Manufacturing Money

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Summary

- Modern money is paper, manufactured by banks out of thin air. Banks make something from nothing. This is the story of the rise and abuse of that great power, a high-level view of the current financial bubble and its causes and consequences.

- Modern money is created by debt. The growth of the bubble is tracked by the ratio of debt (money) to GDP (size of the economy). It started at its normal level of 150% in 1982. By 1987 it had reached 235%, where it was in 1929 on the eve of the Great Depression. By 2007 it had soared to 340%, and by mid 2009 it was 375%—nearly 20% of GDP is now spent on interest. There is now scarcely any more disposable income for taking on yet more debt. We are hitting the wall.

- The financial bubble greatly advantages the banks and the financial smarties who know how to take advantage of the ways money is manufactured. The bubble has been extremely profitable for them. Each time the bubble faltered, it was reignited by the banks and government through loosening safeguards on money manufacture, flooding the economy with easy money, low interest rates, encouraging price bubbles in asset markets, or covertly suppressing interest rates on the bond market (the Clinton strategy). This is easily the world's biggest and deepest bubble, ever. It has not ended yet. When it does, the debt will have to repaid or inflated away.

- The return of the debt-to-GDP ratio to its normal level requires a drop of 15% - 25% of GDP. We can do it fast or do it slow, or politicians can opt for high inflation to try and avoid the pain.

Introduction

Money is power. You can use money to get people to do things for you, and to obtain real stuff. Most people will do almost anything, if you offer them enough money. In the current financial system, money is manufactured by central and private banks out of thin air: they make ***something from nothing***. This is a great power. There is a system of checks and balances surrounding it, but the safeguards are imperfect. This is the story of the rise and abuse of that power.

The paper aristocracy, those who manufacture money and the financial smarties who work the system of paper money, have easy jobs and far more stuff than the rest of us. If you are not part of the paper aristocracy, you are effectively working for them, being subtly and persistently disadvantaged in ways you probably are not aware of. Ultimately those who wield the power to manufacture money have great financial and political influence, and have come to quietly rule the financial world.

This essay explains the story as simply as possible, for members of the public. There are a lot of interconnecting parts to the story, so unfortunately the essay cannot be short. So far most readers have found it eye-opening, informative, and thought-provoking. The essay starts a little slowly because we need to understand the basics of money manufacture, but then moves quickly.

Banking Isn't Secret, But No One Tells You How It Works…

Money and banking involve slightly difficult or unfamiliar concepts. But the world's largest and deepest financial bubble, which started in 1982, will soon end—so there is now a widespread urgency to understand these topics. The public have been disinterested for the last 30 years, because while in a bubble the current system appears to work. That lack of interest has suited the finance industry just fine. There is a lot of disinformation out there, and bankers can obfuscate and misdirect all day. It hurts people's heads to understand banking. But when the system falls apart and hurts ordinary people, we will need to understand in order to make it better.

Banking thrives behind a wall of complexity, confusion, and misdirection. There are no actual secrets, it's just that us non-banking folks cannot understand banking unless we are fairly determined and put in some time. It's been that way for centuries. This essay explains the minimum you need to know, as simply as possible.

Banking is a con that is, not coincidentally, just a little too complicated for the average person to grasp unless they really try, and most of the time they just cannot be bothered because the system seems to work well enough. If everyone understood what really goes on, who are the winners and who are the losers, it would be outlawed in an instant. (As it has been before. Aspects of current banking practice were outlawed for centuries in Europe, and central banks have been rejected and disbanded several times in the US.)

Bankers have created a system that makes it hard for outsiders to understand how they create advantage for themselves: at first glance, and to listen to them explain it, everything seems fair and ok. But think about it: some folks have the power to manufacture money out of thin air and, miraculously, they do not work particularly hard and they have lots more stuff than most of the rest of us. Ok, so if the system of manufacturing money is so fair and even, want to switch jobs Mr. Banker?

Fractional Reserve Banking, Base Money, and Bank Money

To understand how money is manufactured, you really need to understand how modern banking evolved from gold-smithing. Although it appears a little arcane at first, this historical route is the easiest. It's not difficult to understand, but pay attention because otherwise the tricks of manufacturing modern money will not make sense.

Commerce started with direct barter, but over thousands of years gold evolved as the universal medium of exchange in Europe, Asia, and Africa. A simple system that continued for a few millennia.

In the Middle Ages, goldsmiths took gold deposits from individuals for safekeeping. The receipts for these deposits circulated as money, because they were more convenient than the metal itself. But the goldsmiths learned they could issue many more "receipts" than they had gold. They would typically lend out receipts for ten times as much gold as they had, on the assumption that not everyone would try to redeem their receipts for metal at the same time. Money was thereby manufactured, or created out of thin air. Furthermore, the goldsmith would charge interest on the receipts they lent out, to compensate for the risk of not being repaid and to make a profit.

For example, if customers deposited 200 ounces of gold with a goldsmith, then the goldsmith would issue them with receipts for 200 ounces. But he would also issue receipts for another 1,800 ounces to people as loans, and charge interest on them — for a total of receipts for 2,000 gold ounces. Notice that 1,800 of the gold ounce receipts that the goldsmith manufactured were for gold that did not exist. For a typical interest rate of 5%, the goldsmith is earning 90 gold ounces per year by lending out these receipts to gold he does not have — pretty profitable eh? If any customer came to the goldsmith with one of the goldsmith's receipts and asked for "their" gold, the goldsmith would hand over some gold and destroy the receipt. In normal business, they knew from experience that keeping back 10% of the gold was enough to keep this scheme working and, if it wasn't, they could simply borrow gold from another goldsmith. The only downside for the goldsmith was an unpaid loan—he owed gold on all the receipts issued, so he would ultimately have to pay any unpaid loan out of his own pocket.

This practice is called ***fractional reserve banking***, and exists in essentially the same form today in modern banking.

The underlying medium of exchange is called ***base money***. The bits of paper that represent the base money and which circulate as money are called ***bank money***. In the Middle Ages the base money was gold, and the bank money consisted of the goldsmith's receipts. Nowadays the base money is cash (and "reserves", or numbers in bank accounts at the central bank), and the bank money consists of numbers in bank accounts (of all the banks *other* than the central bank).

Over time the goldsmiths became bankers, governments introduced central banking, and finally, in 1971, the world financial system switched from using gold as its base money to using cash (paper money). The world financial system is now underpinned by cash, which governments can print at will. We have a fully paper system, with no hard constraints on how much money there is.

Banking is a great business to be in, so long as people pay back their loans. The invention of fractional reserve banking transformed goldsmiths/bankers from being mere tradesmen into wealthy and influential businessmen. They now rule the financial universe, and they control much of the political system as well. It's hard not to have power when you can manufacture money from nothing.

The wider class of people who control and manufacture paper money in all its forms are referred to in this essay as ***the paper aristocracy***: the banks, the government, and those who know how to work the system of paper money. They are the kings of the financial system. This banking class started from humble beginnings as goldsmiths, grew rich by over-issuing paper that represented gold, eventually dispensed with gold and all its constraints, and have now graduated to rule the financial universe with a money system based entirely on paper.

How Modern Money Is Manufactured

We have had a huge financial bubble from 1982 (or series of bubbles, depending on your point of view), and it still hasn't ended. To understand why, and what will happen next, you need to understand how it is manufactured and what it means. Today, hardly anyone outside the paper aristocracy knows how money is made. Banks and governments discourage people from knowing where money comes from, because *they can create it and you can't*. It is problems arising from the manufacture of money that caused the recent financial bubble, and it is through taking advantage of that manufacturing process that the paper aristocracy and their friends grew rich. And those who understand how money is manufactured, and take the right precautions, will make fortunes in the forthcoming bust.

Technically, modern money comes in two types, "base money" and "bank money".

Base money is cash and reserves at the central bank. It is manufactured by central banks, which are strictly supervised by government and staffed with the best and most able public servants. The country's government formally controls the central bank (the US Federal Reserve is technically owned by private interests, but the US Government appoints its leaders); central banks do things essentially at the direction of government. Cash is brought into existence by printing physical cash. Reserves are numbers in accounts at the central bank; they are created when the central bank writes a number into a bank account at the central bank, which is typically what happens when the central bank buys something.

By the way, when a central bank buys something and pays for it by writing a number into an account at the central bank—thereby paying for it with money just manufactured out of thin air—it is called "monetization". Central banks have legal constraints on what they are allowed to monetize, and usually only buy treasury bonds (which the government's treasury issues to print money). But in practice, in an emergency, they can monetize almost any asset—and thereby create vast amounts of new base money, and a bulging balance sheet of assets.

