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Gold - a six thousand year-old bubble

November 8, 2009 6:02pm

Gold is unlike any other commodity. It is costly to extract from the earth and to refine to a reasonable degree of purity. It is costly to store. It has no remaining uses as a producer good - equivalent or superior alternatives exist for all its industrial uses. It may have some value as a consumer good - somewhat surprisingly people like to attach it to their earlobes or nostrils or to hang it around their necks. I have always considered it a rather vulgar metal, made for the Saturday Night Fever crowd, all shiny and in-your-face, as opposed to the much classier silver, but *de gustibus...*

The total stock of 'above-ground' gold is about 160,000 metric tonnes (a metric ton is 2,204 lbs. or 35,264 oz, for those of a non-decimal mind-set). About 50 percent of this existing stock of above-ground gold is kept as a pure store of value (for investment purposes), most likely somewhere below-ground, for security reasons. The other 50 percent exists as jewellery. I would argue that most of this jewellery demand is simply small-scale store of value (investment) demand by households, rather than demand driven by aesthetic considerations or other intrinsic sources of joy associated with having gold hanging from your extremities.

From a social perspective, gold held by central banks as part of their foreign exchange reserves is a barbarous relic (Keynes used the expression to refer to the Gold Standard, but close enough is close enough). The same holds for gold held idle in private vaults as a store of value. The cost and waste involved in getting the gold out of the ground only to put it back under ground in secure vaults is considerable. Mining the ore is environmentally damaging, especially if it involves open pit mining. Refining the gold causes further environmental risks. Historically, gold was extracted from its ores by using mercury, a toxic heavy metal, much of which was released into the atmosphere. Today, cyanide is used instead. While cyanide, another toxic substance, is broken down in the environment, cyanide spills (which occur regularly) can wipe out life in the affected bodies of water. Runoff from the mine or tailing piles can occur long after mining has ceased.

Even though, from a social efficiency perspective, the mining of new gold and the costly storage of existing gold for investment purposes are wasteful activities, they may be individually rational. There is no invisible hand here (or elsewhere) to ensure that the aggregation of individually rational behaviour adds up to anything desirable or sensible.

Because to a reasonable first approximation gold has no intrinsic value as a consumption good or a producer good, it is an example of what I call a *fiat (physical) commodity*. You will be familiar with fiat currency. Unlike what [Wikipedia](#) says on the subject, the essence of fiat money is not that it is money declared by a government to be [legal tender](#). It need not derive its value from the government demanding it in payment of taxes or insisting it should be accepted within the national jurisdiction in settlement of debt. Instead the defining property of fiat money is that it has no intrinsic value and derives any value it has only from the shared belief by a sufficient number of economic actors that it has that value.

The "let it be done" literal meaning of the Latin 'fiat' should be taken in the third sense given by the [Online Dictionary](#): **1.** official sanction; authoritative permission; **2.** an arbitrary order or decree; **3.** *Chiefly literary* any command, decision, or act of will that brings something about.

The act of will in question is the collective attribution of value to something without intrinsic value. Being declared legal tender by a government may help achieving that status, but it is neither necessary nor sufficient.

Gold is very close therefore to the stone money of the Isle of Yap. This stone money, known as Rai, consists of large doughnut-shaped, carved disks, consisting usually of calcite, that can be up to 4 m (12 ft) in diameter, although most are much smaller. Apparently, the total stock of Rai cannot be augmented any further. It also depreciates very slowly. This intrinsically useless form of money in the Isle of Yap is in all essential respects equivalent to gold today in the wider world. Another example would be pet rocks, as long as the rock in question is rare and costly to get into its final shape.

Gold has become a fiat *commodity* or a fiat *commodity currency*, just as the US \$, the euro, the pound sterling and the yen (and a couple of hundred other currencies) are fiat *paper* currencies. The main differences between them are that gold is very costly to produce, while the production of additional paper money has an extremely low marginal cost. If we count the deposits of commercial banks with the central

banks, which together with currency in circulation make up the monetary base, as fiat money, then the incremental cost of fiat base money creation is zero.

The outstanding stock of physical gold, at 160,000 tonnes or thereabouts, is very large relative to the maximum amount of new gold that can be mined and refined during a year. The short-run supply curve of new gold is steep and becomes vertical at a volume of production that is small relative to the outstanding stock (annual gold production has been declining from a peak of just over 2,500 tonnes in 2001 to 2330 tonnes in 2008 - only 1.5% of the outstanding stock).^[1]

The good news for gold bugs

Since gold is a fiat commodity currency, its value will be determined largely by its attractiveness relative to other fiat currencies - the fiat paper currencies issued by central banks. Gold should not be analysed as one of a set of intrinsically valuable commodities (silver, iron, lead, zinc, platinum, aluminium, titanium etc. etc.) but as part of a set of intrinsically useless and valueless fiat currencies - the US dollar, the yen, the yuan, the euro, sterling, the rupee, the rouble etc. etc.). It is therefore in times that market participants are nervous about the future value of most other fiat currencies, that gold will be at its most attractive.

