## The Return of The Bear

Figure 1: Asset Prices versus Consumer Prices since 1890


Far be it from me to underestimate the stock market's capacity to pluck the embers of delusion from the fire of reality. However, the crash in the past few days may be evidence that sanity is finally making a comeback. What many hoped was a new Bull Market was instead a classic Bear Market rally, fuelled by the market's capacity for self-delusion, accelerating private debt, and-thanks to QE2-an ample supply of government-created liquidity.

That Rally ended brutally in the last week. The S\&P500 has fallen almost 250 points in a just two weeks, and is just a couple of per cent from a fully-fledged Bear Market.

Figure 2: "Buy \& Hold" anyone?
S\&P500 Since 2000

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The belief that the financial crisis was behind us, that growth had resumed, and that a new bull market was warranted, have finally wilted in the face of the reality that growth is tepid at best, and likely to give way to the dreaded "Double Dip". The "Great Recession" - which Kenneth Rogoff correctly noted should really be called the Second Great Contraction-is therefore still with us, and will not end until private debt levels are dramatically lower than today's 260 per cent of GDP (see Figure 4).

Figure 3: Growth peters out
USA Real GDP Growth Rate


With reality back in vogue, it's time to revisit some of the key insights of the one great economic realist of the last 50 years, Hyman Minsky. A good place to start is Figure 1 above, which shows the relationship between asset prices and consumer prices in America over the last 120 years.

One essential aspect of Minsky's Financial Instability Hypothesis was the argument that there are two price levels in capitalism: consumer prices, which are largely set by a markup on the costs of production, and asset prices, which are determined by expectations and leverage. Over the very long term, these two price levels have to converge, because ultimately the debt that finances asset purchases must be serviced by the sale of goods and services-you can't forever delay the Day of Reckoning by borrowing more money. But in the short term, a wedge can be driven between them by rising leverage.

Unfortunately, in modern capitalism, the short term can last a very long time. In America's case, this short term lasted 50 years, as debt rose from 43 per cent of GDP in 1945 to over 300 per cent in early 2009. The finance sector always has a proclivity to fund Ponzi Schemes, but since World War II this has been aided and abetted by a government and central bank nexus that sees rising asset prices as a good thing.

The most egregious cheerleader for asset price inflation was Alan Greenspan. That's why l've marked Greenspan on Figure 1 and Figure 4: if his rescue of Wall Street after the 1987 Stock Market Crash hadn't occurred, it is quite possible that the unwinding of this speculative debt bubble could have begun twenty years earlier.

US Private Debt to GDP Ratio


A mini-Depression would have resulted, as deleveraging drove aggregate demand below aggregate supply, but it would have been a much milder event than both the Great Depression and what we are experiencing now. The debt to GDP ratio in 1987 was slightly lower than at the start of the Great Depression ( 159 versus 172 per cent), inflation was higher ( 4.5 per cent versus half a per cent), and the "automatic stabilizers" of government spending and taxation would have attenuated the severity of the drop in aggregate demand.

Instead, Greenspan's rescue—and the "Greenspan Put" that resulted from numerous other rescues-encouraged the greatest debt bubble in history to form. This in turn drove the greatest divergence between asset and consumer prices that we've ever seen.

The crisis began in late 2007 because rising asset prices require not merely rising debt, but accelerating debt. The great acceleration in debt that the Federal Reserve encouraged and the US financial system eagerly financed, ended in 2008 (see Figure 5). From 1950 till 2008, the Credit Accelerator-the ratio of the acceleration in private debt to GDP—averaged 1.1 per cent. In the depths of the downturn, it hit minus 26 per cent. With the motive force of accelerating debt removed, asset prices began their long overdue crash back to earth.

Figure 5: Acceleration of Debt and the Bear Market Rally


However the share market rebounded again because, partly under the influence of government and Central Bank policy, private debt accelerated once more even though, in the aggregate, private debt was still falling. The annual Credit Accelerator turned around from minus 26 per cent in 2010 to plus 3 per cent in early 2011.

Figure 6: Private debt accelerated even though the level was still falling


This in turn fed into the stock market, causing one of the biggest year-on-year rallies ever seen (see Figure 7). But it could not be sustained because, if debt continued to accelerate, then ultimately the level of debt relative to income would again start to rise. With all sectors of the US economy maxed out on credit (apart from the Government itself), this wasn't going to happen. The impetus from the Credit Accelerator thus ran out, and the Stock Market began its plunge back toward reality.

Figure 7: Accelerating debt drives rising share prices--and decelerating debt causes crashes

## The Credit Accelerator \& Change in Share Prices



The stock market could easily bounce again from its current levels if, once again, the rate of decline of debt slows down. But in an environment where deleveraging dominates, deceleration will be the dominant trend in debt, and the unwinding of asset prices back towards consumer prices will continue.

How far could it go? Take another look at Figure 1. The CPI-deflated share market index averaged 113 from 1890 till 1950, with no trend at all: by 1950 it was back to the level of 1890 . But from 1950 on, it rose till a peak of 438 in 1966-which is the year that Hyman Minsky identified as the point at which the US passed from a financially robust to a financially fragile system. Writing in 1982, he observed that:

A close examination of experience since World War II shows that the era quite naturally falls into two parts. The first part, which ran for almost twenty years (1948-1966), was an era of largely tranquil progress. This was followed by an era of increasing turbulence, which has continued until today. (Hyman P. Minsky, 1982, p. 6) ${ }^{\text {i }}$

From then, it slid back towards the long term norm, under the influence of the economic chaos of the late 60 s to early 80 s, only to take off in 1984 when debt began to accelerate markedly once more (See the inflexion point in 1984 in Figure 4). From its post-1966 low of 157 in mid-1982, the CPI-deflated S\&P500 index rose to 471 in 1994 as the 1990s recession ended, and then took off towards the stratosphere during the Telecommunications and DotCom bubbles of the 1990s. Its peak of 1256 in mid-2000 was more than ten times the pre-1950 average.

Even after the falls of the past week, it is still at 709, while private debt, even after falling by $40 \%$ of GDP since 2009, is still 90 per cent of GDP above the level that precipitated the Great Depressionleaving plenty of energy in the debt-deleveraging process to take asset prices further down.

There CPI-deflated share index doesn't have to return to the level of 1890-1950—especially since companies like Berkshire-Hathaway that don't pay dividends give a legitimate reason for share prices to rise relative to consumer prices over time. ii But a fall of at least 50 per cent is needed simply to bring the ratio back to its 1960s level.

Welcome to the Bear Market and the Second Great Contraction.

Minsky, Hyman P. 1982. "Can 'It' Happen Again? A Reprise." Challenge, 25(3), 5-13.

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[^0]:    ${ }^{i}$ Minsky elaborated that "Instead of an inflationary explosion at the war's end, there was a gradual and often tentative expansion of debt-financed spending by households and business firms. The newfound liquidity was gradually absorbed, and the regulations and standards that determined permissible contracts were gradually relaxed. Only as the successful performance of the economy attenuated the fear of another great depression did households, businesses, and financial institutions increase the ratios of debts to income and of debts to liquid assets so that these ratios rose to levels that had ruled prior to the Great Depression. As the financial system became more heavily weighted with layered private debts, the susceptibility of the financial structure to disturbances increased. With these disturbances, the economy moved to the turbulent regime that still rules." (pp. 7-8; emphasis added)
    ${ }^{\text {ii }}$ However these firms are in the minority; they attenuate the degree of divergence between share and consumer prices, but they are a sideshow compared to the explosion in the ratio since 1982.

