

# Myrmikan Research Report

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## The Edge of Chaos

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When you look at the mistakes of the 1920s and 1930s, they were clearly amateurish... It is hard to imagine that happening again—we understand the business cycle better.

— N. Gregory Mankiw, Professor of economics at Harvard, adviser to Presidents Bush and Obama, **December 23, 2007**

The *natural discount rate* is set by the decentralized market—it is the cost of capital determined by the supply of and demand for savings. Short of Utopia, demand is infinite. Rates, therefore, are determined by supply. As available savings increase, the natural discount rate falls.

Falling discount rates enhance especially the value of long-term cash flows. To illustrate: at a discount rate of 6%, the present value of \$100 to be received in a year is \$94; due in ten years it is worth \$53 in the present. If the discount rate falls to 3%, that \$100 to be delivered in a year becomes worth \$97, a 3% increase from before; due in ten years, that \$100 becomes worth \$74, or 37% more. Falling discount rates thus encourage investment in projects with cash flows in the distant future, such as technology, biotech, ships, base metal mines, etc., the stuff of progress.

Throughout the nineteenth century, nominal discount rates could not stray far from the natural rate because paper money was convertible into gold at a fixed price on demand. If banks offered interest at less than the natural discount rate, depositors would demand their gold and redeposit it someplace else or self-invest. The only way to stop the outflow was to raise rates, and vice-versa.

The classical gold standard was a casualty of War World I. Belligerent powers swiftly suspended convertibility, which allowed central banks to drive rates far below the natural rate. When falling rates are not natural but instead the result of economic planning by the government, entrepreneurs misjudge the amount of savings available—long-term projects soar in value just the same, prompting capital investment, but the signal is false, the savings don't exist. Societal wealth cannot support the new projects. Sooner or later, they must liquidate.

Thus it was in World War I. The nascent Federal Reserve knew that the rates it had set were artificial: “The discount policy of the Board has necessarily been coordinated throughout the year [1917] with Treasury requirements and policies, which in turn have been governed by demands made on the Treasury for war purposes.”

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The low rates not only funded the war, but prompted an asset bubble that the Fed punctured intentionally in 1920 by raising rates: “with the object,” according to the Board, “of bringing about more moderation in the use of credits, which a year ago were being diverted into all kinds of speculative and non-essential channels.” Commodities dropped by 43% and equities by 47% as the overcapacity from World War I found no buyers.

Excess investment in higher orders of capital might have liquidated, but by then the gold standard was already giving way to the theory of managed currencies. Keynes and Irving Fisher were arguing that the purpose of central banking was not to broadcast the interest rate preference of the mass of individual savers, but instead to stabilize prices. They blamed the Panic of 1921 not on the war bubble that had raised prices, but on a failure of policy to keep them high. The original advocates of price stability were not 1970s economists worried about inflation, but 1920s economists worried about deflation.

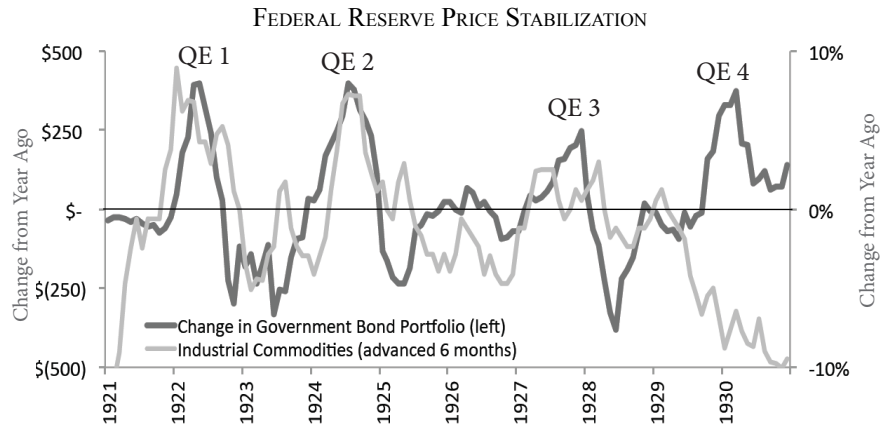
The Fed accepted this new role: in October of 1921, it launched a round of quantitative easing, tripling its holdings of government securities through open market purchases in order to lower rates to stimulate the economy. It worked. The Fed’s Index of Industrial Production surged 49% and commodity prices soared over the next eighteen months as the artificial credit prompted excess demand to overbalance residual overcapacity.

In 1923 the Fed sold the government securities it had purchased to normalize its balance sheet—commodity prices softened as industrial activity plunged 21%. Now the Fed had a self-imposed mandate: it sextupled its holdings of government debt. Quantitative easing 2 returned commodities and industrial activity to previous levels, but now the manufactured credit began leaking into the stock market, which commenced a steep climb higher.

Once again, the Fed began reducing its holdings of government securities, though not as aggressively as before. Once again commodity prices began to fall, still affected by the overcapacity in higher levels of capital that had never been liquidated, instead encouraged by the low rates.

Meanwhile, Britain, heretofore the monetary center of the globe, had its own problems. Winston Churchill, as Chancellor of the Exchequer, had decided to return the pound to the gold standard at the pre-war price, largely for ascetic purposes—it’s what England had done following the Napoleonic Wars. This policy called for exceedingly high interest rates to squeeze out the currency printed during the war. Unlike in the eighteenth century, however, labor movements were powerful and demanded relief—so the government lowered rates far below the natural rate to stimulate the economy. The right to convert pounds to gold had to be cancelled, for otherwise England’s gold reserves would have been depleted.

