Calculating the Impact of Asset Bubbles

The larger an asset bubble, the greater the economic impact will be on the economy. Historic episodes of asset bubbles, some of which were not that significant, mostly affected the economic circumstances of a limited number of individuals. Though relatively impoverished by the crash of an asset bubble, many would go on to re-capture wealth through other ventures. In other episodes, some would face permanent ruination and never recover. Yet in all such episodes, the distribution of income, though affected by the crash of an asset bubble, would largely remain as unequal some ten years after a crash as just before it erupted.

None of this diminishes the greater impact of an asset bubble crash on the larger population. For many who had neither income nor investments to experience the rise and fall of an asset bubble, their lives were nevertheless still affected by such events.

We can characterize the impact of an asset bubble in terms of several sequential phases. In the first phase, the wealth of some increases disproportionately to other members of society as an asset bubble emerges. Rising wealth leads to larger private spending, often on better housing, clothing, food, and other items that reflects one's new status. In turn, others seek to emulate this behavior as they also engage in herd purchases of assets. Much of this was well described in Thorstein Veblen's 1899 classic, *The Theory of the Leisure Class*. It also was noted in Charles MacKay's *Extraordinary Popular Delusions and the Madness of Crowds*, as well as in Gustave LeBon's 1895 classic, *The Psychology of Crowds*.

All of these writings point to the importance of psychology in influencing human behavior, and in particular to how people respond to asset bubbles. Research since then has blossomed into the fields of behavioral economics and behavioral finance to

explain various anomalies such as why people hold on to assets even when returns are negative. Economics Nobel Prize winner Daniel Kahneman has written about such questions in his 2011 popularization of research in the field, *Thinking, Fast and Slow*. Yet even with a much closer incorporation of insights from psychology, the question of predicting asset bubbles remains elusive.

What, then, can be said beyond the upside of asset bubbles? Since they lead to short-term expansions in asset prices, and thus wealth valuations, what happens when asset bubbles crash. Markets are remarkable in their ability to absorb new information on which agents can act. The very volatility of a typical trading day illustrates the impact of new information cascades. The information can be political, as in some far off or even nearby political upheaval, or it can be economic as investor sentiment shifts in response to accumulating evidence.

What we do know is that the optimism that may have originally driven the upward movement in an asset slowly comes to a halt, leading to a selloff in assets, often in a sudden fashion until some bottom is reached, and a lower level equilibrium is established. A pithy way of putting this is the classic contest between greed and fear. In an expanding asset market bubble, greed overwhelms fear. When a crash unfolds, the opposite emotion has taken over. And such downward shifts in sentiment can be as herd-driven as the upward ones that drove a bubble in the first place.

Tracking the Impact of Asset Bubbles.

1. **The Mississippi Bubble** – Under Louis XV, Scottish financier John Law introduced one of the first swaps, switching government debt for equity notes to reduce France's public debt and to finance investment in New France. A bubble quickly ensued, only to be followed by a sharp collapse.

When the bubble crashed, the French turned from reliance on equity markets for more than a century. In the process, the French became enamored of holding physical assets such as property and precious metals, especially gold, as a hedge against both inflation and asset bubbles.

As European economic integration has proceeded in recent years, France has strengthened its financial institutions consistent with its position as the world's fifth largest economy. What it shares with continental European economies such as Germany and Italy is a lower market capitalization ratio than in comparable but more "capitalistic" economies such as the United Kingdom and the United States. Although European economies are not immune to financial crises (Ireland and Iceland serve as recent examples), Germany and France have managed to avoid the larger gyrations that unfolded in the years of the Great Recession that began in 2007.

The World's Largest Economies in 2014			
	Market Cap Ratio	Mkt Cap per Capita	Per Capita GDP
China	*50.51*	$6,369.02	$12,609
France	*68.57*	$25,519.48	$37,218
Germany	*42.79*	$18,588.14	$43,444
Italy	*22.66*	$7,495.93	$33,078
Japan	*62.75*	$22,361.12	$35,635
United Kingdom	*120.39*	$45,282.49	$37,614
United States	*120.88*	$63,001.08	$52,118

2. **The Great Depression of the 1930's and the 2008 Great Recession in the U.S**.

