Gold and the ’Flations

Fred Sheehan
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The rule-of-thumb goes that gold will appreciate during an inflation and lose value in a deflation. Empirical evidence shows quite the opposite — but the problem may lie in the question being answered. Is the question one of absolute return, or of the purchasing power of the metal over a period of ’flation? Absolute return does not exist. We quote the price of gold against dollars or Euros or Yen. Yet a portfolio manager, or even Aunt Matilda, is likely to consider its potential absolute contribution —“What will it contribute to my total return?” — some mixture of stocks, bonds, real estate, livestock, and gold. The manager is likely to concentrate on his portfolio return during 2005 (and on outperforming a relative benchmark, but that’s a different topic). If inflation races out of control, gold is probably the place to be. In a deflation this may not be the time to own gold, if for no other reason than everyone else who is buying and selling knows the price of gold collapses in a deflation (and that it goes up in an inflation).

But life continues after Morningstar calculates the winners and losers. In the end, money’s presence is only useful to numismatists and cashiers. This is not so apparent now in an age of credit and asset inflation. It becomes acutely obvious when the standard measurement for buying and selling the world’s wares — oh, let’s call it the US dollar — either challenges the 1923 Reichmark for the world championship in redundancy (i.e., prolonged inflation) or when wages slip, debts rise, and prices of goods fall (i.e., prolonged deflation).One historical study stands tall. Roy Jastram spent many years collecting and interpreting data of the historical relationship between gold and prices in England and the United States. Elaboration shall follow the distillation of his labor:

England, inflationary periods— the purchasing power of gold:1623–1658: –34%, 1675–1695:–21%, 1702–1723: –22%, 1752–1776: –21%, 1793–1813: –27%,1897–1920: –67%, 1933–1975:–25%.• England, deflationary periods— the purchasing power of gold:1658–1669: +42%, 1813–1851:+70%, 1873–1896: +82%, 1920–1933: +251%

The raw numbers are not worth much, to the investor or to the preserver of capital. Gold has been a much better hedge against inflation than is shown above. For instance, during the inflationary period of1933–1976, gold lost 25% of its purchasing power but prices rose 1,434%. (As to what might have kept pace with inflation, “crime” comes to mind, which was the conclusion of many a corporate boardroom and trading desk.) Jastram produced two historical studies of the monetary desks sitting at the periodic table, Silver: The Restless Metal (1981) and The Golden Constant (1978). The methodology employed was identical, as was the purpose. They are “quantitative stud[ies] of the economic history of England [1560–1976] and the United States [1800–1976].” He approached this excursion into economic history as a statistician: “I do not presume to take on the role of an economic historian or a monetary economist as well.” (He was an economics professor at the University of California, Berkeley.) Nonetheless, patterns of monetary behavior under analogous historical events do repeat themselves. The purpose here is not to prophesize the continued relationships between gold and the ’flations, but to establish its historical existence, to apply as one sees fit to our circumstances as they unfold.

Jastram spends a good portion of the book explaining how he constructed his price tables. His purpose for doing so follows:
To construct a unified series of the price of gold since 1560 utilizing market prices, Bank of England buying prices, and Mint prices.

To construct a unified series representing the level of wholesale commodity prices in every year since 1560. [Jastram devotes chapters to explaining the full list of sources for prices, for classification of specific years when business expanded or contracted, and the methodology he employed.]

To determine the statistical relationship between the first two series in such a way as to measure the purchasing power of gold (operational wealth) since 1560.

To discover the behavior of the purchasing power of gold in the periods of inflation and deflation. [Deflationary periods were not so hard to come by as recent experience might lead us to believe. For instance, in England there were 74 years of deflation and 78 years of inflation after 1800.]

To judge the extent to which gold has served as an inflationary hedge in history and a conservator of operational wealth in periods of price recession. [On the term" operational wealth": Jastram steers clear of "real wealth" and "real income" because "the opportunities for confusion are too great for those readers who may consider gold to be the only real wealth, in contrast to paper money."]

To read Jastram today is to first acknowledge that his time series ceases when we tottered on the precipice of the most disruptive price fluctuations in Western history. On the other hand, the gold standard had been abandoned a half-decade back (and only half-heartedly supported during wars and various monarchical and republican escapades). The last few years of his study was the most chaotic period of monetary mayhem — until the period that followed his study. (It is worth considering the four-century chart. Note that, prior to the 20th century, through continental wars; periods of fiat, printing-press currency; revolutions and of deep deflations — how comparatively mild were the oscillations around the mean. If it weren't for the last quarter century of this 416-year chart, there would be no need for a logarithmic scale. As it is, gold and commodity prices shoot off the top of the chart in the early 1970s. It is during the 20th century, and on into the 21st, that we see the portrait of modern anxiety, angst, alienation, social destruction and dislocation; a neurological chart of man's "progress" from an agricultural economy through an industrial period on into the current financial economy in which our bearings are as loosely anchored as is the construction of the latest "Russian doll" CDO tethered to its funeral-home receivables. Contemporary artists, please note.)

Jastram certainly had a taste of what was to come but his conclusions could not have anticipated a world with $250 trillion in derivative contracts; a coordinated, world wide land and house inflation; the ability of the US to amass a trade deficit that was financed, in 2004, by sucking in 80% of the world's savings; and the Euro and its potential to unseat the dollar as the reserve currency. Yet, the country is still considered (for the most part) the model of productivity, prosperity, and getting what you want.

Jastram chose "England [as] a country for which data are available over unusually long spans of time. She represents an economy with constant political boundaries for many centuries [not true of Germany, Italy and France]. England has not been invaded by a foreign power since 1066…. From the Norman Conquest until the change to decimal coinage in 1971, English money has consisted of pounds, shillings, and pence, always with 20 shillings to the pound and 12 pence to the shilling.

For about 700 years, there was no break between the money of one year to the next. The coinage and the money of account never parted company." Conveniently, "the English are a nation of record keepers." This includes Prices and Wages in England from the Twelfth to the Twentieth Century, published in 1939. Jastram "cannot recommend too highly this remarkable achievement".

He recognizes that the United States cannot "match all of the attributes cited earlier for the choice of England" but "it is fully justified by its great importance both as a national economy and as an economic influence on the rest of the world". Also, "economic institutions are common to the two and similar motivations and traditions influence their commerce and finance".

To definitions: Jastram describes inflation and deflation as "any period of rapidly rising [or falling] prices". The author knows that he cannot define such subjective opinions as to "how fast is rapid; how precipitous is swift?" And, "this open question has to be related to the length of the time period which is descriptively designated as inflationary or deflationary." Since Jastram cannot satisfy everyone, he simplifies matters by satisfying himself: "I simply adopt an arbitrary schema and state my considered selection of terminal dates for periods of inflation or deflation."

To convention: Jastram sets 1930 as the starting point. Gold, the consumer price index, and the purchasing power of gold equal 100 in that year. For example: the purchasing power of gold in 1650 is 97.6, meaning the same amount of gold would buy 97.6 pots in 1650 and 100 pots in 1930.Jastram is not interested in "transient swings" but with "fundamental changes in price levels over substantial durations”. Periods of 20 to 30 years are more useful than longer periods. The composition of prices is relatively closer, as is the quality of the goods.

Jastram’s conclusions:
• Gold is a poor hedge against major inflations.
• Gold appreciates in operational wealth in major deflations.
• Gold is an ineffective hedge against yearly commodity price increases.
• Gold does maintain its purchasing power over long periods of time.
• Gold is an ineffective hedge against yearly commodity price increases.
• Gold does maintain its purchasing power over long periods of time “The intriguing aspect of this conclusion is that it is not because gold moves towards commodity prices but because commodity prices return to gold. ”[Jastram’s emphasis, as are all future italicized words in quotations.]

