LAFFER ASSOCIATES

Supply-Side Investment Research

March 10, 2015

10-yr T-Note: 2.13%	DJIA: 17,662.94	NASDAQ: 4,859.79	S&P 500: 2,044.16	S&P 500 Undervalued: 130.3%

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By Arthur B. Laffer, Ph.D.

Summary

- Keynesian policies exacerbated both the Great Depression and Great Recession, while supply-side policies gave us the Roaring Twenties and the Reagan Eighties—the two most prosperous periods of the 20th century.
- The ideal public policies should be: a.) a low rate broad-based flat tax, b.) spending restraint, c.) sound money, d.) free trade and e.) minimal regulations. And, at no time are these healing powers of free markets more important than during periods of crisis.

The New York Times on February 20th of this year wrote: "Keynesians…have gotten most things right even as the supply-siders were getting everything wrong."[1] Not only is *The New York Times* wrong on this account, but the truth is just the opposite of what they wrote. When economics mattered most—as in the Great Depression, the Great Recession, the Roaring Twenties and the Reagan Eighties—supply-side economics was correct and Keynesian economics was incorrect.

If it is evidence *The New York Times* wants, then it's evidence we will give them. The Keynesians, whether Republican or Democrat, have had a lock on public policy during two long periods in U.S. history—the period leading up to and including the Great Depression and the period called the Great Recession including the last two years of the Bush presidency and the entire tenure of President Obama.

In both the Great Depression and the Great Recession, the Keynesians pushed hard for quantitative easing, tax rate increases on the rich, protectionist legislation and lots of government spending. Their logic was pretty standard fare for Econ 10: Keynesian Macroeconomics.[2]

In modern times, the antithesis of the period of the Great Recession was the period beginning in the early 1980s running through calendar year 1988, a period which I will call the Reagan supply-side years. During these Reagan supply-side years, tax rates—especially on high income earners—were cut, sound monetary policy was implemented, the dollar appreciated and government spending was kept under control.

Given that we are all pretty much up to speed on the events and policies that preceded and were coincident with the Great Recession and the Reagan miracle, just look at the facts (Figure 1):

[1] Paul Krugman, "Cranking Up for 2016," *The New York Times*, February 20, 2015.
http://www.nytimes.com/2015/02/20/opinion/paul-krugman-cranking-up-for-2016.html

[2] To quote Robert Frank and Ben Bernanke's popular intro macroeconomics textbook, "The idea that a change in spending may lead to a significantly larger change in short-run equilibrium output is a key feature of the basic Keynesian model."
Source: Robert H. Frank and Ben S. Bernanke, *Principles of Macroeconomics*, Second Edition, p. 346, McGraw Hill, 2004.

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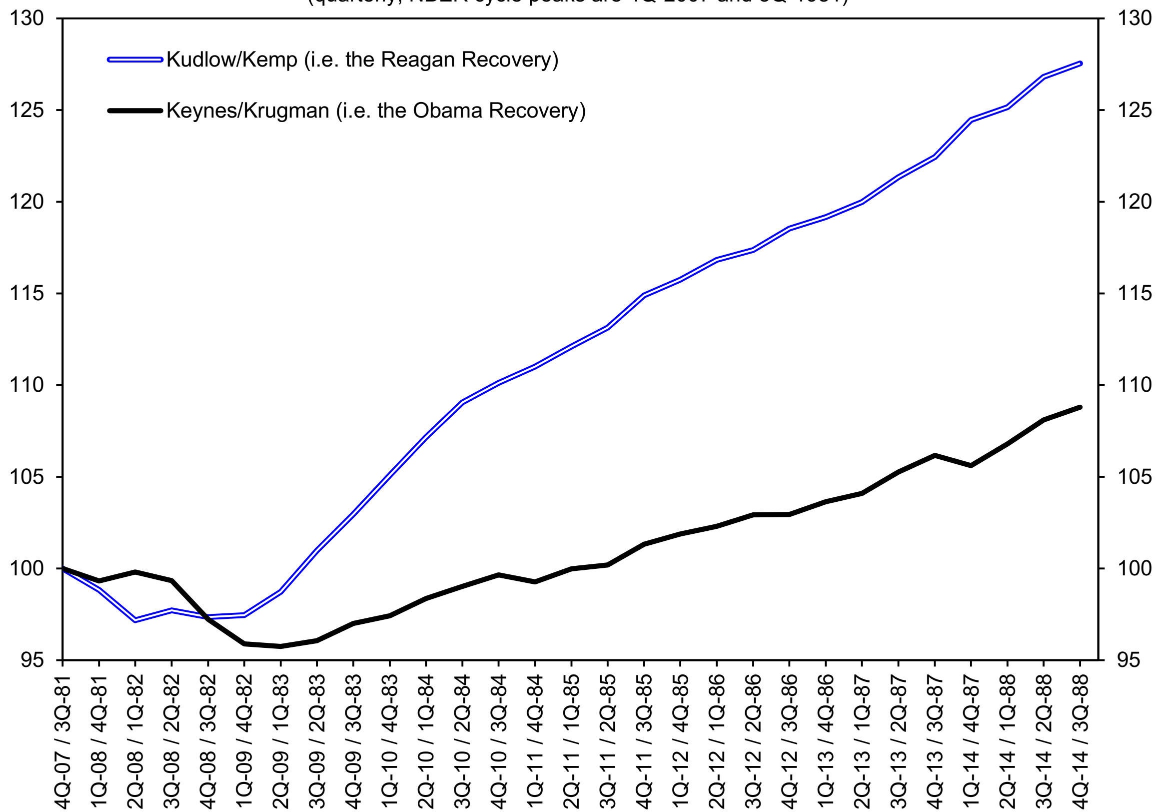
Figure 1
Real GDP: Recoveries Indexed to NBER Cycle Peak = 100
(quarterly, NBER cycle peaks are 4Q-2007 and 3Q-1981)