Holders of pounds could no longer convert them to gold, but they could sell them to buy other currencies with higher yields, such as the dollar. In July of 1927, the head of the Bank of England met secretly with Fed officials and asked them to lower rates to protect the pound. If U.S. rates were low, there would be less incentive to sell pounds and buy dollars. Even though the Fed’s measure of industrial activity was still strong and the stock market was rising, wholesale prices had fallen 14% from their peak in 1925. In the interests of “price stability,” the Fed lowered rates in a third round of quantitative easing in mid-1927.



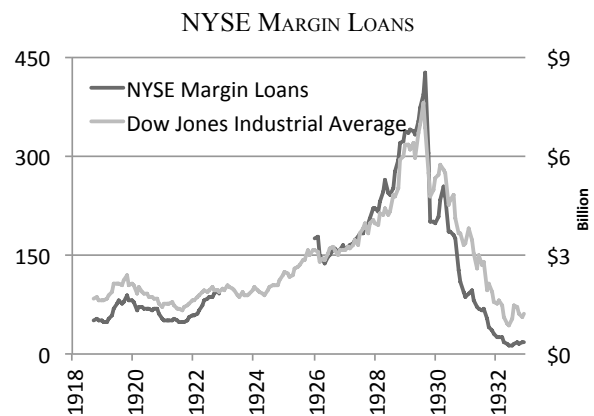
The chart above shows how tightly Fed policy affected prices and the economy (industrial activity closely matched commodity prices). The affects lagged by six months, so the Fed overshot in both directions. Note that commodity prices fell throughout the decade, except in the context of Fed activity.

Examining the third round of easing, one notes first that Fed didn't expand to the same extremes it had in the earlier two and that prices did not react nearly as much as before. "Stabilization" would have called for more easing to balance previous price declines—crude oil prices, for example, remained 14% below the 1922-1927 average—but, instead, the Fed abruptly liquidated its government bond portfolio. What accounted for this sudden shift of policy?

From 1921 to 1927, the Dow Jones Industrial Average had risen 121%. The Fed's third round of easing made the market go berserk—it would rise another 137% over the next two years, quintupling from start to finish. And these were the big established companies—gains were vastly higher in smaller, more levered segments of the market.

As the stock market roared higher, the dividend rate collapsed: e.g., if the shares price of a company that paid \$5 in dividends rose from \$50 to \$100, it meant the dividend rate had fallen from 10% to 5%. By 1929, dividend rates were only 3%, which was also the cost of capital for issuing new shares.

Meanwhile, the interest rate on margin loans to buy stocks surged to 9%. Why would someone borrow at 9% to buy an asset yielding only 3%? Because he anticipated the market would rise faster than 6% per year. Companies soon realized they could issue stock, offering a 3% yield on the capital, and lend it into the call money market at 9%, making a 6% spread for doing nothing. Even better, the money thus borrowed was used to buy more stock, boosting the market, enhancing the collateral of borrowers, lowering the dividend rate further, and raising the implicit rate at which investors would be willing to take out margin loans. Margin loans became the measure of the market.



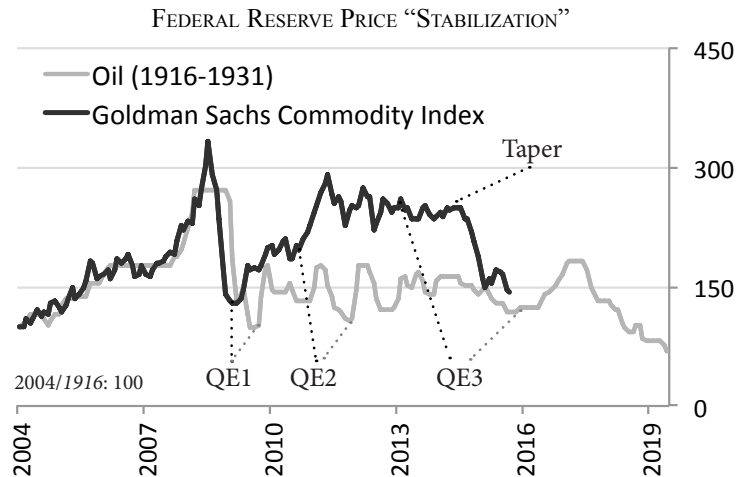
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The Fed tightened aggressively in 1928 not because of economic conditions or commodity prices, but because it was spooked by asset prices. Commodities began to plunge in March of 1929. Keynes, assuming the Fed would stabilize prices again, invested heavily in commodities. He lost three-quarters of his fortune even before the stock market crash in October, which wiped out Irving Fisher.

Unlike in 1921, when the Fed kept rates high to liquidate the market, after the 1929 crash the Fed immediately began lowering rates and buying government bonds to prevent liquidation of malinvestments—QE4 in the chart above. Then, in 1931, the European banking system collapsed sending rates soaring in Europe. Capital fled the U.S. banking system, which was then forced to match the high rates, the reason QE4 petered out. Forty percent of banks folded. The Great Depression finally liquidated the overcapacity in long-term capital assets, the capitalists that owned them, and the depositors who had unwittingly financed them.

The parallels between Federal Reserve policy in the 1920s and today are direct, emergent, and terrifying. Current overcapacity was not brought by war, but the cause is the same: artificially low interest rates. Every time the malinvestments attempt to liquefy, the Fed lowers rates: in 1992 to manage the Savings & Loan crisis, then in 1998 to bailout Long Term Capital Management, then in 2001 after the internet bubble collapse, then again in 2008 to manage the housing crisis: all in the name of its mandate to promote “price stability.” The cumulative effect has been to encourage and maintain overcapacity in the highest orders of capital.

Since 2008, the Fed has engaged in three rounds of quantitative easing to foster more “price stability.” The chart below shows the affect on commodity prices. In fact, they were fairly stable from 2011 to early-2015, just as they had been between 1922 and 1929, but all the Fed was doing was maintaining artificial demand for existing overcapacity, which cannot be sustained indefinitely. The chart also shows that the 1920s Fed had a much easier time maintaining prices, because it didn’t push them back up to bubble highs. Nevertheless, when liquidation finally came, prices returned to where they had been in 1912, before the founding of the Federal Reserve.