I add two more summations:(1) forget about the ’flations, gold has conserved operational wealth during periods of currency destruction; and(2) nobody has pursued Jastram’s work after 1976, but, to the extent the “retrieval phenomenon” (as Jastram calls it) is still valid, the surge in gold will chase the Dow Jones Industrial Average for best in show. On the first, Jastram only devotes one page to what he calls “The Attila Effect”. That is: “…historically, gold has served as a financial refuge in political, economic, and personal catastrophes…. [E]xamples are legion.” Jastram apologizes for what he considers the liberty of stating this. His intention was to record the history of gold’s relationship with purchasing power. He did not study the change in gold’s value when Attila showed up in the pantry. In response to that question he would probably say “priceless”. He did write: “Anyone who fears the collapse of his country’s currency is acting rationally when he shelters his assets in gold.
”Why bother with a quantitative study to describe that?

The retrieval phenomenon has demonstrated consistency. Examples include “three distinct cycles of the commodity price level between the beginning and the end. These were, bottom to bottom, 1700 to 1737, 1737 to 1752, and 1752 to 1779….The amazing feature of these three cycles is that at the midpoints of each the three statistical series involved converged on each other at a value they were to attain again almost 200 years later, in 1930.

”With book in hand, the reader can better judge the suitability of Jastram’s research in different circumstances. Without the reference, we will make do with Jastram’s verbal description of this chase across the centuries:

As early as 1650, commodity prices had risen to equate with gold. They passed down through the gold parity level in 1660 and lay below that line until they rose to touch gold again in 1695.

Again, commodity prices dipped below gold, until in 1710 commodity prices moved up to meet the more stable gold price index. They remained in constant relation to each other until 1720 when commodity prices fell sharply away from gold, not to return until 1740.

The next disparity developed shortly after 1745, when commodity prices again fell away from gold levels, always the more stable of the two. But by 1765 the retrieval phenomenon had reasserted itself, and commodity prices rose to meet the level of gold.

Between 1765 and 1793commodity prices again fell generally below gold levels but (to put it anthropologically) seemed to be striving constantly up to reach gold, witness 1771, 1776,1782, 1790. Commodity prices broke through the gold level in1793 and stayed above until they fell back down to meet gold in1815.

After the Napoleonic disturbance, gold resumed its prewar index level in 1820 and commodity prices fell to join it in1822. Thereafter through 1875commodity prices arced above and below the constant level of gold but always returned to the latter.

After 1875 (when they stood at 99.0 and 99.8, respectively) a divergence developed until 1915, when characteristically, commodity prices finally moved upward to meet gold. Commodity prices continued to climb past gold until they peaked in 1920. In the decline that followed they homed in again on gold until the two index numbers necessarily were equated in the common base year 1930 = 100. [In other words, all of the price changes through the entire period needed to start together at a certain point. Jastram chose 1930.]

The imagery here is that for nearly three centuries the level of gold was the loadstone for commodity prices. The latter traced a pattern falling and rising around the gold price level but always returning to it before wandering off again.

Why might this be? Jastram suggests:

If it is settled national policy that the price of gold will be constant, then there will be times when, for various reasons, commodity prices will fall below or above the constant level. When either of these swings becomes severe enough, monetary authorities will intervene and adjust the monetary supply to reverse the process. This will tend to return the commodity price level toward the constant price of gold. Not primarily because it is gold, but because it is constant

Why, then, are “gold” and “inflation hedge” so bound together? Probably because that is what we remember. The only exception, in which gold chased commodity prices, was in the United States between 1951 and 1976. Jastram postulates this was due to the price fixing of gold before the London Gold Pool fell apart in 1968. We may, or may not, live amidst similar price suppression today. (Similar or dissimilar — in the sense of whether the unwinding will chase the same path today.) England, by the way, would have joined the US as an exception during its final leg (1933–1976), if not for poor timing. Through 1974, gold stood at a 1.5% advantage to prices. After 1976, only two years later, gold had lost 25% of its operational wealth since 1933, a 44-year period.

This is an example of how the 20th century stands apart in his study. Violent movements of price changes are concentrated in the last three generations. This observation comes up time and again: “[T]he annual rates of inflation were not at all severe until the twentieth century.” Regarding English deflations: “The most recent deflation [1930–1933] was by far the worst.”

Gold’s ability to hedge during deflations begs to be charted in the New Era. As Jastram states: “[T]he historical capacity of gold as a hedge against deflation may be contingent on the willingness of government to maintain a stable gold price.” The government’s willingness to maintain a stable anything in troubled times is always suspect; today it is certainly absent. But then, the alternative (chaotic, bombastic pontificating on a difficult subject which not five legislators in Washington possess the capacity to understand) may be money madness, a good time to stuff something solid into the safe.

ORGANIC CURRENCIES

It may be useful to apply The Golden Constant to a pair of contemporary topics — the future of the Euro and the reintroduction of a gold standard. The gestation of a currency was described by Carl Menger as a “medium of exchange. It is something that men acquire as a means of acquiring something else. It enables people to avoid the inconvenience of direct exchange, or barter, and engage in a more convenient indirect exchange.” Money “is a social institution, the unintended result, the unplanned outcome, of individual efforts of members of a society”.

The slow evolution of gold as an accepted means of exchange fills this description. It is commonly assumed that the gold standard was a law of the land, of many lands, decreed from on high. In both countries under discussion, the gold standard was accepted “as a social institution” long before it was written into law. Jastram notes: “The remedy [to hyper-irresponsibility] was the prevalent silver coins of those days [circa 1717] and was not made to apply to the rarer gold…. The odd thing is that England did not establish the gold standard by any design or deliberate act. The proclamation of 1717 brought the golden guinea down to 21 shillings. [Shillings were silver pieces.] The 1717 Act made the value of 21 shillings in money tied to the value of gold in a guinea and not to the value of silver in 21 shilling pieces.” It was only at the conclusion of the Napoleonic Wars, in 1816,“with Lord Liverpool’s Act [that established] gold as the sole standard. But a full century earlier one of the greatest currencies of all time had quietly eased onto the gold standard at a price of 3 pounds, 17 shillings, 10.5 pence per standard ounce. ”Through the 19th century, other countries locked their currencies in terms of fixed quantities of gold. This was quite unlike the wholesale European conversion into the Euro a couple of years back.

The US established a bimetallic system in 1792. “It worked reasonably well” until its suspension on December 30, 1861. The government printing presses issued “legal-tender notes” (no backing other than the government’s good word, which was not good enough to forestall an immediate inflation.) Specie payment was not resumed until 1879 when the US reverted to a specie standard, that standard being gold. According to Jastram, silver was discarded by oversight in legislation (in 1873), though he mentions opposing views of those who believe the act was more than absent-mindedness. In any case, there was no meaningful debate about the adoption of gold (as the sole standard) in Congress or the Senate, buffering his contention that the US eased its way on to the gold standard. Even then, it was the Gold Standard Act of 1900 “which provided legal recognition of what had been in operation since January 1, 1879”.

We have the Euro today. It came into being as a negotiated piece of legislation. It is a paper currency that is not convertible. It is certainly giving the dollar its comeuppance, but it has not been tested by plague, war, famine, or a 20% unemployment rate.