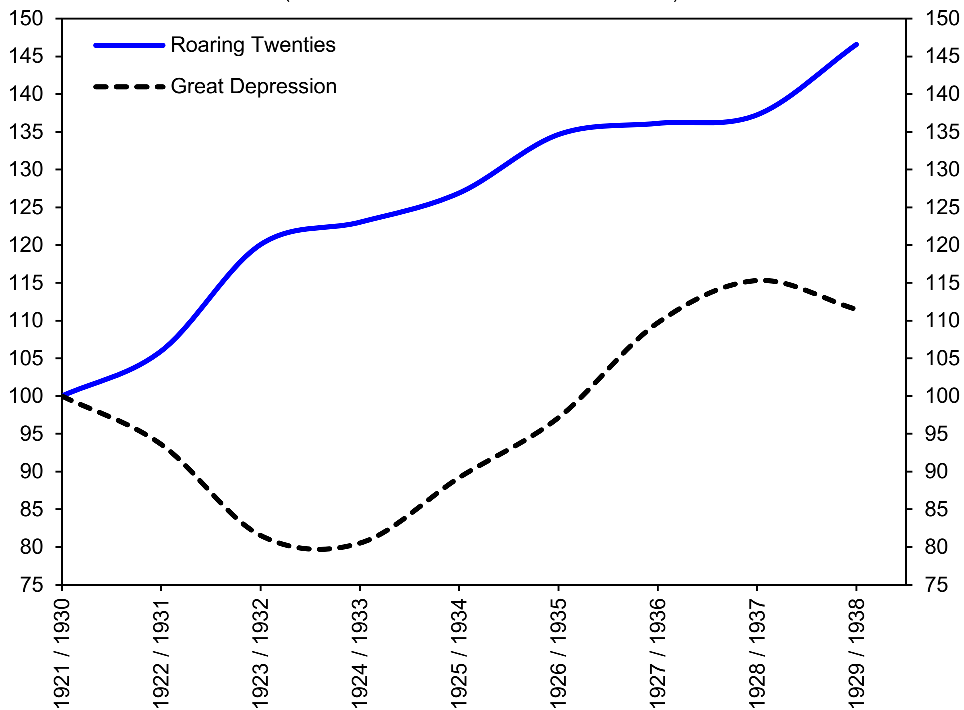


Source: U.S. Bureau of Economic Analysis, National Bureau of Economic Research

In spite of the deep dive of the Great Recession itself, the aftermath was the single worst recovery since World War II. Preceded by an equally severe deep dive, the Reagan recovery was the best recovery since World War II. These two recoveries differed by so much because of the administration of Keynesian remedies during the Great Recession and supply-side policies during the Reagan recovery. There you have it.

