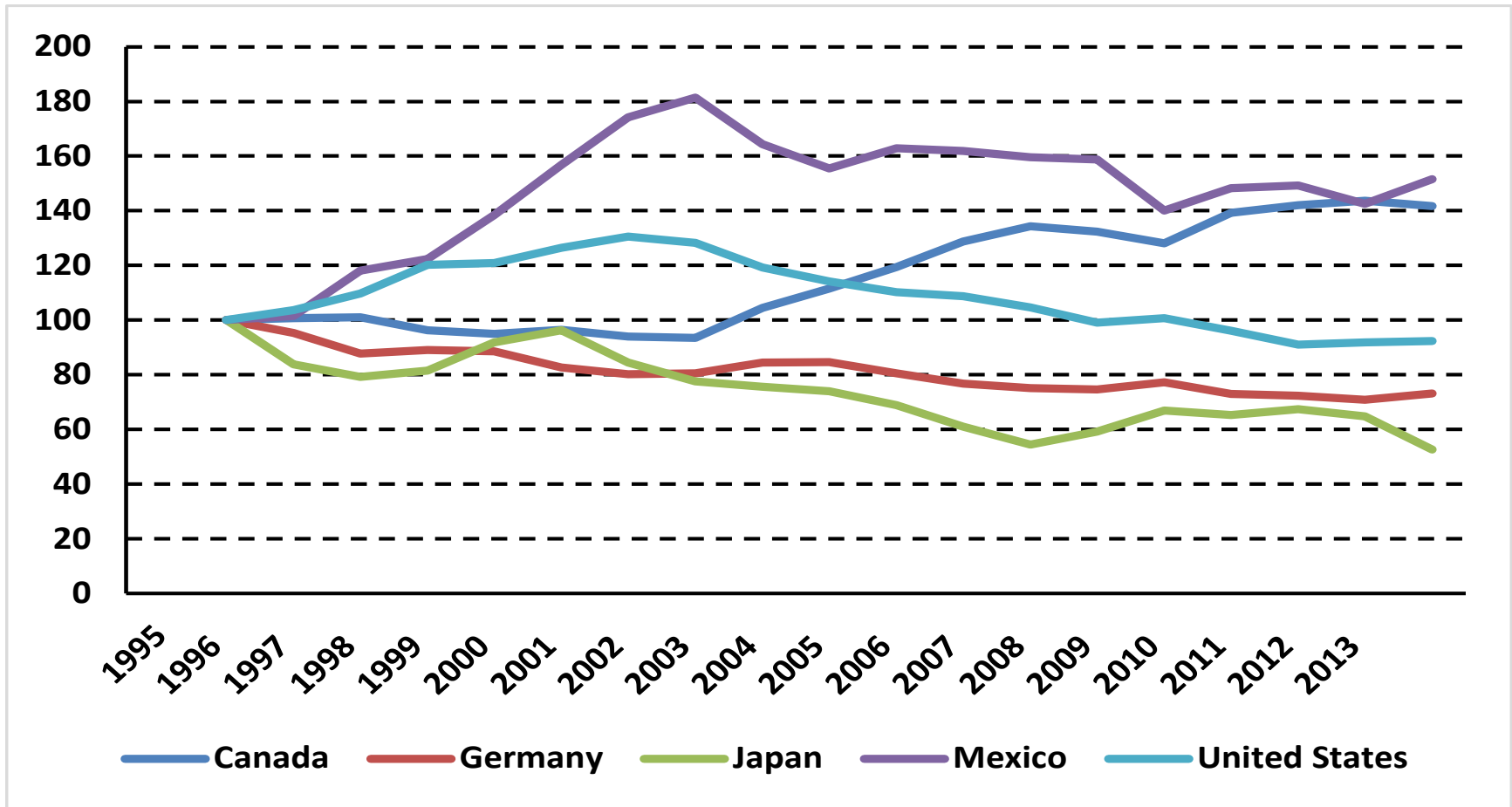
Annual percent change in GDP (2005 dollars)

	2010	00-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	15-20
World (IMF)	34483	3.8	3.9	3.1	2.8	3.6	3.9	4.1	4.1	4.0
United States	13063	1.5	1.8	2.1	1.7	2.6	2.9	2.9	2.9	2.8
Canada	1092	1.8	2.5	1.7	1.7	2.2	3.1	2.4	1.4	1.9
Mexico	764	2.6	4.0	3.6	1.2	3.3	4.3	5.8	5.4	5.5
North America	14919	1.6	2.0	2.1	1.7	2.6	3.0	3.0	2.9	2.9
France	1815	1.0	2.0	0.0	0.2	1.0	1.4	1.3	1.1	1.3
Germany	2979	1.1	3.4	0.9	0.5	1.7	2.0	1.1	1.4	1.2
Italy	1740	0.1	0.6	0.6	-2.6	-1.9	0.3	1.7	0.7	0.8
Spain	1136	1.8	0.1	-1.6	-1.3	0.9	0.9	2.7	2.2	2.0
United Kingdom	1982	1.4	1.1	0.1	1.4	2.3	2.5	1.5	1.4	1.0
Japan	4426	-0.3	-0.6	1.9	1.8	1.4	1.0	1.2	1.5	1.0
Korea	1073	3.2	3.7	2.0	2.7	3.8	4.0	5.4	4.5	3.5
China	3706	10.4	9.3	7.7	7.3	7.0	6.0	5.2	5.0	6.0



# *U.S. remains very competitive*

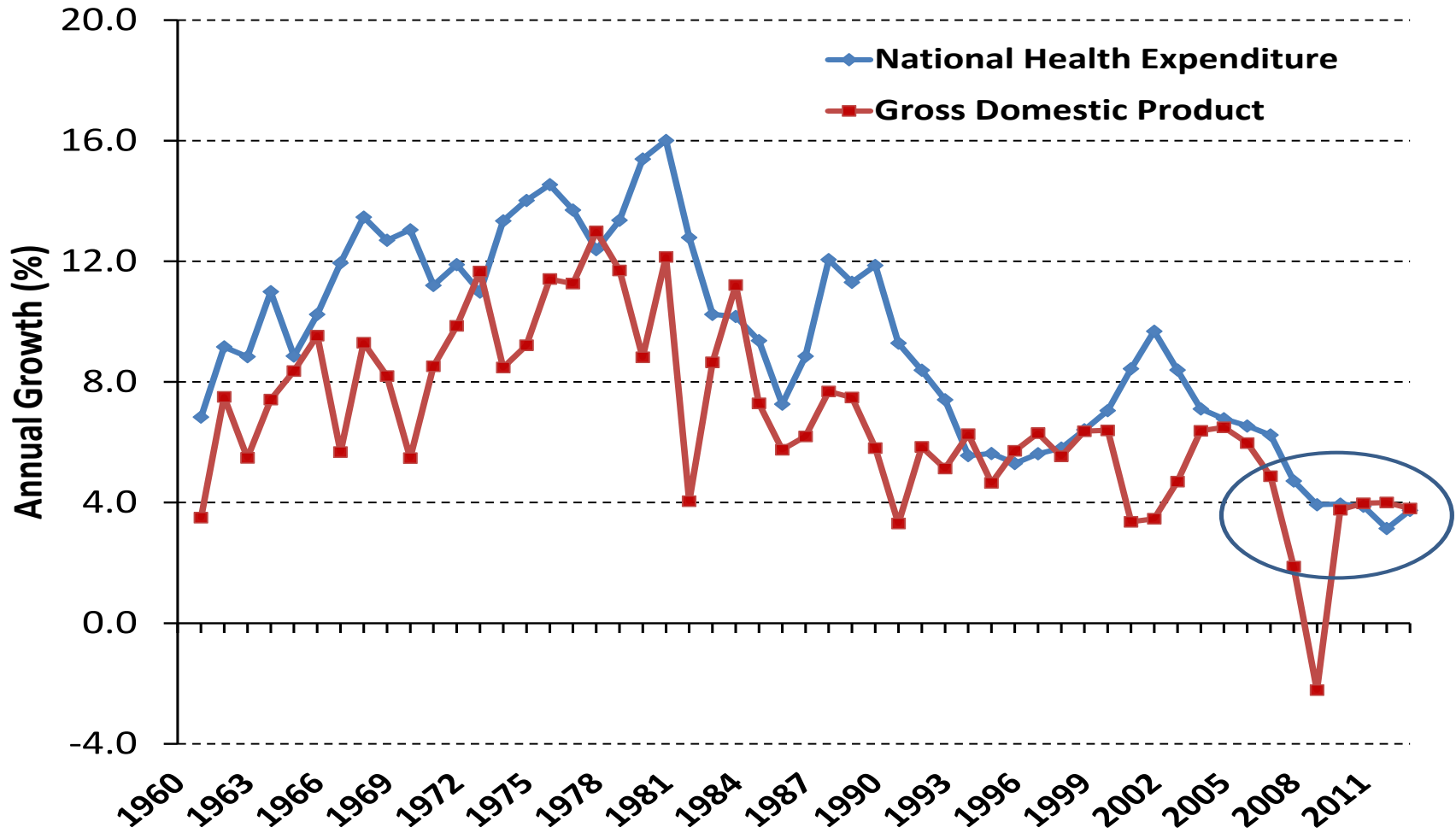
Unit labor costs 1995 = 100



Source: OECD



## Health Care Expenditures Have Grown Slowly Since 2007





## *Both Excess Inflation and Excess Expenditure are Down*

		1960-2012	1960-2000	2000-2012	2009-2012
		<b><u>Annual Percent Change</u></b>			
Gross Domestic Product (GDP)		6.5	7.3	3.8	3.8
National Health Expenditures		8.9	9.8	5.9	3.6
NHE as percent of GDP		2.4	2.4	2.1	-0.2
GDP Deflator		3.5	3.9	2.2	1.7
Health Care Price Deflator		4.7	5.3	2.9	2.0
Real GDP		3.0	3.4	1.6	2.1
Real Health Care Expenditure		4.2	4.5	3.0	1.5
<b>Decomposition of "Excess Cost" of Health Care</b>					
Excess Health Care Cost		2.4	2.4	2.1	-0.2
Excess Health Care Inflation		1.2	1.4	0.7	0.3
Excess Real Expenditure		1.2	1.1	1.4	-0.6