Again, not shown on the chart above is the affect the Fed’s price stabilization efforts have had on asset markets. In the 1920s, corporations issued equity to raise money to lend it to speculators who returned the money by buying newly issued shares. The flow of funds has reversed, but the result is the same. Companies now issue debt to raise money from institutional investors with which to buy their own shares themselves. This boosts

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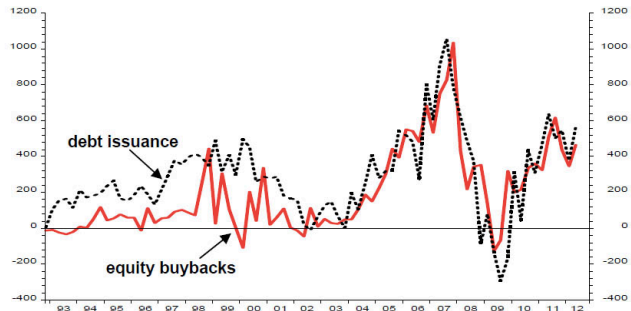
share prices and returns the money to investors, who can then lend it back again.

Executives make a fortune on their stock options while retail investors think them good corporate citizens for “returning capital.” In fact, it’s just a debt/equity swap that makes any decline in the price level lethal to equity holders.

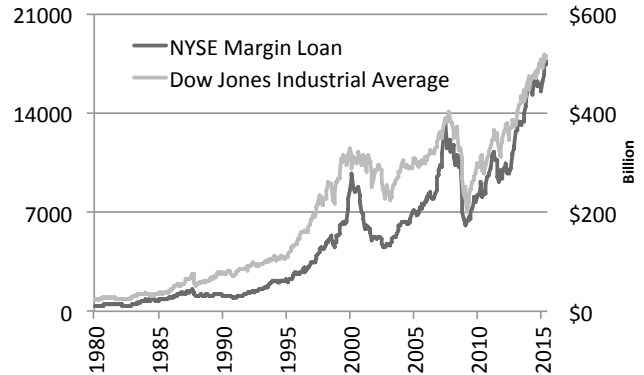
Rising asset prices both encourage *and enable* margin loans, as the chart shows, just like in the 1920s. The polarity of the capital flow doesn’t matter: debt that finances equity drives prices unsustainably higher.

Meanwhile, the zero discount rates the Fed has imposed means future cash flows are not discounted at all: distant cash flow becomes worth the same as current cash. This absurdity may be seen comparing the S&P 500, comprised mainly of mature companies; NASDAQ companies, which tend to be growth companies and, therefore, have anticipated cash flows weighted toward the future; and biotech companies, which have no cash flows at all, except prospectively in the very distant future. After the relatively mild intervention following the internet bubble the latter two outperformed. After three QE’s, the most distant cash flows have seen ludicrous increases in value.

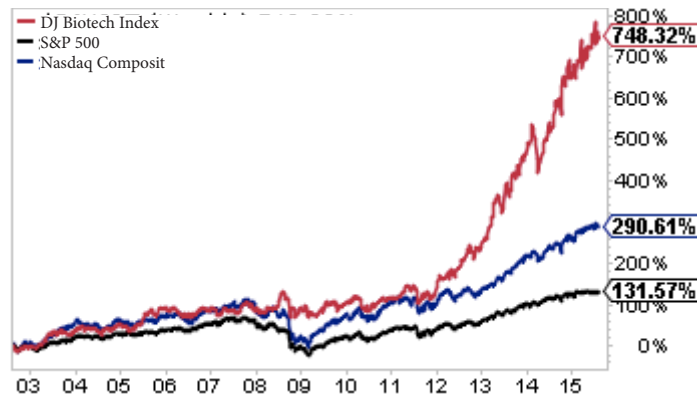
COMPANIES CONVERT EQUITY TO DEBT



NYSE MARGIN LOANS



FED POLICY DRIVES STOCKS



The danger of these gains is not lost on the Fed. A year ago, Fed Chairman Janet Yellen commented: “We understand that maintaining interest rates at low levels for a long time can incent reach-for-yield or asset bubbles . . .” She then opined that prices were not too high, except that: “Valuation metrics in some sectors do appear substantially stretched—particularly those for smaller firms in the social media and biotechnology industries.” Examine the chart above. That was a year ago.