Such a time is what we are going through now. Many systemically important central banks have expanded their base money stocks and balance sheets massively. The Fed has doubled the size of its balance sheet. The [Bank of England](#) has tripled the size of its balance sheet. Many central banks have bought vast amounts of public debt. In the UK, out of the initial £175 bn of quantitative easing, as much as £173 was spent on gilts. The Fed has purchased only about €300 bn worth of Treasury securities, but has acquired a much larger amount of Treasury-guaranteed agency debt.

Although in most of the overdeveloped world (except the UK), deflation is the immediate threat, there is a medium and long-term threat of much higher inflation in all countries with enlarged central bank balance sheets and the prospect of large future fiscal deficits. The great advantage to investors of gold is that, although it is not intrinsically valuable, it is very costly to increase its stock. The tap can be opened at the drop of a hat for fiat paper and electronic currency. The tap produces never more than a trickle in the case of gold.

So when fiscal incontinence threatens price stability in some of the main industrial countries (especially the US and the UK) because the central banks in these countries may be forced to monetise both the stock and large new net flows of public debt, the one fiat money whose quantity cannot be varied at will by a monetary authority will do well. We see that with gold today. We also see that, to a lesser degree, in the strength of the euro. The ECB is by far the most independent of the leading central banks. They also have a heavily asymmetric de-facto interpretation of price stability: inflation is unacceptable, deflation is OK.

So until the risk of serious inflation is removed from the medium-term outlook for the US, the UK and other fiat currencies, gold will be a relatively attractive store of value despite the cost of storing it.

The gold bug's nightmare

An economy with fiat money can have many different equilibria. To make the point as clearly and simply as possible, consider a stationary economy. Population, endowments, technology, government spending, taxes and preferences are constant. The government budget is balanced. Prices are flexible. There is a constant stock of fiat money (which could be paper money, gold, Rai or pet rocks. This fiat money is perfectly durable and therefore can serve as a store of value. It pays no interest. Assume that, for whatever reason, society prefers it (or even has decided to require) it as a medium of exchange or means of payment.

With a bit of further work, such an economy will have an equilibrium with a positive, constant price of money (a constant general price level). Economists call this the *fundamental* equilibrium. This stationary economy will, however, also have many other (in fact infinitely many other) non-stationary equilibria, called (speculative) bubbles. They always have equilibria in which the value of money starts at a positive value but falls steadily towards zero - the general price level rises without bound even though the quantity of money is constant. The holders of money anticipate the future inflation and reduce the real stock of money balances they want to hold. This further increases the actual and expected rate of inflation, and the real stock of money balances goes to zero: the general price level goes to infinity or the price of money goes to zero. We have Zimbabwe.

What is often ignored is that this economy has an equilibrium that is even more 'fundamental' than the fundamental equilibrium. That is the equilibrium in which the price of money is zero in every period, not just in the long run (as with the speculative inflationary bubble equilibria). Remember, fiat money, including gold, is intrinsically useless. It has value only because people believe it to have value. If everyone expects that money will have no value in the next period, it will have no value this period, because no-one will be willing to take receipt of money to carry it into the next period where it will be valueless. So fiat money with a zero value is always an (unfortunate) fundamental equilibrium.

I would actually call it the *only* fundamental equilibrium. All other equilibria with a positive price of money - an asset with no intrinsic value - are benign (relatively speaking) bubbles. The constant price of money (constant general price level) equilibrium is also a bubble, based entirely on belief and trust - a beneficial bootstrap equilibrium, lifting itself by its hair, like the Baron von Münchhausen.

In a world with multiple fiat moneys, the zero value of money equilibrium lurks for each of the fiat currencies, including gold. Admittedly, as regards gold, so far so good. Gold has positive value. It has had positive value for nigh-on 6000 years. That must make it the longest-lasting bubble in human history.

I don't want to argue with a 6000-year old bubble. It may well be good for another 6000 years. Its **value** may go from \$1,100 per fine ounce to \$1,500 or \$5,000 for all I know. But I would not invest more than a sliver of my wealth into something without intrinsic value, something whose positive value is based on nothing more than a set of self-confirming beliefs.

[1] Since gold is very durable, it is reasonable to assume that virtually all the gold that was ever refined is still out there somewhere. There is no gold 'consumption', just its transformation into jewellery and no significant depreciation of the stock.

November 8, 2009 6:02pm in [Economics](#), [Environment](#), [Finance](#), [Financial Markets](#), [Monetary Policy](#) | [46 comments](#)

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1. So what would you buy? Razors, vodka, soap, ammo, tins of beans?

Posted by: Nathan Peters | [November 8 6:39pm](#) | [Report this comment](#)

2. Just one small point - there are 32,151 troy ounces in a metric tonne, and gold is measured and sold (as in the price) per troy ounce, not standard ounce.

Posted by: Ounces | [November 8 9:04pm](#) | [Report this comment](#)

3. Fiat currency as a means of exchange has no value of itself, rather represents the value-in-exchange of the goods traded in a transaction which it facilitates.