Bank money is manufactured by private banks when they make some types of loans. By "private banks" we really mean all the banks other than the central bank (in most countries today they really are nearly all private, owned by shareholders, but there can be government-owned non-central banks too). Bank money is essentially a receipt for base money, issued on a fractional reserve basis in the same way that the old goldsmiths issued receipts on gold. For each loan they make, private banks have to lodge base money equal to a fraction of the loan as a reserve at the central bank. Bank money consists of numbers in bank accounts. Bank money is created at the instant of borrowing—the bank simply writes a number into a bank account (and immediately starts charging interest on the money it just manufactured). About 90% of money today is bank money. Most payments between individuals and businesses consists of moving numbers from one bank account to another; relatively little bank money ever gets converted to base money (cash).

Basically the government (via its central bank) prints some base money, and the banking system amplifies this up by issuing about ten times as much again as bank money. Base and bank money are easily interchanged (on a 1:1 basis), so we simply call them “money”.

Because bank money is created by the act of borrowing, bank money literally is debt—an IOU passed between us as a medium of exchange. Because banks charge interest on the bank money they create, someone somewhere is paying interest on each dollar of bank money in existence. When a debt is repaid, bank money is destroyed.

For a loan to be repaid, the borrower must pay back the original amount of money ***plus interest***. If all loans are to be repaid, the amount of money must continually expand—to pay back the original debts, plus the interest. New money must be continually be created, by new debt, in order to pay back the interest on previous debts. If the rate of money manufacture drops below the average interest rate for an extended period then not all debts can be repaid.

Banks charge interest on the money they create out of thin air. Obviously this is hugely profitable, so long as people pay back their loans. There are rules and safeguards about the process of manufacturing and destroying bank money, so all the books balance and, to a first approximation, it is all fair and balanced. But there are ways of taking advantage of the secondary effects of our current system of money manufacture. Naturally the advantages flow mainly to the paper aristocracy. Unfortunately there are periods when the paper aristocracy pushes their advantage too hard, makes too much money and captures too much real wealth for itself, and in doing so weakens the system and exposes its unfairness. One might say it acts irresponsibly or too greedily. If that situation persists, we get a financial bubble then a bust.

1971: The Birth of Today’s Fiat Currencies

Before 1971, the base money was gold. A dollar note represented some small fraction of an ounce of gold, and under certain conditions could be exchanged on demand for that gold. Gold is scarce and tangible, which constrained the amount of base money. This in turn limited how much bank money could be created. So the amount of money in the economy, the “money supply”, was constrained, and inflation was relatively low.

In the six decades prior to 1971 the financial system created much more bank money than could be supported by the available gold. Eventually the stress of having to exchange bank money for gold led to the abandonment of gold as base money—there had been too much bank money issued and there just wasn’t enough gold. The game was up. The bankers were about to lose big-time as people increasingly wanted gold in preference to their paper, so the rules were changed. In 1971 the last link between bank money and gold was severed, and bank money was no longer redeemable for gold under any conditions: at that instant, bank money no longer represented gold. This drastic action saved central banks from being cleaned out of all their gold, and bankruptcy. Lucky them.

From 1971, you have only been able to redeem money for cash—physical notes of paper currency, manufactured on a government printing press. You can redeem a $100 note for five twenties or two fifties, but all you are ever going to get is the same total of cash. This circularity calls into question the meaning of money, and is a solid clue to what gave rise to the financial bubble and the upcoming bust.

The new base money is cash. Ours is called a "fiat money system" or "fiat currency", because "fiat" means "by government edict" and because cash only has value by virtue of government decrees—principally the legal tender laws, and the requirement that taxes paid be paid to the government in cash or in bank money representing cash.

Today, governments can print as much base money as they want. Naturally, inflation took off after 1971, because governments always have some political need to inject more money into the economy (like the "need" to be popular, and buy votes). The best argument for a fiat system is the extreme need for cash in wartime, while the modern welfare state depends on government ability to conjure up some money out of thin air. The 1970s was a time of high inflation, but inflation was brought under control with 20% interest rates in 1980. By 1982 that unpleasant episode was over. It was back to banking as usual, and the current bubble began.

The history of fiat currencies is that political pressures for more money always resulted in the manufacture of too much base money, then there was a major inflation, and the fiat currency died after one or two generations. Today's currencies, such as the US dollar, the British pound or the Japanese yen, became fiat currencies in 1971—so they are all "due" to die soon.

Today, neither base money or bank money represent anything real or tangible. At best, today's money is an implicit promise that in the future you will be able to exchange it for almost as much real stuff as you can today.

The Business Cycle We Don't Have To Have

Fractional reserve banking causes the "business cycle"— the whole kit and caboodle of the cyclical business "clock" is almost entirely thanks to fractional reserve banking. We have good times punctuated by recessions every decade or so. The good times occur when the amount of bank money is expanding, and a recession occurs when it is contracting (or at least much less expansionary than usual) . There was no business cycle before fractional reserve banking, and no financial bubbles either.

The business cycle consists of fluctuations in the amount of bank money circulating in the economy, so it affects prices for goods, services, and labor. The real economy can cope with the business cycle; it's a real cost because it leads to some poor allocation of real resources, but it's bearable.

The fluctuations of the business cycle are often deliberately caused by the banks themselves. It's difficult to prove, but easy to imagine. Classically they issue as much bank money (and thus debt) as possible for a few years, then suddenly all cut back on lending at once—causing a recession in which the paper aristocracy buy businesses and assets at knockdown prices. Very profitable. And there's always a good alibi, some external reason for the tightening that sounds vaguely plausible.

The real economy can handle the typical fluctuations in money supply caused by fractional reserve banking. We merely get recessions. But when the amount of base money is also subject to fluctuations, the total fluctuations can be too much for the economy to bear. We are now in such a situation, having created too much base money since 1982. We are near the end of the world's biggest and deepest bubble. It's been fun going up, and governments are trying frantically to keep the bubble going, but they can only postpone the inevitable. The descent will be ugly.

Banks And Governments Run the Money System For Their Own Advantage

The banks and government got together in a big way in the United States in 1913, with the creation of the Federal Reserve. This was the third time a central bank had been created in the US; the previous two ended in ignominy or failure. It's been a lucrative partnership. The bank money manufactured by the private banks is labelled as national money, backed by the government, instead of just the private currencies of individual banks. Government gets to borrow as much money as it wants whenever it wants. The government has run up a huge tab that future taxpayers must pay off through actual hard work, although the debt is now so large that it can never be paid off without also reducing the value of the dollar, and our descendents may be paying it off in perpetuity. All this for money that is created legally out of thin air, and for which the banks charge interest. Beautiful. As they say in the world of confidence tricks, the best con is one where the mark doesn't even know they've been conned.

The banking system today is in many ways an arm of government, manufacturing bank money of behalf of the government in return for strict supervision. Organizations that can manufacture money can always find subtle ways of enriching themselves at the expense of others, which is why they should be kept on a very short leash. (Or possibly just nailed to the floor.)

"Rent seeking" is where you earn income through manipulation of the economic environment, rather than earning it by providing goods and services for others at a market price.

The profits made in the financial sector increased from 10% of all profits before 1971 to 45% in 2006. The finance industry only employs about five percent of workers, and produces no tangible goods and few essential services, yet it captured a huge share of profit during the financial bubble. That is rent seeking on a monumental scale. Do you remember all the outrage about this in the newspapers and from the politicians? No? That's because it never made it to the newspapers and no politician I know ever mentioned it. Have you ever wondered why?

How is it possible that the paper aristocracy is able to exploit the majority? The answer to that question starts with you: did you know how money is manufactured? If you weren't sure, don't be surprised: hardly anybody knows. Those of us who do know how outrageous it is cannot get others to do anything about it, because the system appears too complicated, or because the system isn't sufficiently broken. But the paper aristocracy have been taking a little too much from the system for many years, and now the system is breaking. So soon we might finally do something about it.

Be careful to distinguish between banks and their regular employees, on one hand, and their executives and owners on the other. The former are not members of the paper aristocracy. The people who profit from banking are the executives and owners, and those who can take advantage of the cycles of money creation. The banks themselves are just profit-seeking actors in a competitive and regulated environment—they come and go, get bailed out or not. It matters little to past executives or owners if a bank fails. The problem is more diffuse than the banks themselves. The problem is the paper aristocracy, who control the manufacture of paper money—the upper echelons of the financial class in general, Wall Street.

The paper aristocracy has overwhelming wealth. They own or influence all the media – if only because every media organization borrows from banks. They influence almost all the institutions that employ professional economists, by supplying the money for PhDs and providing most of the lucrative consulting jobs for economists. They buy politicians by the truckload. While organized labor can only afford to buy one side of politics, the paper aristocracy can afford to buy both sides.