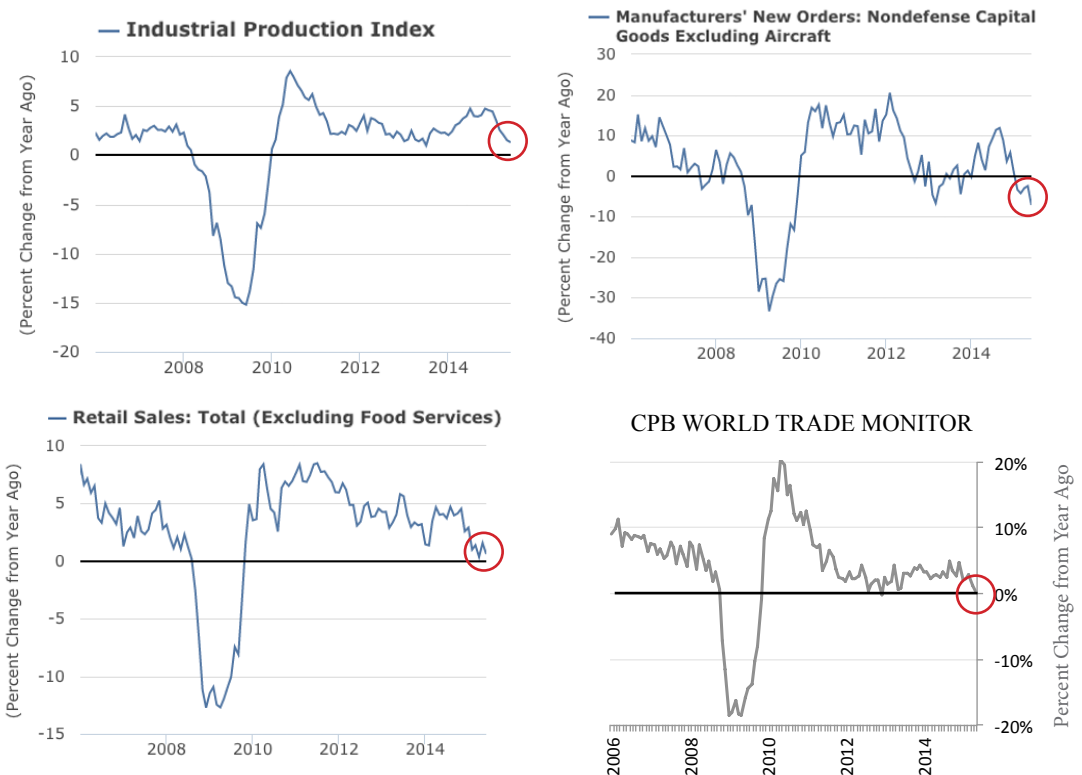
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Crazy credit conditions were not confined to asset markets in the 1920s, nor are they today. In *Money of the Mind*, Jim Grant recorded the following evolution:

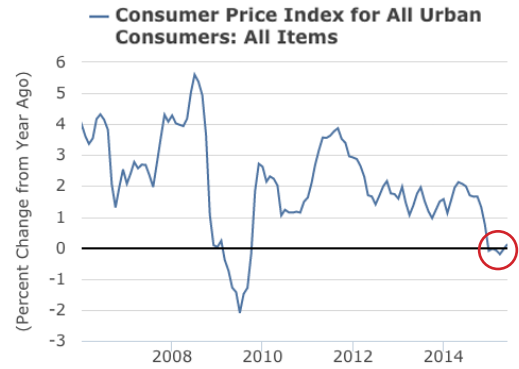
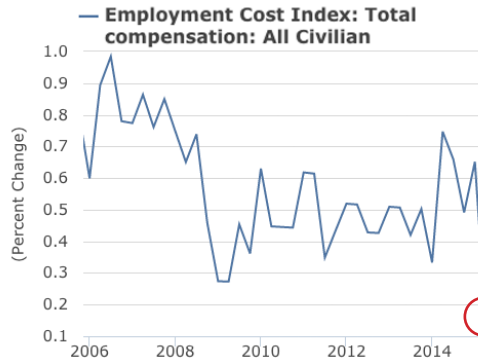
To start with, cars were financed for a year and with a down payment of one-third to one-half of the purchase price. However, as Professor Edwin R. A. Seligman noted in 1927: “With the growing competition between dealers to increase the volume of their sales, the minimum cash payment was gradually reduced and the maximum period of installments was lengthened. It was not long before the minimum down payment was lowered to a third or even to a fourth of the selling price of new cars, while the series of monthly payments was increased to eighteen months, and even in some cases to longer periods.”

Seligman’s concern is quaint to the point of mirth. There are nearly \$1 trillion of auto loans outstanding today, and Experian reports that in Q1 2015 the *average* term of loans on *used* cars was *sixty-two* months. Used car prices are roughly the same as they were a year ago, according to the Manheim Used Vehicle Value Index, so in this market the Fed sees no evil: “Notably, consumer spending has picked up, and sales of motor vehicles in May and June were strong, suggesting that many households have both the wherewithal and the confidence to purchase big-ticket items,” Chairman Yellen told Congress in July. But they *don’t* have the wherewithal—that’s why they have to borrow the money! According to the Wall Street Journal, in 2014 forty percent of loans for autos, credit cards and personal borrowing went to subprime “customers.” If prices are stable, it’s because of overcapacity in auto manufacturing (which tried to liquidate in 2008).

In fact, prices may now be too stable for the Fed—according to the BLS, annual inflation was 0.18% in June, rising from 0.03% in June. This is a far cry from the Fed’s 2% target, and many of the Fed’s economic activity indicators are contracting or nearly so. So why is the Fed threatening to raise rates?

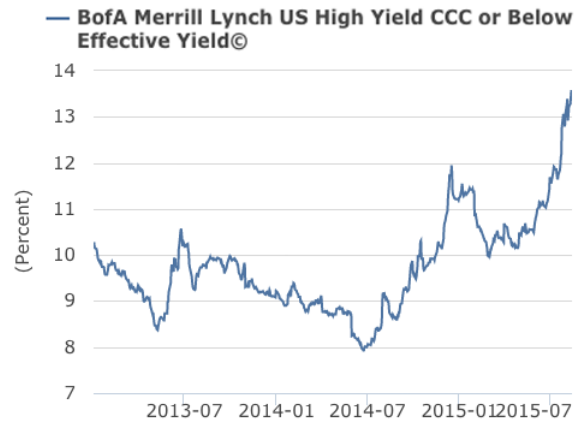


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It turns out “price stability” becomes nonsensical when different prices start heading in different directions. For the moment, the Fed has decided to focus on asset price stability instead of price stability within the economy—the precise script from 1928—and that means raising rates. In fact, the question has become not whether the Fed will raise rates, but whether it will oppose increases, for rates are already rising on their own.

In 1931, the European banking system toppled the debt pyramid. It looks like China will be the culprit this time. The Telegraph reports that capital outflows from China have reached \$800 billion over the past year. China itself has sold \$143 billion of US Treasuries in the past three months alone, which is starting to raise the whole interest rate complex, just as European turmoil in 1931 forced U.S. rates up. The yield on subprime paper just breached 13.5%, up from 8% a year ago—this is an enormous increase in the cost of capital for the marginal user of capital.