And if the Reagan/Obama comparison isn't enough to sway your opinion, then we can also focus our attention on another pair of equally contrasting periods: the "Roaring Twenties" and the Great Depression. In the 1920s, tax rates were cut, government spending was restrained, sound money prevailed and regulations were reasonable. In the 1930s, tax rates on the rich rose by enormous amounts, spending was out of sight, the dollar was devalued and government interfered in virtually every aspect of economic life. Now look at these results (Figure 2).

Figure 2
Real GDP: Roaring Twenties vs. Great Depression
(annual, indexed to 1921 and 1930 = 100)



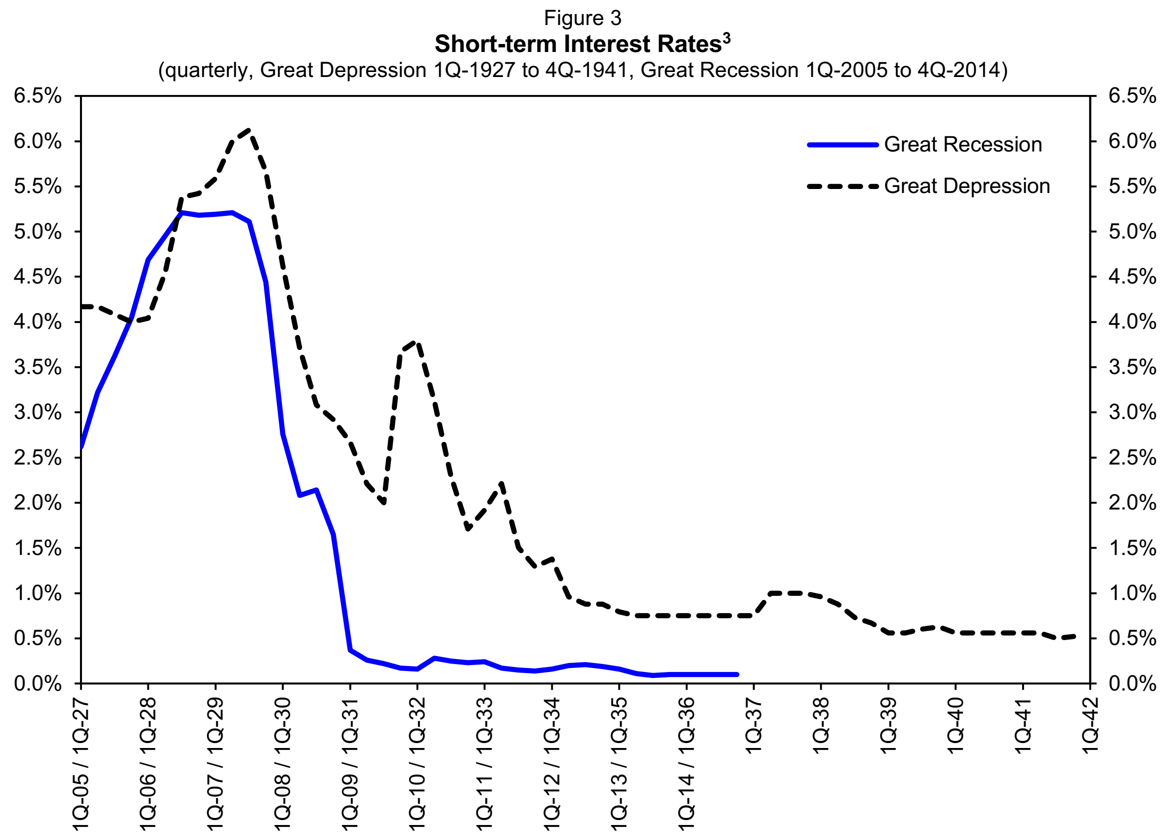
Source: Historical Statistics of the United States, U.S. Bureau of Economic Analysis

As was the case in the comparison between the Bush/Obama Great Recession period and the Reagan supply-side years, the supply-side era of the "Roaring Twenties" vastly outperformed the Keynesian era of the Great Depression. In all honesty, there wasn't even a contest. Keynesians lose again.

In the Keynesian toolkit, policy prescriptions start with quantitative easing including the printing of money, a weak dollar and, most of all, low interest rates. Quantitative easing is intended to stimulate investment, including home purchases which, in conjunction with the Keynesian concept of the multiplier, would lead to further increases in overall output, employment and income.

In the chart below I have plotted the key indicator of monetary ease for the years immediately preceding and including both the Great Depression and the Great Recession. Pretty amazing!