## *Why? Have We Bent the Curve?*

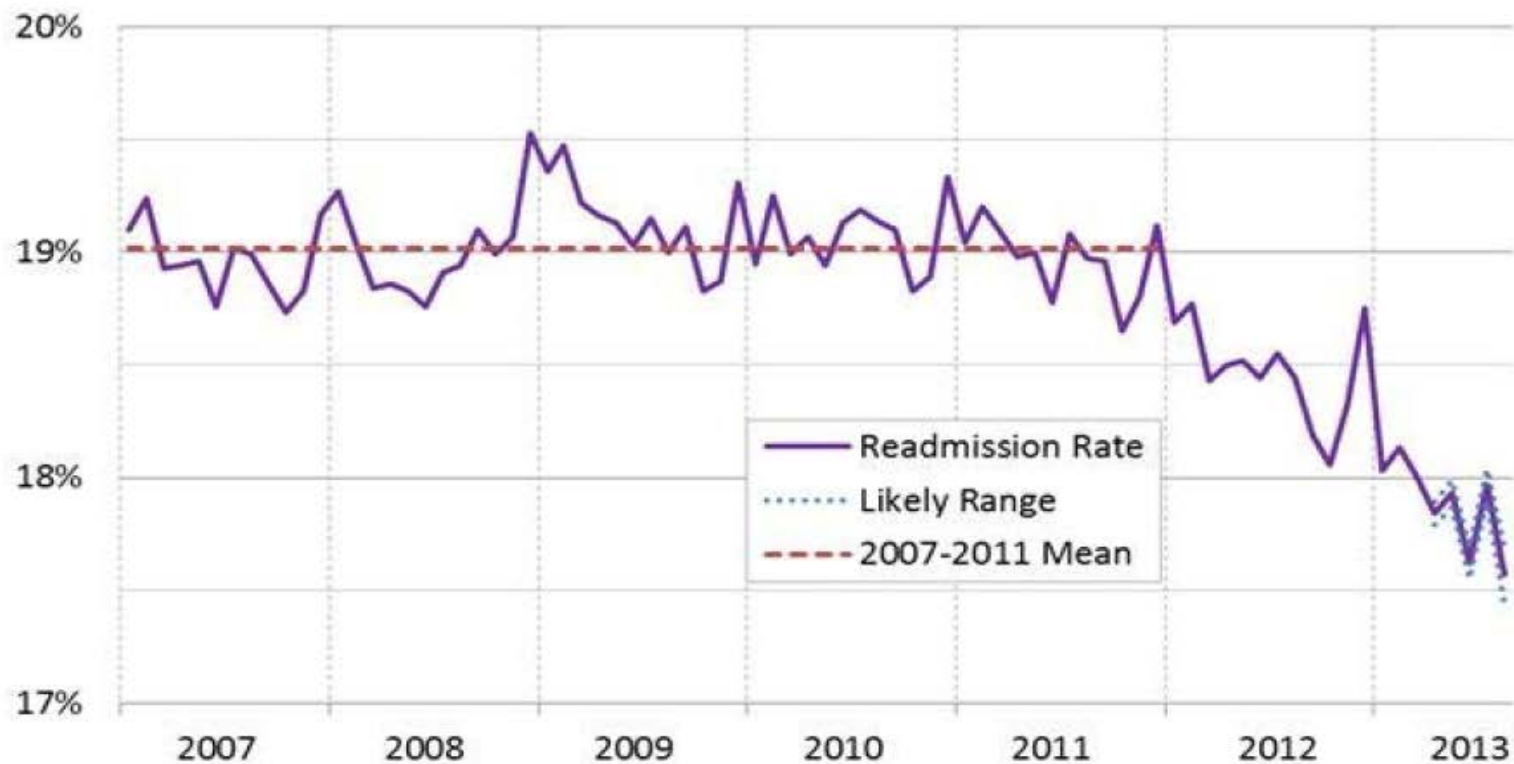
- ✦ Recession (loss of income and job-base insurance)
- ✦ Significant increase in cost-Sharing
- ✦ Generic prescriptions
- ✦ Structural changes in private market (ACA and non ACA)
- ✦ Medicare/Medicaid Changes (independent of ACA)
- ✦ Medicare/Medicaid Changes (because of ACA)
- ✦ Coming ACA: Provider MFP Fix





## *ACA Penalizes Hospital Readmissions*

**Monthly Medicare 30-Day, All-Condition Hospital Readmission Rate**  
January 2007 - August 2013



Source: Centers for Medicare and Medicaid Services, Offices of Enterprise Management.



## *Health Care Reform*

My Platform:

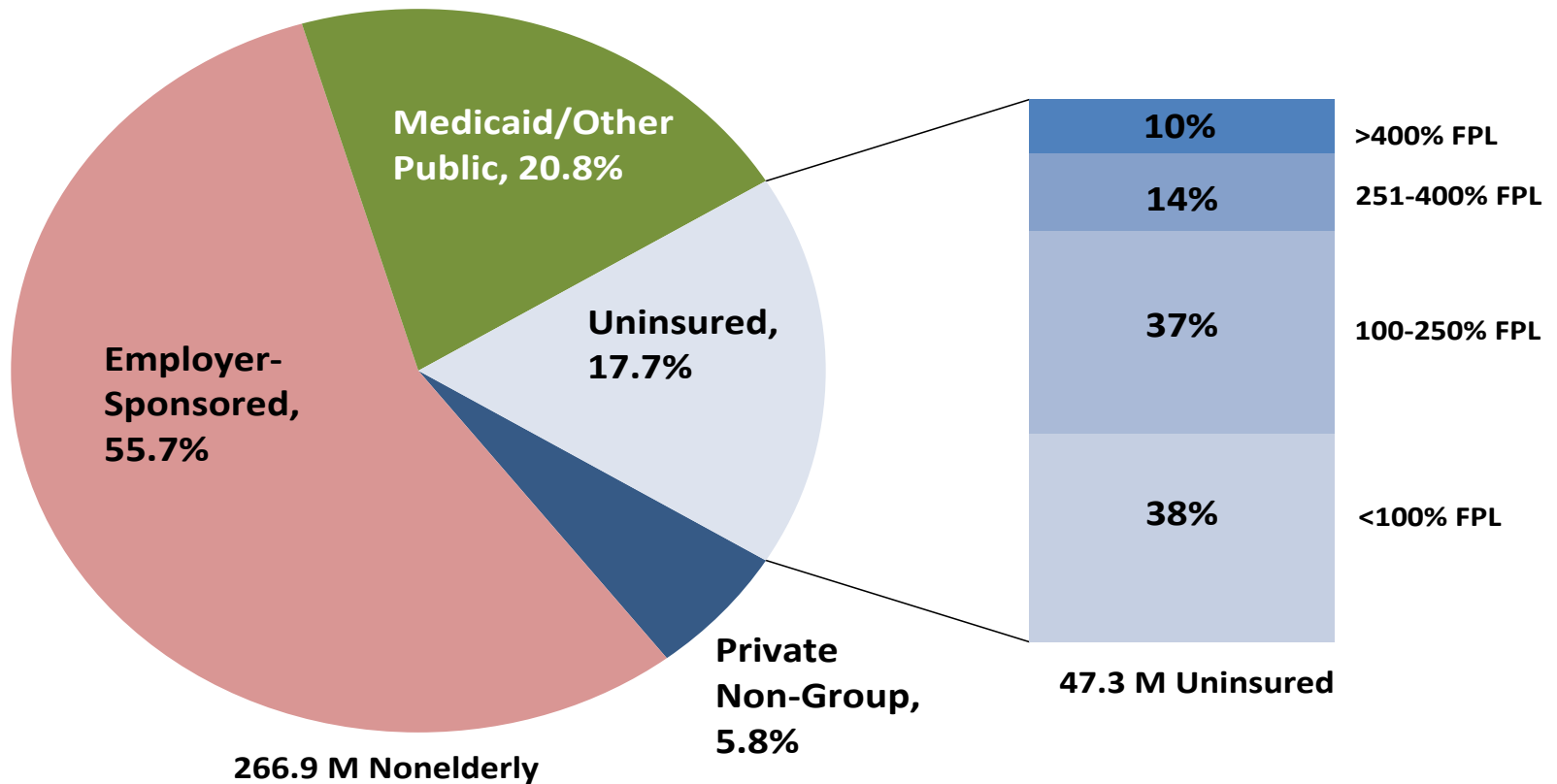
If you have an insurance plan, and you like it, that has to stop.

Economics of insurance reform is a Classic Insider-Outsider game.