Meanwhile, with the false credit-driven hyperactive demand fading, overcapacity is causing commodity prices to plunge: the Bloomberg Commodity Index sits at 2002 levels. Morgan Stanley opines that if oil tracks the path suggested by the futures curve, “the current downturn could be the worst in the last 45+ years . . . there may be nothing in analysable history” to predict what happens next. If their analysts doubled their time-frame to 90 years, they might have a better idea of what happens when the Fed decides to let rising rates puncture a credit bubble.

From 1929 to 1933 the stock market fell 90%. To say that equities lost 90% is to remove the event from all modern context. Such a thing happening today seems unimaginable, especially with the Fed ready to support markets. Never mind that the very first head of the Federal Reserve promised in 1915: “Under the Federal reserve system we shall have no more financial panics.”

A 90% decline is easier to comprehend broken into its constituent parts. From September 1929 to June of 1932, the dividend yield on the market went from 2.92% to 10.3%. Posit a company that pays out an annual dividend of \$2.92. At a 2.92% yield, the stock must be priced at \$100 because 2.92% of \$100 is \$2.92. If the dividend yield on

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the whole market jumps to 10.3% *and we assume that the \$2.92 payout remains the same*, then the stock must be worth \$28.35 because 10.3% of \$28.35 is \$2.92. The stock falls 71.6% *even though we assume cash flows are exactly the same*.

The assumption is a bad one. Revenues fall faster than expenses in a depression, which forces dividends to be cut. If we assume that the dividend is cut by 64.7% from \$2.92 to \$1.03, then a dividend yield of 10.3% means that the stock is worth \$10. That is how the market declined by 90%. More of the decline was based on market discount rates than on the performance of the companies—it didn't matter how good a stock picker you were.

Why did the Fed allow rates to go so high? Until 1933, deposits could be converted to federal reserve notes, and federal reserve notes could be redeemed for gold at \$20.67 per ounce. If the Fed had kept rates too far below the natural discount rate, the banking system would have been stripped of gold. Indeed, a 1933 article in Barrons described this process precisely:

It has been aptly observed that the stages of deflation since 1929 have been the flight from property (chiefly securities) into bank deposits, next a flight from bank deposits into currency, and finally, a flight from currency into gold.

So in 1933, Franklin Roosevelt made holding gold a felony punishable by fines and ten years in prison. The irony is that by then it didn't matter. The economy and banking system were well and truly liquidated. Stocks had already bottomed in the summer of 1932.

In 1929, the idea that the Fed should promote price stability was still controversial. Many economists, even on the Federal Reserve Board, thought the “gold compass” should take care of the price level. Today, this gold-centric view, nearly universal before the 1920s, has been relegated to the fringe. The Fed has a legislated goal of providing price stability, and the only debate in academic circles is whether fiscal stimulus need be added to monetary stimulus. Unlike in 1929, there is now an intellectual and political mandate to print in whatever quantities are necessary to “stabilize” prices.

In fact, it is this policy that has allowed the economic imbalances to become much larger than in the 1920s—it is also why the ultimate crash will be worse.

The dividend yield on the market today is a mere 1.94%. Returning to the 1933 yield of 10.3% would result in a stock market loss of 82%, even if cash flows were to remain the same. Just returning to the mean/median yield since 1871 of 4.4% requires a 56% decline—before accounting for falling cash flows.

And the contractions of cash flows will likely be greater than in 1929. All the debt companies have taken on to buy their own shares will continue to demand payment in nominal terms even as overcapacity forces prices down. Worse, much of the venter financing major companies have issued during this bubble will itself default. Not only will orders for new product soften, companies won't even get paid for product they shipped in the past (and booked revenues on).

While the Fed has its eye newly focused on asset markets, the real economy is collapsing. This is what commodities and the Fed's own metrics are signaling. At the moment, mainstream economists argue falling commodity prices are good for the economy because it makes everything cheaper, which enhances purchasing power. This is true in a very theoretical sense—when scientists discover that cold fusion fueled by banana



peels can power automobiles, oil prices will fall and society will be wealthier. When all commodity prices fall at once, however, as they did from 1929 to 1933, it signals overcapacity and that companies and individuals will soon default on their debts.

The first areas of note in the credit universe are anyone who lent money into China (or financed someone else's Chinese investments) and commodity producers, which is the same thing. The major mining companies borrowed \$200 billion just since 2009 to fund expansion. These companies have already written off \$400 billion since 2008. Veteran commodities analyst John Tumazos notes: "We expect one major failure or shutdown per week at today's prices." What is left to pay the debt?

Mining is a midget compared with the oil-and-gas sector, which at the end of 2014 supported \$2.5 trillion in outstanding debt. A year ago, oil was above \$100/barrel. Today it is below \$45. What is that \$2.5 trillion worth today? What will it be worth when the hedges that have provided oil companies with cash flow as if oil were still at the \$100 figure expire?

Credit weakness is already spreading beyond the commodities sector, according to UBS:

The current sell-off in US high yield bond market appears controlled based on the consistent but moderate declines in daily cash bond index prices, but underneath the hood several participants are characterizing the price action as carnage. At an index level the average HY bond has fallen about 2 points week-over-week, but index data is notoriously stale and lagging; there are numerous examples of issues down 5, 7 or 10 points on light volumes despite no direct exposure to commodity prices and no material firm specific news. In our view, recent market behavior has exposed several hidden fragilities in the market ecosystem.

