

# Greenspanism and Its Discontents

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October 2, 2008 DRAFT: PRELIMINARY AND INCOMPLETE

## Introduction

### Greenspanism

For more than a decade now I have been a believer in and a propagandist for Greenspanism—the doctrine promulgated by former Federal Reserve Chair Alan Greenspan that central banks should ignore what is going on in asset markets and focus on low inflation and full employment instead, for central banks are not especially good judges of whether there is an asset bubble and if asset markets do succumb to a bubble followed by a crash it will be cheaper to clean up the mess afterwards than to have stamped out the bubble by raising unemployment and discouraging investment and accumulation through tight monetary policy beforehand.

For more than a decade I have been a believer in and a propagandist for Greenspanism. A year ago I was as true a believer as you could find. I held that the failure of the post-internet bubble 2000-2001 recession to gather strength was evidence that Greenspanism was correct. As Greenspan said in 2004 at the Federal Reserve Bank of Kansas City's Jackson Hole conference, looking back at the recession and the recovery that had followed the collapse of that dot-com bubble:

The sharp rise in stock prices and their subsequent fall were, thus, an especial challenge to the Federal Reserve. It is far from obvious that bubbles, even if identified early, can be preempted at lower cost than a substantial economic contraction and possible financial destabilization--the very outcomes we would be seeking to avoid.... The notion that a well-timed incremental tightening could have been calibrated to prevent the late 1990s bubble while preserving economic stability is almost surely an illusion.... [W]e chose... to focus on policies "to mitigate the fallout when it occurs and, hopefully, ease the transition to the next expansion."... There appears to be enough evidence, at least tentatively, to conclude that our strategy of addressing the bubble's consequences rather than the bubble itself has been successful...<sup>1</sup>

The underlying idea—supported by the small size of the 2000-2001 recession—is that the first priority of the central bank is to maintain low consumer price inflation, and that the second priority is (given low current and forecast consumer price inflation) to maintain maximum employment and purchasing power, and the third priority of the central bank is that there is no third priority.

Opposed to Greenspanism is a doctrine that I call Mussaism, after former IMF Chief Economist Michael Mussa. Mussaism holds that there are not one but two constraints on central bank activity to pursue maximum employment, purchasing power, and growth. The central bank must insure that:

1. Interest rates must be kept high enough to maintain confidence in price stability and to stamp out any incipient inflationary spiral in wages and consumer prices.
2. Interest rates must be kept high enough to stamp out any incipient asset market bubble before it gets to be large enough that its collapse would cause macroeconomic distress.

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<sup>1</sup> See <<http://www.federalreserve.gov/boarddocs/speeches/2004/20040103/default.htm>>

Only after it has successfully achieved these two higher priorities can it then even begin to worry about:

3. Maintaining maximum employment, purchasing power, and growth.

Consider this typical example written by Mussa for the Peterson Institute of International Economics at about the same time that Greenspan was congratulating the Federal Reserve for its wisdom in not acting preemptively to damp down the dot-com bubble:<sup>2</sup>

Policy interest rates are exceptionally low.... The very low level of policy interest rates is an imbalance... [that] poses an important challenge for the future conduct of monetary policy.... [T]hese situations tend to be associated with high valuations of equities, real estate, and long-term bonds, which can become fertile ground for large, unsustainable increases in asset prices.... [I]f monetary policy remains too easy for too long... large asset price anomalies may develop before corrective action is taken. The monetary authority would then confront the grim choice of trying to keep an unsustainable asset price bubble alive or trying to combat the collapse of such a bubble without a great deal of room for monetary easing...

And, Mussaites argue, the collapse of such a bubble can create a grim situation indeed: all the problems of Irving Fisher's debt-deflation without the initial consumer price deflation.<sup>3</sup>

The Greenspanist reply to the Mussaites, a reply I believed 99% a year and a half ago, 90% a year ago, and 60% last March, is that creating unemployment and idle factories because you are scared of what might

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<sup>2</sup> Michael Mussa (2004), "Global Economic Prospects: Bright for 2004 but with Questions Thereafter" (Washington: Institute for International Economics: April 1) <<http://www.iie.com/publications/papers/mussa0404.htm>>

<sup>3</sup> See J. Bradford DeLong (1999), "Should We Fear Deflation?" *Brookings Papers on Economic Activity* <<http://www.scribd.com/doc/6225781/DeLong-Should-We-Fear-Deflation>>

happen when irrational exuberance dies away and asset prices collapse is an error. Modern central banks are powerful. Modern central banks can successfully manage whatever crisis is provoked by the end of an episode of irrational exuberance when it happens, and not before: it is easier to sweep after the elephants have gone through than to try to stop them—especially when stopping them requires the destruction of millions of jobs.