# ObamaCare: Did Something Go Wrong?

## The Uninsured Population - As a Share of the Nonelderly Population and by Poverty Levels, 2012





*Tax subsidies for health are unfair and boost (wasteful?) expenditures*

Insurance Person	Employer Provided		Individual
	A	B	C
Premium Cost (including employers)	12000	12000	12000
Income	150,000	50,000	50,000
Tax bracket	30%	15%	15%
Tax subsidy	3600	1800	0
Net cost	8400	10200	12000



## *What would "alternative" reform look like?*

- ✦ Separate employment from health insurance and defragment market by removing tax bias for employer-provided insurance.\*
- ✦ Promote more market-orientated and "patient-centered" approaches (national exchanges, FSA, etc.)
- ✦ Increase cost-sharing (even more). Higher-deductible plans.
- ✦ Allow premiums to vary based on health "status," age, gender, etc. Federal determination of income and health based premium supports.
- ✦ Increase information and transparency.
- ✦ Transition Medicaid recipients into the market exchanges.
- ✦ Break monopoly certification rules and rationalize tort system.

\* Note: Tax deductibility of employer provided health premiums is quite possibly the stupidest law of the land.



## *Further Reading*

On health care cost trends:

Trends in Health Care cost Growth and the ACA

[http://www.whitehouse.gov/sites/default/files/docs/healthcostreport\\_final\\_noembargo\\_v2.pdf](http://www.whitehouse.gov/sites/default/files/docs/healthcostreport_final_noembargo_v2.pdf)

Analysis of Factors Leading to Changes in Projected 2019 National Health Expenditure Estimates: A Comparison of April 2010 Projections and September 2013 Projections [http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-reports/National Health ExpendData/Downloads/ProjectionsRevisionAnalysis.pdf](http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-reports/NationalHealthExpendData/Downloads/ProjectionsRevisionAnalysis.pdf)

On alternative programs:

“Best of Both Worlds: Uniting Universal Coverage and Personal Choice in Health Care,  
<http://www.aei.org/policy/health/healthcare-reform/>

The American Health Care System: Principles For Successful Reform,  
<http://mercatus.org/publication/american-health-care-system-principles-successful-reform>

Uwe Reinhardt:

<http://economix.blogs.nytimes.com/2013/11/22/a-conservative-alternative-to-obamacare/>



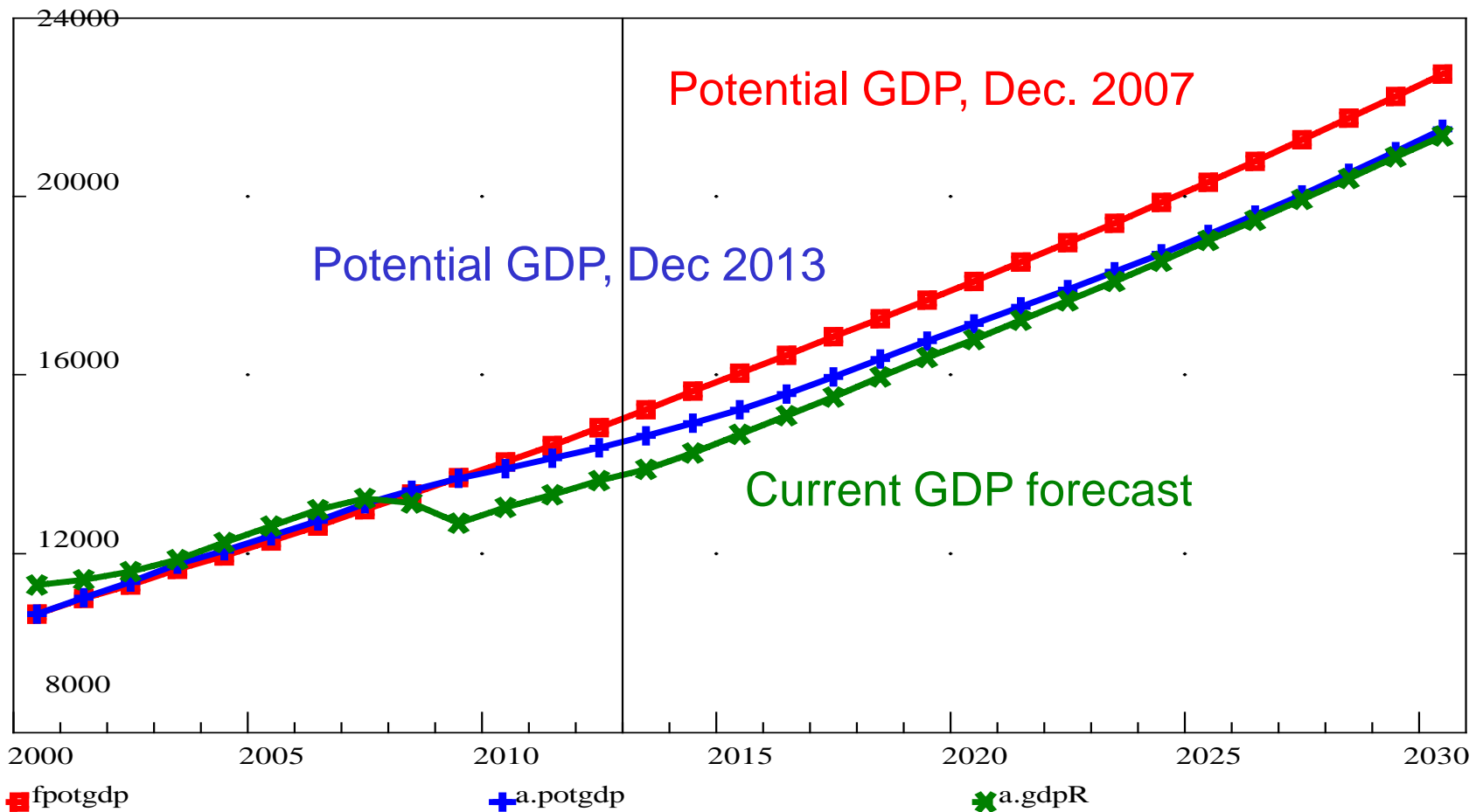
## *Long Term Issues*

- ⊕ Potential GDP: How much hysteresis from the Great Recession? Can we reach “full” employment?
- ⊕ Hysteresis - Intercept Change
- ⊕ Secular Stagnation – Chronic Operation Below Potential (Summers)
- ⊕ Technological Stagnation - Slope Change (Gordon)
- ⊕ Factors:
  - ⊞ Federal Debt – Do high rates slow growth?
  - ⊞ Increasingly Unequal Income Distribution
  - ⊞ Entrepreneurial Crisis
  - ⊞ Political Dysfunction – Rent seeking and Olsonian Decline (great upheaval can reset society)