Fiat currency as a store of value represents the deferment of consumption. Again, it holds no value of itself but represents the value-in-exchange of goods in a two-dated transaction: at the first date a good (or service) is exchanged for fiat currency, which is then stored for an indefinite period of time. The transaction is completed sometime in the future when a second good (or service) is purchased in exchange.

Of course, all trades using fiat currency are multi-dated. Therefore, there is no clear defining line between the use of fiat currency as a means of exchange and its use as a store of value. In both cases it has no value of itself, but represents the values of the goods exchanged in a simple or multi-dated transaction. Its usefulness derives from a network effect: that enough people are willing to accept it as a means of exchange.

Fiat means 'network effect'. Living languages are fiat languages. English is a fiat language. Esperanto is not a fiat language.

Posted by: RCS | [November 8 9:53pm](#) | [Report this comment](#)

4. Usually you are accurate. in this article I think you lost your mind. Gold is one thing Benny Boy and the rest of the idiot CB's can't counterfeit. They can't turn lead into gold. Gold is a currency, you can take it to the currency window at the bank and convert it into funny money.

Gold will reflect a \$4,000.00 price per troy ounce for every 1 trillion they create vis-a-vis Q-Easing.

And for the record, I hate gold, I'm not a gold bug, but I have faith in the 4 G's: God, Gold, Guns and the Governments will screw it up making it better.

Posted by: DavosSherman | [November 8 10:34pm](#) | [Report this comment](#)

5. Just out of curiosity... Is there any evidence that your "fundamental equilibrium" -- where gold has zero value -- has actually obtained in any human society in history, ever?

Posted by: nemo | [November 8 11:40pm](#) | [Report this comment](#)

6. Not a bad article, but you miss a very important point that ties all your article together--and refutes your argument.

The reason that the paper money is not at the fundamental equilibrium of zero value is simply because of government decree. Because the governments have legal tender laws, because they will accept only their currencies as taxes, and because they care and do a lot to keep their currency alive, this prevents the currency from going to the zero fundamental value its worthless paper deserves. So the natural value of worthless paper is zero, unless someone puts a gun to your head and tells you otherwise.

Gold is the opposite: its natural value is high, because it will always have some worth, unless someone puts a gun to your head and tells you otherwise. Gold can never go to the zero value of monetary equilibrium because whatever happens in the world, it will have value. At the very least, it's a pretty handy metal to have around. It looks great, it doesn't rust, doesn't spoil, and can't evaporate. You could, at the very least, make some real cool chairs, cutlery, or electronic devices with it. This means it will always have some value. And since everyone knows it will always have some value, then the fundamental equilibrium price will never hit zero.

And, as you mention, since it cannot be printed and can only be produced at a very high cost, it happens to be an excellent store of value. So everyone wants it not just because you can make nice furniture, but because you can store your value in it very reliably. This raises its price further.

And this is exactly why it is a 6,000-year bubble that has busted countless fiat and paper moneys through history and remains triumphant. And this is why it will soon defeat all the current crop of fiat paper money around.

Maybe you shouldn't put all your money in gold, but enough people around the world are putting enough money in it that its price will continue to rise.

Posted by: Pals | [November 9 6:28am](#) | [Report this comment](#)

7. While I might quibble with your claim that "most of this jewellery demand is simply small-scale store of value (investment) demand by households" I agree with the broad thrust of the argument. (Men don't buy their women gold jewellery as investments; they do it because our culture ascribes the meaning of commitment to the gift of gold, especially gold rings).

For those who cannot imagine a situation in which gold ceases to have value, I recommend reading "The Road".

Indeed when it looked like the financial system might collapse last year, my counsel to the boys was not buy gold but buy guns. If the social system collapses, possession of gold will get you nowhere. Value and peaceable ownership of values are derivations of the social order and not independent thereof.

Posted by: Simple Simon | [November 9 8:23am](#) | [Report this comment](#)

8. It is sad to see the fiat money system crumble. A lot of people, including most mainstream economists, have made their lives teaching and believing in this system and now they are clutching to the remnants. Gold will prevail and it will be because you cannot trust government with your life's hard work and savings. More and more people are making the choice of converting their life savings into gold and other real assets and this will only end with the collapse of the current fraudulent system of fiat money and 'know all' economists.

Posted by: Hush | [November 9 8:46am](#) | [Report this comment](#)

9. Gold is a bubble. They're trying to buy it on daytime tv.

Posted by: Davros | [November 9 8:56am](#) | [Report this comment](#)

10. "They brought spears and some skeins of cotton to exchange, and they bartered these with some sailors for bits of glass from broken cups and for bits of earthenware. Some of them wore some pieces of gold, hanging from the nose, and they gladly gave these for a hawk's bell, of the kind made for the foot of a sparrow-hawk, and for glass beads..." [Christopher Columbus Journal, Oct. 22, 1492]

So there were some geographical spots in these 6000 years, where the value of gold was not that high...

Beside that, I don't think it is appropriate to talk about prices and economic equilibrium without the existence of some social rules (not only our liberal western framework qualifies, even North Korea's does !). The fact is that these social rules are also fiat constructs : the mere act of trading, essential for the existence

of a price, requires many "common beliefs" to be shared by agents on both sides of the trade (for instance, you are not going to shoot me in the back once we have traded....), and even more if one is supposed to trade repeatedly.

