Why the Global Financial System is About to Collapse

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The global financial system is about to collapse because the US dollar is about to collapse.

The US dollar is about to collapse because of a simple economic fact that no one has the power to change or conceal.

The fact is that *the spontaneous remonetization of the precious metals is a Nash equilibrium*.

What this means in English is that an ideal financial strategy for everyone on Earth is to buy as much gold and silver as they can, as soon as possible.

To oversimplify wildly, the reason to buy gold and silver is just that everyone else should buy gold and silver, too. There are two reasons to do it as soon as possible.

One is that anyone with an investment account can move money into gold and silver with a few mouse clicks. They trade on the US markets as the stock symbols GLD and SLV.

Two is that once this information becomes widely understood, US and probably global financial markets will be closed.

There is no way to know when this will happen. It could be tomorrow. It could be a year from now. It could be longer. Since the only way this kind of a financial panic meme can spread is through the Internet, history tells us nothing.

And the good news is that if governments manage the situation well, it does not have to be a global economic and political disaster. Quite the opposite, in fact.

Remonetization of precious metals is the next step in the slow, difficult reconstruction of the peaceful and prosperous liberal world that World War I destroyed. The lights are not going out. They are coming back on. The return to classical liberalism, which some call globalization, has barely started. It has already rescued hundreds of millions of people in liberalizing countries like China and India from lives of poverty and depression. Its only opposite is nationalism, which is a recipe for war and misery. It is not perfect, but nothing is, and it must continue.

These are obviously provocative assertions. I explain them below. My hope is that you will evaluate them by thinking for yourself, rather than trusting me or any other authority.

Overview

The first rule of investing is that it's never a good idea to buy anything just because everyone else is buying it. When the price of an asset is the result of herd behavior, not fundamental value, it's called a "bubble," and bubbles always pop.

This rule is absolutely right - except in one case.

In English, a bubble that doesn't pop is called "money." Money is always fundamentally overvalued. Its purchasing power is independent of its direct physical usefulness to anyone. This is obvious for paper money, but true even for gold and silver.

For example, premodern monetary systems did not value gold above silver because gold has a higher specific gravity, because it's harder to oxidize, because it's yellow, etc. They valued gold higher because there is more silver than gold on earth, a fact that makes no difference to any direct user of silver or gold.

(I should note that there are some rare historical cases of fundamentally valued currency, such as tobacco in colonial Virginia. I prefer to define this as a kind of barter on steroids, but most writers disagree. And some assets that have never been used as

currency, such as diamonds, fit my definition of money. All of this is just words, but words matter.)

The most important fact about money was described by economist Carl Menger in 1892: money is a consequence of its own history. Not every asset can serve as money, but not every asset that can serve as money will be used as money. As economists put it, money is "path-dependent" - it is a stable result of events that may be completely accidental.

We can call the transition from fundamental to monetary value "monetization." Menger and other early economists analyzed monetization in a primitive barter economy. They showed that money is a market phenomenon - that it can develop spontaneously without any official seal of approval.

It's not widely appreciated that the same monetization process Menger described can also occur in a modern financial market.

Of course, modern economies already have money, so the right word is "remonetization." Instead of replacing barter with exchange, remonetization replaces official currency or bonds with the new monetary commodity or commodities.

The closest relative of remonetization is hyperinflation. But traditional hyperinflation is a relatively slow process. Remonetization, like any bank or currency run, is a panic. With modern financial networks to move money and the Internet to move dangerous ideas, a remonetization event can be almost instantaneous.

Remonetization has two prerequisites. One is a free public market in one or more monetizable commodities - such as gold and silver. The other is an unstable and mismanaged official currency - such as the US dollar.

In theory, reversing either of these factors could prevent remonetization. In practice this is probably impossible.

Before a remonetization event, the austerity measures necessary to fix the dollar are politically unlikely. Afterward they would be too late. And any preemptive deliberalization

of the gold and silver markets would have to come with a remarkably convincing excuse to avoid triggering what it sought to prevent, especially since the US no longer dominates the global financial system.

The best way for the US and other countries to deal with this situation is to accept remonetization and manage it wisely. This will cause a lot of short-term pain for many people. But it will rebalance the global economy, and should lead to a new period of sustainable prosperity.

All this is yet another stack of unsubstantiated assertions. Rather than quoting dead white economists or filling the water with inky clouds of mathematics, let's work through the situation step by step and see if we agree.

An illustration

Let's start by comparing two hypothetical cases.

In case A, a million Americans decide right now to move all their savings into Dell stock, buying at the current market price no matter how high.

In case B, a million Americans decide right now to move all their savings into gold, buying at the current market price no matter how high.

In both cases, let's say each of these test investors has an average of $10,000 in savings. So we are moving $10 billion.