# Potential GDP and GDP 2000-2030

Billions of 2005 dollars



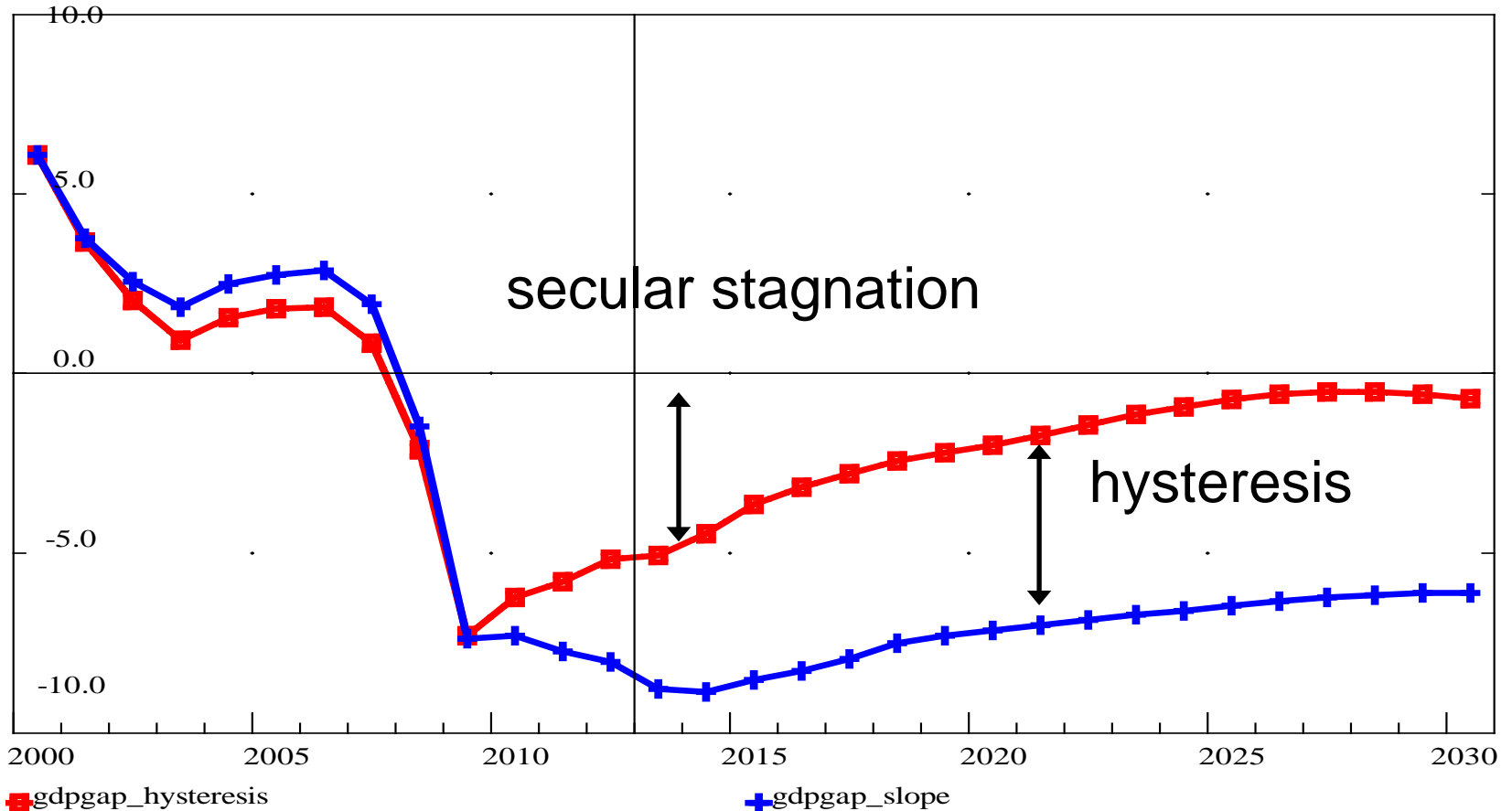




# GDP Gaps: Did we permanently lose 6% of income?

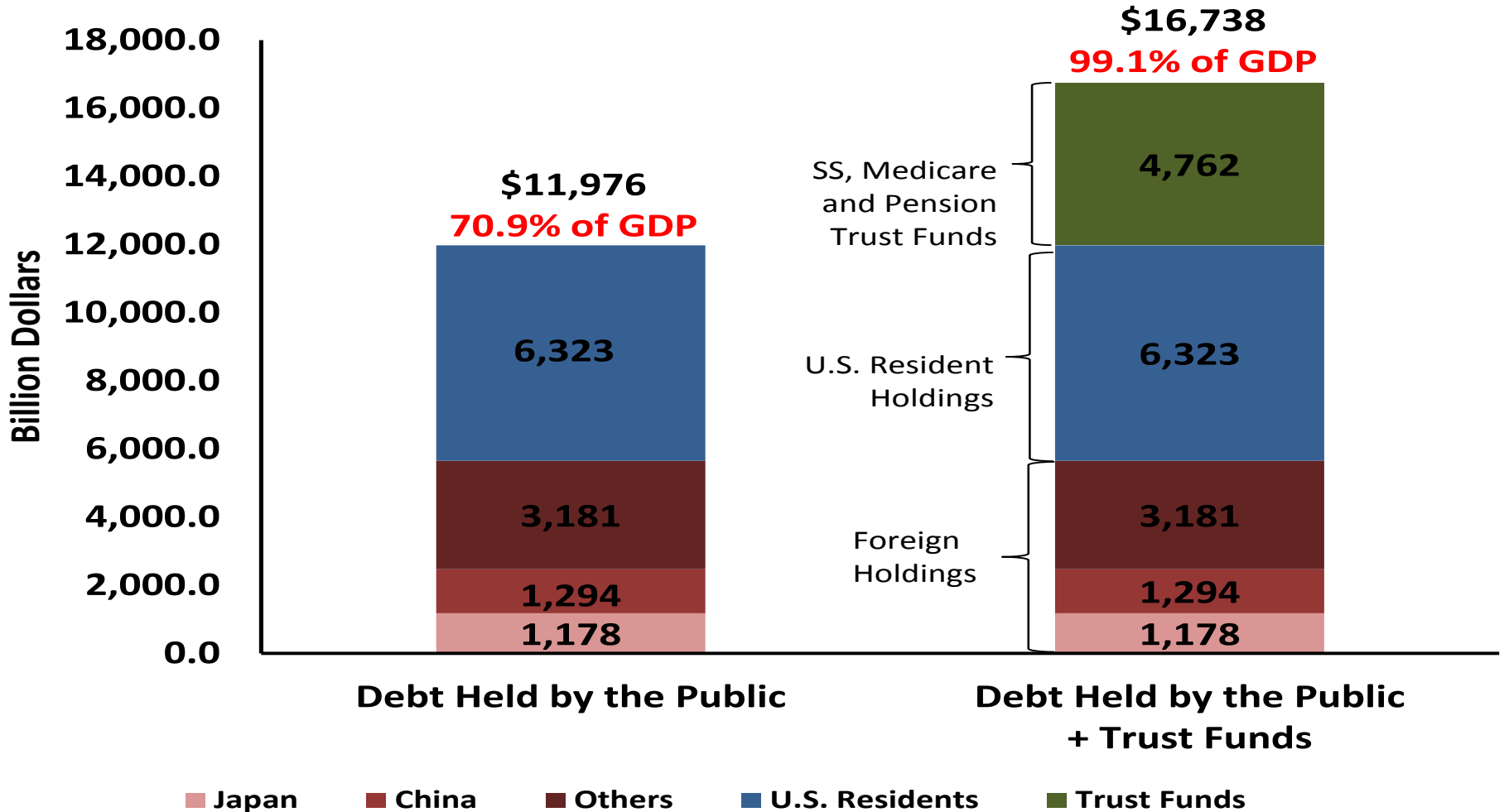
GDP – GDP potential  
(% of potential)

For further discussion see: Aggregate Supply in the United States: Recent Developments and Implications for the Conduct of Monetary Policy, Reifschneider, et. al. (FRB)





# Debt Check! Federal Net and Gross Debt

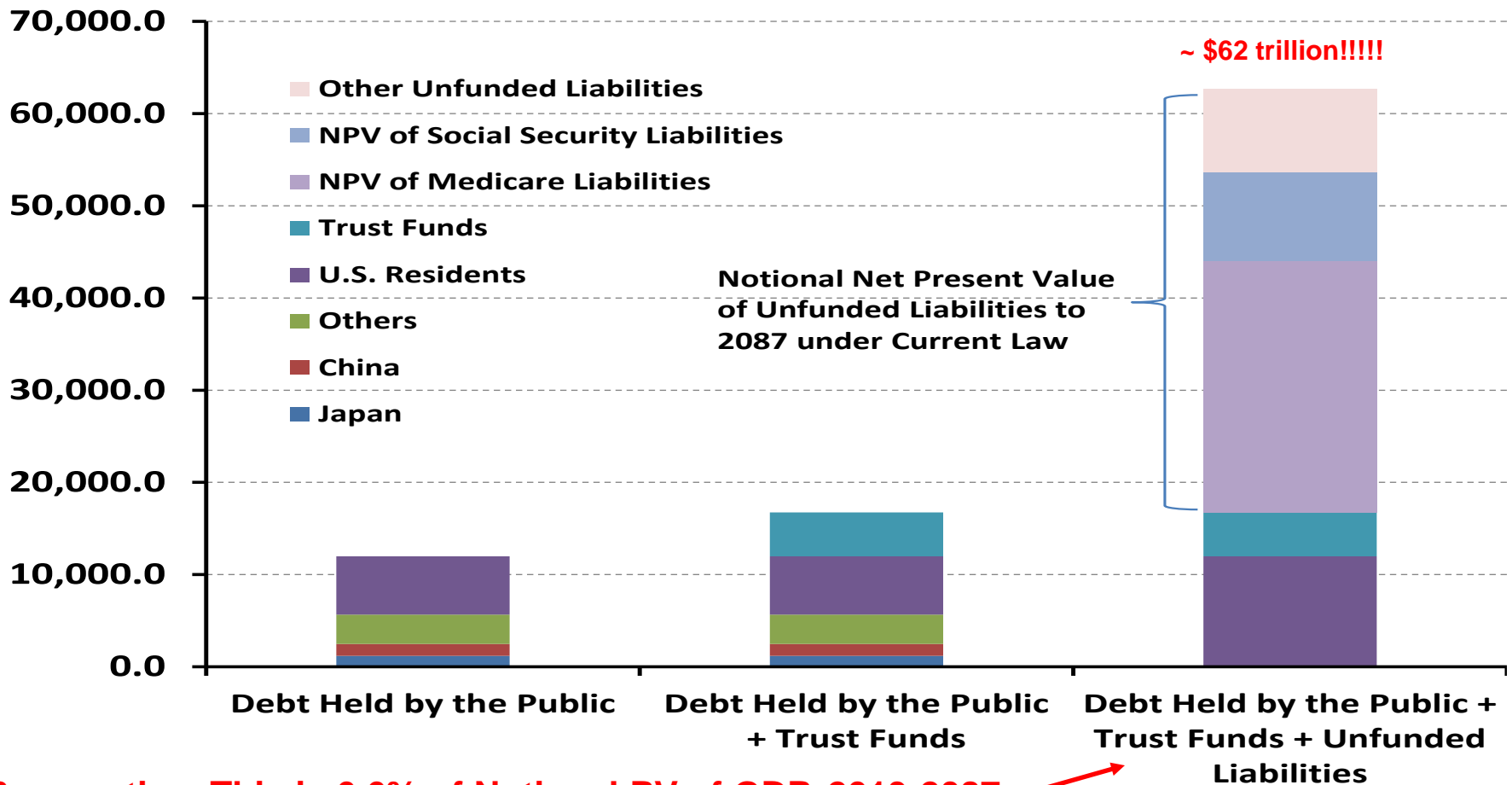


Source: U.S. Treasury Department and Inforum Calculations



*...do not cover future obligations.*

### Federal Debt + Trust Funds + Unfunded Obligations



**Perspective: This is 6.6% of Notional PV of GDP, 2013-2087**



## *Entitlement Reform: Social Security*

- ⊕ Increase cap on payroll taxes.
- ⊕ Change COLA to better reflect inflation.
- ⊕ Increase retirement age.
- ⊕ Cover new S&L workers.
- ⊕ Reduce benefits for richest, strengthen safety nets for poorest. (What is meant by “means-testing”?)
- ⊕ Little sentiment for privatization of SS accounts.
- ⊕ Politically implausible
- ⊕ Since most boomers have insignificant savings, do these entitlement cuts make sense?