Investing in social constructs signaling is not necessarily a bad deal. For instance, a diploma of the LSE is just a piece of paper, a fiat construct, but signals some skills to other agents that you are susceptible to trade. Gold chain, fast sports car, expensive watches, ... gain also most of their value from this signaling role.

If you dig further, you will see that most assets that are considered "hard" (house, farm land, equities,) are actually relying on the fiat basis of a rule of law that will protect property rights. The right to enjoy the fruit of one's own labor is linked to the fiat basis of a rule of law that will protect personal freedom.

All assets are fiat, including gold.

Posted by: charles monneron | [November 9 9:07am](#) | [Report this comment](#)

11. Interesting prospective on digging gold from under the ground and then storing it back under the ground. However as with all goods and services, they all share a common trait, that is they provoke a desirable emotional state in all of us (weather it be security, the excitement, social status, acceptance and so forth) in this respect gold is no different to any other forms of consumption. So i think thats where the intrinct value of gold comes in. Much like our shelter, treasured art collections, antiques....

Posted by: simon sung | [November 9 10:44am](#) | [Report this comment](#)

12. The moment Gold becomes a real existential threat to fiat currencies, the Governments would simply declare it as contraband and start confiscating it. Just too much is at stake for Governments to let Gold 'play havoc' with the established monetary/financial order. Coercive power of the state has always sought to prevail over popular beliefs and myths.

When the Governments do crackdown on private hoarding of Gold - even though they themselves continue to hoard it and use it as a means of exchange among themselves - it will be driven 'underground', thusgiving yet another twist to the operation of Gresham's Law.

Let's hope things do not come to such a pass because it will symbolise breakdown of free and liberal economic and political order, even civilized way of life itself we hvave become used to.

Posted by: MVL | [November 9 11:15am](#) | [Report this comment](#)

13. Gold is not money now. It is just an asset class. What has really given life to the idea that gold is money is the willingness the last few decades of CBs to convert gold into money. If CBs and the economists who advise them and very often command them were serious about getting rid of the barbarous relic they would consider the Goldfinger solution, viz. irradiating the supply they command to the point of lethality. Another possibility would be to sink it all their holding in the Mariana trench. The way things are going mankind will never develop the technical ability to recover it. And there will never be a better opportunity than now for the Anglo-Saxons to strike a blow for sanity since their intellectuals command the governments of at least the US and the UK. The window is closing thoug.

Buiter ignores an important characteristic of gold qua money, something entirely lacking in fiat currencies. Gold can be assayed relatively easily. This appears to be an irrational attribution of value to money. But is in fact an attribution of reality to money. But the act of valuation is logically subsequent to the confirmation of reality. The economists think that because the only value of money is its "use value", its only reality is in its use. That is why they are obsessed with the notion that money must earn interest.

Personally, I kind of prefer Norman O. Brown's characterization of gold in Love's Body. If that were to become widespread would it increase or decrease the value of gold?

Posted by: blejco | [November 9 1:15pm](#) | [Report this comment](#)

14. Mr Buiter, only 3 weeks ago you were advocating that the ECB introduce measures such as negative interest rates in an attempt to devalue the Euro against other currencies "Time for the ECB to get serious about the overvalued euro ", (18 Oct 09). All around the world politicians, central bankers and economists are engaging in similar self-serving, short –sighted "devaluationist" behaviour in an attempt to bail themselves out from an orgy of debt and over-consumption. Given your view that the Euro should be devalued from its present levels, I presume you would not invest in Euro denominated assets? And given the same story is being played out around the world as countries compete with each other to devalue their way out of the crisis, I would suggest that for the foreseeable future, the gold allocation within your investment/savings portfolio should be much more than a "sliver".

Posted by: Stan123 | [November 9 1:18pm](#) | [Report this comment](#)

15. Not quite fair to the stuff. Gold would be attractive for quite a few modest engineering uses if it were not so damn expensive. At around the values at which the individual can actually cash in the gold round her neck or in her earlobes, there would be useful industrial demand for the quantities available..

However, people who don't wear much jewellery want some compact store of value that is in strictly limited supply. To meet that demand, why not coin depleted uranium? Its only current use seems to be in weapons, where its residual toxicity is likely to get it banned. If coined, it would be stored in vaults out of harm's way; the seignorage would make the nuclear industry appear less costly; the costs of extracting gold from the ground would be eliminated; and the bits of engineering which would like to use gold would become marginally more efficient.

Posted by: Diversity | [November 9 1:37pm](#) | [Report this comment](#)

16. I am afraid that there is not only gold which is something without intrinsic value, something whose positive value is based on nothing more than a set of self-confirming beliefs. What about CDS, derivatives, toxic assets or oil future contracts? They are all built on a set of self-confirming beliefs. You are right, people should stop in investing on those pseudo-assets creating bubbles. When you do not know where to invest your money or excess liquidity just prop up prices of fake assets.