The Fed won't act until turmoil in the credit markets starts bleeding into the credit system, but it won't be long until a "hidden fragility" in the credit system claims its first victim. The failure of the first bank will likely involve a touch of fraud and be dismissed as an outlier. The next ones will be small, overextended, undercapitalized banks—the authorities will act timidly, and assure that the problems have been "contained." Then a major house will fail—in a moment the six-year eye-of-the-credit-storm will have passed.

We already know what the Fed's response will be. It will not willingly allow the liquidation of the economy and the banking system. It will cajole and threaten, it will guarantee, in the end it will print.

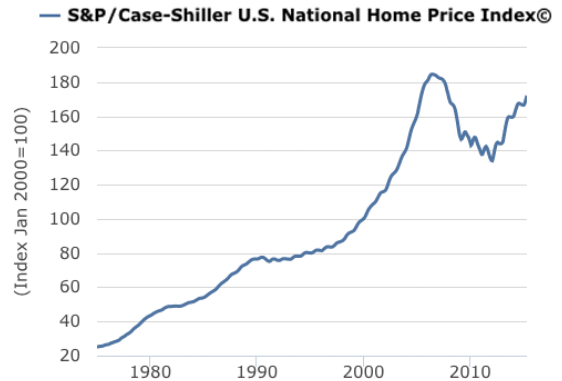
"Printing" is, in fact, a misnomer. The way the Fed keeps rates low is that it creates new dollars and uses them to buy existing securities. The idea is that the purchases drive bond prices higher by reducing supply, lowering rates. But what if supply and demand doesn't determine the price of financial assets?

Consider China, the locus of probably the largest credit bubble the world has ever seen. Their asset markets represent ghost cities and the steel and cement plants that built them. They are worthless, and so are the financial assets that represent them. Authorities announced they have organized \$800 billion in private and public money to buy stocks to prop up the market.

Posit a company that owns assets worth net zero. A credit bubble elevates its value to \$100 billion. It begins to fall. The state heroically buys 10% of the stock. The

company's value is still zero. The state buys 50%, then 90%. The remaining 10% is still worthless. To the extent the state's bid is above market, it ends up buying the entire float, destroying its own solvency without boosting the value of the bad assets.

The United States is not littered with ghost cities. Some assets, especially in the social media and biotechnology industries and the natural resource sector, likely are worthless. Most are just massively overpriced—we know this because yields are so low. Take housing, which is the primary asset class that backs the U.S. banking system. Certainly the market has not returned to the subprime excesses of the mid-2000s, overcapacity squelching any crazy gains. Yet housing, like stocks and all other yielding assets, is priced on yield and is just one more market that the Fed “stabilized” at bubble prices, as the chart shows. In fact, according to the NAR Survey, in 2014 only 60% of homes were bought as a primary residence, a low matched only at the height of the bubble.



In 2007, it was subprime housing that punctured the credit bubble. This time it will be loans to commodity producers. It doesn't matter that banks are backed by housing and not commodities—all markets are connected by yield. As yields rise, prices of all assets fall, and the banking system cannot withstand even modest declines in nominal prices.

The dirty secret of banking is that banks do not match up savers with borrowers—they create credit through the fractional reserve process whereby cash demand deposits are multiplied 10-20 fold and invested in long-term assets. This is how there can be nearly \$90 trillion in dollar debt, yet only \$4 trillion in base money backed by a paltry \$282 billion in gold. The \$90 trillion in societal debt requires constant interest payments. Miss a payment, and you lose your collateral. When credit starts to unwind, a panic bid will develop to borrow dollars, which is another way of saying the interest rate will spike and markets will collapse utterly.

The Fed has only two choices when the financial sector liquidations begin. It can step back and allow the whole edifice to crumble, as it did in 1931, unwilling to sacrifice the dollar to further reallocate wealth from savers to Wall Street; for, as we have witnessed over the past six years—really the past sixty years—moving wealth to Wall Street professionals (as distinct from investors) is the principle effect of Fed activity. Those in the markets assume that the Federal Reserve will not take this option because it has not in living memory and the consequences are too extreme to contemplate.

Yet, investors should understand that the Fed will be able to “stabilize” asset prices only through the wholesale emission of dollars on a scale currently unimaginable. Given the unpopularity of the financial industry and of the Federal Reserve itself, especially since 2008, the Fed will resist dramatic action as long as possible. The market, the public face of finance, will have to fall to a level where there is widespread panic and an overwhelming political consensus that the Fed must *do* something, as in 2008. The dollar will then be sacrificed in an attempt to avoid a credit unwind larger than 1931.

It would be dangerous to assume, however, that intervention will necessarily succeed. To the extent that Fed places its bid on assets at their natural value, its policies may not make any difference—so what if asset prices are stabilized down 82%. To the extent its bid is above natural value, it must be willing to buy everything on offer. Asset markets are global, and capital will move from lower rate environments to higher, so, as rates rise, either all of the central banks must act in tandem, as in 1927 and 2008, there must be capital controls to ensure capital does not escape “financial repression,” or else the Fed must be willing to buy the entire float and plunge immediately into hyperinflation.

We may safely dismiss the last option. The first works only if, as in 2008, the credit bubble may be reinflated. If so, the dip will be an epic buying opportunity for stocks in general and industrial commodities in particular.

