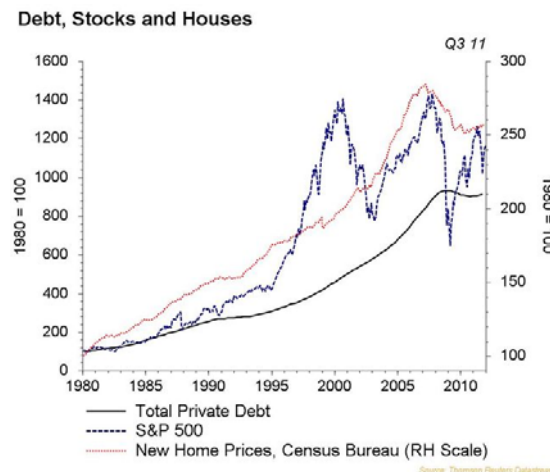


Gold, Debt and Phase II of the Great Financial Crisis¹

Introduction

The 1945-2007 period was wonderful in almost every way, particularly for investors and it was common to assume that this was “normal”. However, it was anything but in historical terms for many reasons. One of the most important reasons is that over most of those 62 years, there was a debt-fuelled artificial growth in incomes and particularly wealth in the form of housing and equity asset inflation (Chart 1).

Chart 1



There was the appearance, but not the reality, of stability. The debt bubble was driven by a combination of factors and high on the list would be government policy, the

¹ Based on the talk by J.A. Boeckh to University Club audience in Montreal, Quebec Canada January 12, 2012

rise of an entitlement mentality, the decline of personal responsibility and the discipline and progressive weakening of banking governance, as regulation was dismantled.

As debt rose relative to GDP after 1980, the financial system and the economy became increasingly vulnerable to a shock. The crash of 2008-2009 marked the end of that era. The subsequent great reflation aborted a downward spiral and gave us a two year artificial recovery. In the process, it turned a private debt and banking crisis into a public debt and, in Europe, a second banking crisis.

The ability of governments to backstop the financial system, risk more generally, and to sustain entitlements is over. We are rapidly returning to the pre-1945 world. Compared to what we are used to, it will be much more dangerous, uncertain, risky and volatile. However, there still remains a huge disconnect between public expectations, which assume that governments can and should be responsible to provide and protect, and the reality that they can no longer do it. No politician is prepared to stand up and say that the “emperor has no clothes”. So where does gold fit in this brave new world?

There are three basic questions I want to address:

- Why has gold risen six-fold since 2001?
- Will it do the same over the next 10 years (i.e. $6 \times \$1,600 =$ almost \$10,000 oz)
- How much gold should you own in your portfolio?

I. The 2000-2011 Bull Market In Gold

The answer to the first question lies in the dynamics of supply and demand factors. It is a tautology that supply always equals demand after the fact, or ex-post. The interesting questions have to do with the dynamics of supply and demand imbalance before the fact, or ex-ante. In a free market, an imbalance is adjusted by price. In this case, the price of gold had a job to do—rise enough to squeeze out marginal demand while increasing marginal supply.

In terms of supply, the first gold bubble from 1968-1980 (Chart 2) when gold was first freed, took the price from \$35/oz to almost \$1,000/oz. As the real price of gold had fallen by two-thirds over the previous 40 years, the economics of mining gold were terrible. Thus, there was a lot of pent-up mine supply waiting for the real price to become economic again.

Chart 2 Gold 1968 - Present



In the following 20 years, physical gold production more than doubled from 1200 metric tonnes to 2600. Time lags meant that a lot of new gold hit a post-bubble market in liquidation mode. Central banks added to supply and negative psychology by selling off gold reserves. Gold mining companies piled on, selling future production and leasing gold from central banks to make delivery.

The psychology of the market turned so pessimistic that just prior to 2001—the \$255 low point in the market, Peter Bernstein, the famous investment guru and author of many fine investment books, was compelled to ask the question: “Had the glorious history of gold come to an end—a history in which gold was at the center of the financial universe for thousands of years”². This was 30 years after the collapse of the fixed gold/dollar relationship in August 1971 and a 20 year bear market in gold that took the price from close to \$1,000/oz. to \$255/oz. In short, you had a very washed-out secular bottom.

The price then proceeded to rise six-fold. However, physical mine production is no higher than it was in 2000. The implication is that most of the pent-up mine supply was brought onto the market after the first mania. There may not be much new mine supply available even at today’s prices, prompting some experts talk of “peak” gold like “peak” oil.

I will come back to the supply side after we look at demand. Here, there have been three enormous transformations in the gold market. The first is the dramatic

² Peter Bernstein, *The Power of Gold: The History of an Obsession* (John Wiley and Sons, Inc., 2000)

proliferation of gold investment vehicles and new distribution channels that make purchases easy for the average small investor. ETFs (Exchange Traded Funds) are the most obvious but there are a variety of gold coins, wafers, and small bars available. Heavy marketing by the many banks make huge swaths of the population feel left out if they don't own some gold. The rise of investment demand from the public has been huge.

The second new demand phenomenon in the gold market has come from financial institutions such as hedge funds and pension funds. The former are more opportunistic and many are astute observers of the disturbing macroeconomic scene which I will address below. The latter, such as the University of Texas pension fund, while cognizant of the macro risks, are also reacting to a variety of studies³ that show statistically that gold adds value, in terms of improving risk and return metrics, when added to a portfolio in modest amounts.

The third new demand factor comes from China. It is now the second largest market in the world after India and exploding upwards, driven by dramatically rising middle class incomes, negative real interest rates, high inflation, over-priced real estate, poor stock market psychology and few other reliable investment channels.