Proponents of a new gold standard may find that a widespread institution of such is not the best route even if the world’s financial architecture crumbles (besides the practical problem of nobody speaking to one another). An analogy might be to the League of Nations or the United Nations. Both operations were launched with great fanfare and promise. The first disappeared, and the second is an incoherent mess, 60 years after its launch. Maybe they promised too much or maybe they were always castles in the sky. Maybe the United Nations could have made practical contributions if it had restricted membership to a dozen countries. Whatever the case, a couple of hundred voting countries is an impossible collage of interests and any future monetary standard with teeth should start out as a small, natural evolution.

THE GOLDEN CONSTANT:POST-JASTRAM

Jastram’s work moves across time from an agricultural economy and into the industrial age. The final 25 years of his study gestated the financial economy, but finance did not control economic activity until well after Jastram’s time. Nor did he witness the worldwide asset inflation propagated by the US central bank. He tracked consumer prices, not financial assets. How to incorporate this change into an extrapolated study is for a better mind: How does one adjust Jastram’s calculations of relative prices during a period in which billions of dollars worth of US home mortgages are being bought by the Chinese central bank and recycled (thus inflating) the Chinese economy? The researcher who relies on the methods that produced Prices and Wages in England from the Twelfth to the Twentieth Century may fall short.

On the other hand, the shift from an agricultural to an industrial economy altered the role of finance in a way that touched every hearth and home:

There were bad times and good as long as economic history has been set down…. But until the nineteenth century, these events were largely accounted for by crop failures, epidemics, wars, civil disorders, political struggles, deviant fiscal finances…in respect to crises and depression, and by good harvests, prolonged peace, enlightened rule on the side of revival and prosperity…. It was not until a large part of the populace was receiving and spending money incomes, producing goods for large markets, organizing enterprises with few employers and many employees, and using credit instruments in support of all this that economic fluctuations took on the character of business cycles.

This economic change swept large portions of the population into a consciousness of money. That Jastram's study applied equally well on either side of that divide may foreshadow the financialisation of the American mind as equally inconsequential to future patterns. (One sign of that mind: In a 1979 poll, fewer than 10% of Americans knew who the Federal Reserve chairman was. Today, the percentage would be higher in Zanzibar.)

Another critical distinction that crept up and then pounced on Jastram's back is the era of democracy for all, liberty for none. Without democratic pressures, would the US have jettisoned the gold (demi)-standard in 1971? The Johnson and Nixon administrations were afraid to do what governments from centuries past had been forced to exact —tribute from the people when fighting a war. The current Bush administration is equally neglectful (and queasy) in this regard. Looking at the current Chinese government's thwarted efforts to rein in a recklessly credit-defaulting society, the era of mass democracy can be just as exacting in a communist country. Twenty million Chinese, wandering from country to city — and often back again — looking for a wage-earning position, leave this communist government in a position somewhat analogous to the court of Louis XVI. We could bounce conjectures against theories and tackle the empiricists as to whether the leaders of the communist country mentioned have fallen prey to the unlimited credit pouring out of democracies, or whether China's recycling of redundant dollars into bad credit is a product of its participation in globalization. There are several modern tendencies that have swept the two forms of government into similar dilemmas (one of which is that they are not so different as the categorization suggests).

Anyone who knows anything worth knowing understands that the financial economy will come a cropper. The proportion of profits from financial operations at Ford, General Motors, and the industrial heavies does not make for a functioning economy. What comes next? The industrial age is gone. Given the rising overcapacity in Asia, it might not last long there, either. We had a run at "the service economy", and it was anything but. Jastram's successor has his hands full, not to mention the rest of us along for the ride. An initial recognition might be the consistency of the golden constant over 400 years, and that, during the waning days of Jastram's study, gold and commodities were racing off the chart, in alternate sequence (England vs. the US), but nonetheless, both heading in the same, near-vertical trajectory. A final question: Was the1980 spike in gold to US$850 an ounce a demonstration of Jastramian wandering, which called for the long, bear market in gold?

About the book:
The Golden Constant is not easy to find. Reg Howe and Bob Landis, custodians and editors of the Golden Sextant website (http://www.goldensextant.com), have posted the tables and charts referred to above. For the charts, go to "Library", then see "Roy W. Jastram: 'Remarks to the Securities Analysts Society of San Francisco'". The charts are at the end of the speech. For the tables, go to "Speeches", and then see "Gold is Money, Deal with It!" by Bob Landis (RKL). The tables are set out in footnotes7 through 9. Landis briefly discusses the book in the text accompanying the footnotes.

THE GOLD STANDARD

Remarks by Professor Roy W. Jastram,
School of Business Administration,
University of California, Berkeley,
to the
Security Analysts Society of San Francisco
December 2, 1981

Let me start with some startling statistics.

From the time the United States went off the gold standard in 1933 the wholesale price level has gone up by 760%. Since England abrogated the gold standard in 1931 her price index number has risen by over 2000%.

Before that the two countries had a combined history of 350 years of long-run price stability. The price level was the same in the United States in 1930 as it had been in 1800. In England the price index stood at 100.0 in 1717 (the first year of her gold standard) and it was at that figure again in 1930.

I am here today as an analyst, not as an advocate of a single point of view. I do not believe that a return to a gold discipline would be a magic cure for all economic ills. Nor do I take the opposite extreme of blaming on a Gold Standard every economic ill that humanity was heir to during its tenure. Instead, I would like to take some time to sum up, very briefly, the conclusions I have reached based on my years of research leading to two books on the precious metals, **The Golden Constant** and **Silver: The Restless Metal** (John Wiley & Sons, New York).

Let me state first my position on monetary reform:

1. There must be a discipline over the money supply.

Nearly everyone agrees with this in the abstract. Disagreement arises over the question of **at what levels** and **how** to exercise the discipline.

2. Attempts at monetary discipline when managed by men have not worked.

I am not referring solely to the history of the United States. The same observation can be made for England, Germany, France, Italy and Japan. The **only** exceptions were draconian measures ending brief periods of crisis.

3. Therefore I believe there must be management by law, not by men.

An example of what I mean by "**law**" is that currency must be convertible into precious metal at a price fixed by law, with a legal reserve in place to guarantee conversion.

One example of managerial judgment by **men** is when a governing board selects target interest rates or target growth rates, in selected definitions of money supply and make continuing judgments of appropriate open market operations to try to hit these targets.

(Here I am not singling out our **present** Federal Reserve Board. I believe they have the best record of restraint in this country in modern times.)