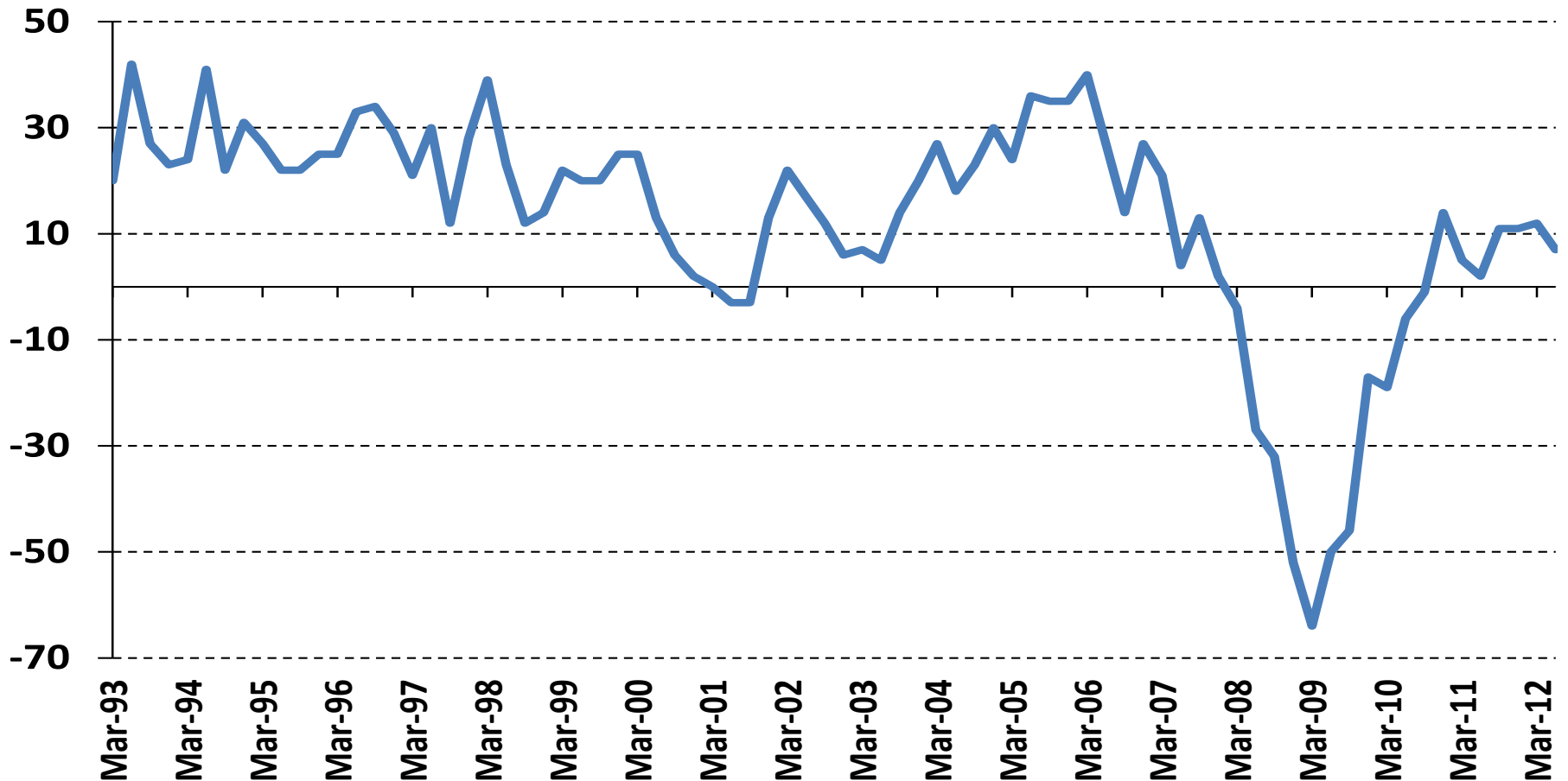
## *Tax Reform: How can we tax labor and capital less and consumption more?*

- ⊕ Reduce/Eliminate tax expenditures, especially:
  1. Convert health care premium income exclusion to tax credit (voucher). (~\$160 billion in FY2010)
  2. Phase out mortgage interest deduction (~\$110 bill in 2010).
- ⊕ Use proceeds to lower and flatten rates.
- ⊕ Lower Corporate tax rates (phase out eventually)
- ⊕ Unify rates across earned, dividends, capital.
- ⊕ Best time ever for Higher energy taxes/Carbon tax!
- ⊕ National Sales (RD) or Value Added Tax.



## *Do we Have an Entrepreneurship Crisis?*

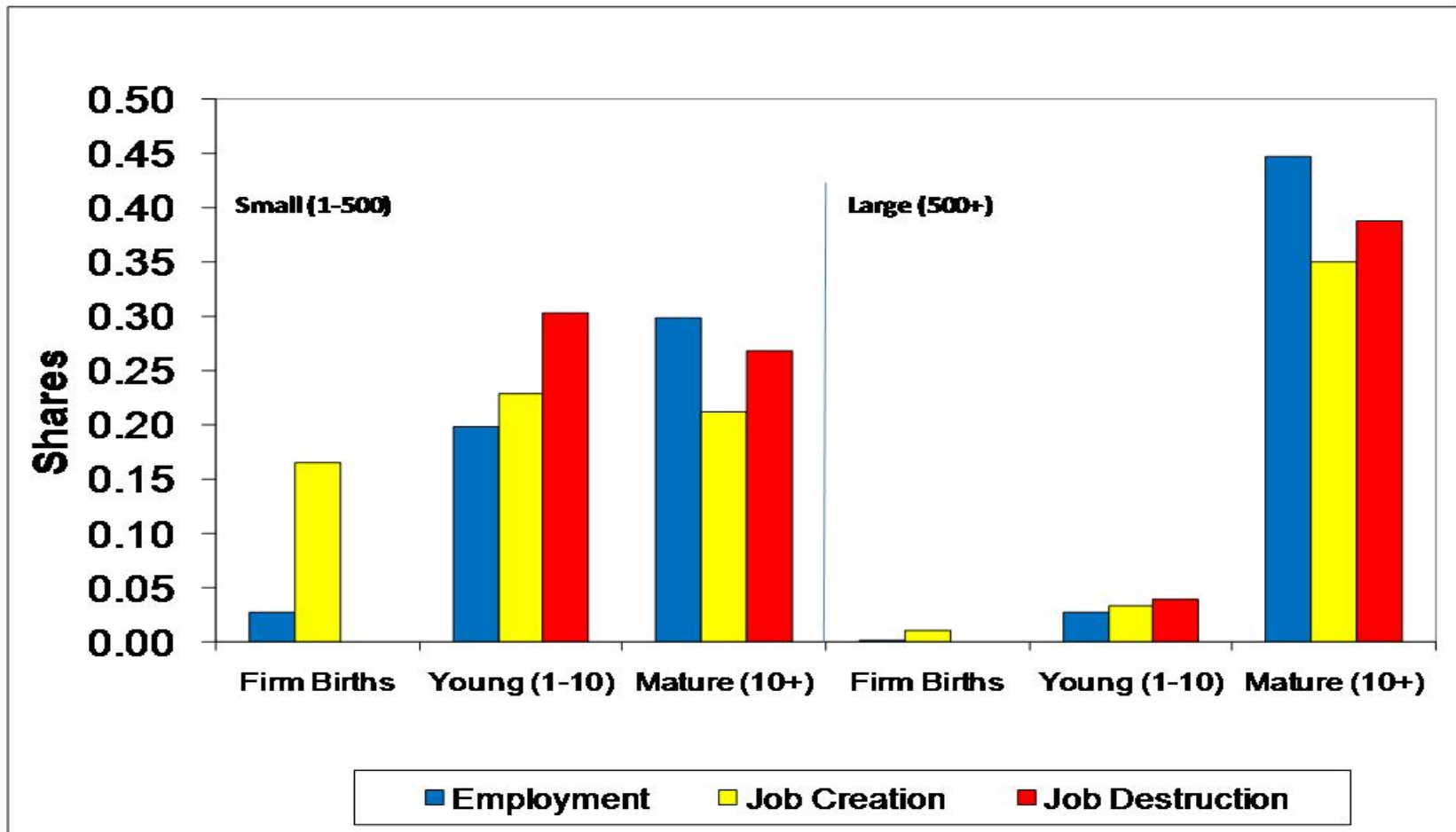
**Net Business Creation  
(thousands)**



Private sector establishment births and deaths, seasonally adjusted. Total private. Levels in thousands. BLS.