The banksters have even killed the occasional thorn in their side—including, probably, two US presidents, Lincoln and Garfield. If no one knows or objects to their activities, why shouldn't the paper aristocracy do what they want? If they don't flaunt it, and the system seems to basically work for most people most of the time, what's so bad? (In southern Italy some people say the same about the Mafia.) If people don't know that the system would run better if the paper aristocracy weren't there skimming off their take, are they really being ripped off? If most people are sheep who don't complain, what's wrong with wolves?

The paper aristocracy have a monopoly on providing paper money, the medium of exchange used by the rest of us. The banking class have easy lives and have very high incomes compared to the rest of us, so they are successfully rent seeking. They are parasites in the economy—in the sense that they do not pull their weight, because they do not provide services commensurate with what they receive.

Why does the banking class indulge in all this rent seeking and wealth accumulation for themselves? Because they can. Medieval goldsmiths noticed they could get away with lending out receipts for more gold than they had, and they become wealthy and powerful as a result. It has just grown from there, into a system of central banks and private banks issuing paper money. Central banking is a pact between government and banking that allows bankers to be monopoly suppliers of money with government backing and assistance, while supplying government with unlimited amounts of money to fight wars or buy votes. The logical endpoint for banking is what we have now, the largest and deepest worldwide financial bubble ever. The political class is trying to delay the inevitable, but the fallout from this bubble will reveal more of the costs that the paper aristocracy have imposed on the rest of us.

The paper aristocracy used their unearned money to buy property and real stuff, and are leaving behind a wreckage of loans and broken promises. They did it because they could, because nobody stopped them, and because government not only did not really understand what was happening but actively aided and abetted it.

You might assume that the right wing has closer ties to the banking world, but historically it's the left wing that introduced the reforms that have most benefited the paper aristocracy. Perhaps the bankers have an easier time convincing lefties and academics because they aren't quite as hard-nosed and wise to the ways of business and creating advantage. Some people are just more likely to believe that something useful *could be* created from thin air.

The Paper Aristocracy are Really in Charge

Bankers know far more about banking and its subtle ramifications than politicians, and have usually been able to persuade, con, or bribe governments to do their bidding. The politicians, our representatives, are the patsies here. The bankers have conned government big time, including when they talked US President Woodrow Wilson into setting up the Federal Reserve in 1913 (which, by the way, Wilson later bitterly regretted).

Is it fair to compare the paper aristocracy as keeping the majority of us like cows or sheep? They milk us like cows or sheep during a bubble, until it is time to shear us in the bust...by money expansion then money contraction during the business cycle, they massively extract wealth from the majority of people doing genuine economic service. Is this what we're going through now? It’s hard to come to any other conclusion. Most people never notice, so we are happy enough most of the time.

But some folks do see what is going on and fight back, and history is littered with revolutions. The most famous revolution of this type is of course the American Revolution, which saw the American colonies break away from the parasitic grip of European banking. By the way, the American Revolution was more about being forced to use the money issued by European banks instead of the locally-issued money. The revolution wasn’t over a small tax on tea—that was just the straw that broke the camel’s back.

What’s Gold Got To Do With It?

Gold keeps bankers and governments more honest, because it is tangible, scarce, and physical—governments and banks cannot simply make more of it whenever they feel like it. The power of the paper aristocracy only exists because they found ways of escaping those constraints, of substituting their paper for gold.

The switch from using gold to cash as the base money in 1971 ushered in an era of higher inflation and accelerated bubble formation. As this bubble ends, the real economy and our fiat currencies are going to get badly hurt. The system is now too unstable and unjust, too open to corruption. It is just too easy and tempting for those controlling money manufacture to create too much. The lure of “something-for-nothing” is too strong, and a system that allows it (even for a small number of very “responsible” people) is doomed to fail. Using gold for our base money prevented most of that nonsense from getting too far out of hand.

Alan Greenspan, later Chairman of the US Federal Reserve from 1987 to 2006 (the bulk of the growth years of the current bubble), said in his famous 1966 essay:

> "The abandonment of the gold standard made it possible for the welfare statists to use the banking system as a means to an unlimited expansion of credit. …the earnings saved by the productive members of the society lose value… In the absence of the gold standard, there is no way to protect savings from confiscation through inflation. There is no safe store of value. If there were, the government would have to make its holding illegal… The financial policy of the welfare state requires that there be no way for the owners of wealth to protect themselves.

> This is the shabby secret of the welfare statists' tirades against gold. Deficit spending is simply a scheme for the confiscation of wealth. Gold stands in the way of this insidious process. It stands as a protector of property rights. If one grasps this, one has no difficulty in understanding the statists' antagonism toward the gold standard."

Asked in 2002 whether he still agreed with everything in that essay, Greenspan's entire reply was: "Yes".

Financial Bubbles

No money: no bubble.

A "financial bubble" is where we manufacture money faster than we manufacture new goods and services. It causes prices to rise, but often just in one or two favored asset classes at first. The price rises in an asset class, when spectacular, are called a "price bubble". But the underlying cause is nearly always a rise in the amount of available money, a financial bubble. You cannot have a price bubble in a significant market without a rise in the amount of money, or "money supply". (Tiny markets do not involve much money, and can have price bubbles for reasons other than rises in the total money supply.) It is simple supply and demand. (But speak to a Keynesian economist and watch how the situation is complexified and avoided.)

In the housing market, for example, houses are exchanged for money. The situation is symmetric: the prices of houses depends on the housing supply AND the money supply. If there is a decrease in the number of houses for sale, or an increase in the amount of money available to buy houses, then house prices rise. Suppose the housing supply is about constant but house prices are rising—if the money supply stops rising then there is no extra money to buy houses, so housing prices stop going up.

Without a quickly rising money supply, bubbles do not occur. The rise in the money supply is the cause, the price rises are the effect. Feedback is also important, because rising prices draw in more money—from speculators, and from banks willing to lend against increasingly valuable collateral. The bank lending is mainly of newly-manufactured money, so it further increases the money supply, which enables more prices rises, and so on. But it is ultimately the increase in money supply that is the bubble, which causes the price rises, and which enables the prices to keep rising. And when the money supply stops rising, so do the prices.

Price bubbles often only occur in particular asset markets, such as housing or tech stocks, because banks will create money specifically to make purchases in this market, and because speculators are only attracted to markets where prices are already rising. A rising money supply will not generally cause bubbles in all markets, but often just in those markets where prices happen to be rising for other reasons and where banks are willing to lend. However, a quickly rising money supply makes bubbles possible, and makes a bubble in some market in the economy inevitable. With a longer and steeper rise in money supply, we get a series of overlapping bubbles in different markets—until we have a general financial bubble with raising prices in nearly every market.

The role of bank lending ensures that it is asset markets that experience price bubbles first, because banks will only lend against assets. Eventually the public catch on to the existence of the rising amount of money, and demand their share as higher wages. This realization can be put off by convincing people that there is in fact no “inflation”, even while asset markets are raging. Then the rising prices spread out of the asset markets and into wages, and then the prices of nearly everything is rising.

Most of the economy, as measured by where money is spent, is not measured by the consumer price index (CPI). Asset markets do not appear in the CPI. During the early stages of a financial bubble, when only prices in asset markets are rising, the newly created money is mainly being used to buy assets in the markets with rising prices. Eventually that new money trickles out of the asset markets and into the parts of the economy measured by the CPI, namely wages and consumer goods. The trickle is fairly slow, so the financial bubble can go for years of increasing money supply without affecting the CPI.

A major con during a bubble is that the folks getting the newly manufactured money get to spend or invest it before prices rise, and before the rest of the population catches on that there is a lot of new money. The banking class and their friends or favored clients manufacture new money, buy stuff in a particular asset market at existing prices, and then the new money causes prices to rise in that asset market. This is a great game to play if you own a money-making machine—the vast bulk of the population have no idea, and you get cheap investments early that are almost guaranteed to go up. This is one of the secondary effects of money manufacture by which the paper aristocracy make unearned real income at the expense of the rest of us.

While people outside the paper aristocracy can also participate and profit from price bubbles, the paper aristocracy have two advantages that others do not share. First, the paper aristocracy buy assets in a market when they are at their cheapest, before the rises begin, with new money they manufacture for themselves. They then manufacture new money for those wishing to buy in the market, and prices rise. Second, the paper aristocracy get out of the market at the best time, because they control the flow of new money that is causing asset prices to rise. They know when it will be turned off, and sell to unsuspecting newcomers before then. In the 1890s instructions were sent in writing over two years in advance to the hundreds of banks required to coordinate the turn-off on a particular day. (Things today would not be so blatant. Perhaps it was difficult to coordinate hundreds of private banks without Blackberries, emails, and cell phones.) This end of this financial bubble will be no different. Relatively few people outside the paper aristocracy profit overall, during the entire cycle of a rising and falling asset market.