After the forced fire-sale mergers and liquidations of Bear Stearns, Merrill Lynch, Wachova, and WaMu; after the bankruptcy of Lehman Brothers; after the nationalizations of AIG, FHLMC, and FNMA; after the transformation of Morgan Stanley and Goldman Sachs into bank holding companies to put them under the Federal Reserve's clear regulatory wing; after the jokes about how the Swiss government might be able to recapitalize UBS but then who is going to recapitalize Switzerland; after a Treasury-Eurodollar spread of 3.6% per year; after a year of non-standard monetary policy that has left Treasury bill interest rates under 0.4% per year and the Federal Reserve with only \$18 billion in Treasury Bills in its portfolio; after Federal Reserve Chair Bernanke's and Treasury Secretary Paulson's urgent request for the power to issue \$700 billion in Treasury securities and use it to buy up mortgage-backed securities on whatever terms they deem acceptable—it is very hard to believe in Greenspanism. The magnitude of the financial chaos surrounding us and its likely consequences in heightened unemployment appear likely to be more distressing than would have been the cost of higher interest rates and greater regulatory controls on mortgage lending earlier to head off the episode of irrational exuberance.

## **Central Bankers**

As important and as interesting as the episode of financial distress created by the end of the 2000s housing bubble has been the regulatory reaction to it by the Federal Reserve and the Treasury. To call it non-standard monetary policy is not to do it justice. Both the Federal Reserve and the Treasury are attempting things that have never been attempted before.

For more than 170 years, it has been accepted doctrine that the market is not to be trusted in a liquidity squeeze. When the prices of even safe assets fall and interest rates reach sky-high levels because the traders and financiers in the markets collectively want more liquid assets than exist, it is simply not safe to let the market sort it out. The central bank must step in: it must set the price of liquidity at a reasonable level—make it a centrally-planned and administered price—rather than let it swing free in response to private-sector supply and demand. This is the doctrine of the lender-of-last-resort.

For more than half that time—say, 85 years—it has been accepted doctrine that the market is not to be trusted even in normal times lest it lead to a liquidity squeeze or to an inflationary bubble. The central bank must make the price of liquidity in the market a centrally-planned, administered price day in and day out. It must keep the market rate of interest near the natural rate of interest, said the followers of Knut Wicksell; it must offset swings in business animal spirits in order to stabilize aggregate demand, said the followers of John Maynard Keynes; it must keep the velocity-adjusted rate of growth of the money stock stable, said the followers of Milton Friedman—but if you do any one of these things you have done them all, for they are three ways of describing what is at bottom the same task and the same reality.

Thus as social democracy, government guideposts, and centralized planning waxed and waned elsewhere in the economy, social democracy in short-term finance went from strength to strength. First central banks suspended the rules of the free market in liquidity squeezes. Then central banks set the price of liquidity as an administered price in normal times. Then central bankers freed themselves of all but the lightest contact with their political masters: they became independent technocrats, a monetary priesthood that spoke in Delphic terms obscure to mere mortals.

The justification for this system was that it seemed to work well—or at least to work less badly than central banking that blindly adhered to the gold standard or than no central banking as well. This island of central planning in the midst of the market economy was a strange and puzzling feature—and even stranger was that few remarked how strange it was. There were no calls for a five-percent-growth-of-kilowatt hours rule as

their were calls for a five-percent-growth-of- $M_2$  rule. There was no Federal Automobile Board to set the price of vehicles the way the Federal Reserve Board set the price of federal funds.

But now it appears that the Federal Reserve and the Treasury believe that the traditional tools are not enough. The price of liquidity has been a price administered by the central banking authority for nearly two centuries. But the price of risk has been left to the tender mercies of the market. Now the price of liquidity has been driven to zero. Yet neither the Federal Reserve nor the Treasury believes that it has done enough.