Posted by: M.G. in Progress | [November 9 4:20pm](#) | [Report this comment](#)

17. Where I live in Spain volcanic action some many millions of years ago threw up at least 20 minerals, the ground is rich or was in gold, silver, copper, lead etc.. etc. Came the Phoenicians, the deal was put in place by the Beaker people, the locals, take all the shiny stuff but do not touch the copper, tin and lead or there will be war. Came the Greeks, same deal then last but not least the Romans. It is estimated that the Romans took some 4 tons of silver from this area and because we also have a gold mine it not unreasonable to suppose they took gold. It is said that the expansion of the Roman empire to the north was financed by this booty. The locals made tools and other useful things with copper and lead, something of worth. The Romans used the shiny stuff to change the western world.

Posted by: gs | [November 9 5:20pm](#) | [Report this comment](#)

18. The biggest message from this article is the continued arrogance of economists and the frightening state of how little they actually understand about the way things work, their lack of humility, and worst, the fact they don't (Krugman's relentless attack on macro an exception) seem to have any clue about said ignorance, so as to give us hope they may ameliorate the situation.

What Mr. Buiter is essentially saying is that "by my economic reckoning, gold should have no value. So by conclusion, everyone for the last 6000 years who has for whatever reason imbued it with value is wrong."

This is close to faith-based religion. "I don't care how little evidence there is for [pick the religious belief], I'm right and everyone else is wrong."

Now far be it from me to claim a complete or even small understanding of where gold gets its value. If I had to take a stab at it, I'd say its value simply comes from the fact that people give it value, and what gives value is not what Mr. Buiter and his ilk think SHOULD give value, but rather what ever to a given person DOES give value. For example, if to an individual having a few gold bars around makes him more confident about his financial situation and hence sleep better at night, that represents real value.

I do know one thing. If I had a theory, and the entire history of humanity provided not a single instance of evidence for it, I think I would stop looking at the entirety of humanity as being in error and start looking at myself.

Posted by: RN | [November 9 5:43pm](#) | [Report this comment](#)

19. The good Professor is quite right the useless yellow metal has limited utility and very little intrinsic value. Unlike shelter, clothing, food, water It can do nothing to sustain life. Its bubble nominal value relies entirely on the ' theory of the greater fool'. The bubble will last as long as the world has a ready supply of fools.

Posted by: wiseman387 | [November 9 6:56pm](#) | [Report this comment](#)

20. Cracking good post there Prof, much appreciated.

Posted by: praxis22 | [November 9 8:20pm](#) | [Report this comment](#)

21. agreed with the 'greater fool theory'

unless of course we were expecting Barrick Gold, Anglo American, Ashanti etc to become the new central banks...

Posted by: eminence noire | [November 9 8:42pm](#) | [Report this comment](#)

22. While I agree that the rise in gold prices is purely a speculative bubble, it is a little extreme to say that gold has no intrinsic value.

As some have pointed out it has a number of industrial applications. Being one of the best conductor of electricity there is, it is heavily used in electronics. Since gold has gotten so expensive, techniques have been developed to deposit ever thinner layers of the stuff.

More importantly, if 50% of gold reserves exist in the form of jewelry, that means that most buyers did see intrinsic value in it. Granted, a part of it has to do with conforming to social norms : woman wants gold, man wants to make woman happy, so man buys gold even if he deeply believes it is all BS. Refusing to acknowledge any intrinsic value amounts to saying that all jewels, diamonds and other stones have no or little intrinsic value. What then does have intrinsic value? Any form of art certainly doesn't. What about furniture? Does a fine Louis XV desk have an intrinsic value greater than that of a \$100 Ikea desk

Posted by: RT | [November 9 11:05pm](#) | [Report this comment](#)

23. More to my previous point on conductivity properties: since gold is the best conductor of electricity, if it was cheaper than copper all electrical lines would be made out of gold.

Therefore there is a floor to the intrinsic value of gold: that of copper.

Posted by: RT | [November 9 11:09pm](#) | [Report this comment](#)

24. Gold in fact has industrial uses: in front of you there are computers, having gold wires on the surface of those silicium chips. Any reasonable quality consumer electronics interconnect cable is gold plated. All this at 1000\$/oz; if gold were cheaper then copper, we would even spare some electricity by gold wires all around the house.

This makes things worse: the bubble described above results in crowding out of socially useful purposes (e.g. electric wiring) by useless purposes (hoarding in the vaults). Does it then follow that we should all obey the categorical imperative, just as concluded by the Professor?

Posted by: Sandor Valkovszky | [November 10 12:01am](#) | [Report this comment](#)

25. Roy Jastram's 1977 economic study of gold from 1560, recently updated by Jill Leyland, shows that gold does not protect very well against a serious risk of inflation. Quite the opposite; Jastram's study supports the conclusion that gold does consistently well over the ages, protecting against Deflation.

If I want to store wealth for the future, I can either invest in a bond or an equity which defaults in an deflation, or in an unoccupied property, the rental on which is also defaulted. At the moment I can even also invest in these at prices distorted from those which would otherwise prevail, where the distortion has been caused by QE. Why would I do that?