Money is just a medium of exchange, so manufacturing more money does not create real wealth—the economy does not become more physically productive. But manufacturing more money redistributes real wealth—some people use the new money to go and buy stuff without having saved for it, and everyone else’s money is thereby devalued a little (because there is suddenly more money, but not suddenly more goods and services to spend it on).

Overview of the Current Financial Bubble

The recession of 2008 is different from all the ones since the 1930s. Previous recessions were due to a build up of excess inventory and money, and the corrective recession started when the central banks raised interest rates in response. The Great Depression and the 2008 recession (and the forthcoming bust) are what happens when the central banks don't raise interest rates when they should, when they simply keep interest rates too low until something breaks. What is breaking this time is that, on a worldwide scale, we simply ran out of borrowing capacity—there just isn't enough income to service more debt (interest is approaching 20% of GDP), and the world is running low on unencumbered collateral.

The usual solutions to recessions won't work this time around. The solutions tried in the 1930s dragged out what should have been a short, sharp depression lasting a couple of years into a much longer ordeal, depending on how much the government interfered in the markets and indulged in Keynesian spending. Countries like Britain and Australia that did not indulge so much recovered by 1936, but the USA, where Keynesianism was rampant, was still mired in the depression in 1941 when WWII started. It takes persistent wrong-headed economic interference backed by the force of government to turn a depression into a Great Depression. So far, in 2009, governments are trying the failed solutions of the 1930s to restart and prolong the bubble, substituting increased public debt and money to make up for the plateauing private debt and money.

There was a large deflation at the beginning of the Great Depression, which destroyed a large portion of the money supply. This left many towns and communities literally without any money, with no medium-of-exchange with which to conduct commerce. To restart economic activity, government invented all sorts of reasons simply to inject money into these towns and communities—all the way up to the ridiculous notion of burying money in bottles and having people dig it up. Bank failure was also a major problem in the 1930s. The main asset of banks were bonds, whose values fall with increasing interest rates. If a bank's assets fall below its liabilities, the bank fails. Government lowered interest rates to boost bank assets—which also promoted money production to counter the previous deflation. These policies of the 1930s were in response to the specific circumstances of the post-deflation 1930s, but they form the basis of Keynesianism—which is the dominant economic school today, but which has become little more than an elaborate excuse for lowering interest rates. Keynesianism simulates money manufacture and favors the paper aristocracy, and the paper aristocracy have been very influential in persuading the economics profession to adopt Keynesianism. But today's circumstances, near the end of the largest ever bubble and after years of high money supply growth, are very different from the post-deflation 1930s.

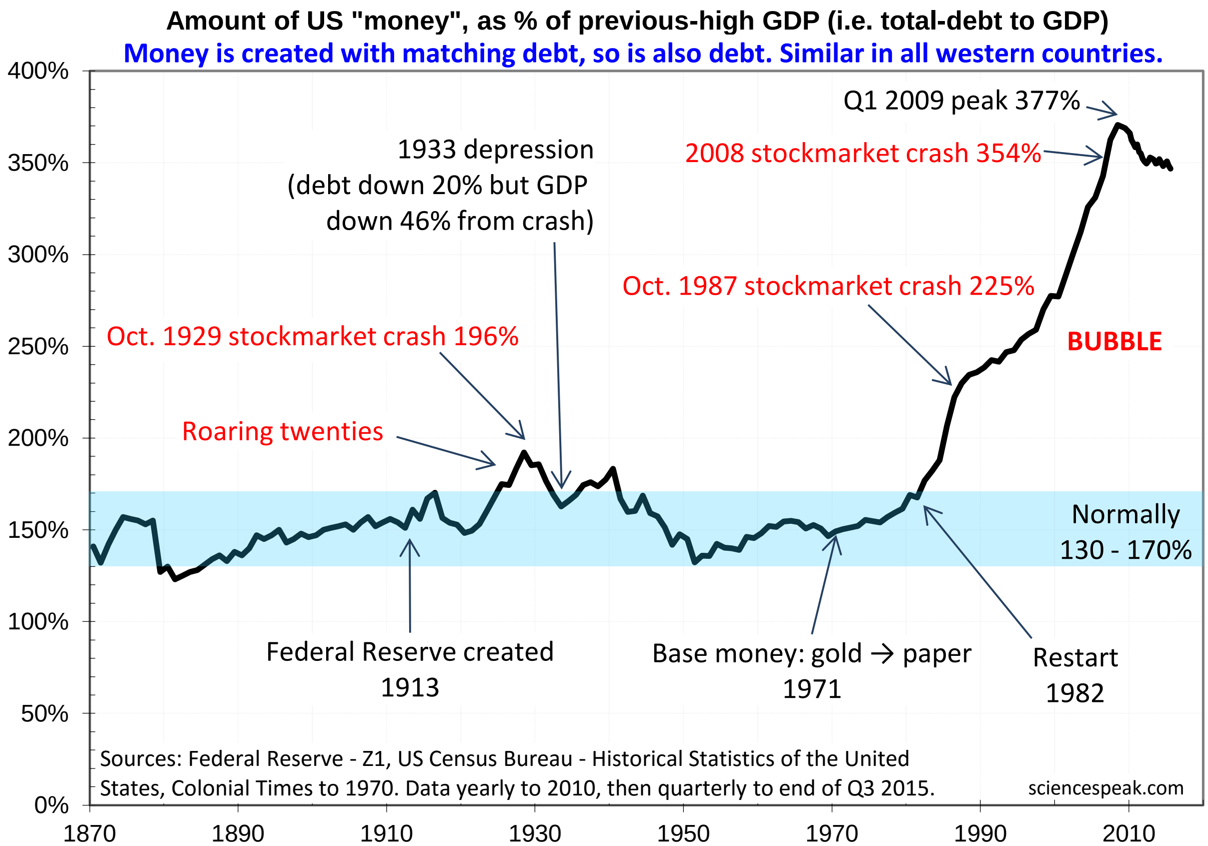
In the last decade of the recent bubble, almost everyone was convinced by the government's CPI figures and the low gold price that there was no (price) inflation. So they did not raise the price of their labor, even though the money supply was expanding at over 8% a year in the US and at similar rates elsewhere in the developed world. Meanwhile those with new money were making fortunes in the bond, stock, then housing markets, and spending their profits on your labor, which was still mainly at pre-bubble prices. General prices, especially wages, have not yet gone up much in response to all that extra money created during the bubble. But they will. The winners are those who get the new money first; the losers are those who get it last, often by wage or welfare payment increases long after asset prices and general prices have already risen.

Extra debt creates extra money, which creates more economic activity, which adds to the GDP—so it causes the economy to grow faster. This feels good, and politicians love the illusion of growth and wealth during a financial bubble. Shame that the debt that has to be repaid.

Like an individual with debt, in a financial bubble the economy is just borrowing from the future. Sooner or later the debt has to repaid. In the current money system, loan repayment destroys the money, withdrawing it from the economy—and lowering GDP because there is less money sloshing around the economy. The hope of central banks and government, like the individual who borrows, is to create enough real wealth with the borrowed money that paying it back won't hurt too much. Unfortunately, much of the money borrowed into existence in the last few years was spent on things like luxury goods or nicer houses that don't increase future production of goods or services. History says that when economies do this, it rarely works out well. The day of reckoning can be put off by creating even more debt money, but the day of reckoning will eventually come. It looks like it's arriving in about 2010 or 2011, maybe 2012.

The Early Years of the Bubble

The growth of the current financial bubble is easily seen in the growth of the total debt, as a proportion of the size of the economy: we can simply track the ratio of debt to GDP.



The longer view: 1870 – Q3 2015 (graph updated in 2016). See sciencespeak.com/economics.html.

In the USA, the debt-to-GDP ratio in 1982 was at its usual level, around 150%. That is, the total amount of debt was equal to about one-and-a-half times the yearly economic turnover.

By 1987 the debt had reached 235% of GDP, a level last reached in 1929, the year the stock markets crashed to usher in the Great Depression. (The ratio then peaked in 1933, as the GDP fell.) There was a stock market crash in 1987, like in 1929, but this time the central banks reacted by quickly creating more money, and in 1987 the economy was more flexible about wages and production. After the 1987 stock market crash the economy and debt levels quickly recovered, and kept right on powering on.

In the early 1990s there was a small recession as the pace of money manufacture faltered. The banking system obliged by loosening some safeguards on money manufacture and effectively dispensed with reserve requirements for banks, which meant the end of rationing of loans. (Before then there was a limited supply of new loans, so you had to suck up to your bank manager to be the one to get the loan. From the early 90s banks could pretty much create as much bank money as required for any borrower with collateral and enough income to pay it back.) The recession of 1990 was swept away in a deluge of new debt and money, and by 1995 the debt-to-GDP ratio was increasing again, into record breaking territory at a dizzying 250%.