Our problem today is not that the world economy faces a liquidity squeeze. Far from it: \$1,000 face value of two-year U.S. Treasury notes will get you \$998 in cash—a lower price of liquidity than had ever been seen before outside the Great Depression and Japan in the 1990s. Yet the risk premiums on non-Treasury assets have soared to barely believable heights: a five percentage point per year interest rate premium for holding a CD issued by a private bank rather than a Treasury bond issued by a public government. And it is this rise in the risk premiums that threatens to send the global economy into a deep recession, and turn the financial markets from a spectacle of schadenfreude into a malign source of unemployment and idled factories worldwide.

The U.S. Federal Reserve, the U.S. Treasury, the ECB, the Bank of England, and other public financial regulatory entities are being pushed down the road toward a further expansion of their role. Expanding the demand and reducing the supply of these risky assets is a way of manipulating the price of risk. The Federal Reserve and the Treasury are walking down a road that ends with making the price of risk in financial markets as well as the price of liquidity an administered price.

This was how central banking got started in the first place: letting the market and the market alone determine the price of liquidity was judged too costly for the businessmen who voted and the workers who could overthrow governments to bear. Now it looks as though letting the market alone determine the price of risk is being judged similarly too costly for today's voters and campaign contributors to bear.

## The Model

How are we to evaluate the relative merits of Greenspanism and Mussaism? How are we to understand and make sense of the non-standard monetary policy—if it is monetary policy—that the Federal Reserve and the Treasury are now conducting?

We are economists, so we need a model.

Start with a risky asset—call it “home mortgages” available in supply  $H$ . With probability  $1/(1+\theta)$ , each unit of the risky asset returns a nominal value of 1—this is a financial asset, after all—with probability  $\theta/(1+\theta)$ , each unit of the risky asset is worthless: returns value of 0. This risk is *systemic*: it cannot be diversified away.

The risky asset must be held by financiers, who have aggregate wealth  $W$  and log utility: constant relative risk aversion utility function with relative risk aversion of 1:

$$(1) \quad U_{\text{financiers}} = \ln(C)$$

Financiers invest a fraction  $\omega/(1+\omega)$  of their wealth in the risky asset which they purchase at a market equilibrium price  $1/R$ , invest the rest of their wealth in a safe asset that returns a nominal interest rate  $i$  set by the central bank, and then spend their total returns on consumption, as in:

$$(2) \quad U_{\text{financiers}} = \left(\frac{1}{1+\theta}\right) \ln\left(W\left((1+i) + \left(\frac{\omega}{1+\omega}\right)(R-(1+i))\right)\right) + \left(\frac{\theta}{1+\theta}\right) \ln\left(W\left((1+i) - \left(\frac{\omega}{1+\omega}\right)(1+i)\right)\right)$$

The first order condition is then:

$$(3) \quad 0 = \frac{dU_{\text{financiers}}}{d\omega} = \frac{(R-(1+i))}{\left((1+i) + \left(\frac{\omega}{1+\omega}\right)(R-(1+i))\right)} + \frac{-\theta(1+i)}{\left((1+i) - \left(\frac{\omega}{1+\omega}\right)(1+i)\right)}$$

Solving:

$$(4) \quad \frac{(R-(1+i))}{((1+i) + \omega R)} = \frac{\theta(1+i)}{(1+i)}$$

$$(5) \quad \theta\omega R = R - (1 + \theta)(1 + i)$$

We obtain the share parameter:

$$(6) \quad \omega = \frac{1}{\theta} - \left( \frac{1 + \theta}{\theta} \right) \frac{(1 + i)}{R}$$

Since all M of the risky mortgage asset must be held:

$$(7) \quad W \left( \frac{\omega}{1 + \omega} \right) = H$$

Then:

$$(8) \quad \omega = \frac{H/W}{1 - H/W}$$

must hold in equilibrium. Combining:

$$(9) \quad \frac{H/W}{1 - H/W} = \frac{1}{\theta} - \left( \frac{1 + \theta}{\theta} \right) \frac{(1 + i)}{R}$$