Neither gold nor Dell can instantly absorb $10 billion without considerable short-term increases in price. Because it would require us to predict precisely how other investors would react, we have no way to precisely compute the effects. But we can describe them in general terms.

In case A, the conventional wisdom is right. Our test investors should expect to lose a lot of money.

This is because Dell has a stable equilibrium price which is set by the market's estimate of the future earning power (price-to-earnings ratio) of this fine corporation. Because it is

not the result of any new information about Dell's business, the short-term surge should not affect this long-term equilibrium.

Since there will almost certainly be a short-term price spike, many of the test investors will be buying at prices well above the stable equilibrium. In fact, the more investors we add to the test, the more each one should expect to lose. Doh!

But there is no way to apply this analysis to case B.

Precious metals have no price-to-earnings ratio. With gold formally demonetized (that is, with no formal link between gold prices and currencies such as the dollar, as there was until 1971), there is no stable way to price it. There is no obvious equilibrium to which the gold price must converge.

It is true that gold has industrial uses. It can be priced on the basis of industrial supply and demand. The conventional wisdom is that it is.

Thus we can say that gold, for example, is overvalued if gold miners are selling more gold than jewelry makers and other industrial users want to buy. At present (with gold near $700), they probably are. So if you follow this reasoning, the right investing decision is not to buy gold, but to sell it short.

But this just assumes that there is no investment demand for gold. On the basis of this assumption, it shows that gold is a bad investment. Therefore there should be no demand for it.

The popularity of this logic is remarkable. However, it is a safe bet that most people who own gold do not follow it.

(In fact, most of the gold demand from the jewelry industry is actually investment demand. Women in many traditional Asian cultures, especially in India, store their savings as gold jewelry, which they buy by weight. It is difficult to guess what the price of gold would be if no one at all held it as an investment. But $100 an ounce is probably too high.)

Therefore, when our case B investors put $10 billion into gold, that money has to be used to bid gold away from its current owners, many of whom already believe that the price of gold in dollars should be much higher than it is now.

So the result of case B is that the gold price will, as in case A, rise immediately. But it has no reason to fall back.

In fact, quite the opposite. Because the gold price is largely determined by investment demand, any increase in price is evidence of increasing investment demand. Mining production, noninvestment jewelry demand, and industrial use are relatively stable. Investment demand is a consequence of investors' opinion about the future price of gold - which is, as we've just noted, largely determined by investment demand.

This is not a circularity. It is a feedback loop. Austrian economists might call it a Misesian regression spiral.

Of course, the same mechanism can drive the gold price down as well as up. When savings flow out of gold, the price must drop. The reputation of gold as a volatile investment is by no means undeserved. There is a trading range within which the price of gold can fluctuate arbitrarily. The range is limited at the bottom by the industrial gold price when investment demand is zero. It's limited at the top by… well, we'll see in a moment.

It generally takes a significant external change to affect the long-term direction of a big feedback loop like the gold market. Thus, it is rational for the market to actually treat the price spike caused by case B as a signal that the feedback loop is accelerating, and buy more.

So the case B investors are more likely than not to profit on their trades. Obviously the trades must happen in some sequence, and the earliest will do the best. But all have a good reason to participate, even the last, because their purchase will signal other investors who are not in the case B group to enter the market after them.

Suppose you believe this. It's all well and good. But what does it really prove? Couldn't gold still be just another bubble?

And why should gold be a better investment *because* it has no earnings to price it by? This makes zero sense.

To answer these sensible objections, we need a few more tools.

Nash equilibrium analysis

The Nash equilibrium is one of the simplest and oldest concepts in game theory. (Nash is John Nash of A Beautiful Mind fame.)

In game theory jargon, a "game" is any activity in which players can win or lose - such as, of course, financial markets. And a "strategy" is just the player's process for making decisions.

A strategy for any game is a "Nash equilibrium" if, when every player in the game follows the same strategy, no player can get better results by switching to a different strategy.

If you think about it for a moment, it should be fairly obvious that any market will tend to stabilize at a Nash equilibrium.

For example, pricing stocks and bonds by their expected future return (the standard Wall Street strategy of value investing) is a Nash equilibrium. No market is infallible, and it's possible that one can make money by intentionally mispricing securities. But this is only possible because other players make mistakes.

(Nash equilibrium analysis of financial markets is not some great new idea. It is standard economics. The only reason you are reading a Nash equilibrium analysis of the interaction between precious metals and official currency now on the Web, not 30 years ago in the New York Times, is that the Times gets its economics from real economists, not random bloggers, and the profession of economics today is deeply tied to the institutions that manage the global economy. Real economists do not, as a rule,

spend time thinking up clever new reasons why the global financial system will inevitably collapse. They're too busy trying to prevent it from doing so.)

What Nash equilibrium analysis tells us is that the "case B" approach is interesting, but inadequate. To look for Nash equilibria in the precious metals markets, we need to look at strategies which *everyone* in the economy can follow.