Figure 3
Short-term Interest Rates[3]
(quarterly, Great Depression 1Q-1927 to 4Q-1941, Great Recession 1Q-2005 to 4Q-2014)



Source: Federal Reserve Board of Governors

Remembering that the Federal Reserve System was set up in 1913, interest rates fell from some 6% in 1929 to less than 1% during the next decade. In 1933, the dollar was devalued by almost 60% in terms of gold and foreign currencies. In the last decade from 2004 through 2014, short-term interest rates fell from about 5% in 2007 to near zero from 2009 on. The monetary base rose as never before and for the beginning years the U.S. dollar was weak.

Tax rate increases on the rich don't actually fit into the Keynesian economic model *per se*, but are always adopted by Keynesians to foment class warfare. This "soak the rich," they'll agree, is not good economics, but its damn good politics which keeps Keynesians in power. To rationalize their position, Keynesians like to argue that "Tax rate increases on the rich don't really affect the earning or spending behavior of the rich all that much, but they do raise tax revenues and higher tax rates on the rich, we all agree, are fair." When push comes to shove, Keynesians also will argue that there is a second order effect on aggregate spending. The poor, they say, spend more of each additional dollar of income than do the rich. Therefore, when income is redistributed from rich to poor, total aggregate demand increases by the difference in spending proclivities.

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[3] Great Recession data series is 90-Day AA Nonfinancial Commercial Paper rates. Source: Federal Reserve Board of Governors. http://research.stlouisfed.org/fred2/series/RIFSPPNAAD90NB
Great Depression data series is the rate on 4-6 month prime commercial paper. Source: "Table #120—Short-Term Open-Market Rates in New York City, Monthly 1890-1941," *Banking and Monetary Statistics, 1914-1941, Part I*, p. 448, Federal Reserve Board of Governors.

In the table below, we compare the highest (on the rich) statutory tax rates for personal income, capital gains and corporate income for the Great Depression and Great Recession years of 1929-1939 and 2004-2014, respectively.

Table 1
Top Statutory Tax Rates: Great Depression vs. Great Recession

Year	Personal Income	Capital Gains	Corporate Income
1929	24%	12.5%	11%
1930	25%	12.5%	12%
1931	25%	12.5%	12%
1932	63%	12.5%	13.75%
1933	63%	12.5%	13.75%
1934	63%	18.9%	13.75%
1935	63%	18.9%	13.75%
1936	79%	23.7%	15%
1937	79%	23.7%	15%
1938	79%	15%	19%
1939	79%	15%	19%

Year	Personal Income[4]	Capital Gains	Corporate Income
2004	36.45%	15%	35%
2005	36.45%	15%	35%
2006	36.45%	15%	35%
2007	36.45%	15%	35%
2008	36.45%	15%	35%
2009	36.45%	15%	35%
2010	36.45%	15%	35%
2011	41.05%	15%	35%
2012	41.05%	15%	35%
2013	41.95%	23.8%	35%
2014	41.95%	23.8%	35%

Just look at what happened. In 1930, Hoover signed into law the largest tax increase on traded products in U.S. history. On January 1st, 1932, the highest marginal personal income tax rate rose from 25% to 63%. The highest personal income tax rate was then raised again on January 1st, 1936 to 79%. All kinds of other taxes were also raised at both the federal and state levels.

The differences in tax policies between the Keynesian periods of 1929-1939, 2004-2014 and supply-side periods of 1921-1929, 1981-1989 couldn't be greater. Supply-side economics is predicated on incentivizing work, output and employment by improving the marginal rate of substitution between those activities and leisure, idle capacity and unemployment through marginal tax rate reductions. In the table below are listed the individual highest marginal tax rates on personal income, capital gains and corporate income by year for each year of the two supply-side eras.

Table 2
Top Statutory Tax Rates: Roaring Twenties and Reagan Eighties

Year	Personal Income	Capital Gains	Corporate Income
1918	77%	77%	12%
1919	73%	73%	10%
1920	73%	73%	10%
1921	73%	73%	10%
1922	56%	12.5%	12.5%
1923	56%	12.5%	12.5%
1924	46%	12.5%	12.5%
1925	25%	12.5%	13%
1926	25%	12.5%	13.5%
1927	25%	12.5%	13.5%
1928	25%	12.5%	12%
1929	24%	12.5%	11%

Year	Personal Income	Capital Gains	Corporate Income
1977	70%	39.875%	48%
1978	70%	39.875%	48%
1979	70%	28%	46%
1980	70%	28%	46%
1981	70%	20%	46%
1982	50%	20%	46%
1983	50%	20%	46%
1984	50%	20%	46%
1985	50%	20%	46%
1986	50%	20%	46%
1987	38.5%	28%	40%
1988	28%	28%	34%

[4] Personal income tax rates include the employee-paid portion of the Medicare payroll tax which is not capped at certain income levels. For 2013 and 2014, this rate includes the 0.9% "Additional Medicare Tax" which was part of the Affordable Care Act legislation.