In the alternative, I can store my wealth in fiat money which I have now found politicians, or Mervyn King himself, can conjure out of thin air. Although, until now, I have been a life long bondholder, I will no longer do this.

You see, what has happened to money and debt recently is about to be cause absolute destruction of confidence in fiat money and debt denominated in fiat money. That is the root of the credit crisis: it is a crisis of confidence in money and debt.

Destruction of confidence in fiat money is, I believe, the real effect of QE and present fidcal policy. Why should I have confidence in something which it costs no discipline to multiply and policies, the specific purpose of which is to manipulate asset prices from what would otherwise be their market values?

Where interest rates are zero on money, and low on debt, and where rates will have to double or treble to clear the market in the borrowing which governments are undertaking, I risk losing half my wealth if I invest it in fiat money debt denominated assets. If we remember back to 1979 - 1980, gold did well - not when interest rates were falling, but - when interest rates were rising and bond values were being destroyed, because there was then a threat that the value of money was being destroyed. Volker stopped all that, because he adopted a policy of continence as far as money was concerned.

The big mistake is to think that, because inflation is not presently on the cards, QE and high fiscal deficits are a reasonable policy. But, the taxpayers are not going to be willing - or able - to pay off the debts incurred as a result of this incontinence if there is a deflation. So, what we will have is (a) low equity and property prices (b) high bond yields (who wants to invest in government junk).

Why should there not shortly be a revaluation of government debt as swift and as terrible as that which happened to the CDO mortgaged backed market. Government debt is a far worse investment than sub-prime - at least there was a house which backed a subprime loan - what is the backing behind Treasury debt, with taxes already so high that it will be difficult to raise them further in a recession. The day is coming shortly when the scales will drop from the Market's eyes.

The day confidence is withdrawn from Government Debt will be the next Black Swan. It will radically change the world.

So far as money itself is concerned, I'd remind you of another old law - Gresham's law. Better money will be hoarded, and worse money spent. So Gold is going up against all currencies. And since it Gold is no-one's liability, it is the only store of value which we can have confidence in at present.

Gresham's law is about to work out in the foreign exchange market, too. The Euro is far too high against the dollar and the Asian countries, so the European populations will demand a rethink, and we will in due course have a competitive devaluation, one way or another, just as we did in the 1930s. That won't solve things. Because the USA and the Asians will then drive their currencies down too. So, we will have a devaluation of money against assets, in particular Gold.

So, Gold is the only asset which can hedge against the Black Swans, and is the only reliable store of value now that the incontinent issue of so much fiat money means that Money can no longer properly play that role.

As for Gold at US\$ 1100 or \$5000, Gold has only just begun to ask the question: what is the value of fiat money. As you rightly say, we have Zimbabwe worldwide. So I would recommend that you keep more than just a sliver of your wealth in the only thing which is going to offer your wealth some protection!

Posted by: Cititrader | [November 10 5:48am](#) | [Report this comment](#)

26. Brilliant. From now on, I won't have to fight with the gold bugs anymore. I'll just point them to this article.

Posted by: Benedict@Large | [November 10 7:03am](#) | [Report this comment](#)

27. intriguing and sobering insight a usual

Posted by: keith orken | [November 10 7:30am](#) | [Report this comment](#)

28. Yes, if we should be wary even gold will go to zero, what should we be buying? Doing nothing isn't exactly an option as our employers already buy fiat currencies for us in return for our labour.

Reading between the lines I would guess Willem prefers silver because of its industrial uses based on its intrinsic value as the element with the highest electrical conductivity and the highest thermal conductivity of any metal... not exactly easier or cheaper to store than gold though due to the weight.

Posted by: phusg | [November 10 9:37am](#) | [Report this comment](#)

29. I like your article a great deal. The central banks should sell their gold to the goldbugs and then create a new Isle of Yap global currency which is fixed for all time. They could share it out between themselves and then persuade the goldbugs to buy their stock of it. And then start again...

Posted by: William Hooper | [November 10 10:15am](#) | [Report this comment](#)

30. That the appeal of gold has lasted for 6000 or more years is proof enough of its intrinsic value.

There is not a single civilization that lasted that long.

There is not a religion that endured for such a length of time.

There are not many ideas that are as universally accepted and generally known as that which holds that gold is valuable.

Gold has all the qualities which man craves for himself in vain:

It is incorruptible.

It endures.

It bestows beauty.

It is rare.

Gold's appeal will survive each and everyone of us.

Posted by: holomorphic | [November 10 10:16am](#) | [Report this comment](#)

31. #28: gold, not silver is the element with the best electrical properties. If gold was cheaper than copper it would displace copper in pretty much every electrical application (for which silver is no good). Actually we use copper in electrical applications because its properties are closest to that of gold, at a reasonable price.

Gold is also pretty good for storage purposes : it is the most inert material and the heaviest of all elements (its density is 19.3 times that of water).

Picture this: according to WB, there is 160,000 tons of above ground gold in the world - including all the gold used in jewelry. With a density of 19.3, it represents a physical volume of $160,000/19.3=8290$ cubic meters, that's a cube 20mx20mx20m - about 3 olympic size swimming pools.