*Most "net" new jobs created from new firms.*

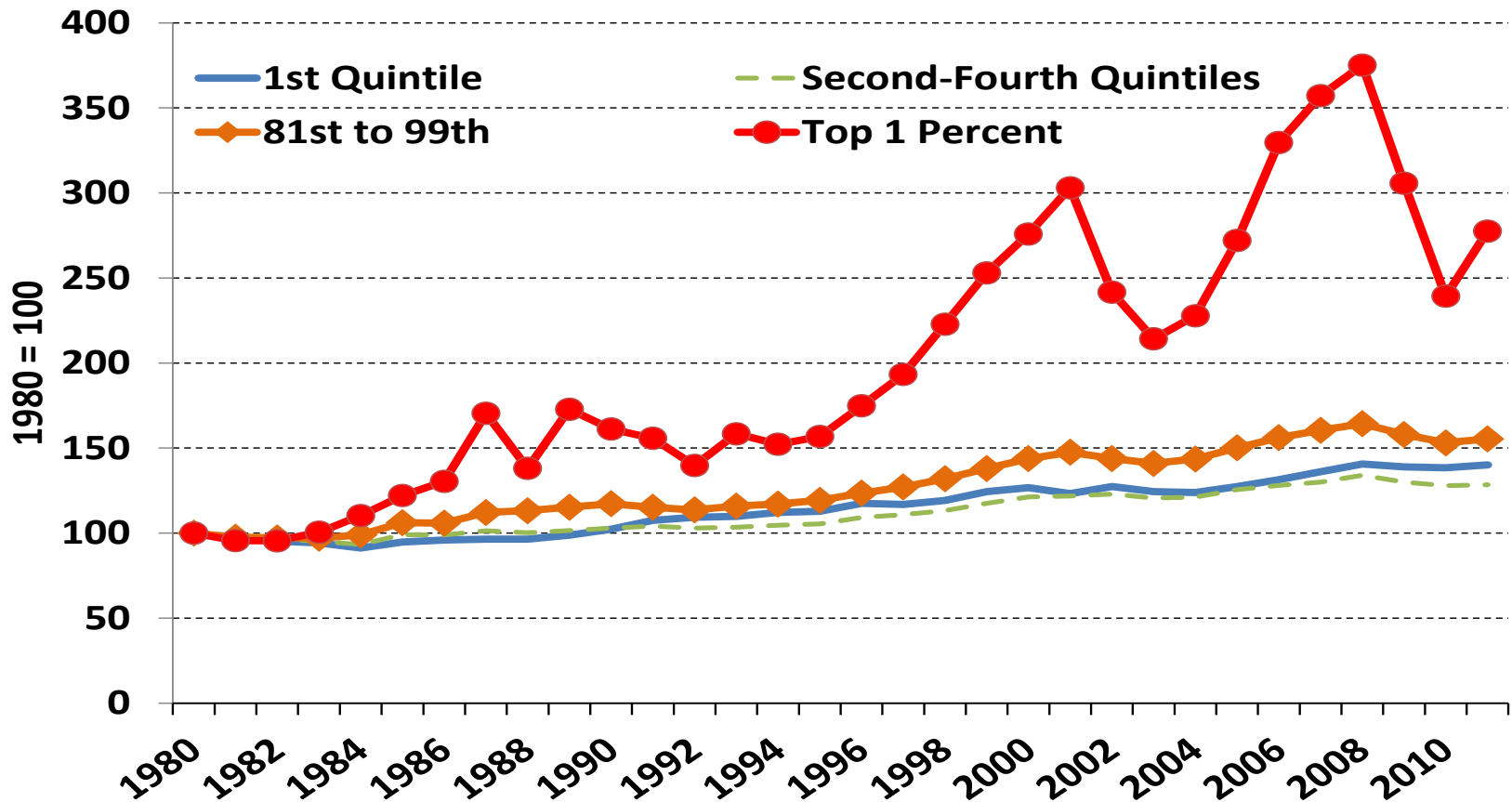


Source: Davis, Faberman and Haltiwanger (2010)



# *U.S. Income Distribution became skewed in the last thirty years.*

**Cumulative Growth in Before Tax Income (2010 dollars)**

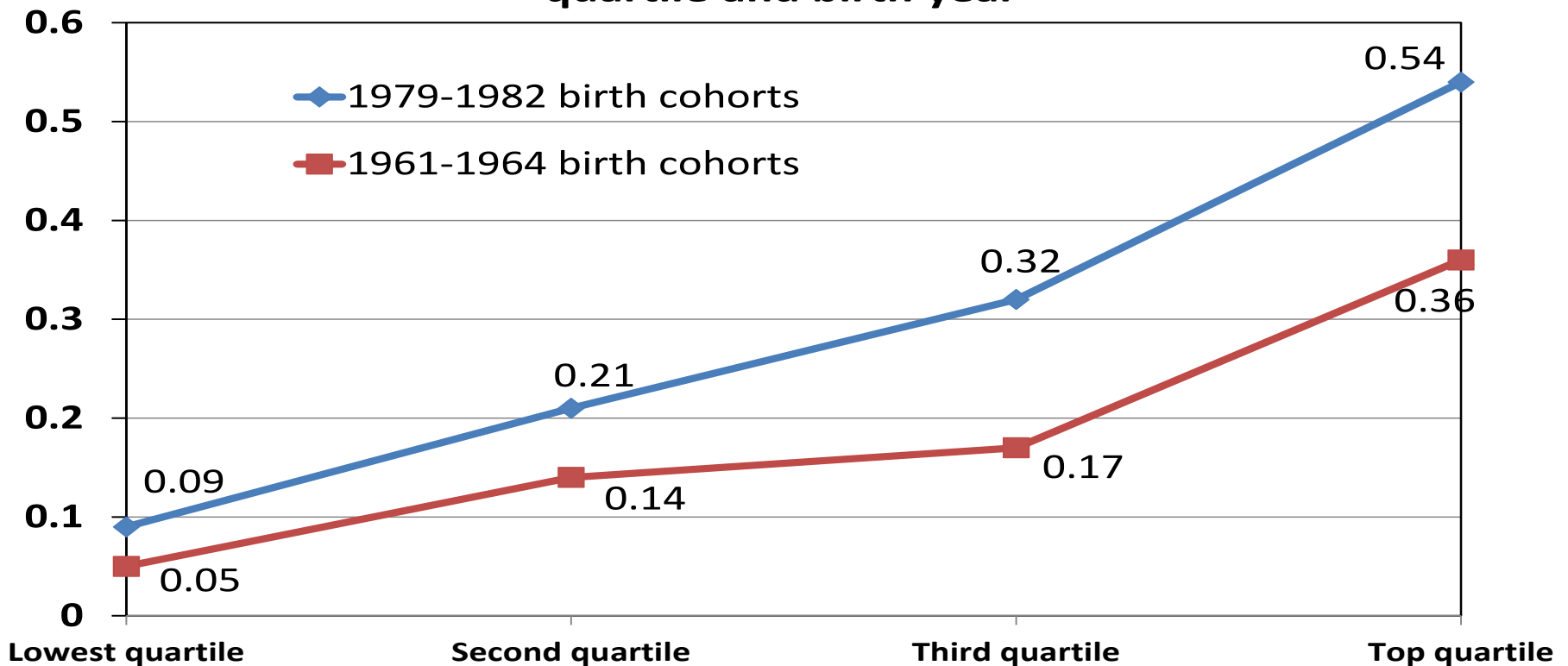






## Especially in Education

### Fraction of students completing college by income quartile and birth year

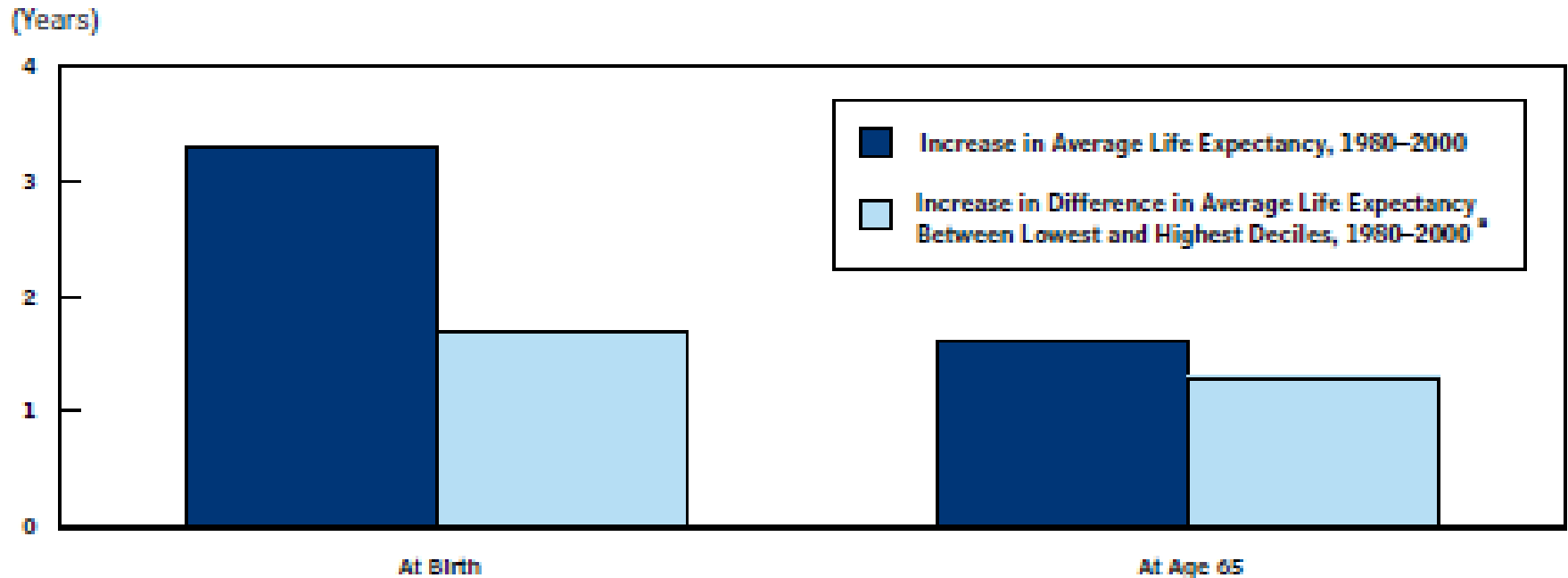


Source: Martha J. Bailey and Susan M. Dynarski, "Inequality in Postsecondary Education." In Greg J. Duncan and Richard J. Murnane, eds. *Whither Opportunity? Rising Inequality, Schools, and Children's Life Chances* (New York: Russell Sage Foundation, 2011).