Let's focus for a moment on everyone's favorite, gold. One obvious strategy - let's call it strategy G - is to treat only gold as savings, and to value any other good either in terms of its direct personal value to you, or how much gold it is worth.

For example, if you followed strategy G, you would not think of the dollar as worthless. You would think of it as worth 45 milligrams, because that's how much gold you can trade one for.

What would happen if everyone in the world woke up tomorrow morning, got a cup of coffee, and decided to follow strategy G?

They would probably notice that at 45mg per dollar, the broad US money supply M3, at about $10 trillion, is worth about 450,000 metric tons of gold; that all the gold mined in human history is about 150,000 tons; and that official US gold reserves are 8136 tons.

They would therefore conclude that, if everyone else is following strategy G, it will be difficult for everyone to obtain 45mg of gold in exchange for each dollar they own.

Fortunately, there is no need to follow the experiment further. Of course it's not realistic that everyone in the world would switch to strategy G on the same day.

The important question is just whether strategy G is stable. In other words, is it a realistic possibility that everyone in the world could price all their savings in gold? Could all rights to dollars, euros, etc, just be converted to gold and resolved? Or would there be some pressure to revert to paper currency?

If gold atoms were the size of poppyseeds, divisibility would pose an obstacle. But measuring arbitrary small weights of gold is not a difficult technical problem.

It's true that there are serious inefficiencies in circulating actual coins made of precious metals. Spend too much time reading financial history and you'll be deluged with frightening facts about agio, gold points, clipped and worn coin, and so forth. Perhaps the worst problem is just that since metal coins have all these problems, there is a strong incentive to replace them with paper notes which are redeemable for actual metal on demand. Unfortunately, the note issuer then finds it very easy to print more notes than it holds metal.

These problems are all solved by the Internet. In a modern gold standard or other precious-metal monetary system, there is no reason for "money" to consist of anything but secure electronic claims to precise weights of allocated precious metals. The metal itself should stay in independently audited vaults.

This mechanism is already being used by new "digital gold currencies" such as e-gold and GoldMoney. These have only accumulated about 10 tons of gold, because they are not well-connected to existing financial networks. But the gold and silver ETFs, GLD and SLV (GLD has 350 tons of gold, more than the Bank of England; SLV has 2000 tons of silver) are similar if more primitive. Converting them to support direct payment would be a small matter of programming.

I don't intend to get into any open-ended theological disputes on economics. But I do have to mention the 19th-century Banking School doctrine, inherited by both Keynesians and monetarists, that an expanding economy depends on an expandable currency. Please excuse me while I rant.

Gilded Age financiers did succeed in embedding this principle in the institutional DNA of the West. But it has no rational explanation. At least, if it does, I have never heard it. Of course the status quo need justify itself to no one, and it is possible that if monetary expansionism felt institutionally threatened it could present a more coherent narrative.

But to me the idea seems to rest on the understandable, but essentially numerological, connection between X% new money and X% growth, and on the indisputable fact that turning off the money printer tends to result in a recession. Since today's economists

(except of course the Austrian School) have abandoned the the apparently unfashionable concept of causality in favor of the reassuringly autistic positivism of pure statistical correlation, it has escaped their attention that when you stop shooting heroin, you feel awful.

It is also bruited about that without money-printing to dissuade savers from just hoarding cash, no one will lend or take any entrepreneurial risks. Someone should tell this to the Dutch, who ran a 100% hard-money economy for 150 years and were the most prosperous nation in Europe. Perhaps if Lord Keynes had sent wooden sailing ships on three-year trading voyages to Indonesia, he would have rethought his views on lending, interest and risk. In general, stable periods of hard money have been among the most prosperous in human history, and even Friedman and Schwartz admit it. When the value of your money grows with no risk or financial overhead, it may actually be a good thing.

So, absent of course any errors in the above polemic, strategy G is in fact a Nash equilibrium. A direct gold standard in which private citizens own allocated gold would be a viable foundation for a new global financial system. There are no market forces that would tend to destabilize it.

Or are there? Actually, it turns out that we've skipped a step in our little analysis.

Levitating collectibles

The problem is that the exact same analysis works just as well for any standardized and widely available asset.

For example, let's try it with condoms. Our benchmark of all value will be the standard white latex condom. We can have a "strategy C" in which everyone measures the worth of all their assets in terms of the number of condoms they exchange for. Cash payments will be made in secure electronic claims to allocated boxes of condoms, held in high-security condom vaults in the condom district of Zurich. And so on.

This is obviously ridiculous. But why? Why does the same analysis seem to make sense for gold, but no sense for condoms?

It's because we've ignored one factor: new production.