4. Those monetary laws that worked best throughout history have been based upon the discipline of the precious metals.

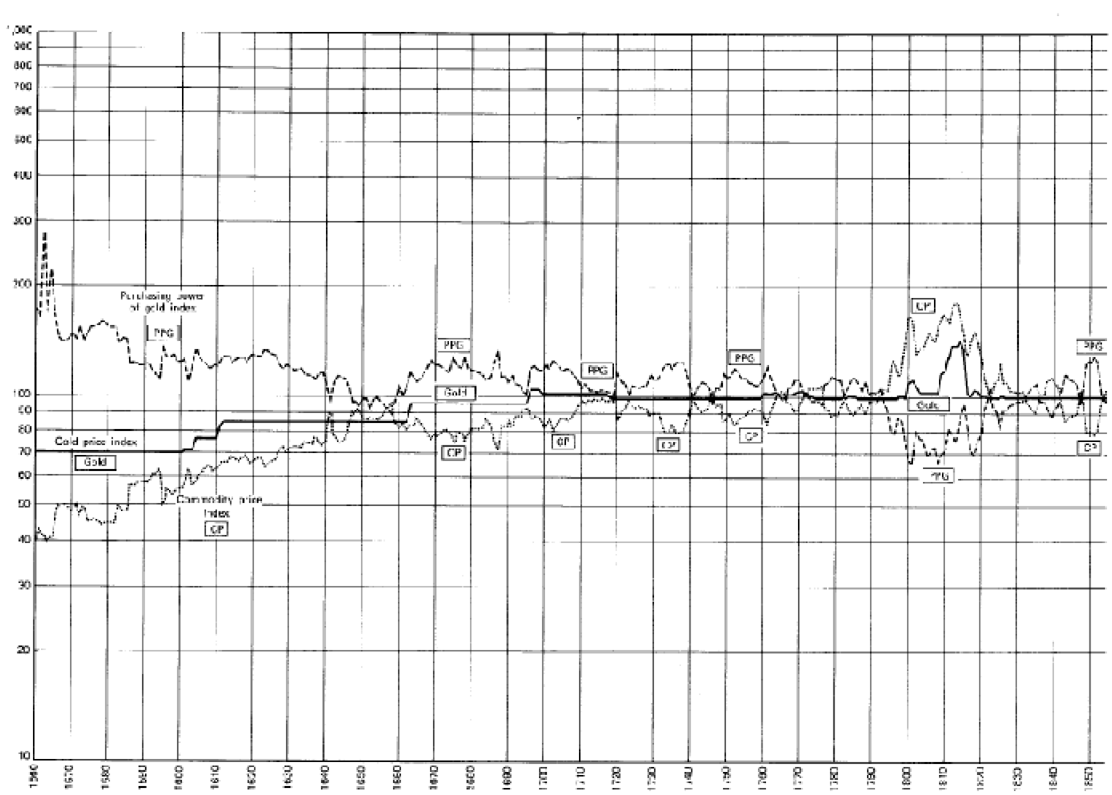
Notice that I am not saying that whenever the system was based on precious metals it was stable; I **am** saying that when in history we find long-run stability of prices we find precious metals standing behind it.

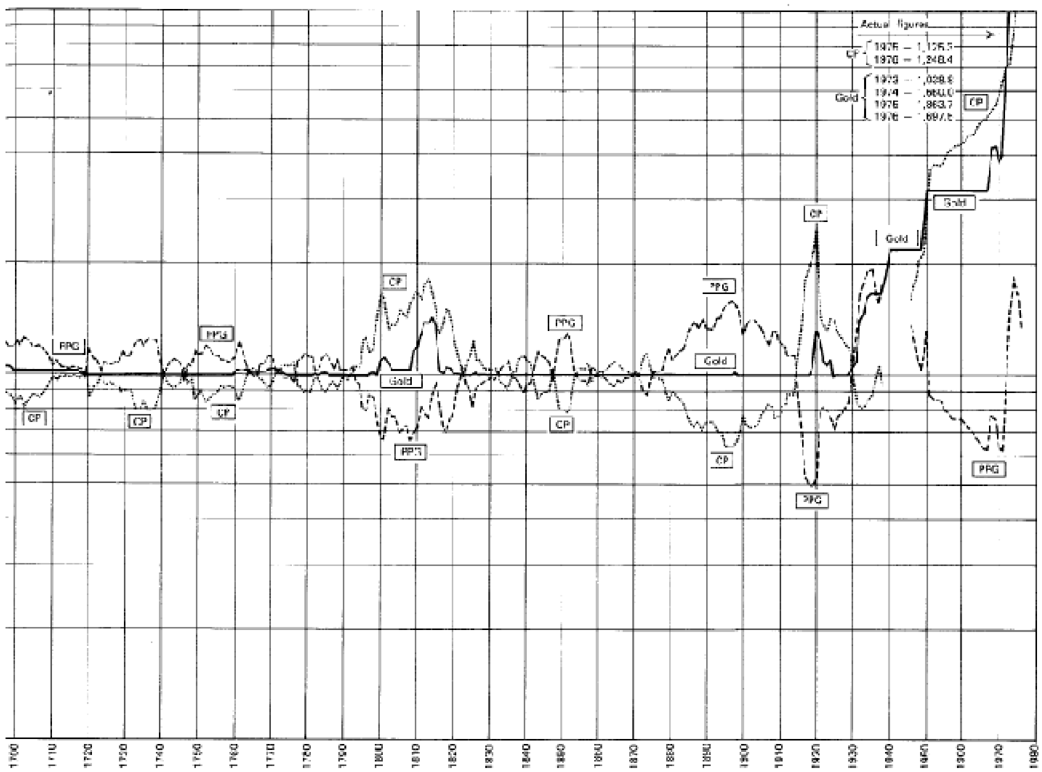
5. The precious metal that has had the most successful experience in stabilizing price levels is gold.

Based upon everything I have said up to now my conclusion is:
The American public and the world at large would be well served by monetary reform that would include:
a. Some form of a gold standard based on law,
b. arrived at in consultation with our trading partners,
c. accompanied by extensive fiscal reforms including budgetary policies to preclude over-spending.
The **first** of the five points I made at the beginning I think we can take as widely accepted - that discipline is needed - so I would like to discuss the other four a little more fully.
I want to give you evidence from history that a rule of law is better than a rule of men in the ability of a monetary system to stabilize prices. I will draw upon England. Please look at Chart I before you.
In one form or another, England was on a gold standard from 1717 to 1931, except for the Napoleonic Wars, when she was off between 1797 and 1821. Please mark on charts.
From 1717 until 1797 currency was convertible with gold at a steady price of 3 pd 17 shillings 10-1/2 pence. The supply of money adjusted accordingly, and wholesale prices moved along a level plane. It was a rule of **law** in monetary affairs.
Then in 1797 England went off the gold standard, due largely to wartime events.
The official money supply was then solely the responsibility of the Board of Directors of the Bank of England. It was a rule of **men**. The wholesale price level rose by 50%.
In 1821 England returned to the rule of **law** at the old gold-convertibility of L 3,17s, 10.5c. And long-run stability returned to the commodity price level for 110 years.
It was a return to what Sir Robert Peel called, "That ancient standard of England."
To him, the pound was a definite piece of metal, effectively fixed by the proclamation of 1717. Common honesty, he said, dictated that England should return to it.
A century later, following WWI, Winston Churchill made the same appeal on the same grounds. But the re-entry price then proclaimed was no longer in keeping with the economics of the times.
In 1931 the rule of law was rescinded and the rule of men returned. The catastrophic result was to allow the price level to soar to 2,235% (1930 = 100.0) by January 1981.
An observation much closer to home illustrates point 5: the stabilizing effect of gold. Please look at your American chart. In the United States during the gold standard years of 1834 to 1861 (up to the Civil War) and 1880 to 1914 (up to World War I), wholesale prices move along a horizontal plane, rising and falling with changes that finally average out to zero.
We can see our charts wholesale prices moving along a horizontal plane for a combination of nearly 350 years while England and the United States held gold convertibility of their currencies. **AND** we can see what has happened in both countries since the gold standard was abrogated.
Our present inflation has lasted almost fifty years at one rate or another. It may astonish some people that a monetary system once existed such that if prices turned up for awhile they were expected to turn down.
I would like to conclude on a **positive** note. We are certainly aware by now of the tremendous concern in this country for the return of a trustworthy currency. A gold

Commission has been formed by an Act of Congress and I have testified before it. Economists
in and out of government are working on a gold solution. The prestigious
National Bureau of Economic Research is holding a four-day conference in March
devoted solely to the gold standard. All this ferment leads me to believe that a way
toward trustworthy currency will be found. It is my personal opinion that gold will play
an important part in the solution.