Just look at what happened. If it's tax cuts you wanted then during these two periods, it's tax cuts you got. In the Reagan era from say 1977 through 1988, the highest personal income tax rate went from 70% to 28%, and brackets were indexed for inflation. The highest capital gains tax rate went from near 40% to 20% and then back up to 28% while the corporate tax rate fell from 48% to 34%.

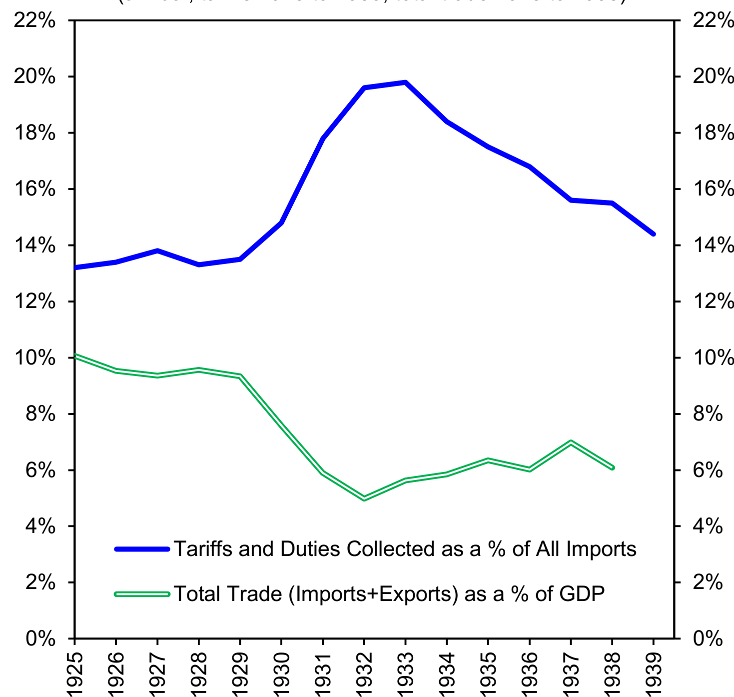
Not to be outdone, the Roaring Twenties ushered in massive cuts in tax rates as well. The highest personal income tax rate, for example, which had peaked in 1918 at 77% fell all the way down to 24% in 1929. That's amazing.

Tariffs and quotas also often accompany Keynesian prescriptions for prosperity. Higher tariffs, like devaluations, they argue, incentivize Americans to buy less from abroad and buy more at home, thereby stimulating demand for domestic products at the expense of demand for foreign products. This "improvement" in the trade balance also gets magnified according to the Keynesian mantra by their omnipresent multiplier. In the chart below, I have plotted the U.S. effective tariff rate pre and post the Smoot-Hawley Tariff legislation and total U.S. trade, exports plus imports, as a share of U.S. GDP.

Figure 4

Tariffs and Duties Collected as a % of All Imports vs. Total Trade (Imports + Exports) as a % of GDP

(annual, tariffs 1925 to 1939, total trade 1925 to 1938)