Let's step back for a moment and look at why people "invest" in gold in the first place. Obviously they expect its price to go up - in other words, they are speculating. But as we've seen, in the absence of investment the gold price would be determined only by industrial supply and demand, a fairly stable market. So why does the investment get started in the first place? Does it just somehow generate itself?

What's happening is that the word "investment" is concealing two separate motivations for buying gold.

One is speculation - a word that has negative associations in English, but is really just the normal entrepreneurial process that stabilizes any market by pushing it toward equilibrium.

The other is saving. We can define saving as the intertemporal transfer of wealth. A person saves when she owns valuable goods now, but wishes to enjoy their value later.

The saver has to decide what good to hold for whatever time she is saving across. Of course, the duration of saving may be, and generally is, unknown.

And of course, every saver has no choice but to be a speculator. The saver always wants to maximize her savings' value, as defined by the goods she actually intends to consume when she uses the savings. For example, if our saver is an American retiree living in Argentina, and intends to spend her savings on local products, her strategy will be to maximize the number of Argentine pesos she can trade her savings for.

Here are five points to understand about saving.

One is that since people will always want to shift value across time, there will always be saving. The level of pure entrepreneurial speculation in the world can vary arbitrarily. But saving is a human absolute.

Two is that savers need not be concerned at all with the direct personal utility of a medium of saving. Our example saver has little use for a big hunk of gold. Her plan is to exchange it for tango lessons and huge, delicious steaks.

Three is that from the saver's perspective, there is no artificial line between "money" and "non-money." Anything she can buy now and sell later can be used as a medium of saving. She may have to make two trades to spend her savings - for example, if our saver's medium of saving is a house, she has to trade the house for pesos, then the pesos for goods. If she saves directly in pesos, she only has to make one trade. And clearly trading costs, as in the case of a house, may be nontrivial. But she just factors this into her model of investment performance. There is no categorical distinction.

Four is that if any asset happens to work well as a medium of saving, it may attract a flow of savings that will distort the "natural" market valuation of that asset.

Five is that since there will always be saving, there will always be at least one asset whose price it distorts.

Let's see what happens when that asset is condoms. Suppose everyone in the world does adopt strategy C, just as in our earlier example they adopted strategy G. What will happen?

Just as we predicted with gold, there will be massive condom buying. Since condom manufacturers were not expecting their product to be used as a store of wealth, demand will vastly exceed supply. The price of condoms will skyrocket.

Strategy C looks like a self-fulfilling prophecy. Condoms will indeed become an costly and prized asset. And the first savers whose condom trades executed will see the purchasing power of their condom portfolios soar. This is a true condom boom.

Let's call this effect - the increase in price of an good because of its use as a medium of saving - "levitation."

Sadly, condom levitation is unsustainable. The price surge will stimulate manufacturers to action. Since there is no condom cartel - anyone can open a factory and start making

condoms - the manufacturers have no hope of maintaining the levitated condom price. They will produce as many condoms as they can, as fast as possible, to cash in on the levitation premium.

Levitation, in other words, triggers inventory growth. Let's call the inventory growth of a levitated good "debasement." In a free condom market, debasement will counteract levitation completely. It will return the price of a condom to its cost of production (including risk-adjusted capital cost, aka profit). In the long run, there is no reason why anyone who wants condoms cannot have as many as he or she wants at production cost.

Of course, condom holders will realize quickly that their condoms are being debased. They will pull their savings out, probably well before debasement returns the price of a condom to the cost of producing one.

We can call the decrease in price of an asset due to the flow of savings out of it "delevitation." In our example, debasement causes delevitation, but it is not the only possible cause - savings can move between assets for any number of reasons. If savers sell their condoms to buy Google stock, the effect on the condom price is exactly the same.

Because condom debasement is inevitable, and will inevitably trigger delevitation, savers have a strong incentive to abandon strategy C. This means it is not a Nash equilibrium.

The whole sad story will end in a condom glut and a condom bust. The episode will be remembered as a condom bubble. In fact, if we replace condoms with tulips, this exact sequence of events happened in Holland in 1637.

So why won't it happen with gold?

The obvious difference is that gold is an element. Absent significant transmutation or extraterrestrial trade, the number of gold atoms on Earth is fixed. All humans can do is

move them around for our own convenience - in other words, collect them. So we can call gold a "collectible."

Because it cannot be produced, the price of a collectible is arbitrary. It is just a consequence of the prices that people who want to own it assign to it. Obviously, the collectible will end up in the hands of those who value it highest.

Since the global bullion inventory is 150,000 tons, and 2500 tons are mined every year, it is easy to do a little division and calculate a current "debasement rate" of 1.66% for gold.

But this is wrong. Gold mining is not debasement in the same sense as condom production, which does not deplete any fixed supply of potential condoms. In fact, it only takes a mild idealization of reality to eliminate gold mining entirely.