Chart **The English Experience:** Indexes of the Price of Gold, Commodities, and Purchasing Power, 1560–1976; 1930=100.0





Actual figures
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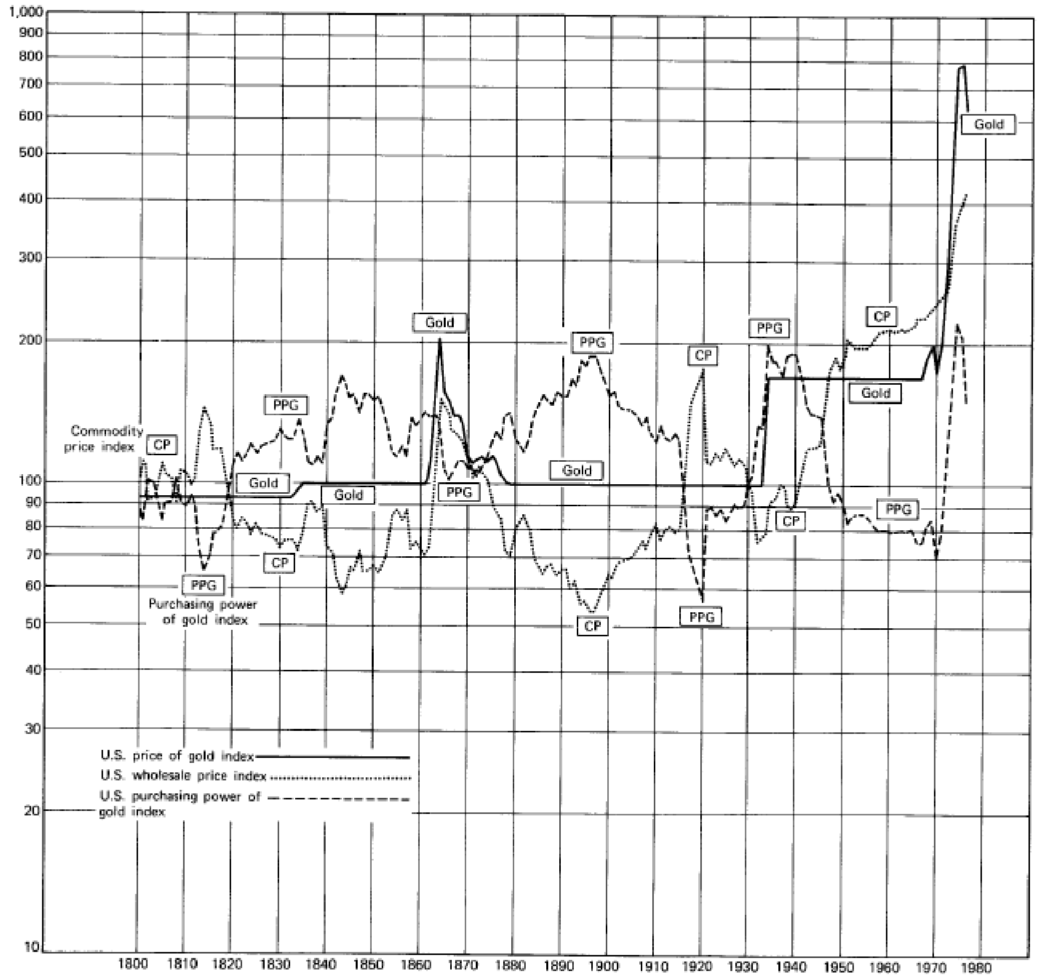
Chart IV **The American Experience**: Indexes of the Price of Gold, Commodities, and Purchasing Power, 1800–1976: 1930=100.0



Gold Is Money - Deal with It!

[Remarks by Robert K. Landis to the Association of Mining Analysts, London, England, October 2, 2003]

Introduction

Gold bugs don't get out much. And it's very rare that we get an opportunity to address mainstream opinion makers. So it's a great honor indeed to speak to an organization that counts among its members some of the world's most influential mining analysts. I'm grateful to the Association, and to Chairman Michael Coulson, for inviting me here to talk today.

As the title of my remarks suggests, I'm not here to discuss the dissident theory of undisclosed official intervention in the gold market. Or to introduce or expand upon some new piece of evidence in support of that theory. Rather, I'd like to focus on the mainstream view of gold itself. I have two reasons for doing so. First, because I think as long as you hold that view, there's no way you can even hear the dissident message.

Second, and more important, I think it's time for influential people to begin thinking about what comes next. The dissident message, after all, is just one facet of a much bigger issue: the current monetary system is rotten to the core. So the question arises, where do we turn when the dikes break? The gold bugs' answer is simple: we'll have no choice; it'll be back to gold. But as long as the mainstream view is in place, it will continue to mask the true nature of the problem and prevent us from thinking constructively about a solution.

By the way, for an example of the type of thinking that's needed here, I refer you to Reg Howe's comprehensive analysis of the Canadian situation, posted yesterday. See Saving Canada with Gold Grams (or for those who prefer to read in French, Québec Libre: Gramme par Gramme). Once you read it, you'll see why he was unable to be with us today.

The Clash of the Paradigms

Two paradigms are at war in the gold world. The dominant set of received beliefs, those that shape the way most of us look at gold, is the "gold as commodity" paradigm. This view, with few exceptions, is held by all the major players - official sources, the media, analysts, the miners, and even a lot of gold bugs who ought to know better.

The commodity paradigm has three basic elements:

1. Gold was "demonetized" in the 1970's.

2. Gold, like other commodities, is a hedge against inflation.

Here I bow to superior numbers and use the term "inflation" in its popular, and incorrect, sense: a rising price level. This is the sense in which the term is understood under the commodity paradigm, and also the sense in which it is used in the leading empirical study of gold, which I'll come to later. I hope the Austrians among you will forgive me; I can tackle only so many paradigms at one time.

3. There is no monetary demand for gold. The demand for gold is principally ornamental. Above-ground supply is abundant, and the bulk of it is held by central banks, who are indifferent and accidental owners. The market is always at risk of disruption from a mobilization of that supply.

The commodity paradigm is almost universally held, and it appears consistent with actual experience over the past 30 years. It's no wonder the dissident message can't get through. Under the governing paradigm, our allegations of official intervention make no sense. Why would central banks try to hold down the price of a mere commodity?

Enter the challenger paradigm, struggling to get a hearing. Call it "gold as money". It is a minority position, to say the least. Such is the power of the commodity paradigm. Yet the monetary paradigm has the distinct advantage, in my view, of being true.

Its core elements are as follows:

1. Gold is permanent, natural money. Politicians can no more demonetize it than King Canute could order out the tide.

2. Gold is not a hedge against a rising price level. It is a hedge against a currency collapse.

3. Demand for gold is principally monetary. Unlike other commodities, it is produced for accumulation, not consumption. The threat to an orderly market posed by the central banks is at this point largely bluster.

Under the monetary paradigm, gold is Banquo's Ghost at the Jackson Hole Orgy. Once you accept it, official hostility toward gold, at least within the monetary Coalition of the Willing, is not just understandable. It is axiomatic.

Every good paradigm clash deserves a matrix.

	Monetary Role	Investment	Principal Demand

		Function	
Commodity	**N/A; Demonetized**	**Inflation Hedge**	**Ornamental**
Monetary	**Permanent, natural money**	**Currency hedge**	**Monetary**

Now I must concede that to call this a clash of paradigms is a bit of a stretch.

For one thing, it flatters both sides. We are no Galileo; Gold Fields Minerals Services is no Vatican.