How Interest Rates Are Set

To understand the next stage of our current financial bubble we need to know how interest rates are determined in our current money system. Basically the central bank sets short term interest rates by government decree, but the bond market sets long term interest rates by a market process.

Long term interest rates are set by the bond market. A bond is an IOU, a piece of paper where the issuer of the bond pays the purchaser of the bond a certain payment when the bond matures, and perhaps some smaller payments along the way. Governments and companies issue and sell bonds to raise money. The price of a bond is equivalent to the interest rate implied by the repayment schedule, plus a risk factor. Long term interest rates are set by the prices of bonds, particularly the less risky ones like government bonds. The US bond market is the single biggest, deepest, and most important market in the world, much bigger than any stock market. In most countries, including the USA, housing mortgage rates are set by the long term interest rates, and thus by the bond market.

Short term interest rates are set by the central bank, by force of government: some bureaucrats at the central bank dictate the overnight interest rate. (It can be argued that central banks follow the market for short term interest rates most of the time. But the market is simply anticipating what the next edict from the bureaucrats will be, and short term interest rates could, and very likely would, be quite different in the absence of central banks.)

There are markets for bonds of a wide range of timeframes. The central bank only dictates the price of overnight money, but the shorter the duration of the bond, the more it is affected by the overnight rate. For example, the interest rate implied by a one-year bond must be roughly equal to the anticipated overnight rates over the next year, because an investor could lend out his money overnight each night for a year or choose to buy a one year bond. The longer the duration of the bond, the less the influence on its interest rate of the central bank's overnight rate—for 10 and 30 year bonds the influence is very muted.

Don't you think it curious that in our so-called capitalist economies, the most important price in the economy, the price of overnight money, is set by bureaucrats? Capitalism is characterized by letting the marketplace set prices, not politicians and bureaucrats. The system where bureaucrats set the prices of things is communism. A marketplace does a better job because it takes into accounts everyone's desires and the supply factors, automatically transmitting information about demand and supply to producers and consumers alike. Bureaucrats fail to set prices well, not because they are lazy, corrupt, or stupid, but because it is not humanly possible to absorb and weigh all the dispersed bits of information that affect supply and demand—having bureaucrats set prices prevents price information sending signals about how much to produce and so on. See how well having bureaucrats set prices worked out for the Soviet economy!

Everyone always wants market discipline to apply to everyone else, but not to them. (So we can buy the best possible goods and services at the best possible prices from everyone else. And so have an easier life, not working as hard, with less competition and above-market income—that is, rent seeking.) Pure communism is an attempt to extend the luxury of escape from market discipline to everyone; pure capitalism is where everyone is subject to market discipline all of the time. From the history of the last century, and from the high correlation between the wealth of a society and its level of economic freedom, we now know that the more people in a society are subject to market discipline the higher the living standards and material wealth of the society. In our mixed economies of the developed world, situations where prices that are not set by markets are always because some political privileged group has managed to escape market forces—indulging in rent-seeking at the expense of the rest of us. So it is with short term interest rates. The paper aristocracy and government find it convenient to ignore market discipline for themselves, and simply set short term interest rates by edict. Therein lies a powerful clue to reforming our current money system.

The Clinton Strategy

In 1993 the new Clinton administration found itself hampered by the bond market. Whenever Clinton proposed a government initiative that involved spending more money, the bond markets would realise it would entail more debt and money creation, and would promptly raise long term interest rates in response, which hurt voters and businesses.

To escape that discipline, the US government under Clinton and Greenspan implemented a three part strategy to allow increased government spending without causing either long term or short term interest rates to rise, a strategy for silent mass money creation. Low interest rates encourage borrowing and thus money manufacture, which feeds and sustains the financial bubble. This strategy is what allowed the financial bubble, already at record levels in 1994, to grow from huge to obscene, to a state where today it threatens the whole western financial system, and even political and social stability.

Each part of the strategy had to be clandestine, designed to mislead the public and to interfere with the normal operation of markets. It was a political corruption of the idea of free and open markets.

The US interest rate settings are exported to the rest of world, because the US is such a large consumer and because the dollar is the world's reserve currency. Any country that set interest rates significantly higher than the US soon found its currency appreciating and its exports falling—ouch! The lower interest rates caused by the Clinton strategy in the US affected the whole world, as all other countries were forced to adopt lower interest rates in response.

Part 1: Lower Long Term Interest Rates

The first and most important part of the Clinton strategy was for the government to intervene surreptitiously in the bond market to lower long-term interest rates.

It had to be surreptitious, because if the market had caught on it would simply have raised rates in anticipation of future debt and inflation. The government employed certain big Wall Street banks to use derivatives to influence the bond market, to give it a heavy bias towards low interest rates, and to jerk the market around counter-intuitively so as to demoralize and wipe-out regular bond market traders, in particular the so-called "bond vigilantes" who had previously constrained government spending.

Evidence for this can be found in the huge quantity of interest rate derivatives held by major banks. JP Morgan Chase, the main agent for the US Government on the bond market, has over 60 trillion dollars of interest rate derivatives. World GDP is only 50 trillion dollars—the nominal value of the interest rate derivatives held by JP Morgan Chase alone are larger than all the business conducted by the all the world for an entire year. Further, these derivatives are “naked” or unbalanced, which is very risky for a bank. This suggests that JP Morgan Chase has been guaranteed in this undertaking by an even larger entity, which could only be the US Government.

According to the Bank for International Settlements, there are about 600 trillion dollars worth of derivatives in existence, the vast bulk of them on interest rates. This colossal interest rate derivative complex is ever expanding, because it must continually keep the long term interest rates below the natural rates that would be set by a free market.

This huge pile of derivatives, about twelve times world GDP, is a clear and present danger to the world’s financial system. The large nominal values of the derivative contracts cause “counterparty risk”: if one party to a derivative contract goes bust and cannot pay, the other party is likely to go bust too because it was depending on that payment to meet a related derivative liability. If large banks start failing then the derivatives could ensure that nearly all banks, worldwide, fail almost immediately. The failure of Lehman Brothers in 2008 almost set off this derivative bomb. The presence of the derivative bomb is a major reason governments feel compelled to keep banks alive, no matter how stupid and amoral their behavior has been. The major banks are holding us hostage: *don’t let any of us die, or the whole world gets it.* The derivative bomb ensures that many financial institutions with large derivative contracts are considered “too big to fail”.

Part 2: Lower the Consumer Price Index (CPI) Numbers

The second part of the Clinton strategy was to artificially lower the CPI numbers by changing the way the CPI is calculated, by statistical sleight-of-hand. This prevents the public and markets from being alerted to the inflation caused by the financial bubble. It also justifies the US Federal Reserve setting low short term interest rates, thereby keeping the pace of money manufacture higher—if CPI was higher, interest rates would have to be raised to bring “inflation” under control. The paper aristocracy have many reasons to underestimate the CPI, and none to overestimate it.

(The policy of setting short term interest rates as low as possible consistent with keeping the CPI low was adopted by central banks in the 1990s and is known as “inflation targeting”. Some central bankers now acknowledge that they should have targeted asset markets as well. The issue is that the CPI does not measure large parts of the economy, such as asset markets, and it was in these areas that the money growth was occurring. The new money is largely confined to the asset markets at first, but gradually trickles out to the wider economy.)

The public has been educated to think that inflation IS a rise in prices, which is measured by the CPI. There are two problems with this.

First, the word “inflation” has for centuries referred to an increase in the amount of money in the economy. Rising prices were not called “inflation”; rather, rising prices were correctly seen as a *symptom of prior inflation*. Rising prices are a natural consequence of inflation, because in the broadest terms prices are determined by the ratio of the amount of money to the amount of goods and services.

(Prices also rise and fall for reasons other than changes in the money supply. A rise in money supply does not lead to higher prices if there is a corresponding rise in the amount of goods and services.) A good analogy: influenza is not “having a high temperature”, rather the high temperature is a symptom of the underlying viral infection. This confusion of cause and effect concerning the nature of monetary inflation is very important because it allows banks and government to con us.

Second, governments changed the way CPI is calculated many times since 1980, and each change has lowered the CPI below what it would have been as previously calculated. Since 1996, the US CPI is about 3% below the CPI calculated using 1980 methodology. That is, if you took today’s price data in the US and computed the CPI using the method used in 1980, it would be about 3 percentage points higher than the currently reported CPI. For example, in 2008 the US CPI was reported as about 4%, but if the 1980 method had been used then it would have been reported as about 7%.

By artificially lowering their CPI numbers, the western governments lowered inflationary expectations and hid the large inflation that was taking place. How large was the inflation? The broad money supply in the US from 1995 to 2008 grew at about 8 - 9% per year, over 12% in some years. By the standards of times gone by, we might have said the “inflation” for those years was around 8 or 9%. (It’s somewhat unclear because none of the M1, M2 or M3 standard monetary aggregates measure “money” correctly for this purpose. Changes in M3 probably usually best reflect the relevant changes in the money supply.) Yet for the entire period the CPI was always 1% to 4%.