Gold is mined from specific deposits, whose extent and extraction cost geologists can estimate in advance. In financial terms, gold "in the ground" can be modeled as a call option. Ownership of X ounces of unmined gold which will cost $Y per ounce to extract is equivalent to a right to buy X ounces of bullion at $Y per ounce.

Since this ownership right can be bought and sold, just as the ownership of bullion can, why bother to actually dig the gold up? In theory, it is just as valuable sitting where it is.

In the form of stock in mining companies which own the extraction rights, unmined gold competes with bullion for savings. Because a rising gold price makes previously uneconomic deposits profitable to mine - like options becoming "in the money" - the total value of all gold on earth does increase at a faster rate than the gold price. But the effect is not extreme. 2006 USGS figures show 30,000 tons of global gold reserves. This number would certainly increase with a much higher gold price - USGS reports 90,000 tons of currently uneconomic "reserve base" - but the gold inventory increase would be nowhere near proportional to the increase in price.

In practice, modeling unmined gold as options is too simple. Gold discovery and mining is a complex and political business. The important point is that rises in the gold price,

even dramatic rises, propagate freely into the price of unmined gold and do not generate substantial surges of new gold. For example, the price of gold has more than doubled since 2001, but world gold production peaked in that year.

The result is that gold can still levitate stably. Even if new savings flow into gold stops entirely, debasement will be mild. The cyclic response typical of noncollectible commodities such as sugar (or condoms), or theoretical collectibles whose sources are not in practice scarce (such as aluminum) is unlikely.

Of course, if savings flow out of gold for their own reasons, it can trigger a self-reinforcing panic. Delevitation is not to be confused with debasement. Again, it is important to remember that debasement is not the only cause of delevitation.

What we have still not explained is why gold, which is clearly already levitated, should spontaneously tend to levitate more, rather than either staying in the same place or delevitating. Just because gold can levitate doesn't mean it will. (And note that we still haven't looked at silver at all.)

Money in the real world

In case it's not obvious, what we've just done is to put together a logical explanation of money, using gold as an example, and using only made-up terms like "collectible" and "levitation" to avoid the trap of defining money in terms of itself.

Now let's apply this theory to the money we use today - dollars, euros, and so on.

Today's official money is an "artificial collectible." Money production is limited by legal violence, not natural rarity. If in our condom example, the condom market was patrolled by a global condom mafia which got medieval with any unauthorized condom producers, it would resemble the market for official currency. No one can print Icelandic kronor in the Ukraine, Australian dollars in Pakistan, or Mexican pesos in Algeria.

It may be distasteful to hardcore libertarians, but this method of controlling the money supply is effective. There is minimal unlicensed production of new money - also known as counterfeiting.

It should also be clear from our discussion of gold that there is nothing, in principle, wrong with artificial paper money. The whole point of money is that its "real value" is irrelevant. In principle, an artificial money supply can be much more stable than a naturally restricted resource such as gold.

In practice, unfortunately, it has not worked out that way.

Artificial money is a political product. Its problems are political problems. It does no one any good to separate economic theory from political reality.

Governments have always had a bad habit of debasing their own monetary systems. Historically, every monetary system in which money creation was a state prerogative has seen debasement. Of course, no one in government is unaware that debasement causes problems, or that it does not create any real value. But it often trades off short-term solutions for long-term problems. The result is an addictive cycle that's hard to escape.

Most governments have figured out that it's a bad idea to just print new money and spend it. Adding new money directly to the government budget spreads it widely across the economy and drives rapid increases in consumer prices. Since government always rests on popular consent, all governments (democratic or not) are concerned with their own popularity. High consumer prices are rarely popular.

There is an English word that used to mean "debasement," whose meaning somehow changed, during a generally unpleasant period in history, to mean "increase in consumer prices," and has since come to mean "increase in consumer prices as measured, through a process whose opacity makes chocolate look transparent, by a nonpartisan agency whose objectivity is above any conceivable question, so of course we won't waste our time questioning it." The word begins with "i" and ends with "n." Because of its interesting political history, I prefer to avoid it.

It should be clear that what determines the value of money, for a completely artificial collectible with no industrial utility, is the levitation rate: the ratio of savings demand to

monetary inventory. Increasing the monetary inventory has a predictable effect on this calculation. Consumer price increases are a symptom; debasement is the problem.

Debasement is always objectively equivalent to taxation. There is no objective difference between confiscating 10% of existing dollar inventory and giving it to X, and printing 11% of existing dollar inventory and giving it to X. The only subjective difference is the inertial psychological attachment to today's dollar prices, and this can easily be reset by renaming and redenominating the currency. Redenomination is generally used to remove embarrassing zeroes - for example, Turkey recently replaced each million old lira with one new lira - but there is no obstacle in principle to a 10% redenomination.