The Great Depression of the 1930's began with the stock market crash beginning in October 1929. During the 1920s the stock market reach unprecedented heights, fueled in part by a wave of mass consumer innovations, and also by a wave of speculation in equity markets that were then largely unregulated.

The Great Depression came on the heels of previous financial waves: 1837, 1873, and 1907 in particular. During the 1907 crash, J.P. Morgan crafted a coalition of banks to keep the economy from a steep decline, and which precipitated the creation of the Federal Reserve Bank in 1913. Despite the existence of the Federal Reserve, it opted for a tight money policy when the stock market crashed in 1929, and in the ensuing months, unemployment reached 25 percent by the time Franklin D. Roosevelt was sworn in office in March 1933.

In response to the Great Depression, the U.S. adopted a number of measures to restore confidence in financial markets and in the economy in general, most of which came under the New Deal legislation FDR put forth in his first 100 days in office: Glass-Steagall, FDIC, FSLIC, and SEC focused on financial regulation, while Social Security, the CCC, and a number of other institutions covered other aspects of economic recovery. By the beginning of World War II, the U.S. was already moving away from the Great Depression, leading many to conclude that bubble crises were a thing of the past. Such fanciful wishes have been dispelled by more recent events – in 1973, 2000, and in 2008.

Here we post in graphic terms some key measures of the dynamics of asset bubbles and their economic impact:

Figure 1

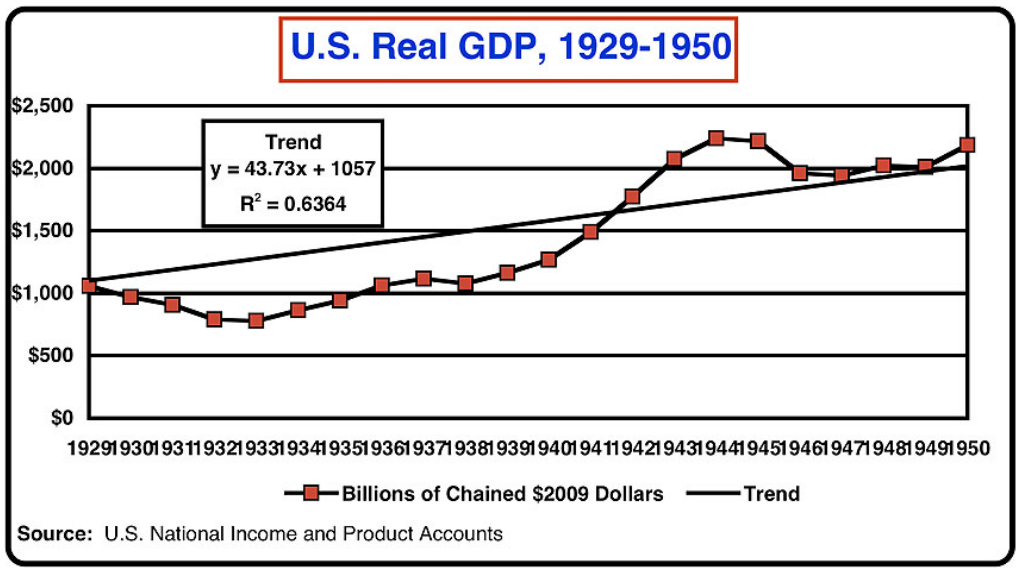


Figure 2

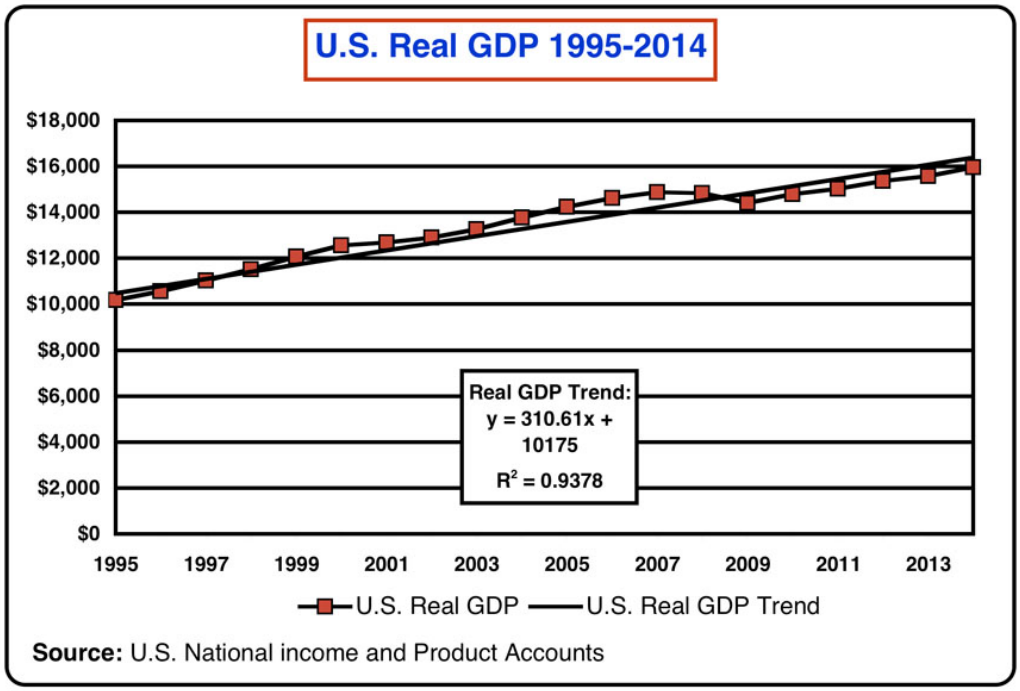


Figure 3