These are just physical facts. This being said I think it is completely stupid to hold gold except for purely speculative purposes.

Posted by: RT | [November 10 2:17pm](#) | [Report this comment](#)

32. You are not investing in gold but perhaps central banks of India and China and others are. So far just to diversify their reserves out of dollar, which is fiat money out of fashion...

Posted by: M.G. in Progress | [November 10 2:18pm](#) | [Report this comment](#)

33. Dear Prof!

It is not only reasonable to assume that the gold is still "somewhere", any other situation would defy the laws of nature as we know them. This footnote is not up to your usual standard. All the aluminum atoms are still out there somewhere as well.

Taking this piece of trivia from memory: The most expensive plates on the table of Napoleon III (or second?) were made of aluminium, with the less expensive made of gold just next to them.

Posted by: Gaute Solheim | [November 10 5:38pm](#) | [Report this comment](#)

34. Blogging while drinking heavily is not a good idea.

There are so many incorrect statements in this that one hardly knows where to begin.

Posted by: arthurcutten | [November 10 5:54pm](#) | [Report this comment](#)

35. In 1985 Lawrence Summers together with Professor Robert Barsky published a paper called Gibson's Paradox and the Gold Standard (NBER Working Paper 1680). The following quote from the conclusions of the paper indicates that gold may well be more than a barbarous relic: "The famous positive correlation between prices and interest rates seen in two centuries of data appears far less mysterious when thought of as a negative equilibrium relationship between the real price of gold and the real interest rate."

Maybe 6,000 years of history has more going for it than you assert.

You may also be interested to note the claims of a number of commentators including GATA that central bank selling of gold in the past 20 years was intended to hold down the gold price to allow interest rates to be held at lower levels than would otherwise have occurred. For example see the following link (<http://www.gata.org/node/7553>).

Posted by: ROBERT | [November 10 11:19pm](#) | [Report this comment](#)

36. You fail the the most basic test of economic theory: how are goods valued? The huge advance in economic theory came from Menger who solved the problem of why diamonds are expensive but water is not (a problem that baffled classical economists): all value is subjective and imputed to a valuer. Value does not exist in a magical vacuum with nobody to do the valuing. You managed to regress about 130 years of economic theory in one fell post. Impressive stuff

Posted by: Vijay | [November 11 1:37am](#) | [Report this comment](#)

37. The Gold bear's nightmare argument stands and falls on whether you agree that gold is a 'fiat commodity'. In truth, gold is only useless because it is too expensive to be used in applications where it might be useful. The price elasticity of gold's utility means that it in fact becomes extremely useful as soon as its price approaches that of, for example, copper, as others have pointed out. The concept of a fiat commodity would only really seem to be relevant to purely decorative matter (such as pearls and mistletoe).

The happy news for Gold bugs makes more sense in its conclusions, despite also being based on the faulty premise that gold is a fiat commodity.

But what is most interesting is the indignation generated when one suggests that people may be buying into a bubble. To most people who aren't already heavily long gold (and some who are), it seems readily apparent that the current gold market is in bubble territory. But what of it? What exactly is wrong with bubbles? Looked at dispassionately, bubbles in fact represent probably the best opportunity for the ordinary joe shmoe (who in all likelihood will not come up with a groundbreaking invention or start the next google) to make a shedload of money and improve his lot. Bubbles are the heart and soul of social mobility, and much of the prejudice against them is quite irrational. In particular, all talk of intervention by the authorities to prevent bubbles inflating in the first place, or intervention to prevent them deflating when the time has come is quite inappropriate. The appropriate response of government is nothing more than perhaps to give assistance to those who's lives are decimated by the collapse of bubbles. There may be an argument to be made here that prevention is better than cure, but it would have to weigh up the relative costs of either path and take into account the wealth created and distributed by the bubble on its way up.

Posted by: erikawonka | [November 11 4:05am](#) | [Report this comment](#)

38. A good example of the intrinsic value of a \$1,100 per ounce gold coin. A man tries to sell his gold coin to strangers for \$50. No one would buy even when he reduced the price to \$20.

<http://www.youtube.com/watch?v=hCjzpdvI0I>

Posted by: wiseman387 | [November 11 7:29am](#) | [Report this comment](#)

39. @38

So, would the guy in your video correctly give the dollar value of a kg of copper or a 100 yuan, rouble (or even euro) note? Are they worthless too?

Posted by: maff | [November 11 12:54pm](#) | [Report this comment](#)

40. I would remind the Prof of his previous blog a while back about London turning into Reykjavik on Thames. He did not mention gold in that article BUT the argument given was actually a good reason for GBP holders to buy gold. Maybe the Prof is now reminding us that gold is NOT an inflation hedge but IS a great crisis hedge (especially considering the actions of the "other" fiat currencies). If the crisis continues to be a long drawn out affair should we expect the price of gold to drop? On the other hand if the crisis is short and confidence returns, QE is retired then I guess the gold price is headed downwards.

Or maybe this post by the Prof is about getting back into the establishments good books so he can regain a position on the MPC if there should be a change in Gov....surely not!