The advantage of debasement over confiscation is entirely in the public relations department. Debasement is the closest thing to the philosopher's stone of government, an invisible tax. In the 20th century, governments made impressive progress toward this old dream. It is no accident that their size and power grew so dramatically as well. If we imagine John F. Kennedy having to raise taxes to fund the space program, or George W. Bush doing the same to occupy Iraq, we imagine a different world.

The immediate political problem with debasement is that it shows up in rising consumer prices, as whoever has received the new money spends it. If we think of all markets as auction markets, like EBay, it should be clear how this happens.

There is no perfect solution for the problem. But there are quite a few imperfect ones.

The simplest is just the increase in productivity due to new technology, which would otherwise tend to make prices fall. For example, Moore's Law tells us that the cost of a transistor halves every two years. If all consumer products were made entirely from transistors, Moore's Law would support some pretty tasty debasement. Sometimes productivity improves quality rather than lowering price, but (even before the notorious "hedonics") price indexers have always tried to capture this gain.

When productivity counteracts debasement, what's happening is that progress that normally would have been improving peoples' lives is being confiscated by the

government. Since no one ever sees how cheap everything would have been without debasement, they tend not to whine about it so much.

Another approach is to use debasement for corporate welfare, by subsidizing low interest rates ("easy money") or bailing out the financial industry when risks go bad ("injecting liquidity"). If this is done properly, it can actually lower consumer prices by decreasing production costs. Prices only start to rise when booming producer industries start to bid up the costs of the commodities and labor they need to produce. Economists of the Austrian School consider this corporatist approach to finance responsible for the business cycle, and I believe them.

This essay, though it's probably too long, is nowhere near long enough to explain all the games that today's governments and government-managed financial systems play with debasement. Here are three points worth noting for the moment.

One is that a conservative estimate of today's dollar debasement rate, as measured by the Fed's M3 number, is 10%. European numbers are similar. Chinese debasement is more like 20%.

Two is that most debasement today takes the form of insured credit expansion: debt that is guaranteed explicitly or implicitly by the government. Any loan which will be repaid unless the US financial system collapses is as solid as the dollar by definition. This is obviously true of sovereign debt, such as Treasury bonds, but implicit guarantees now cover many forms of private risk. By assuming responsibility for defusing financial crises and assuring continued prosperity, the Fed has converted vast reams of otherwise dubious paper into the effective equivalent of dollars. Because it is hard to even define this guarantee, accurately measuring debasement is impossible.

Three is that debasement creates dependency. For example, when debasement is used to subsidize interest rates, businesses and homeowners become dependent on cheap, easily rolled-over loans. When the debasement rate is 10% and interest rates are 7%, the negative debasement-adjusted interest rate is a debt factory. It is easy for borrowers to make decisions that assume these rates will continue. If they end, the typical result is

a recession. These kinds of dependencies make it very hard for politically sensitive authorities to end debasement, or even significantly reduce it.

Debasement and investment

We haven't even seen the most pernicious effect of debasement.

Debasement violates the whole point of money: storage of value. As such, it gives savers an incentive to find other assets to store their savings in.

In other words, debasement drives real investment. In a debasing monetary system, savers recognize that holding money is a loser. They look for other assets to buy.

The consensus among Americans today is that monetary savings instruments like passbook accounts, money market funds, or CDs are lame. The real returns are in stocks and housing.

When we debasement-adjust for M3, we see the reasons for this. Real non-monetary assets like stocks and housing are the only investments that have a chance of preserving wealth. Purely monetary savings are just losing value.

The financial and real estate industries, of course, love this. But that doesn't mean it's good for the rest of us.

The problem is that stocks and housing are more like condoms than they are like gold. When official currency is not a good store of store value, savings look for another outlet. Stocks and housing become slightly monetized. But the free market, though it cannot create new official currency or new gold, can create new stocks and new housing.

The result is a wave of bubbles with an unfortunate resemblance to our condom example. When stocks are extremely overvalued, as they were in 2000, one sign is a wave of dubious IPOs. When housing is overvalued, we see a rash of new condos. All this is just our old friend, debasement.

This debasement pressure answers one question we asked earlier: why should gold tend to levitate, rather than delevitate? Why is the feedback loop biased in the upward direction?

The answer is just that the same force is acting on gold as on stocks and housing. The market is searching for a new money. It will tend to increase the price of any asset that can store savings.

The difference between precious metals and stocks or housing is just our original thesis. Stocks and housing do not succeed as money. Holding all savings as stocks or housing is not a Nash equilibrium strategy (though for housing in some neighborhoods it comes close, because various restrictions have given buildings in older city centers near-collectible status). Holding savings as precious metals, as we've seen, is.

Presumably the market will eventually discover this. In fact, it brings us to our most interesting question: why hasn't it already? Why are precious metals still considered an unusual, fringe investment?

The politics of money

What I'm essentially claiming is that there's no such thing as a precious-metals bubble.