Under-reporting inflation has another benefit for the government: it boosts the reported “economic growth” figures. GDP is calculated as the nominal or face value of all transactions, minus the increase in CPI. So if the CPI is under-reported by 3 percentage points then the headline GDP will be over-reported by 3 percentage points—so a great-sounding 4% growth rate in GDP would really only be a 1% growth rate. This has been going on since 1982, but especially after 1996. Have you noticed that, apart from borrowed money, rising asset prices in bubble markets, and people moving into more senior positions as they get older, we aren’t really wealthier we were than 20 years ago? Where one worker per household was enough to provide a middle class lifestyle in 1971, now it generally takes two. The extra wealth we’ve been told about by government statisticians was mainly an illusion caused by mismeasuring inflation, and the genuine improvements have been mainly due to advances in technology.

Public servants such as nurses, fireman, police, and teachers, and others whose wages or welfare benefits increase at about CPI plus 1% each year, have really been getting ripped off: their wage increases have been below inflation for years. After a couple of decades, their real wages are considerably lower than they used to be. (Suppose CPI underestimates inflation by 3 percentage points per year for 20 years, and you get CPI plus 1% per year wage increases. After 20 years of being 2 percentage points below inflation each year, your real wage has dropped by 48%.) But government figures “prove” they are ahead of “inflation”. They cannot protest because they do not know how complicated CPI statistical chicanery has lowered the CPI below a realistic measure of inflation—yet they are pretty sure that their standard of living is gradually dwindling. (What a great con! The victims are left unable to complain because they don’t comprehend what has happened to them or even if anything was actually done to them.)

Part 3: Suppress the Gold Price

The third part of the Clinton strategy was to lower the gold price, to prevent an increasing gold price from alerting the public and markets to the high inflation.

The gold price is mainly set in a derivatives market in New York, the COMEX gold futures market. Like the bond market manipulation, the gold price suppression was done with derivatives for leverage, biasing the market to low prices, and jerking it around counter-intuitively to demoralize and bankrupt regular traders.

Evidence for this is that the almost the entire “short” side of the futures market in gold and silver (the side taken by those pushing prices lower), is taken by just a handful of traders, who all happen to be big financial companies, principally Goldman Sachs, JP Morgan Chase, Deutsche Bank, and HSBC (USA). In a court case about the issue, JP Morgan Chase simply claimed immunity because they were acting as the agent of central banks.

The US Securities and Exchange Commission does not allow anywhere near such a concentration on one side of a market in any other commodity, just in gold and silver. In other words, the government body responsible for keeping commodity markets free and fair turns a blind eye to obvious manipulation in the gold and silver markets.

In addition, from 1998 to 2008 western central banks sold or leased out much of their gold, mainly surreptitiously, to further suppress the price.

This successfully lowered the gold price for the first few years, but since its low point in 2001 the gold price has been rising at 15% a year. The suppression, which still continues, has nevertheless been successful in that the gold price is lower than it would have been otherwise. The general public and markets have only recently been slightly alerted to the inflation that occurred by the gold price finally topping $1,000 per ounce.

When the Federal Reserve was first created in 1913, there were twenty US dollars per ounce of gold, now there are a thousand dollars per ounce. The purchasing power of the US dollar keeps getting smaller and smaller under our current system. Compare that with the century before 1913, during which the value of the US dollar stayed fairly constant (though there were fluctuations due to wars). The dollar only started systematically shrinking when bankers were given control of it, starting in 1913 with the creation of the Federal Reserve.

The Recent Years of the Bubble

So what was the effect of the Clinton strategy? The financial bubble grew fiercely in the late 1990s, finding a particularly strong outlet in tech stocks. By 2000 the debt-to-GDP ratio had reached 260%, a new record. The new money boosted the GDP and government taxation, so it appeared rosy.

In the late 1990s some Depression-era regulations intended to prevent financial disasters were repealed, and in other cases, simply not enforced. Wall Street and the bankers got the green light from government to really shear the rest of us.

After the crash of the tech mini-bubble in March 2000, the rate of debt and money faltered. Central banks lowered short term interest rates, to 1% in the US, and the financial bubble reignited almost immediately. This time it found an outlet in the housing market, and got going with a vengeance as more of the public found a way to participate in an asset bubble. By now, housing loans were being offered to anyone with a pulse. Government even forced banks to lend money to borrowers who failed to meet traditional standards of credit worthiness, and who had little hope of ever repaying their loans. In response, Wall Street developed a nice scam of bundling loans together, labeling them AAA, and selling them to unwary buyers—so a bank could make a bad loan but pass the repayment problem on to someone else, while raking in large fees calculated on the assumption that the loans would be repaid. Beautiful.

Bush followed essentially the same financial policies as Clinton. Obama has continued them unchanged, and worse, and filled even more key economic posts with members of the paper aristocracy. I doubt if the presidents themselves were aware of the details of the policies, or understood what was really going on, but their financial policies were something the paper aristocracy wanted, understood, and profited from far more than the rest of us.

By the end of 2007 the debt-to-GDP ratio in the US had soared to 340%, far higher than it had ever been before. Even the global financial crisis of 2008 hasn't checked it's growth: private debt creation slowed, but it was more than replaced by public debt creation and the GDP fell. By the middle of 2009 the debt-to-GDP ratio had risen to 375%.

The day of reckoning is almost here. The average interest rate on all that debt is about 5%. This is where the arithmetic gets ugly. The debt is 3.75 times the GDP, and 5% of that must be repaid ***as interest*** every year, so the interest repayments are 19% of GDP! An economy cannot function if it is paying interest equal to nearly a fifth of all economic activity. We are hitting the wall.

Life Inside the Bubble

The bubble encourages corruption and rent-seeking. There is new money about, something for nothing. It often makes more sense for us to chase the new money than to produce real goods and services in the marketplace. In the long run, it makes humanity poorer.

The closer you get to the new money and its manufacture, the more the corruption. Government and Wall Street, especially the big banks, will be revealed to have been deeply immersed in a culture of corruption over the next few years. (The term "corruption" is used here in the wider sense of feathering their own nests rather than doing what they are supposed to do, not necessarily in the sense of doing something illegal—though there has been plenty of that too.)

With the exception of entertainers (which includes professional sportspeople), nearly all over-sized salaries in today's economy exist because the recipient has somehow managed to directly capture a slice of the newly manufactured money. For example, CEOs award themselves some of the money borrowed by their company. (The company makes extra profits with that borrowed money, so it appears that the CEO is making extra profits for the company. The company is grateful to the CEO, but it is really the easy availability of money and an economy awash with money that are mainly responsible for the profits.)

Remember, each new dollar snips some value off all the dollars already in existence. The CEO using newly manufactured money is also using purchasing power sucked from citizens everywhere to create company profits. And because interest rates are artificially low, the CEO did it by snitching your purchasing power at an unfairly low price—if you knew money supply was growing at 10%, would you loan your money out at 5%?

In recent decades, economic activities that manipulate and extort unearned profits by such means as unduly influencing government policy have become increasingly rife. The economy is suffering, and so is justice and a sense of opportunity. Examples abound. Labor unions do it by being a monopoly supplier of labor. Businesses often find it more profitable nowadays to lobby government than to spend the same effort developing better or cheaper products. Businesses try to corner markets by taking over their competitors, which is greatly assisted by the current monetary system—a company buys out a competitor simply by having a bank manufacture the money to do so out of thin air, and all it has to do is convince the bank it can repay the money plus interest.

People everywhere are trying to make unearned gains or engage in a bit of rent seeking. People rarely become rich nowadays just by hard work or providing a useful service to society. It's nearly always either by successful rent seeking or by taking advantage of the many financial distortions caused by the manufacture of money out of thin air.

Big government makes rent seeking much easier—just persuade the government to change a regulation or law to favor you. This is how the third world operates.

"Regulatory capture" is where the government regulators and the people they are regulating get to know one another, socialize, and so on. The regulated know far more about their line of business than the regulators, so they explain it to the regulators – who are usually career public servants with generalist training. After a while the regulators see things from the point of view of the regulated. It's fairly common. Banks are the best at it, and have almost completely captured their regulators.

Until recently it's been an open question about whether government controls banks or banks control government. The events of 2008 settled that question, at least in the US. The banks got $700 billion to spend on … whatever they wanted really, and lots of other support. *"There is no financial institution that exists today that is not the direct or indirect beneficiary of trillions of dollars of taxpayer support for the financial system."* – Larry Summers, White House senior economic adviser, October 2009. Meanwhile two US car companies went to Washington begging for a loan of $25 billion—they were refused, and were nationalized instead. Car companies manufacture something useful (cars), while banks manufacture…money. Hmmm.