Posted by: littledavesab | [November 11 2:46pm](#) | [Report this comment](#)

41. Money is an extremely useful human invention. It must be made of something. The intrinsic value of gold (and to a slightly lesser extent, silver) is that, over a period of millennia, it has been found to be the best-suited commodity to act as money due to its inherent properties of durability, homogeneity, level of scarcity, divisibility, etc. The process of natural selection which chose gold to act as money is no different than the natural selection of wood to be used for building homes -- it is simply the best-suited commodity available for the requirements of the job.

Posted by: david.serber | [November 11 2:57pm](#) | [Report this comment](#)

42. Dear Mr. Buiter, during law school I learned the most important lesson: When you reach a dogmatically brilliant solution, which contradicts evidence in reality, it's time for the plausibility check.

There has been no period in western civilization, when gold has gone to zero. If your argument does not manage to reflect this reality, then it cannot be true within the framework of said civilization.

I'm not a gold bug myself. I prefer equities and fairly priced real estate, all held without intermediaries or use of mutual funds. I prefer investments that earn a return based on the creation of real assets or provision of necessary services. Still i recognize gold's power. As a German i have a natural distrust in fiat currency. Gold is a private asset, outside the defining control of governments, which gives it protective powers against the intervention of the state. It most likely is going to perform well in the most catastrophic circumstances, when it will always be recognized as exchangeable for goods and services. But when you reach that point, you will not ask for the actual exchange rate. You will be last man standing, because you have the ultimate fungible good at hand, which can buy food, safety and manpower.

Can under those circumstances gold's value be defined as zero? Rational questioning of the subject will tell us 'no.' Gold is an insurance police, the cost of which is equal to it's lack of return.

Posted by: Finster | [November 11 7:34pm](#) | [Report this comment](#)

43. Agreed with everything the audthor says, except the conclusions at the end. The author forgets 3 things:

1. No fiat money has ever seen it's market value gone to zero unless there was a period of rapid expansion of the money stock preceding that event. This is unlikely to happen for gold. Although theoretically gold's market value could go to zero, it would take 6 billion people all agreeing that from now on they will all agree gold has no more value - unlikely...

2. The lack of "intrinsic value" is a poor reason not to invest in something. People have made tons of money investing in things without intrinsic value, such as chewing gum, cigarettes, coke...

Gold has over lengthy periods in recent history (such as the half century spanning from 1930 to 1980) vastly outperformed any other asset class including stocks. We may well be in another such period. It would be a great pity if the author for all his intelligence stick with poor performing assets and miss the bullet train in gold, because of a pre-occupation with intrinsic value.

Posted by: pepijn.dekorte | [November 11 9:18pm](#) | [Report this comment](#)

44. Dear professor,

"Dear Mr. Buiter, during law school I learned the most important lesson: When you reach a dogmatically brilliant solution, which contradicts evidence in reality, it's time for the plausibility check."

+1

It is about time our dear Professor gets into a serious reality check. Re-reading Mises, Hayek, Rueff or Allais would help. Of course this is a generational issue. Most of the current finance education is based on recent assumptions that are crumbling. And our dear professor teach this relatively recent "new finance". Of course, our dear professor is adamantly talking his-and-their book - the BoE one - a disastrous monetary bubble mainly sitting on inflated real estate and government loans.

Your fellow readers qualifying as gold-bugs - they are many - are just saving the money-based part of their modest asset base. As much as they appreciate some of your recent posts on regulatory capture, they will always impugn your views on gold. And more critical issues:

- deflation when commodity prices and equity are running upward,
- manipulated interest rates on money-markets and their collateral effects, massive capital mis-allocation around the globe.

"Shooting the messenger" is no great trick. Those you try to stifle as "gold-bugs" are, for most of them, early readers of Roubini, by the end of 2006, and smart managers of their own personal money. They called this crisis. Compare them fairly with the disastrous handling of "other's people" money by the banking professionals.

Posted by: Daniel de Paris | [November 12 8:11am](#) | [Report this comment](#)

45. The writer makes a mistake when he infers that objects have intrinsic value. That is not true. The value of an object is what a consumer is willing to pay for the benefits it provides. Using the writer's framework, one could argue that water has a higher "intrinsic value" than diamonds. However, consumers are willing to pay for more diamonds than water. Consumers demand gold because of its various esthetic and industrial uses, but also because of its characteristics as a storage of value and exchange medium. Consumers have chosen gold among all commodities to serve that purpose, not governments. The author wants to disagree against what the market demands and he will likely pay a price for that.

Posted by: cajagora | [November 12 3:39pm](#) | [Report this comment](#)

46. I have been an advocate of gold as an investment for many years. I allocated the greatest part of my savings to gold in 2003 when it traded below \$350 an ounce, and I can't say I regret that decision. I believe gold is still in a bull market, however now may not be a fantastic entry point:

<http://raphaeltkahan.blogspot.com/2009/11/gold-is-overbought.html>

<http://raphaeltkahan.blogspot.com/2009/11/more-on-gold-charts.html>

Posted by: raphael.kahan | [November 12 5:34pm](#) | [Report this comment](#)

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