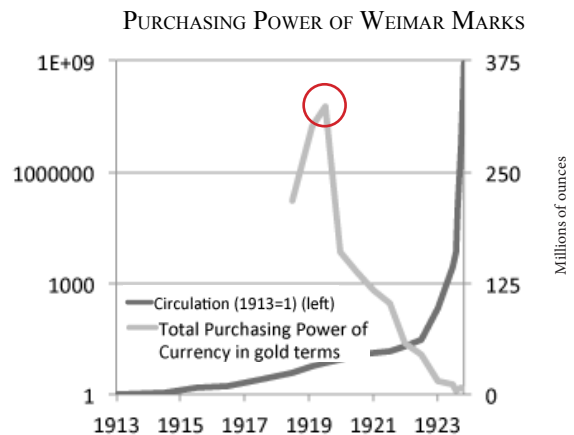
This outcome has no reasonable prospect of success this time, for China is done. In 2008, China unleashed a huge stimulus program that increased total bank assets over the subsequent five years from \$9 trillion to \$24 trillion. The surge in infrastructure spending revitalized the global basic material industry and even attracted new capacity. For example, according to the Washington Post, China used more cement between 2011 and 2013 than the U.S. did in the entire 20th century. That insanity is now unwinding, and there little chance that the communists are going to persuade the people, as individuals, comprising a market, that idle factories, ghost cities, empty malls, high speed trains to nowhere have value, even as food prices spike—pork prices are up 20% since March. Without that imputed value, all of the supply chains dedicated to supplying and building the ghost assets become worthless, and also their suppliers, and their lenders, etc.

The only choice left becomes capital controls that, if implemented, would have the same effect as the 1930 Smoot-Hawley Tariff Act, which brought global trade to a halt and accelerated the collapse of the financial system. Such a policy may seem unimaginable today, but it was equally so in 1928 (and, indeed, in 1912).

If a global trade war is the next step, then investors must ponder the natural value of a corporate America ever more dominated by crony-capitalist multi-nationals thrust into sudden autarky—the likely answer returns to the original question: will the Fed outbid market value to buy the whole float? The answer is surely not, as it declined to do in 1931—in which case, the capital controls become pointless to begin with (which doesn’t mean they won’t happen).

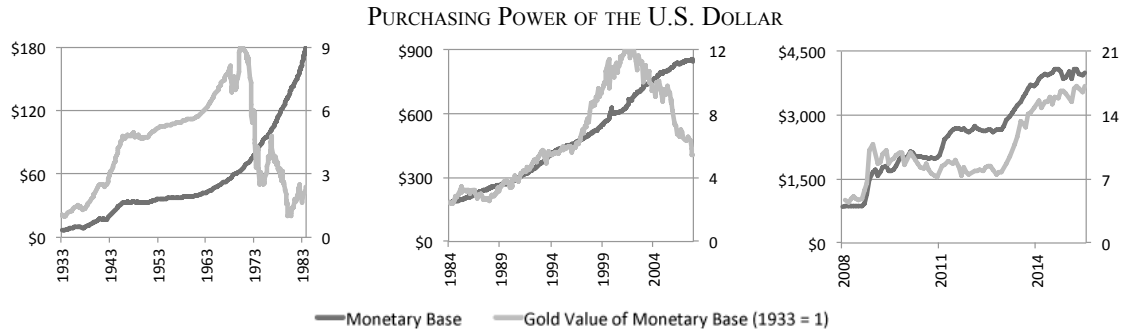
None of this is to say that a sufficiently motivated Fed cannot debased its currency. As Bernanke has argued: “We conclude that, under a paper-money system, a determined government can always generate higher spending and hence positive inflation.” So far in this credit cycle, as in the 1920s, stimulated credit has been directed towards investment, boosting asset prices and keeping general prices stable because of existing overcapacity. The money printing seems to add purchasing power. But, it need not be so.

To take an extreme example, as the Germans began printing marks in the Weimar hyperinflation, each mark depreciated, but the total purchasing power of all marks increased. There was an inflection point in 1919 after which each newly printed mark made the sum total of all marks worth less: the faster they printed, the less the sum total of marks would buy.



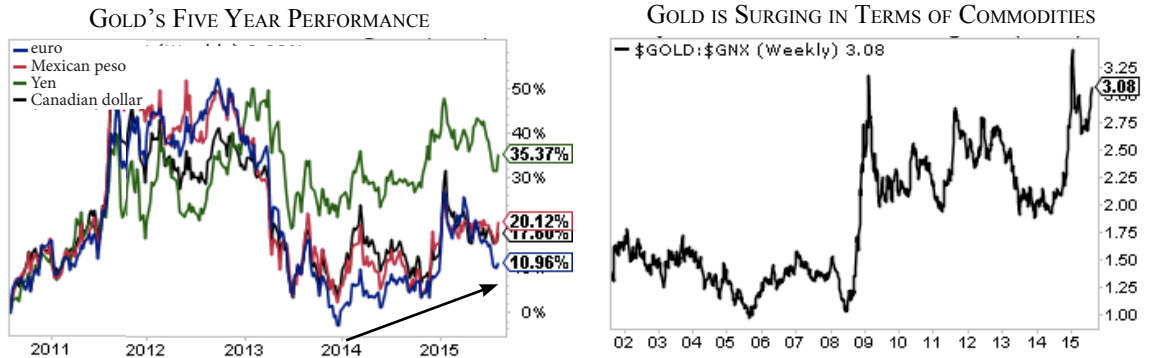
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This dynamic is not confined to hyperinflations. As the charts below exhibit, there have been two similar episodes in the U.S. dollar, with the third still in progress. Printing adds to total purchasing power at first. Then, in 1968 and 2000, even though the monetary base kept increasing, its value in terms of gold began to plummet. The implosion of China likely marks the inflection point—the Fed will print, but all it will do is destroy the currency, without helping the markets, in a more virulent form of the 1970s.



When the entire credit system unravels, gold becomes only refuge. Dollar holders can no longer redeem dollars for gold, but they can buy it in the market. When the Fed decides to “support” the market by holding rates low—per above, rates define the market—and, as in 1927, they coordinate with other central banks to make sure money doesn’t leak out, the difference between the natural discount rate and the rate at which the Fed decides to peg rates will be the measure of how high gold will go in nominal terms, assuming it is still legal to own. When the \$1 quadrillion derivatives pyramid starts to wobble, and the full costs of intervention become clear, and the central banks abdicate, that is when gold will really fly.