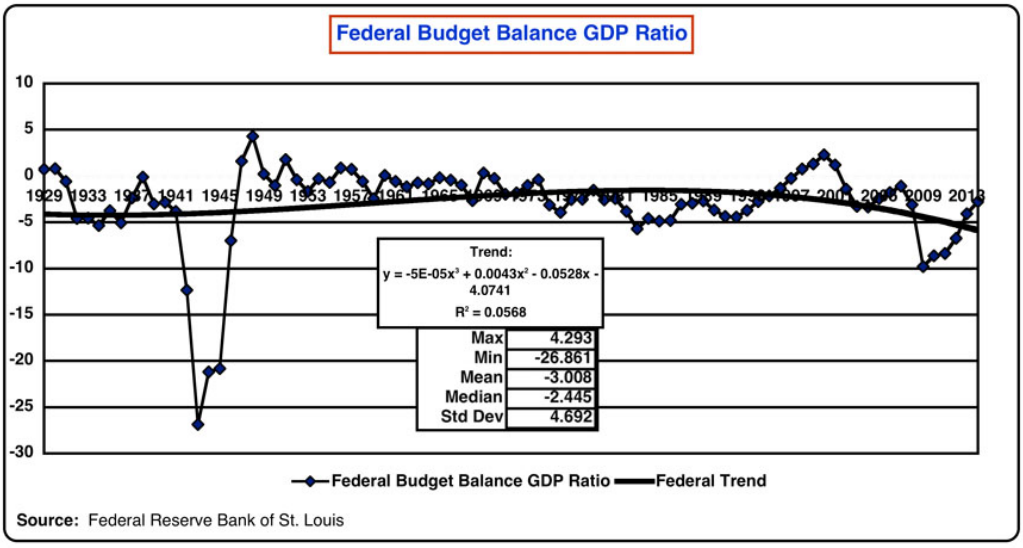


Figure 4

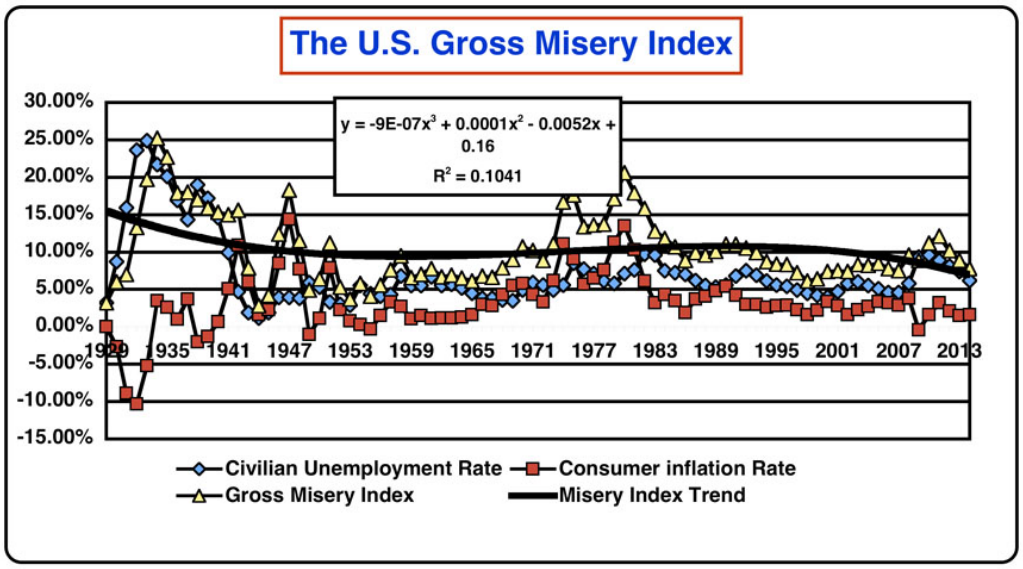
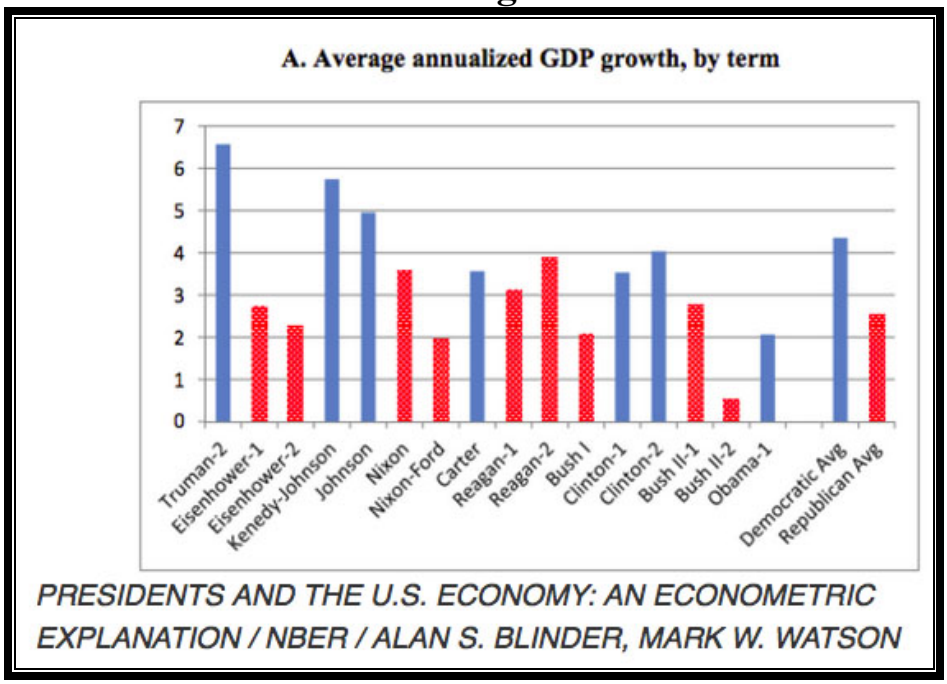