## And in health status and life expectancy

### Increase in Life Expectancy, and Increase in Difference in Life Expectancy by Economic Status



Source: Congressional Budget Office using data from Gopal K. Singh and Mohammad Shahpush, "Widening Socioeconomic Inequalities in U.S. Life Expectancy, 1980–2000," *International Journal of Epidemiology*, vol. 35, no. 4 (2006), pp. 969–979; and National Center for Health Statistics, *Health, United States, 2007* (Hyattsville, Md., 2007), Table 27.

a. Socioeconomic groups are defined using county-level indicators of education, occupation, unemployment, wealth, income, and housing conditions.



## *Does Income Inequality Discourage Growth ?*

- ✚ Stiglitz, Deaton, Solow, Saez, Podesta
- ✚ It appears that both Inequality and Immobility are rising.
- ✚ Potential Mechanisms:
  - ✚ Lower consumer spending
  - ✚ Leads to credit bubbles and crisis
  - ✚ Underinvestment in education and health
  - ✚ Government capture: Rent-seeking behavior
  - ✚ Reduce risk-taking and entrepreneurs



## *Robert Gordon Stagnation Thesis*

- ✦ Is U.S. Economic Growth Over? Faltering Innovation Confronts the Six Headwinds, Robert J. Gordon NBER Working Paper No. 18315 August 2012
- ✦ Recent innovation (ICT) does not stack up well vis-à-vis mid-20<sup>th</sup> century innovations, especially electricity, internal combustion engine, running water, indoor toilets, communications, entertainment, chemicals, petroleum.
- ✦ Headwinds will subtract from MFP growth: demography, education, inequality, globalization, energy/environment, and the overhang of consumer and government debt.



## *Marxian Optimism*

- ❖ Marx was first to place technology at center of economics growth -- just when the situation seems darkest for capitalism, technology bails it out.
  
- ❖ Technologies coming down the pike:
  - ❖ Cheaper, environmental friendly energy (NG)
  - ❖ Self-driving cars
  - ❖ Additive (3D printers) manufacturing)
  - ❖ Robotics
  - ❖ Big data
  - ❖ Genetically modified crops and animals
  - ❖ Translation technologies



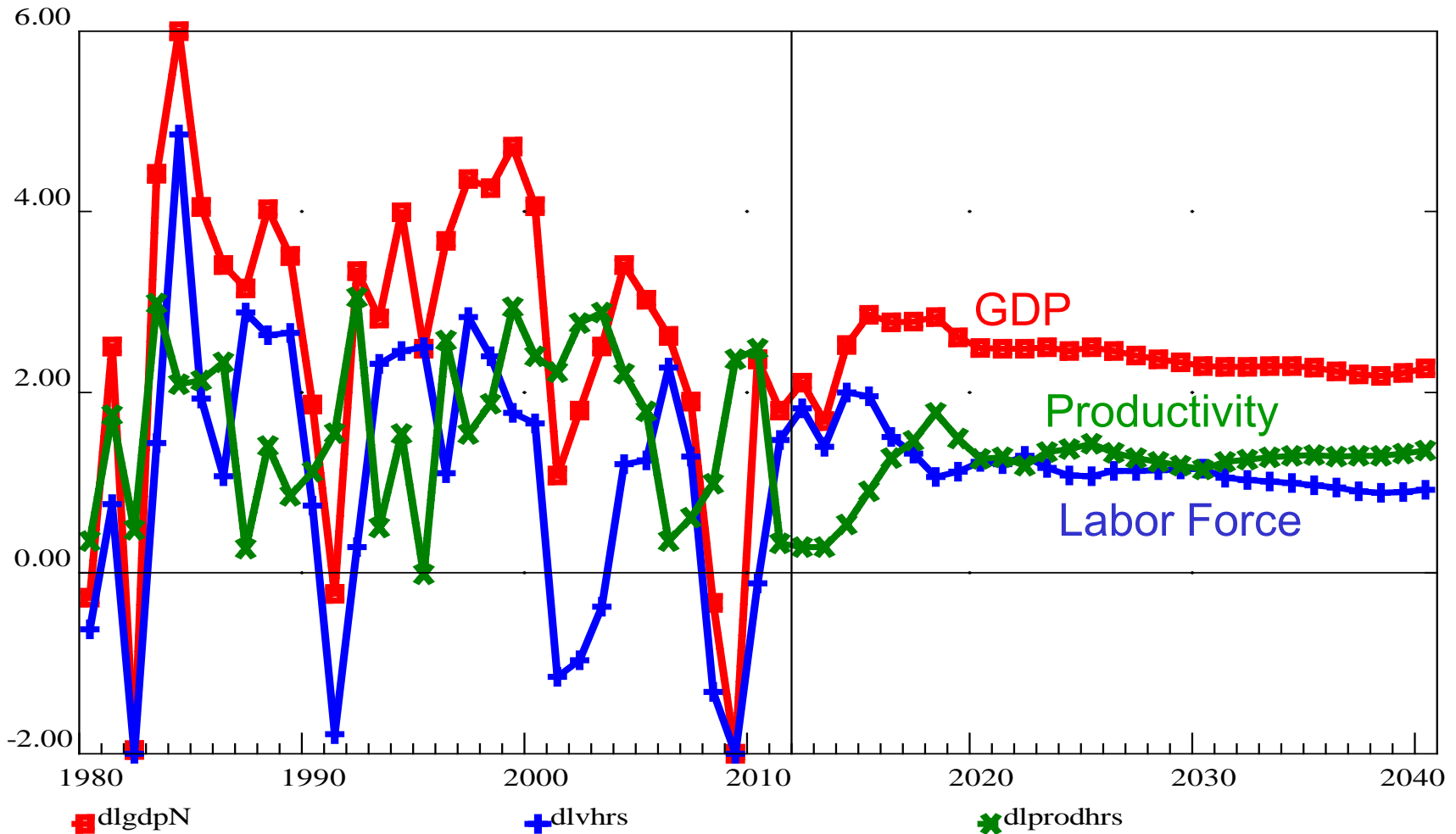
## *Longer term forecast (to 2040):*

- ⊕ Potential GDP growth ~ 2.4%
- ⊕ Forecast assumes gradual rebalancing of private, government and external accounts.
- ⊕ Weaker dollar, rapid technological growth in manufacturing, and rising savings rate changes economic structure toward exports and away from consumption.
- ⊕ Nonetheless, government services and transfers will expand. Health care spending (with/without reform) will dominant future of government spending and domestic production growth.
- ⊕ All roads lead to tax reform. To pay for entitlements, education and infrastructure, government revenues will have to rise. How this is accomplished is important.



# Long term potential growth is almost 2.4%

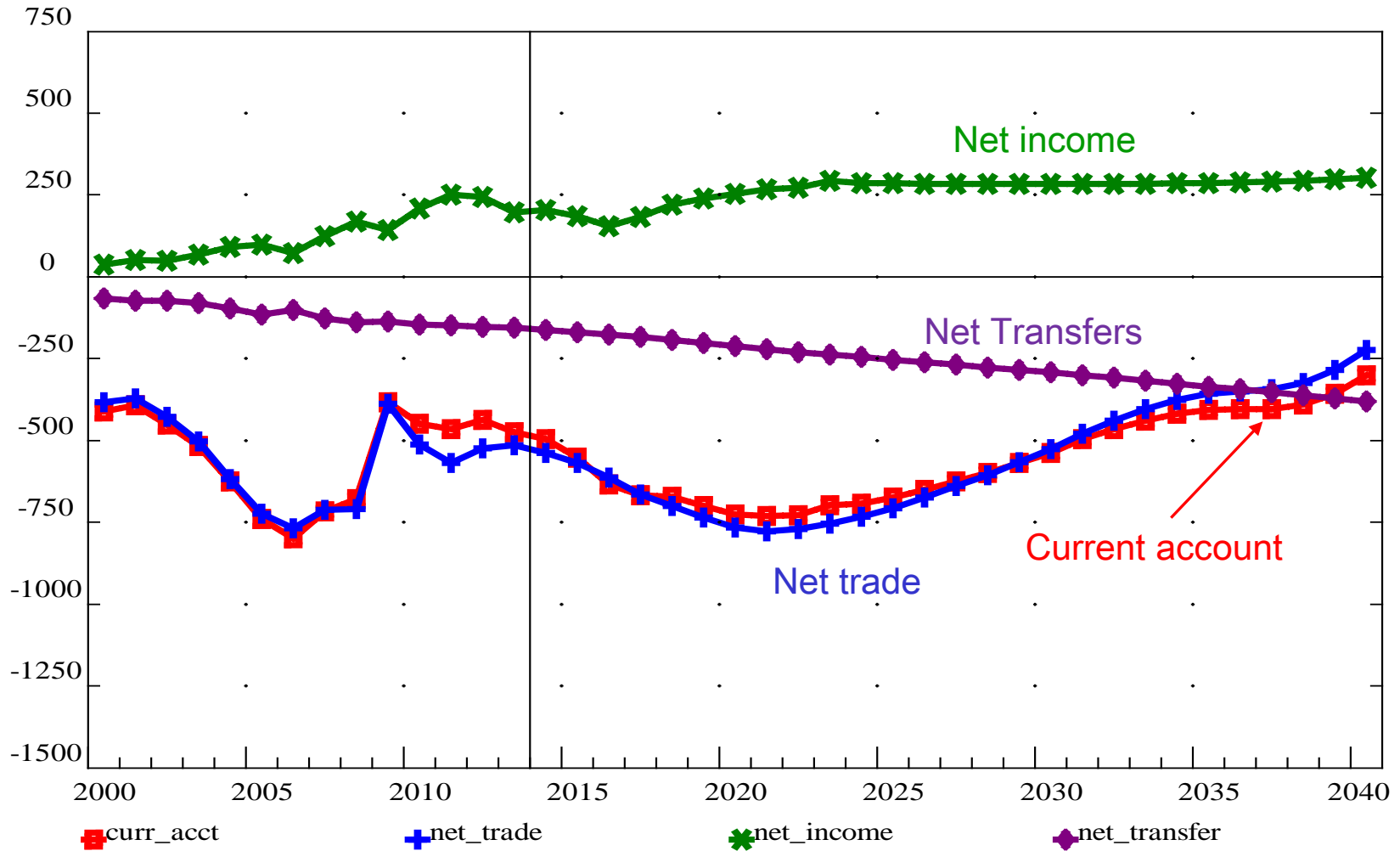
Difference in logs, 5-year moving average