This assertion may surprise people who remember 1980, when gold touched $850 and silver $50. In the '90s gold bottomed at $250 and silver at $3.50. These numbers are even more extreme when we factor in debasement. Doesn't this look like a bubble?

It does, and it obviously represents a cycle of levitation and delevitation. The only sense in which there is no such thing as a precious-metals bubble is the one in which a "bubble" is sure to pop, like our condom bubble. Remember, markets are perfectly free to store all human savings in a single precious metal, or (if they find some other store of value which seems to work better, such as an artificial collectible) to store no savings at all in any of them.

What happened in 1980 is that the Fed, under the great Paul Volcker, successfully defended the dollar (and other national currencies, which are and were all backed by

the dollar) against exactly the same event I'm predicting now: a currency crisis with self-accelerating flight to precious metals.

Volcker faced an existential threat, and he used every weapon at his disposal. The most obvious, and the one he is best remembered for, was ending almost all debasement and letting the market set interest rates. Short-term rates went well above 20%, considerably exceeding the official value of the I-word, and certainly into positive debasement-adjusted territory.

But for another example, one action the Fed took was to just tell banks, on the basis of no legal authority at all, to stop lending to anyone who was buying gold or silver.

This illustrates the tenor of the times. Finance in 1980 was a tame little pussycat. Hedge funds barely existed. Today, the Fed would never do this, not because banks would disobey - banks are still pussycats - but because today's global financial market is a huge, snarling wolf-dog, and displays of fear are unwise.

Markets do not, in general, think. Most investors, even pros who control large pools of money, have a very weak understanding of economics. As I've already mentioned, the version of economics taught in universities has been heavily influenced by political developments over the last century. And your average financial journalist understands finance about the way a cat understands astrophysics. The business section is not exactly where anyone who plans to be the next Bob Woodward wants to end up. This has an obvious effect on retail investor psychology.

The result is that historically, the market has had no particular way to distinguish a managed delevitation from an inevitable bubble. Because of Volcker's victory, and the defeat of millions of investors who bet on a dollar collapse, the financial world spent the next twenty years assuming that there was some kind of fundamental cap on the gold price, despite the lack of any logical chain of reasoning that would predict any such thing.

Even now, there is no shortage of pro-gold writers who predict gold at $1000, $2000 or $3000 an ounce, as though they had some formula, like the P/E ratio for stocks, that

computed a stable equilibrium at this level. Of course, they do not. They are only expressing their intuitive feeling that gold is very, very cheap right now, and tempering it with the desire to be taken seriously.

In fact, precious metal prices will only stabilize when they either defeat artificial currency completely, or are completely defeated by it - either by some new financial technology which permanently precludes debasement, or by a forcible end to the free trade of precious metals.

Central banks - and through them, governments - always want to minimize the levitation of any collectible that could displace their artificial currencies. Obviously this includes precious metals. And obviously, owners of precious metals want to maximize their levitation.

The result is a giant tug-of-war on a global, historic scale. It is no accident that until the 20th century, the nature of money was one of the most controversial political issues in the United States. It is a matter of historical fact that the pro-banking forces won in 1913, and took the question off the political table. There is no reason to assume this victory will be permanent. But there is also no reason to assume it can't be.

So, to come up with an educated guess as to the winner, we need to take an objective look at the artillery on each side.

Government's weapons against gold

The dollar's most obvious weapon is just that gold, although it is to some extent money, is not currency. No one accepts gold in exchange for goods and services. The digital gold currencies could change this, but if they do it will be far in the future.

The obvious impact is that to save in gold, you have to pay round-trip conversion costs, including your own time in managing the conversion. "Insulation" is a good name for this phenomenon, because it makes it hard for money to flow back and forth between gold and the dollar. Another form of insulation is capital-gains tax, which under US law is particularly harsh on gold.

A less obvious form of insulation is that there is no real loan market for gold. (Actually, there is a gold lease market, but it is not for ordinary schmoes - more on this later.) So if you know you want to hold your gold for a substantial period of time, there is no way to earn a direct return by lending it out. Of course, you have an expected return in dollars which should average out at the dollar debasement rate, but there is no reason in theory that you couldn't earn gold interest as well. But, in reality, you can't.

A less passive weapon is the large gold reserves that central banks hold. Central banks have somewhere between 10,000 and 30,000 tons of gold. They use this to manage gold prices.

Or at least, presumably manage gold prices. If you go out on the Internet today and research gold, you will find a lot of writers who accuse central banks of managing gold prices. The facts that these writers present are very plausible. But their tone implies that central bankers are committing some kind of heinous crime, an imputation I find unlikely. I'm sure the legal department signs off on everything. The fact is that managing gold prices has been a core element of central bankers' jobs since the Bank of England was founded in 1694, that they have no legal obligation to disclose their actions, that keeping gold prices stable and low is very much in their professional interest, and that therefore the burden of proof should rest on anyone who insists that central banks do not manage gold prices.