The Aftermath of the Bubble

The world is nearing the end of its biggest ever financial bubble. The bubble is worldwide, the money is purely paper, and debt-to-GDP ratios are at record levels. Centuries of evolution of our money system have been leading up to this moment. What next?

The financial bubble is not yet finished. The global financial crisis of 2008 marks the end of the period where the bubble was fuelled by private debt. We have now entered a new stage, where the private sector is paying down its debt but government has stepped up to fuel the bubble with public debt. The manufacture of money in the private sector is declining, but government manufacture of money through various national stimulus packages has stepped up to replace it.

Politicians feel they must keep the bubble going, or falling asset prices and rising unemployment will make them unpopular. Governments hope that their injections of money will induce private debt levels to start increasing again and reignite the bubble, as happened after the crash of 1987, the recession of 1990-91, and the tech crash of 2000. But this time bank lending rules cannot get any looser, the percentage of national income already paying off existing debt is higher than before, and the world is running out of unencumbered collateral. Even if the bubble reignites it is unlikely to last more than a another year or two, whereupon we will be plunged back into crisis.

Governments are debating when to withdraw their stimulus programs, but private debt is not expanding. They are afraid of a recession if government simulation is removed. The end is near. We will know the bubble is finally ending when the debt-to-GDP ratio starts falling.

There are basically three ways we can go from here. The world will probably do a bit of each, in some sequence that is hard to predict because it depends on political decisions rather than market behavior.

The first path is that governments can withdraw or reduce their stimulus packages, thereby reducing money manufacture by government. The private sector is already reducing debt, which is destroying money. A falling money supply is deflationary—this is the path of deflation, which is what happened in 1930-32. There will be a deep recession or even a depression, large increases in unemployment, and asset prices will fall. If pursued with zeal, this path would demand that financial institutions mark their assets to market, and failing financial institutions would need to be nationalized to preserve their basic functions (such as bank accounts and payment systems). Eventually the debt-to-GDP ratio would fall to normal levels, and a dynamic economy would resume once again. Obviously this is a very painful path and one that democratic leaders will avoid at almost any cost.

The second path is that governments can keep their stimulus packages in place as required to prevent recession. The private sector is already at about its debt limit, so the money manufacture required to keep the bubble going will need to come from government. This path continues the moderate inflation of the bubble years. Governments take over more and more as they manufacture and spend money, and private debt contracts. Total debt levels will stay permanently high, because if the debt-to-GDP ratio falls then there will be recession and unemployment. The private economy will become moribund. This prolongs but does not resolve the situation; eventually we will go down one of the other paths. This bears some resemblance to Japan after 1990.

The third path is that governments keep or increase their stimulus packages in order to keep economies "growing" like they did earlier in the bubble. The necessary money manufacture will result in moderate to high inflation that becomes increasingly obvious to the public. Inflationary expectations will increase, wages will rise, and the prices of consumer goods will go up. This is the inflationary path, like a more intense version of the 1970s. Fortunately the inflation will reduce the real value of the private and government debts, which will reduce the debt-to-GDP ratio to more normal levels in a decade or so. The danger is that the inflation slips out of control, paper money becomes meaningless, and our fiat currencies end up in the hyperinflationary death usually experienced by previous fiat currencies. Or there might be a happy ending: once real debt levels are sufficiently reduced, governments could impose high interest rates to end the inflation and resume a sounder economy. Given that the first path is too painful and the second path doesn't lead anywhere, this third path is where we will end up.

Once the bubble merely stops growing—debt levels stop rising, or equivalently, net money manufacture ceases—the real economy will be hurt. Much of the business activity that grew up during the 28 years of the bubble caters to the excess new money—especially luxuries, such as yachts. Once the new money stops, the business activity that depends on it is not worth doing, and those involved will lose their jobs. If there had not been an excess of newly manufactured money over new goods and services then those business activities (like the bubble) would not exist. Losing this business activity at the end of a bubble is unavoidable. This misdirection of real productive capability into servicing the excessive new money is the main way that a financial bubble damages the real economy.

Resolving the High Debt-to-GDP Ratio

While the financial bubble was growing, especially in the frenetic period from 1995 to 2007, the creation of extra debt and money added 1 or 2 percentage points to GDP, every year. Over those 13 years, about 15 to 25% of growth was essentially borrowed from the future. As the debt-to-GDP ratio returns to a more normal 150%, all that borrowed GDP growth will be paid back. This means we have to give up 15 to 25% of GDP. A depression is usually defined as a loss of 10% of GDP, so we have a double depression on our hands.

The bubble will finally end when government stimulus packages are stopped or become insufficient. The debt-to-GDP ratio will return to normal, pre-bubble levels, decreasing from 375% down to 150%. People won't carry abnormally large debts unless asset prices are rising quickly, so the debt-to-GDP level cannot stay permanently elevated. Reducing debt reduces the money sloshing around the economy: retiring debt destroys money, in our current system. So as the debt-to-GDP ratio returns to normal, that 15 to 25% of extra economic activity brought from the future by extra debt will be removed from the GDP.

The biggest issues facing the world's economies are how, and how fast, to reduce the debt-to-GDP ratio back to normal levels. We could return to normal debt levels quickly, in a year or two, with a sharp short depression; force bad debts out into the open, suffer the bankruptcies and unemployment, and everyone soon starts over in a dynamic economy. Or we can do it slowly, dragging it out over years of depression and a moribund economy, while keeping zombie banks alive. Or we could do it slowly while inflating away the real value of the debt, with all the attendant dangers of inflation and the risk of accidentally slipping into hyperinflation.

So far governments have tried to postpone the GDP decline by stimulating the economy with a mix of existing money borrowed from people and newly manufactured, to keep the bubble going a bit longer. History suggests that politicians can be relied upon to keep trying to put it off, and to eventually reach for the printing press and inflate to lower the real value of debts and to disguise the reduction in real GDP. If the central banks lose control of the situation we could get some savage deflation, followed by a prolonged and nasty inflation or even a hyperinflation.

Our Inflationary Future

Money hasn't represented anything tangible since 1971. Money is an now just an implicit promise that in the future you will be able to exchange it for about as much real stuff as you can today. During the bubble, vast quantities of money were manufactured. The promises implicit in that money cannot be meaningfully kept: there are too many promises and too little real stuff to buy. Some people are going to miss out. The meaning of money is about to change – it will become worth less, its promise will be devalued by inflation.

While it is technically possible for every loan to be repaid, the debts are now so huge that it can only done by devaluing the money—which is essentially why we are in for an extra large dose of inflation. But in terms of *real value*, the loans will never be repaid. For example, in 2005 when a hamburger cost $3, a loan of $3,000 was equal to 1,000 hamburgers. But if the printing presses go to work, a big inflation raises everyone's wages, and the loan is repaid in 2015 when a hamburger costs $300, then the repayment is equal to only 10 hamburgers.

A good long inflation will allow everyone's debts to be paid off in full, but it will destroy trust and savings and weaken the economy. The promise implicit in earned money will be broken as money is devalued. Inflation weakens the real economy due to friction costs, and because distorted price signals lead to the poor allocation of capital. Lenders will be seriously ripped off, and borrowers will make out like bandits if they can just avoid bankruptcy. This doesn't exactly encourage honesty, thrift, and hard work, so living standards will take a major hit. This process is ahead of us, pretty much inevitable, and the only real choice for the political class is whether they do it to us slow and drag it out, or fast and get it over with.

Governments can print vast amounts of new dollars and spread them around the economy (well, mainly to their friends, or to buy votes). Most voters are borrowers, not lenders, and ultimately they will demand an inflation to lower the real levels of their debt. These two reasons for the inflationary path will prove politically irresistible—never let a crisis go to waste!

Inflation makes little difference to a family that lives from paycheck to paycheck and has few assets, so long as wages rise at about the same rate as consumer goods. However inflation hurts those on fixed incomes or living off assets, especially retired people, because it devalues their fixed income or savings, and taxes eat up more of the nominal returns on their assets.

In the 1970s, after the smaller financial bubble of the 1960s, the formula was to run about 10% inflation for seven years, which halved the real value of debt. Then in 1980 interest rates were raised radically, which largely ended the inflation.

The politicians will choose the inflationary path, because they have to. Financial institutions, companies, and individuals are failing economically, and the common problem is always debt. The government is running up stupendous debts on our behalf. A large inflation is the only way to reduce the real value of all those debts, and most voters are debtors not lenders. What could possibly go wrong? (It worked for Zimbabwe didn't it?)

Don't let government CPI numbers fool you over the next few years. The CPI is merely a tool the government uses to manage inflationary expectations. The CPI bears only a passing resemblance to inflation, or even to prices that people pay in real life.