Source: U.S. International Trade Commission, UN

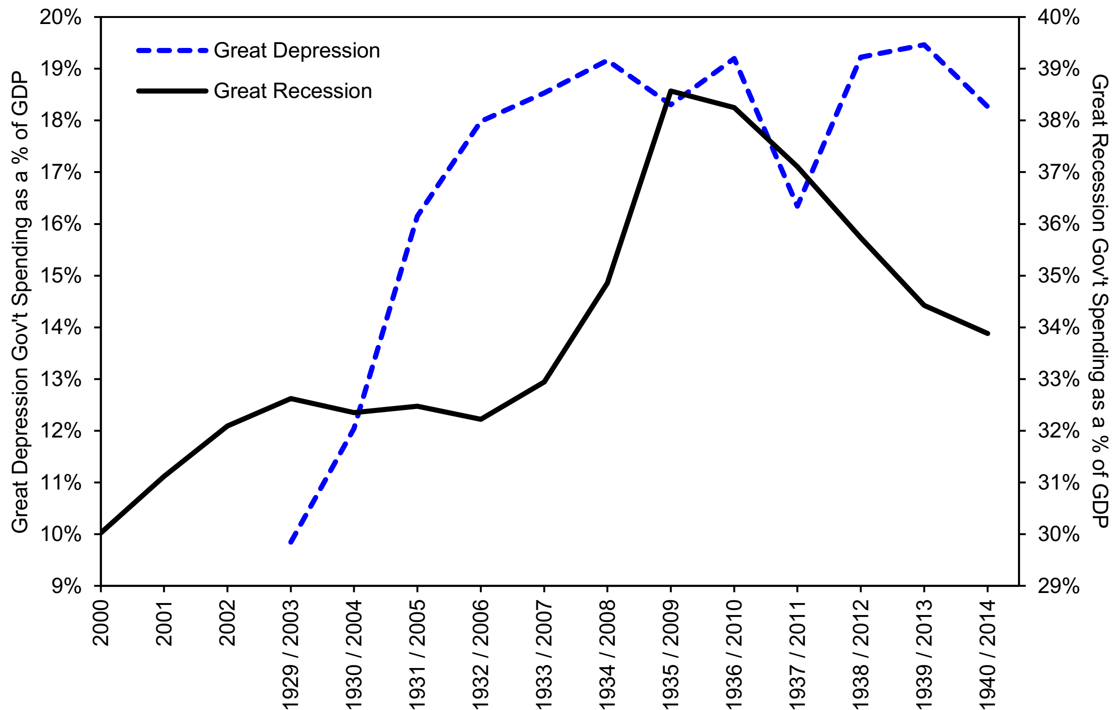
As you can see from the above chart, the huge increase in tariffs brought on by the Smoot-Hawley Tariff is precisely coincident with a more that halving of total U.S. trade. And trade, by the way, is part of the returns to income from working and investing. People work and invest to buy foreign products, and, as such, a tax on trade is precisely equivalent to taxes on income. The Smoot-Hawley Tariff was the precipitous event leading up to the Great Depression.[5]

And last, if not least, government spending as a share of GDP rose like mad during both the Great Depression and the Great Recession. Keynesians advocate increased government spending—the more the better. Again, their logic is to stimulate aggregate demand which, to them, is the increase in government spending times the multiplier. By putting more spending power in people's hands, especially lower income people's hands, aggregate demand will increase, as will the economy, output and employment. Voila. There you have it—their recipe for economic prosperity.

[5] For more discussion on the Smoot-Hawley Tariff's role in causing the Great Depression, see: Jude Wanniski, *The Way the World Works*, Regnery, Washington, DC, 1978.

In the chart below, I have plotted total government spending as a share of GDP for the periods encompassing both the Great Depression and the Great Recession.

Figure 5
Government Spending as a % of GDP
(annual, includes federal, state and local spending, NIPA-Basis, Great Depression 1929 to 1940, Great Recession 2000 to 2014)



Source: U.S. Bureau of Economic Analysis

Government stimulus spending is the single most important policy instrument in the Keynesian arsenal. Without further adieu, Keynesians believe that in times of underachievement, an additional dollar of government spending will have a magnified impact on output and employment. As a result, as seen in the chart above, from 1929 through 1939, government spending grew from 9.8% of GDP to 19.5%, and from 2000 through 2009 grew from 30.0% of GDP to 38.6%.

And what were the consequences of these policies? It's fair to write that the Great Depression was the single worst period in the American economy's long historical record, followed by the second worst period called the Great Recession. In 1939, President Roosevelt's Secretary of the Treasury Henry Morgenthau had this to say about Keynesian economics:

> *Now, gentlemen, we have tried spending money. We are spending more than we have ever spent before and it does not work…I say after eight years of this Administration we have just as much unemployment as when we started…And an enormous debt to boot!*[6]

To supply-siders, the old adage often repeated by Professor Milton Friedman, "Government spending is taxation," is their guiding light. Whenever government spends, it takes resources from some and gives those resources to others. Those from whom government takes resources are "the taxed," while those to whom government gives resources are "the subsidized." The tooth fairy no longer works at the U.S. Treasury. For supply-side economics, cutting government spending is an economic stimulant, while for Keynesians, cutting government spending is a depressant. In Figure 6 I have plotted government spending as a share of GDP for the Reagan Eighties. During the Roaring Twenties we know government spending did not rise appreciably, but the comparable data for the chart simply don't exist.