Figure 5

President	Party	Months In Office	Total Return	Avg Ann Return	Avg Mon Return	Monthly Std Dev	Monthly Ret/Rsk	Mon Avg Ovr Year	Year Std Dev	Year Ret/Rsk
William McKinley	Republican	20	10.61%	6.36%	0.69%	5.72%	0.12	n/a	n/a	n/a
Theodore Roosevelt	Republican	90	10.96%	1.46%	0.28%	5.60%	0.05	5.39%	27.68%	0.19
William Taft	Republican	48	(1.23%)	(0.31%)	0.04%	3.75%	0.01	3.98%	27.73%	0.14
Woodrow Wilson	Democratic	96	(7.50%)	(0.94%)	0.12%	6.23%	0.02	1.83%	23.35%	0.08
Warren Harding	Republican	29	16.22%	6.71%	0.60%	4.10%	0.15	8.04%	21.51%	0.37
Calvin Coolidge	Republican	67	268.60%	48.11%	2.08%	4.74%	0.44	19.73%	16.63%	1.19
Herbert Hoover	Republican	48	(83.91%)	(20.98%)	(2.93%)	12.65%	(0.23)	(24.04%)	34.87%	(0.69)
Franklin Roosevelt	Democratic	145	201.96%	16.71%	1.00%	6.92%	0.14	11.48%	33.43%	0.34
Harry Truman	Democratic	93	88.96%	11.48%	0.75%	3.60%	0.21	8.91%	12.73%	0.70
Dwight Eisenhower	Republican	96	111.34%	13.92%	0.84%	3.42%	0.25	11.85%	16.26%	0.73
John Kennedy	Democratic	34	22.76%	8.03%	0.68%	3.98%	0.17	5.71%	13.95%	0.41
Lyndon Johnson	Democratic	62	24.90%	4.82%	0.43%	3.82%	0.11	5.64%	10.59%	0.53
Richard Nixon	Republican	67	(19.72%)	(3.53%)	(0.24%)	4.05%	(0.06)	(0.19%)	13.19%	(0.01)
Gerald Ford	Republican	29	32.63%	13.50%	1.15%	5.92%	0.19	8.65%	22.08%	0.39
James Carter	Democratic	48	(4.08%)	(1.02%)	(0.00%)	4.08%	(0.00)	(1.94%)	9.35%	(0.21)
Ronald Reagan	Republican	96	125.13%	15.64%	0.97%	4.92%	0.20	12.90%	19.79%	0.65
George H Bush	Republican	48	52.26%	13.07%	0.96%	3.96%	0.24	12.67%	9.63%	1.32
William Clinton	Democratic	96	226.75%	28.34%	1.33%	4.09%	0.32	16.46%	12.12%	1.36
George W Bush	Republican	96	(18.64%)	(2.33%)	(0.13%)	4.18%	(0.03)	1.51%	13.88%	0.11
Barack Obama	Democratic	43	48.22%	13.46%	1.04%	4.80%	0.22	5.42%	20.65%	0.26
Total	**Republicans**	**734**	**332.09%**	**5.43%**	**0.38%**	**5.56%**	**0.07**	**6.37%**	**22.13%**	**0.29**
Total	**Democrats**	**617**	**787.31%**	**15.31%**	**0.73%**	**5.22%**	**0.14**	**8.00%**	**20.25%**	**0.39**

Figure 6



Does any of this lead to a political explanation of asset bubbles? As Blinder and Watson point out, the answer is "no". Too many external factors shape a political administration for such facile

comparisons to be meaningful. What this leaves is the recognition that bubbles can create momentary euphoria, followed by years of adjustment across political administrations. And it leaves open the question of what can be done with regard to moderating asset bubbles in the future.