At the moment gold is weak in dollar terms. Its decline has accelerated of late, leading to some like Jason Zweig of the Wall Street Journal to call gold no better than a “pet rock.” In fact, gold is rising in most currencies and, most importantly, in terms of commodities.



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Gold is weak in the financing currencies, such as the U.S. dollar, the British pound, and the Swiss franc. This weakness signals a “scarcity of money” to service debt, the short squeeze on currency that will cause the meltdown, heralding the cry of every inflationist since Adam Smith:

GOLD'S FIVE YEAR PERFORMANCE IN FUNDING CURRENCIES



No complaint, however, is more common than that of a scarcity of money . . . Over-trading is the common cause of it. Sober men, whose projects have been disproportioned to their capitals, are as likely to have neither wherewithal to buy money nor credit to borrow it, as prodigals whose expence has been disproportioned to their revenue. Before their projects can be brought to bear, their stock is gone, and their credit with it. They run about every-where to borrow money, and everybody tells them that they have none to lend.

Leading up the banking crisis of 1931, gold comprised 56% of the Fed’s assets. The residual was short-term commercial and government bills. These are the safest of assets—after the credit collapse, the dollar remained strong—gold mining margins exploded because input costs collapsed.

Today, at market prices, gold comprises just 6% of the Fed’s assets; the Fed has no bills, mortgage-backed securities comprise 38% of its assets, and the remainder are long-term government bonds. After the short-squeeze on dollars runs its course, the dollar will may not be worthless, but it will be worth a lot less, and interest rates will compensate by being exceedingly high.

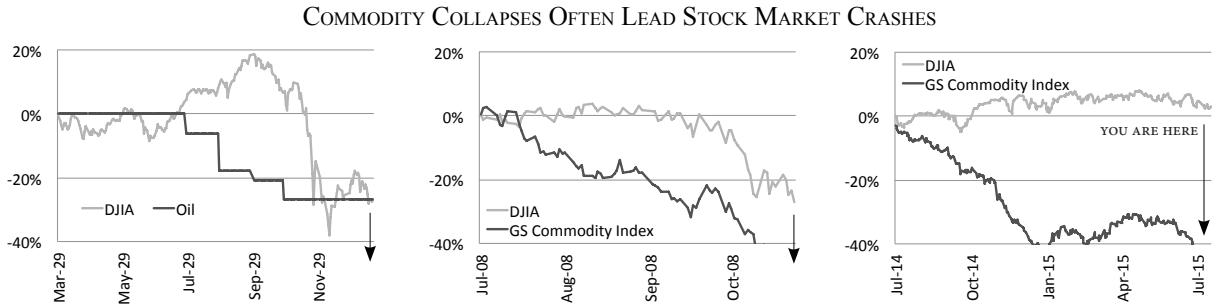
Since Nixon severed the legal tie between gold and the dollar, the price of gold has traded at level that, on average, has resulted the Fed’s liabilities being backed 29% by gold. To return to this average, gold must trade at \$5000 an ounce. The Fed will debase its balance sheet further when it attempts to intervene, so that number will go higher, and gold will overshoot in any case. The panic low for the dollar occurred in 1981 when gold reached \$875, backing the Fed’s liabilities by 133%. The equivalent price today would be \$22,700 per ounce. Imagine the effect on gold mining equities.

The end isn’t near; it’s already here. China’s demise is increasing rates; increased rates take the marginal demand for inputs offline; commodity prices collapse; those that financed the overcapacity lose their capital; they default to their lenders; those lenders default to their lenders; rates rise further; more default; and so on.

Most mainstream investors ignore the dirty business of commodities, the theory being that wealth is created by innovation in what people do with them. The theory is a good one in general, but the prices of commodities broadcast a valuable signal because commodities sit at the beginning of every manufacturing chain. Crashing commodity prices reveal the that current production chains do not meet the needs of consumers and, therefore, have impaired value. Thus, movements in commodities and stocks correlate. In the Panics of: 2008, commodities fell 66% while stocks dropped 54%; 1928, commodities fell 50% while stocks dropped 89%; 1921, commodities fell 43% while stocks dropped 47%; 1907 stocks fell 50% while commodities dropped 21%, and so on back into the nineteenth century.

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It is not always the case, but often commodities fall first, long-term commercial credit drying up before short-term credit directed towards margin loans, which are perceived to be more liquid and, therefore, safer. The current delta between what commodities are signaling is happening to supply chains and what the companies that own those chains are still worth on paper is terrifying.



J.P. Morgan once quipped that the secret to his success was “getting out too soon.” It is hard to do—that man is a social animal and prefers the tumultuous crowd to dry theory has been proved by every credit bubble stretching back two thousand years:

Some of us were accustomed to meet for economic discussions at luncheons during the great Fiat Credit Boom from 1923 to 1929. One of our guests at a luncheon in 1929 was an eminent practical economist who was also a professor. After considerable discussion it was unanimously decided that credit expansion had reached such alarming proportions it would be safe and sane to dispose of all corporate bonds and stocks, retaining only bank deposits and United States Government bonds. Our guest was so impressed that he actually did sell, and at nearly top prices. However, when he returned to the Middle West, he found security prices still “soaring,” so he decided that the New Era-ists were right and that there was no limit to the rise. He sold his governments and with his bank funds purchased one of the well known investment trust stocks whose portfolio was congested with “blue chips.” Within a month his capital was reduced fifty per cent. He “hung on” and, finally, lost every penny.

It is impossible to know exactly when the weakest link will break as the dollar squeeze intensifies. But the moment liquidation spreads to the banking system, the world will be a very different place. In 1979, John Kenneth Galbraith wrote: “This, the day of the Great Stock Market Crash, remains in the social memory after a full fifty years. And for good reason. After that day life for millions was not again the same.” We are about to make social memories of our own.



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