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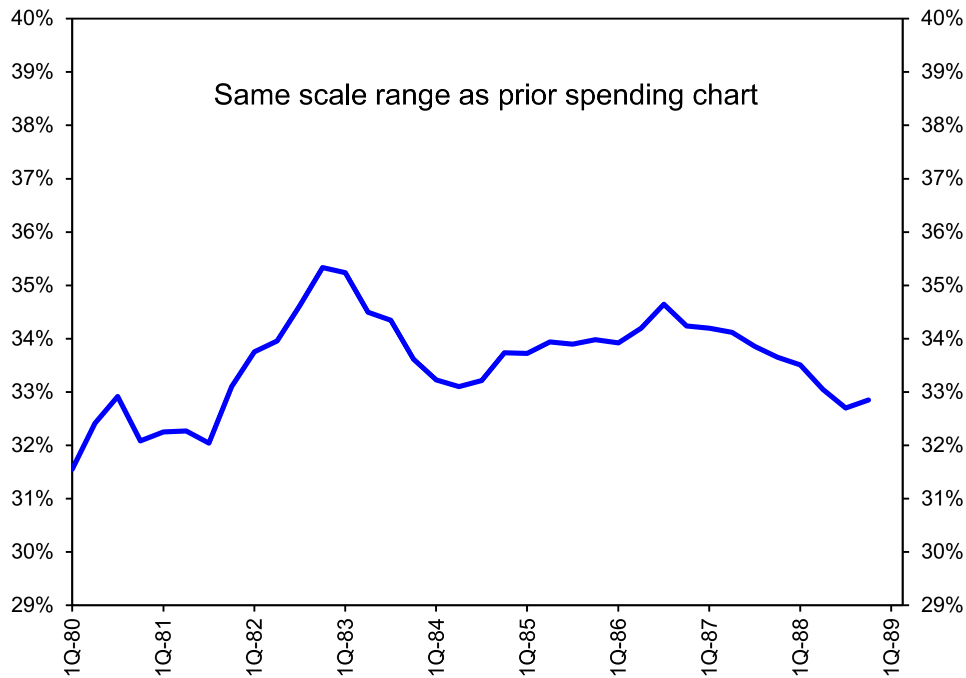
[6] "May 9, 1930," Henry Morgenthau Diary, Microfilm Roll #50, Franklin D. Roosevelt Library, Hyde Park, New York, 1939. http://www.burtfolsom.com/wp-content/uploads/2011/Morgenthau.pdf

Figure 6
Total Government Spending as a % of GDP
(quarterly, includes federal, state and local spending, NIPA-Basis, 1Q-1980 to 4Q-1988)



Source: U.S. Bureau of Economic Analysis

Both the Reagan Eighties and the Roaring Twenties were periods of spending restraint, diametrically opposed to the spending patterns of the Great Depression and the Great Recession.

And, of course, the Roaring Twenties and the Reagan Eighties were two of the best periods in U.S. history and represent supply-side economic policies.

The evidence for Keynesian economic prescriptions in times of crisis harkens back to another old adage "Whenever people make decisions when they are either panicked or drunk, the consequences are rarely attractive." If you are as convinced as I am of the healing powers of free markets, thus the title of this paper "*Vis Medicatrix Naturae*," then the ideal public policies should be: a.) a low rate broad-based flat tax, b.) spending restraint, c.) sound money, d.) free trade and e.) minimal regulations. And, at no time are these healing powers of free markets more important than during periods of crisis. In times of crisis the motto should be "Don't just stand there, undo something!" History and free markets have our back.

The point that baffles me even more than the aforediscussed abject failures of Keynesian economic policies is the even greater failure of Keynesian economists' common sense. Just how can highly reputed economists with their long pedigrees get everything so wrong? I mean seriously, who would actually believe that:

i.) an economy can be taxed into prosperity,
ii.) a poor man can spend his way into wealth,
iii.) low interest rates increase the supply of mortgages,
iv.) redistribution from rich to poor increases the number of rich and reduces the number of poor and finally
v.) taxing work and paying for non-work increases the amount of work.

And yet there they go!

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