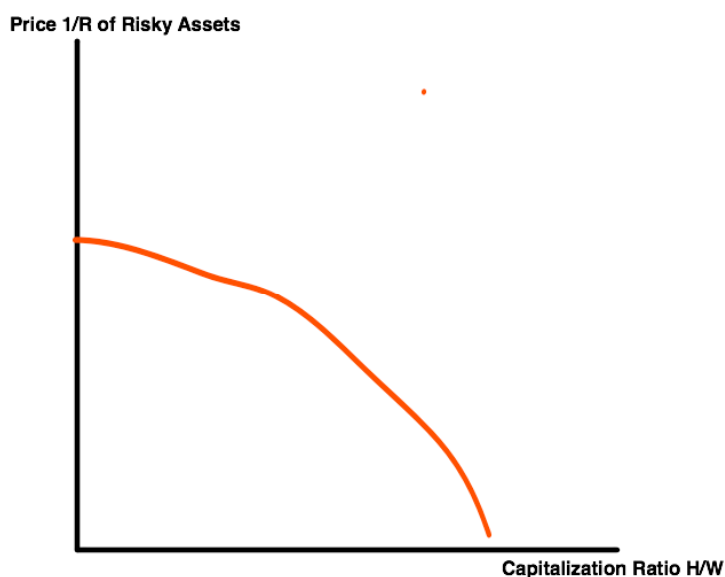
And solving for 1/R, the price of the risky asset:

$$(10) \quad \frac{\theta(H/W)}{1 - (H/W)} = 1 - \frac{(1 + \theta)(1 + i)}{R}$$

$$(11) \quad \frac{(1 + \theta)(1 + i)}{R} = \frac{1 - (1 + \theta)(H/W)}{1 - (H/W)}$$

$$(12) \quad \frac{1}{R} = \left( \frac{1}{1 + i} \right) \frac{1 - (1 + \theta)(H/W)}{(1 + \theta) - (1 + \theta)(H/W)}$$

**Figure 1: Price of Risky Assets as a Function of Capitalization Ratio  $H/W$  for Constant  $i$  and  $\theta$**



Everything makes obvious sense. The price of risky mortgages  $1/R$  is greater:

- The lower is the safe central-bank controlled nominal interest rate  $i$ .
- The lower is the chance of financial collapse  $\theta$ .
- The greater is the wealth  $W$  of the financiers.
- The lower is the amount  $H$  of risky mortgages to be held.

We assert that the Federal Reserve and the Treasury aim for economic stabilization, and this requires that the price of risky assets  $1/R$  meet whatever target level that they believe is consistent with price stability and full employment. In this framework the limits of traditional monetary policy are clear. Even if expansionary open market operations drive the real short-term safe interest rate to zero—at which point under price

stability at least there is no more power available to standard monetary policy because open market operations then involve the swap of one zero-return government asset (reserves) for another zero-return government asset (bills) and have no effect on any other portfolio choices—standard monetary policy cannot drive the price of risky assets above:

$$(13) \quad \frac{1}{R^*} = \frac{1 - (1 + \theta)(H/W)}{(1 + \theta) - (1 + \theta)(H/W)}$$

If that level of risky asset prices  $1/R^*$  is insufficient for economic stabilization at a high level of employment, then the central bank is in trouble.

The first of the three tasks of model-building has been accomplished. Now it is clear how a bubble and its collapse can create the dangers that Mussaism warns us we need to guard against by restrictive monetary policy even in the absence of consumer price inflation. A bubble will produce overinvestment—an increase in  $H$ . The collapse of a bubble will also produce a sharp reduction in financiers' wealth—a fall in  $W$ —because many of those who profited from riding the bubble up will have cashed out and withdrawn from the market. (The environment of fear in the aftermath of a bubble may also produce a rise in  $\theta$  as well.)

There remain two more tasks of model-building. First, we need a theory of bubbles—of how relaxed monetary policy tends to create them, of how they grow and how their growth increases  $H$ , of when they collapse, and of how their collapse affects  $W$  (and possibly  $\theta$ ). Second, we need a theory of what the central bank can and should do to move  $1/R$  to a level consistent with economic stability: What should it do to affect  $\theta$ ,  $H$ , and  $W$  assuming it has done everything it can to reduce  $i$  already? What can it do to affect  $\theta$ ,  $H$ , and  $W$ ?

**Bubbles: Their Creation and Growth**

**Bubbles: Their Aftermath**

**Conclusion**