For another, it implicitly mischaracterizes our positions. We are the conservatives, the defenders of an organic tradition that spans thousands of years and informs all cultures and all history. The mainstreamers are the jacobins. They profess a radical ideology that is all of 30 years old.

Liar, Liar

But its greatest failing is that it treats the two paradigms as morally equivalent. They are not.

The commodity paradigm, I submit, is not a paradigm at all, but rather a running fraud. It is the paradigm of a laboratory animal's association of a bell with a dinner that never comes.

I say this because the commodity paradigm is false in its conception, and false in its particulars. It is false in its conception because it did not arise as the result of a "paradigm shift", in which the monetary paradigm was displaced by a newer model better able to account for anomalies.

Rather, it arose as spin designed to put lipstick on a pig, namely, the default by the United States on its obligation to redeem its currency in gold. Prior to August 15, 1971, the US Dollar was convertible, at some level, into gold. After that date it was not. The link between gold and the reserve currency was severed for the convenience of the United States. In connection with this default, the commodity paradigm was hatched as propaganda, to serve as suppressing fire for a raid on the global treasury.[1]

Funky Money

Let's turn to the particulars of the commodity paradigm. Consider its central myth, **demonetization**.

Ever since the Great Default, we have been instructed to believe the fiction that notes issued by the defaulting debtor are actually more valuable than the money that formerly backed them. That it was the state that conferred value on gold by fixing a price for it in dollars. This absurd notion is belied by the fact that, despite all the propaganda, gold’s price in dollars did not fall after the link with the dollar was severed. It rose. Substantially.[2]

Equally absurd is an implicit corollary that stems from the assertion of “demonetization”:

Money itself is a form of credit. It is not a thing, but an abstraction, a category of information created by the state that embodies a claim on society.

We see this in a simple colloquy:

Question: With respect to what, precisely, was gold demonetized?

Answer: Irredeemable notes, a weak form of sovereign credit, hiding behind what Murray Rothbard called the “accounting fiction” of an ostensibly independent central bank.[3]

But if these irredeemable notes are money, then money itself must be a form of credit. The theory must fit the facts.

So why haven’t we seen the emergence and adoption of a new theory of money that calls a spade a spade? Why, indeed, haven’t we seen a constitutional amendment in the United States that explicitly declares the obligations of the United States to be lawful money? Because fraud hates sunlight.

Those with the sophistication to do so shy away from embracing a theory of money that actually corresponds to the facts.[4] They know that the conflation of money and credit lies at the heart of the greatest monetary catastrophes in human history. You just heard Hugh Hendry refer to John Law's Mississippi Bubble. This is the classic example of what I’m talking about.

Similarly, politicians know better than to conform the law to the truth, that ours is now a system not of laws but of men. The subjective and malleable judgment of politicians and bureaucrats has displaced the requirement that our currency be exchangeable for money at a price fixed by law.[5]

So rather than adjust to the reality of the current monetary regime, mainstream terminology pretends that nothing has changed. It still clings to the old forms, still speaks of money as a thing, a medium of exchange. And our highest law still reflects the monetary paradigm of the Founders.

If you accept the theory of money as credit that lurks behind our so-called managed currency system, then I invite you to drag it into the sunlight. Articulate it in your work.

But if you believe that money must be a thing not an abstraction, then you're either a gold bug already, or you're due for a paradigm shift. Because if money is a thing, there is simply no escaping the teaching of 5,000 years of trial and error: that there is no thing better than gold that can serve as money.

Gold is rare; it is indestructible; it is compact; it is malleable; it is divisible; and its rate of expansion is not subject to the vagaries of political pressure or bureaucratic intuition.

Yet today, the notion of a monetary use for gold elicits derision from mainstream commentators. I quote one, in a dispatch dated September 9:

Gold is a currency nonsense
9/09/03 02:30 PM ET

Funny, don't remember the last time I saw someone paying for groceries with gold bars, or booking a plane reservation over the Internet with gold and not the gold card. This gold is a currency talk is nonsense. Nowadays it is a simple thing to move money into other highly liquid and interest paying real currencies with the stroke of a keyboard. Even backward Saudi Arabia puts money into bonds and other currencies rather than gold these days. Gold is about as much a currency as horse and buggies are good transportation. *None.*[[6]

This is the sort of drivel you come up with when you labor under a faulty paradigm. Yes, it is the case that you cannot buy gas with gold in Little Rock. The same, of course, can be said of euros and yen. Wherever you are, you must use as ***currency*** whatever passes for legal tender within that jurisdiction. Big deal. This says nothing about the monetary nature of gold.

But this attack on a straw man is analytically helpful, as it points us to the correct interpretation of what actually happened in 1971. The Great Default was not the demonetization of gold. It was, in fact, the demonetization of ***the dollar***.

Some Investment

Let's turn to the second leg of the commodity paradigm, the **Investment Function**. Gold, it holds, is a hedge against inflation, meaning a rising price level.

Like other commodities, we're told, gold's price goes up in inflationary periods, and down in deflationary periods. We hear it all the time: inflationary expectations drive the price up; deflationary expectations drive it down. Gold as anti-bonds.

The only problem with the inflation hedge theory is that it doesn't work. Throughout history, both at times when gold was tied to legal tender, and at times when it wasn't, gold has been a poor hedge against inflation. Indeed, it has consistently lost purchasing power during periods of inflation, and gained it during periods of deflation. This was the impeccably supported conclusion of the late Roy Jastram, who, in a book entitled **The Golden Constant**,[7] rigorously analyzed the purchasing power of gold in England and the United States from 1560 to 1976.

Professor Jastram concluded that while gold does not match commodity prices in their cyclical swings, over the longer run, it does hold its purchasing power remarkably well. He concluded that gold prices do not chase after commodities, but rather that commodity prices return to the index level of gold, over and over. Hence the title of his book.

He also noted that gold is a financial refuge in political, economic and personal catastrophes.

He acknowledged that “[a]nyone who fears the collapse of his country’s currency is acting rationally when he shelters his assets in gold.” He cited some interesting examples:[8]

- The Latifundia, the great landowners of the Roman Empire, passed gold bars secretly to their heirs who thus survived the barbarian invasions to become nobility under the Merovingian kings of the fourth century.

- White Russians who escaped the Bolsheviks survived on treasures they carried in flight.

- Austrian refugees, escaping Hitler’s storm troopers, often owed their survival in a new country to the gold and jewels they could carry on their persons.

The problem, he observed, arises when these defense mechanisms are translated into a mechanism for protecting against recurring price inflations. He called this an example of faulty inductive reasoning. One, I might add, that’s been incorporated wholesale into the commodity paradigm.

There was just one exception to the pattern he observed over the four hundred years he studied. This was the experience in the United States from 1951 to 1976. Although this exceptional period followed the typical pattern up until 1970, after 1970, the price level rose, and so did gold’s purchasing power. This had never happened before. He attributed this to pent up pressure released by the collapse of the London Gold Pool in 1968, which had held the dollar price of gold at an artificially low level.

Now, from our vantage point we see that the Great Default was a defining event that ushered in a new period, one that is still unfolding. One that includes the spike in the dollar price of gold at the end of the 70’s, as well as the dramatic decline in the 90’s, two events that occurred after his book was published in 1977.

I’m not aware of any scholarship that applies Professor Jastram’s methodology to a period that starts with the Great Default and extends through the recent bottom in the gold market, marked by the Bank of England auctions.[9]

So we'll just have to wing it, and note simply that to the layman's eye, once again gold appears to have been a lousy hedge against inflation. This impression is all the more striking if we take our cue from the government and adjust the components of the price series to suit ***our*** requirements: That is, to capture the bubbles in financial asset prices, against which gold's dollar price performance has clearly lagged.