Gold is the money that evolved naturally in the marketplace over the last 5,000 years, and it is only government power that has allowed it to be supplanted as base money for the last 38 years. If gold was still our base money, this bubble could never have grown so big. It will be interesting to see what happens next, whether we change our monetary system. Already the Chinese government is openly diversifying some of its US dollar reserves into gold, because it is concerned at the rate of money manufacture in the US.

The Special Situation in the USA

Monetary arrangements and banking used to be the main issue in US politics. For example, Andrew Jackson became President in 1828 and his main campaign issue was to end the second central bank of the US (founded in 1816). This was not some incidental issue: his campaign slogan was "Jackson and no bank". By the end of his second term in 1836 the bank was gone. The public in the 1800s, up until WWI, were very much into the issue of silver (which was the people's money) versus gold (the banks held all the gold) versus paper (you've got to be kidding right?).

The US is a special place for banking, because it took several failed attempts before the paper aristocracy finally conquered it for keeps in 1913. Europe had long been under the paper aristocracy's "control", but people escaped to the new world to be free of, among other things, the parasitic grip of the banking class. That is why so much of the recent history of struggles in banking has occurred in the US. Other European colonies, such as Australia, just inherited the European arrangements. Much of the rest of the world, such as Thailand, has been easily assimilated by the bankers.

The single biggest export of the USA for the last few decades has been US dollars. The USA is in a unique position, because the US dollar is the world's reserve currency, used by the rest of the world for much of their trade and international banking. There are lots of US dollars floating around outside the USA—all of them were manufactured in the USA, then given to foreigners in exchange for real goods or services.

The rest of the world has been sending the USA real goods and services for years, and just receiving bits of paper or electronic bookkeeping entries in return. Many ships travel to the US full of goods, but return half empty. The US population is largely unaware of what a free ride it has been getting, but the situation is now coming to an end and they are going to have to get used to new circumstances. The US political class made the most of it on behalf of the US, getting as much stuff as possible for free from the rest of the world, but the bulk of these profits in the last decade or so has been captured by Wall Street and not by mainstream Americans.

In the United States in the last decade, the government has intervened in most markets. Long term interest rates have been lowered by covertly intervention in the bond market—the centerpiece of government intervention. Short term interest rates are an extreme case of government intervention: they are set by government edict through the Federal Reserve. The stock market is widely believed to be covertly and frequently pushed higher by the US Government, which issues money and instructions to favored Wall Street agents to influence the market through derivatives—there is even a formal mechanism for doing so, the President's Working Group on Financial Markets. The US housing market has been distorted by government rules that force banks to lend to people whose credit risk is too high, by the existence and activities of Fannie Mae and Freddie Mac, and by land restrictions on new houses in many cities. US agricultural markets are distorted by subsidies and trade barriers, so maybe there is no need for covert manipulations as well. The gold and silver markets are covertly but brazenly manipulated by a few big banks acting on behalf of the government. The oil market might be the only major market the US government has not intervened in, but I wouldn't bet on it anymore.

By 2008 it was openly being said amongst traders that in the US "there are no markets anymore, just interventions". In the US, the markets are broken. The US is more open about its affairs than other countries, but presumably the same applies to some extent elsewhere.

The economic miracle of the United States, which lifted more people to a higher standard of living than at any other time in human history, is fading. US markets are no longer free, principally because of the predations of the government acting on behalf of the paper aristocracy.

It's a shame, because the constitution of the United States of America is specifically designed to prevent what has happened. It's not the fault of the constitution, it's just that the constitution is no longer enforced—too many clauses are now wilfully interpreted to mean other than what they originally meant. The US constitution was written shortly after the American Revolution, when the American colonists revolted against the money and control that the European bankers wanted. It is the best constitution in the world at keeping the paper aristocracy at bay, but it has been subverted.

To remedy the situation we don't need new regulation so much as we just need to enforce the regulations that already exist, particularly the fraud provisions. The government is not regulating the paper aristocracy, who in the last couple of decades have sucked too much out of us.

Finally, only two countries have ever owed a stupendous debt that was specified in their own fiat currency.

1. Germany after WWI owed crushing reparation payments to the victorious Allies. The payments were mainly specified in German marks but, due to an oversight by the Allies, there was nothing to stop the Germans changing the mark from representing a certain

amount of gold to representing nothing, that is, to a fiat currency. After a few years of reparations the Germans started printing more and more marks, inflating their currency to worthlessness. The Allies were repaid as stipulated, but all Germans savings got wiped out, people with loans went bankrupt (banks put up interest rates faster than wages rose), and you ended up needing a wheelbarrow full of cash to buy a loaf of bread.

2. The United States of America, now. The temptation for government to inflate its fiat currency is overwhelming, but it will be disguised and denied for as long as possible.

What Next From the Paper Aristocracy?

There are a small number of families who, over the centuries, have amassed wealth through financial rent seeking. They are leading members of the paper aristocracy. For example, the Rothschilds are the biggest banking family in Europe, and were reputed to own half of all western industry in 1900. That sort of wealth doesn't just dissipate, because unless the managers are incompetent the wealth tends to concentrate. The banking families don't work for a living in the normal sense, like the rest of us. They avoid scrutiny and envy by blending in and make themselves invisible. Since they own or influence all sorts of media organizations, it isn't too hard. There are unsubstantiated rumors and conspiracy theories, but nobody can really credibly say how much wealth and influence they have.

What are the paper aristocracy going to do in the aftermath of the current huge bubble? The course and end of the bubble are quite foreseeable, so they must have a plan.

There are unsubstantiated rumors that they influenced the system to make an almighty bubble, and intend to buy lots of real stuff, such as real estate and businesses, in the ensuing bust, when everything is dirt cheap. By the way, this is how the paper aristocracy has made most of its wealth over the last few centuries, and how those banking families originally became wealthy. Bankers would introduce excess bank money, then deliberately cut it back on it one day, watch prices plummet as businesses failed, then buy distressed assets cheaply. Earning interest was a second way of earning money but less important. Bank fees were just for pocket money and to keep customers distracted.

Perhaps today's fiat currencies—the US dollar, pound, yen and so on—will go up in smoke in an inflationary crescendo in the next few years, perhaps as planned by the paper aristocracy. Maybe they will reintroduce an asset backed currency. And guess who has all the gold? Those banking families have been salting it away for years. Possibly a global currency, so one cannot escape the predations of the paper aristocracy. This is not just about money, but about power, of course. Anyway, these are only unsubstantiated rumors. We shall see.

What Next?

The banking scam has been building for centuries and is now reaching it's logical conclusion—the world's biggest and deepest bubble, based entirely on paper money created by banks. Unless banking was checked, it was always going to come to this. What next? The same man who wrote "Power tends to corrupt, and absolute power corrupts absolutely" (Lord Acton) also wrote: "The issue which has swept down the centuries and which will have to be fought sooner or later is the People versus the Banks." The upcoming struggle is the culmination of a fight that has been going on for centuries.

About this Essay

This is a very high-level view of the current economic situation, and how we got here, with a populist edge. It's simple to understand, it's not technical, and there are only two graphs (which are of the same thing, just over different time periods).

I've been investigating these topics since 1998, as a semi-professional hobby. Think of it as a very long journalistic investigation that regular journalists haven't had the time or interest or background to do. It's not easy penetrating the world of finance. I've made my living largely by trading stocks since 1990, and I've (profitably) traded gold futures on the NY Comex.

Everything in here is reasonably well sourced, although I haven't quote the sources. It sometimes took me years sometimes to find the information for what is just a single sentence here.

It seems that the time to tell people has arrived. The bubble is coming to an end, the damage is becoming obvious, and people are starting to become interested.

Thank you to Joanna Nova and Dr Marcus Matthews for helping edit and improve this essay.

I set up GoldNerds.com because we wanted better information on the fundamentals of precious metals companies, and I am invested in gold companies. I've put my money where my mouth is, buying gold investments when gold was under $300/oz. This crunch has been a long time coming, but it has been no shock at all to the thousands of people who know about monetary history.

There is an extension of this essay, *Manufacturing Money and Global Warming* , that examines the structural similarities between carbon emission permits and paper currency. Basically the newest game by the banks is carbon emissions trading—the plan is to manufacture emission credit certificates out of thin air, trade them between big financial companies, and compel the rest of us pay for them by producing real goods and services. Emission permits are a new fiat currency, benefiting the same groups as manufacture the existing fiat currencies. Banks want carbon trading (they do not make a profit from a carbon tax, which would be fairer and simpler), but governments are not offering a carbon tax, only cap and trade. That paper also points out in the effect of carbon dioxide has been exaggerated—a central assumption made in 1984 proved to be wrong, but this was only discovered in the year 2000, *after* the gravy train of bureaucracy, science research, and carbon trading was well underway.

Cheers

David Evans, October 2009