# Current account deficit: soft landing

Billions of dollars

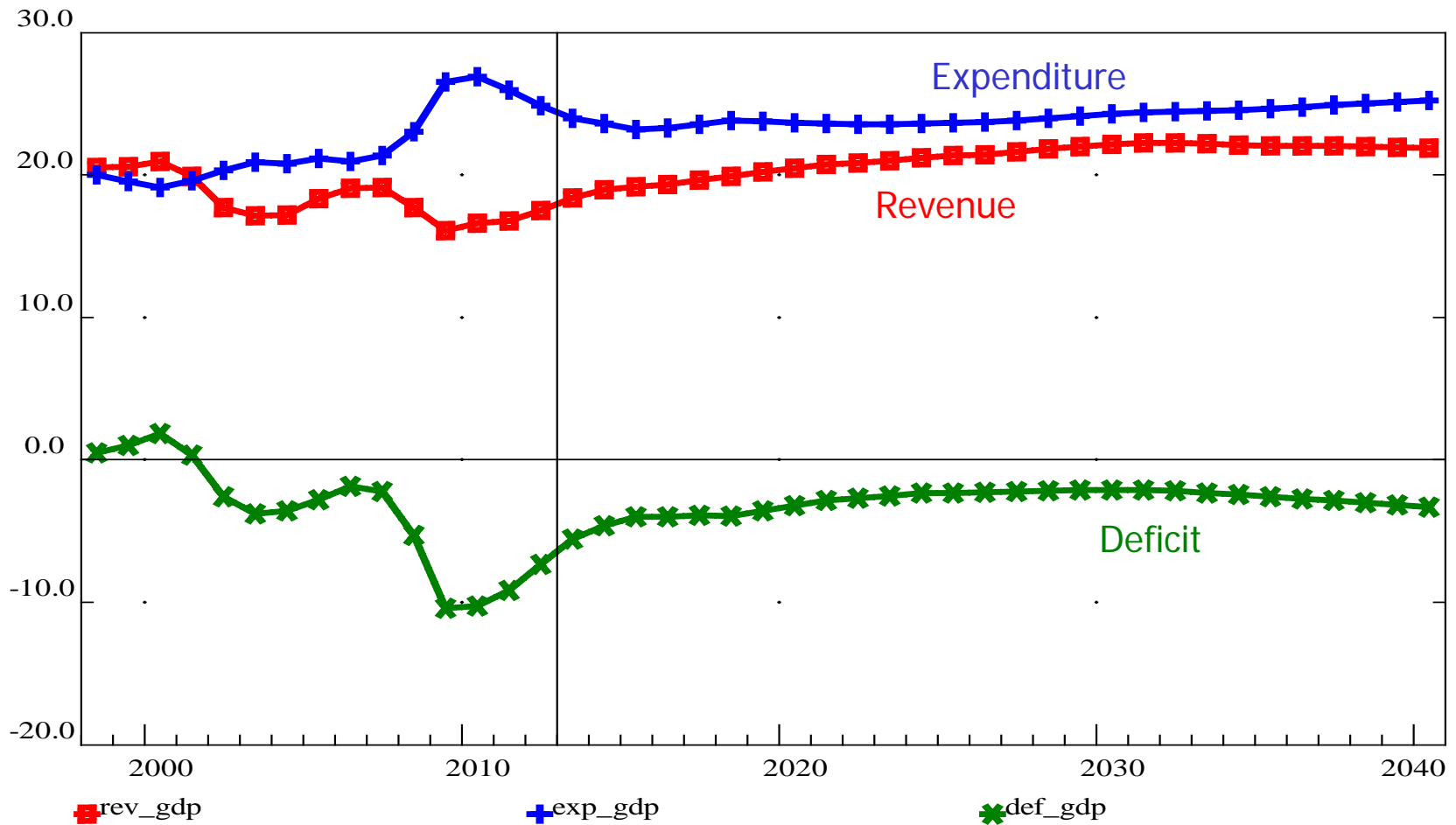






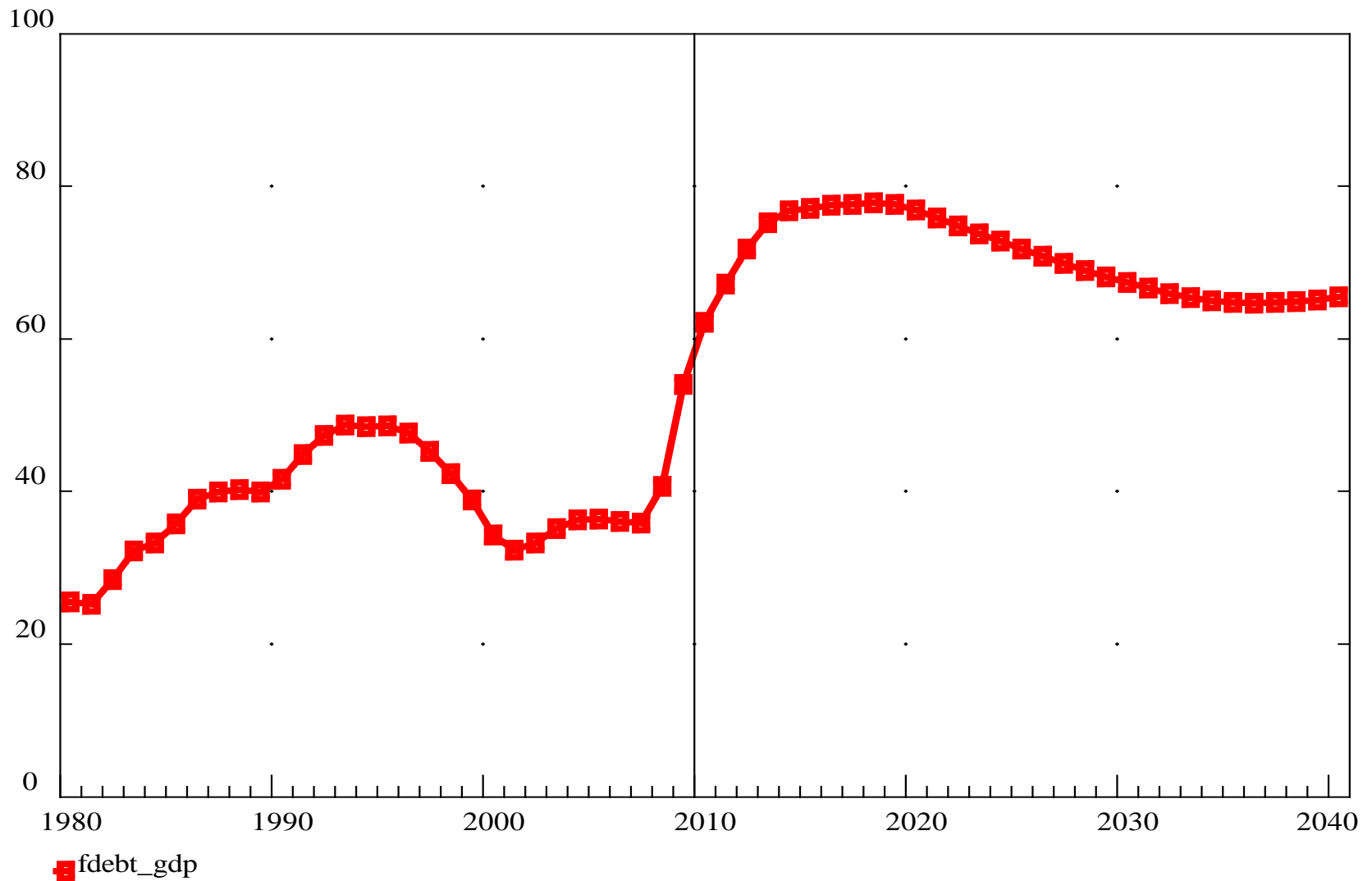
# Federal expenditures, revenues and deficit

Percent of GDP





## *Federal Debt as percent of GDP*





# *Inforum Economic Outlook*



**Thank you!**