But I think the important thing to take away from Professor Jastram's study is not what a bad job gold historically does as an inflation hedge, but rather what a good job it does as a hedge against currency collapse. Gold has recently begun to stir. But this has nothing to do with inflation as commonly understood. It's about the dollar. Analysis that misses this distinction will ultimately prove dangerous to consumers, as it assumes a linear world in which the reserve currency can't collapse.

Let's turn now to the third leg of the commodity paradigm, the **Supply/Demand Theory**. This has three related elements:

First, the current and future dollar price of gold is a simple function of supply and demand. Looking at demand statistics now published jointly by the World Gold Council/ Gold Fields Minerals Services, we see that there's no such thing as monetary demand for gold. The only recognized categories are jewelry, retail investment, industrial and dental.[10]

Second, the supply is abundant, because central banks still hold about 32,000 tonnes.

Third, these central banks have itchy trigger fingers. Their gold is residue from a more primitive era when gold was deemed to have monetary significance. They hold so much that they effectively control the gold market. But they no longer need or want gold. They have moved on to more modern backing for their currencies.

So, the theory holds, implicitly, they would all sell at the drop of a hat, which puts the market constantly at risk of disruption.

To prevent a total collapse in the market from all this selling, the leading central banks adopted the Washington Agreement, which attempts to make their rush to the exit a little more orderly. This Agreement props up the gold market. So it is of vital importance for analysts to get the inside scoop on whether the Washington Agreement will be extended, and if so, how much gold the signatories will be allowed to sell. A typical Reuters headline from September 18 captures the spirit: "***Big rise in bank sales would hurt gold price-JP Morgan***."

Let's take these elements in turn.

What's in a Name?

First, how do we know which purchases belong in which category? Do purchasers of gold fill out customer surveys? Hardly. As GFMS itself noted in its year 2000 study on retail investment and private stocks, "…purchase motivation is extremely difficult to measure on a scientific basis."[11] Indeed, GFMS went on to say that it "…tentatively estimate[d] that probably ***over 60%*** of global jewelry demand in 2000 had a distinct investment motive behind it." [Emphasis supplied.][12]

Here are the figures for the past two calendar years as presented by GFMS:

Tonnes	2001	2002
Total Consumer	3413.2	3067.4
Jewellery	3064.0	2726.7
Retail Investment	349.2	340.7
Industrial	287.8	278.4
Dental	69.0	68.7
	------	------
Total	3770.0	3414.5

For 2002, the World Gold Council, using GFMS numbers, put total demand for gold worldwide, excluding only institutional investment demand, at about 3,400 tonnes. Retail investment demand, at only about 341 tonnes, was a paltry 10%. Jewelry demand, at about 2,700 tonnes, was about 80%.

But look what happens if we simply assume that 60% of the jewelry number for the year 2002 was actually investment motivated, as was estimated for the year 2000. We'd get another 1,600 tonnes of investment, which would take the investment total from around 10% to about 57% of total demand. That's quite a swing.

It's even bigger if we gross up the numbers to account for the missing institutional investment demand, which I make out to be about another 180 tonnes.[13]

So you can see how sensitive our understanding of the total demand picture is to some very subjective and imprecise categorization. It doesn't take much mental energy to move a lot of metal from one category to another.

But the real problem is with the categories themselves. Where do they come from? What do we mean by "investment" demand? Are we to understand that people who buy high carat gold by weight in the souks of the East seek a 7% after tax return? Is that what the questionnaires indicate? I doubt it. I haven't quizzed them either, but I have to believe these buyers want to preserve their liquidity and purchasing power, not get an investment return. Theirs is a ***monetary*** motivation, and it recognizes that what we call the return on investment in gold is just a measure of the rate of debasement of the paper currencies. I quote James Turk, who wrote the definitive piece on this issue 10 years ago:[14]

A portfolio in the broadest sense has two classes of assets, those held for investment (such as stocks and bonds) and those held for liquidity (i.e., money, which is held until the decision is made to purchase a suitable investment). Gold in a portfolio clearly fulfills the latter purpose; it is money. Gold is not an investment because it does not generate a rate of return.

The distinction is important. In a financial crisis, the demand for money is deeper and stronger than the demand for any investment. When we experience the fear associated with a currency collapse, we will see just how much deeper and stronger.

Promises, Promises

The second element of the supply and demand leg of the commodity paradigm is the ominously large amount of gold held by the central banks, some 32,000 tonnes, according to the World Gold Council's most recent compilation.[15] Now here's where the dissident message would kick in. We think the reported holdings of the central banks are bogus, because they include gold that has actually been leased or swapped out. Take Portugal. The bulletin shows Portugal holding 517 tonnes (footnotes omitted):

	Tonnes	Gold's % Share of Reserves
1. United States	8,135.4	56.9%
2. Germany	3,439.5	43.4%
3. IMF	3,217.0	N/A
4. France	3,024.8	54.1%
5. Italy	2,451.8	45.9%
6. Switzerland	1,722.8	31.1%
7. Netherlands	842.5	48.6%
8. ECB	766.9	N/A
9. Japan	765.2	1.6%
10. China (Mainland)	600.3	1.9%
11. Spain	523.4	16.7%
12. Portugal	517.2	45.0%

But the Bank of Portugal's Annual Reports for the past few years show they actually hold, in the vault, about 173 tonnes, about 33% of the reported figure. Here's the relevant footnote from its 2002 report,[16] which also covers 2001:

NOTE 2: Gold and gold receivables

	31 / 12 / 2002		31 / 12 / 2001	
	f.g.grs.(*)	EUR thousands	f.g.grs.(*)	EUR thousands
Gold in storage at the Bank	172,657,095.59	1,814,250	172,657,095.59	1,748,527
Gold sight accounts	10,880,877.99	114,334	10,799,611.92	109,369
Gold term deposits	48,789,479.90	512,671	41,825,840.38	423,577
Gold related to swap operations	359,508,010.00	3,777,646	381,439,536.68	3,862,902
Gold reserve	591,835,463.48	6,218,901	606,722,084.57	6,144,376

(*) 1 ounce of fine gold = 31.103481 fine gold grams (f.g.grs.).

Everything but the 173 tonnes is on deposit somewhere else, out on lease, or swapped. It has been for years. Every so often a sale is announced, which reduces the gold already marked as outside the vault. We think there's a big difference between gold somebody's promised to return to you and gold you hold in your hot little hand. That difference is called credit risk. And we think there's a big difference between a sale of gold you actually hold, and a journal entry relating to gold you've moved out long ago.

Now not every central bank is as forthcoming as Portugal's. And we can't prove that the gold actually held by the central banks in aggregate is just a fraction of what they claim. So let's just assume for the sake of argument they all still hold all the gold they are said to hold. And by the way, I don't mean to pick on the World Gold Council here. They get their official numbers from the IMF, whose accounting rules expressly permit the banks to have it both ways.[17]

Buffaloed Soldiers

This assumption leads us directly to the third element of the supply and demand leg of the commodity paradigm: the market power and intentions of the central banks. The myth is a lot scarier than the reality.

Because even if the banks do hold the gold, they can't control the market. While 32,000 tonnes is indeed a big number, it is dwarfed by the more than 90,000 tonnes now in private hands. But let's quantify the threat. At 32,151 ounces per metric tonne, 32,000 tonnes comes out to just over a billion ounces.

At an exchange rate of $400 per ounce -- and this assumes the clearing price in dollars of a trade of this magnitude would not be substantially lower -- we're looking at a total nominal dollar amount of a little over $400 billion.