Of course, the tools of the trade have changed a bit since 1694.

At first, banks just issued more gold-redeemable notes than they held gold. Obviously the fundamental value of a gold banknote is whatever weight of actual gold it commands. If you have one million ounces of gold and you issue two million notes, the fundamental value of each note is half an ounce, whatever you print on it. But if authorities are obliging, banks can manage the exchange rate between notes and gold, by "selling" gold for notes freely at the face value. As long as not too many people took them up on this offer, banks could create free money that traded at no discount to gold. A modern, electronic financial market would detect this scam and vaporize it instantly,

but in the days of paper ledgers it worked just fine as long as the ratio was not pushed too high.

In other words, once a bank issues more banknotes than it has gold, a banknote becomes its own artificial currency. There is no objective difference between a redemption policy and a currency peg, like the mechanism China uses to control exchange rates between the dollar and the yuan. Even in the days of the "classical gold standard," these fractional notes were the norm.

After World War I, the world went on a "gold exchange standard" which restricted redemption in various ways, enabling further banknote expansion. After World War II, only the US redeemed in gold and only to other central banks, giving us still more banknote expansion. In the late '60s, the French became fatigued with exchanging their excellent wine for slips of green paper, and actually took the US up on its redemption policy. In 1971 Nixon "closed the gold window" and the redemption era was over.

Since then, central banks have had two general strategies for managing gold. The simplest is "bombing" the gold price by just selling the stuff. This creates a perfect economic illusion of debasement - in fact, it is exactly what an alchemist would do if she discovered a secret new process for manufacturing gold. Intellectually the market can tell the difference, but markets, as we've noted, are not intellectual.

Or not very intellectual. But Western central banks are political institutions and have to report their reserves. A downward trend would be disconcerting and too easy to game.

So someone came up with the idea of leasing gold. In a lease transaction, the central bank lends the gold to a Wall Street bank, which sells it into the gold market and invests the proceeds as it sees fit. This works as a "carry trade," because central bank rates for leasing gold are very low, and the Wall Street bank can earn a higher return on the cash. Of course the Wall Street bank has to pay the loan back in gold at some point, but the central bank is always happy to roll it over.

The neat trick is that, even though the central bank's gold has been sold to make jewelry or coins, and it has had the same negative impact on the gold market that any

sale of gold does, central banks typically do not report how much of their gold they have leased out. In other words, they count actual gold and gold IOUs as the same thing. Hello, Enron!

The cover story is that gold leasing lets central banks "earn a return" on a "dead asset." No ordinary person could possibly believe this; you would have to be a financial journalist. First, turning a profit is the last thing on central bankers' minds; it is not even clear what return means for an entity that can print its own money. Second, this story chimes oddly with central banks' official motivation for keeping this prehistoric asset rather than selling it all in one giant auction, which is that gold is a money of last resort in a crisis. As, of course, it is. But leased gold will not magically reappear in a crisis.

Some analysts estimate that since the 1980s, central banks have lost more than half of their gold through leasing. Portugal released this figure, perhaps accidentally, in 2001; it had lost 70% of its gold.

Leasing is not the only way central banks use their gold to influence financial markets. For example, they can also write call options, and so on. The power to print money and use it to buy arbitrary financial assets, at any valuation the bank deems appropriate, also doesn't hurt.

But even these "gold derivatives" are probably not the most significant impact of governments on the gold market. The main weapon of governments against gold is simply gold mining.

As we've noted, gold mining is a generally uneconomic process. If rights to underground gold were politically secure, exploration and measuring of gold deposits would be sufficient to value them financially.

Political risk varies, of course, by country. But since there is really no country where these rights are totally secure, or at at least as secure as a vault in Zurich, digging up gold makes sense.

What doesn't make sense is selling it.

Investors buy gold-mining stocks as a way to buy gold. In general, gold investors value gold above the quoted market price - if they didn't, they'd sell it. It is unclear at what price your average "goldbug" would give in and exchange her gold for dollars, but for many it must be well over $1000 an ounce.

So a mining company would almost certainly increase their value to its owners by not selling gold at all, and just holding it on the balance sheet. Of course, some gold sales go to paying mining costs, but even this could be eliminated. When companies discover a new gold deposit, they could finance its extraction by issuing shares. This business model would optimize mining as a mechanism for converting dollars into gold. Since miners do not practice it, we can infer that their motivations are political.

The result is a continuous stream of gold entering the market at the current spot price, whatever that price may be. Again, this serves as a simulation of debasement, and confuses markets into treating gold as an unlevitated commodity, which would have an equilibrium price as determined by industrial supply and demand.

And government's last weapon against gold is the physical power to just confiscate it, as the US did in 1933. What circumstances would make this politically realistic? But we're starting to get into gold's weapons against government.