Now that seems like a big number. But put it in perspective. The Financial Times reports that China now holds foreign exchange reserves of $364.7 billion. Asia as a whole has forex reserves of about $1.6 trillion.[18] And even if the central banks hold as much as they claim, and even if they disdain gold as much as they pretend, are they likely to sell down to zero? We think not. For all the noise, they've only sold a net 3,000 tonnes over the last 10 years. So our worst case exposure has to be something less than all 32,000 tonnes. Say, for the sake of argument, half. OK, there we'd be talking a little over $200 billion. That's about 12% of the forex reserves held by the Asian nations. A little under 20% of the daily turnover in the global forex market. A little more than half of 1% of aggregate US debt. In a period of competitive currency devaluation, is the threat really all that dire?

Indeed, I submit that open sales by central banks would be good for the gold market. They'll feed the beast. Supply begets demand.

No attempt to calm the gold market with conspicuous official selling has ever enjoyed more than fleeting success, from the London Gold Pool of the 60's, to the US Treasury and IMF auctions of the 70's, to the Bank of England auctions of the late 90's.

In this connection, it may be helpful to recall that on a single day, March 14, 1968, the central banks in the London Gold Pool lost ***400 tonnes*** to private buyers.[19]

Bring 'em on

So I would urge the analyst community to heed the advice of the late Bob Marley, and emancipate yourselves from mental slavery. Stop salivating when the bell rings. Gold needs central bank support like a volcano needs stoking. Drop this fixation on the Washington Agreement. Call the bankers' bluff. Tell them to sell it all. The sooner, and the lower the price in dollars, the better.

Unfortunately, what I expect will happen is the opposite: a sudden rush to buy, not to sell. There will be a belated recognition among all market participants, including the central banks, that paper currencies are garbage. When that happens, we'll have what we call a discontinuous event. The ultimate black swan. We'll all wake up one morning to learn that gold is 5,000 dollars bid in Asia, none offered. That tinkling sound you'll hear will be scales dropping from the eyes of analysts all over the City. By then, however, the big money -- and I use the term very, very loosely -- will have already been made. More important, the opportunity to contribute some fresh thinking regarding monetary reform in a period of relative calm will have been missed.

So don't get caught with your paradigms down.

Thank you.

Notes

1. Viewed in the context of the Cold War, the Great Default is at least defensible as a wartime expedient.

Less defensible is the failure to rectify the situation after the War was won. The collapse of the Soviet Union gave the West the opportunity to set its house in order. There was good precedent: Britain went back on gold after the Napoleonic Wars; the US redeemed greenbacks in gold after the Civil War. The West should have seized the day. Instead, it chose to perpetuate the fraud. Only now the Europeans bellied up to the trough for their own piece of the action. The failure to reform the system stemmed not from a need to meet a mortal threat, but from a desire to let the good times roll.

2. See Anatole Fekete, "The Gold-Demonetization Hoax" (**www.Gold-Eagle.com**, September 5, 2003).

3. Murray N. Rothbard, **The Case Against the Fed** (Ludwig von Mises Institute, Auburn, 1994), p. 147.

4. I am aware of only one lonely academic voice that has proposed to follow the logic of the managed currency system to its theoretical conclusion. See Mostafa Moini, "Toward a General Theory of Credit and Money," **The Review of Austrian Economics** (vol. 14, no. 4, pp. 267-317, 2001).

5. This point was made by Professor Roy W. Jastram in Remarks to the Security Analysts Society of San Fransisco on December 2, 1981.

6. See "Time for My Daily Punishment: Mike Norman on Gold" (**www.thestreet.com**, September 9, 2003), cited by LeMetropole Café (same date).

7. Roy W. Jastram, **The Golden Constant - The English and American Experience 1560 - 1976** (Wiley, 1977). Professor Jastram utilized a meticulous methodology, in which he:

- constructed a unified series of the price of gold since 1560;

- constructed a unified series representing the level of wholesale commodity prices in every year since 1560;

- determined the statistical relationship between these two series in such a way as to measure the purchasing power of gold since 1560;

- analyzed the behavior of that purchasing power in periods of inflation and deflation; and

- assessed the extent to which gold served as a hedge during inflationary periods and a conservator of purchasing power during deflationary periods.

In England, Professor Jastram identified 7 inflationary periods and 4 deflationary periods from 1560 to 1976 [Jastram, p. 125]:

English Experience

	Inflation Prices(%)	Inflation Purchasing Power of Gold (%)	Deflation Prices (%)	Deflation Purchasing Power of Gold (%)
1623-1658	+51	-34		
1658-1669			-21	+42
1675-1695	+27	-21		
1702-1723	+25	-22		
1752-1776	+27	-21		
1792-1813	+92	-27		
1813-1851			-58	+70
1873-1896			-45	+82
1897-1920	+305	-67		
1920-1933			-69	+251
1934-1976	+1434	-25		

In the United States, Professor Jastram identified 6 inflationary periods and 3 deflationary periods from 1800 to 1976 [Jastram, p. 171]:

American Experience

	Inflation Prices(%)	Inflation Purchasing Power of Gold (%)	Deflation Prices (%)	Deflation Purchasing Power of Gold (%)
1808-1814	+58	-37		
1814-1830			-50	+100
1843-1857	+48	-33		
1861-1864	+117	-6		
1864-1897			-65	+40
1897-1920	+232	-70		
1929-1933			-31	+44
1933-1951	+168	-37		
1951-1976	+101	+80		

8. *Ibid.*, p. 178.

9. I am not sure it is even possible, given the changes in the measurement of price data that have occurred since 1976. Moreover, any attempt to analyze the period commencing 1971 before the introduction of a successor monetary regime would likely suffer from a similar truncation of historical perspective. See, *e.g.*, Stephen Harmston, "Gold As a Store of Value" (World Gold Council, Research Study No. 22, November 1998). Finally, any such study would have to make a number of critical assumptions regarding the proper starting point and the proper starting price to give effect to the sharp but lagged repricing of gold in dollar terms in the years immediately following the Great Default.

10. See, *e.g.*, World Gold Council and GFMS Ltd., **Gold Demand Trends**, Issue No. 42 (March 2003).

11. Gold Fields Minerals Services, "Retail Gold Investment and Private Investor Stocks - A Review" (World Gold Council, November 2001), p. 17

12. *Ibid*.

13. Institutional investment is inferred from Gold Demand Trends, Issue No. 42, *op. cit.*, Notes and Definitions: "Institutional investment (including most purchase by high-net-worth individuals) is not currently included. The categories included cover at least 95% of overall gold demand." By simply dividing the consumer demand total of 3,414.5 tonnes by .95, I get the revised total demand figure of 3,594.21 tonnes. The difference, 179.71 tonnes, I ascribe to institutional demand.

14. James Turk, "Do Central Banks Control The Gold Market?" (Monograph published by Jefferson Financial, Inc., 1994), p. 47, note 70.

15. World Gold Council, World Official Gold Holdings (September 2003).

16. Banco de Portugal, 2002 Annual Report, p. 297.

17. See, *e.g.*, Statistics Department, International Monetary Fund, "The Macroeconomic Statistical Treatment of Reverse Transactions" (Thirteenth Meeting of the IMF Committee on Balance of Payments Statistics, Washington, D.C., October 23-27, 2000).

18. "China's reserves reach record \$364.7 bn," **Financial Times** (London) (September 29, 2003).

19. Antony C. Sutton, **The War on Gold** ('76 Press, 1977), p. 111.