While China is the new elephant in demand terms, it should be noted that India also has sharply rising incomes and high inflation. It should also be noted that, while total world jewelry demand is very big, accounting for 50% of the total, much of it is

³ For example, see The World Gold Council.

really investment related. The line between the two is not clear.

Circling back to the supply side, since 2000 there has been no net increase in new mine supply. In addition, central banks have stopped selling gold and in the past couple of years have started buying gold, totally changing the psychology of the market. Further, miners have run off their forward sales and have generally stopped hedging new production in the future. As a result of all these factors, there has been for the past 11 years a huge and growing ex-ante gap between rising demand and flat supply from the sources indicated above. To close the gap, recycled gold has come on the market in huge quantities. In the last two years, it has averaged about 1600 tonnes, equal to roughly 40% of total supply. This huge increase, however, has not been nearly enough to hold the price steady.

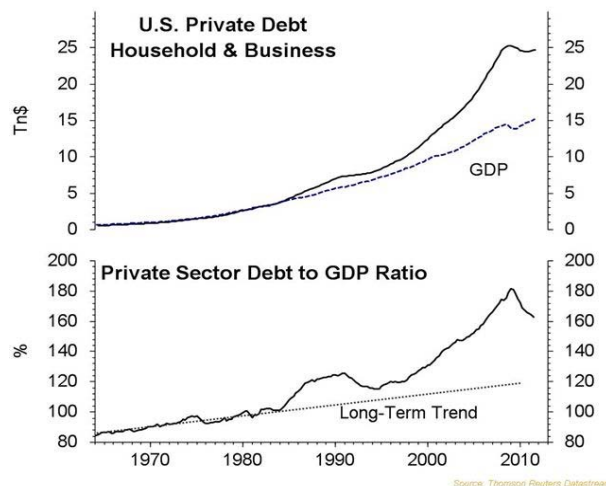
The bottom line is that gold supply and demand factors have been enormously supportive of gold prices since 2000. However, this is history. What of the future?

II. Gold And The Debt Crisis

The second question to address is whether gold could duplicate its performance since 2001 over the next 10 years. Here we transition from the objective to the subjective. With conventional supply relatively fixed, what will drive incremental demand over the next 5 to 10 years? The answer is not hard to figure out. It is the legacy of the biggest and largest debt binge in history. This will continue to drive the gold price over time. At this point, a brief piece of historical background is useful.

As mentioned above, private debt grew much faster than GDP in the U.S. after 1980 (Chart 3). This created a bubble and bubbles ultimately find a pin in the form of a shock. They generally last much longer and get much bigger than people think possible and this one was no exception. When it burst in 2007, the debt “overhang” or stranded debt was \$10 trillion, the amount by which private debt had grown relative to what it would have been had it stayed in line with GDP growth.

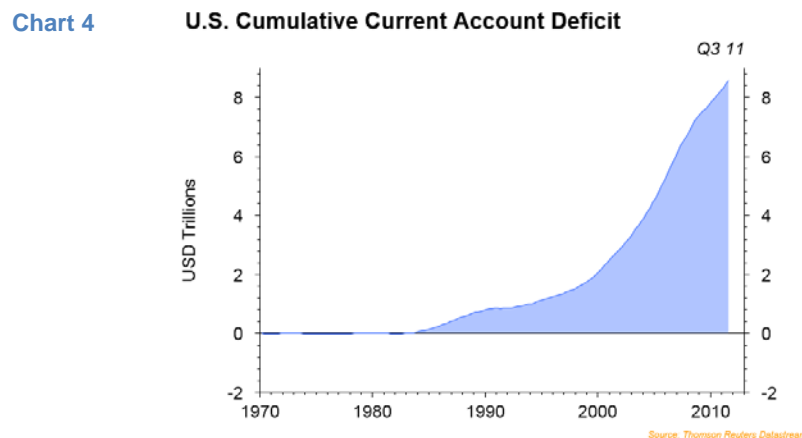
Chart 3



The story is much more complex and dangerous. The growth in excess debt in the U.S. was associated with two other destructive forces. The first was a progressive collapse in savings and investment which are the source of the future growth and incomes necessary to service the new debt. Second, as the U.S. progressively lived beyond its means, it spent more abroad than it earned, financing the difference from foreigners. This began in the 1960s and, when the constraint of the dollar link to gold at \$35/oz. began to bite, the U.S. simply got rid of the constraint by floating gold and refusing to redeem dollars at the old \$35/oz price.

That was the end of the Bretton Woods international monetary order and the last vestige of monetary discipline. After that, the international deficits got really big as private U.S. debt exploded.

Chart 4 shows the cumulative amount of U.S. current account deficits over the last 40 years. By 2011 these totaled \$9 trillion. This is money that spilled out of the U.S. into the rest of the world and led to the globalization of monetary debauchery, inflating money and credit everywhere. It happened because the U.S. dollar is the world's monetary standard. No other country could have done this.



As money and credit rose rapidly everywhere, so naturally, did the accumulation of debts. The table below shows that for 12 major countries, public and private debt have reached extraordinary levels, from 200% to over 500% of GDP.

Total Debt Percent of 2010 GDP* Selected Countries

Country	General Government Gross Debt	Household Gross Debt	Nonfinancial Corporate Gross Debt	Total Leverage*
U.S.	100	91	76	267
Japan	229	74	138	441
U.K.	83	107	128	318
Canada	84	93	n/a	n/a
Euro Area	87	72	142	301
Belgium	97	55	161	313
France	88	69	157	314
Germany	80	62	69	211
Greece	152	68	71	291
Ireland	114	129	278	521
Italy	120	50	119	289
Portugal	91	103	154	348
Spain	64	90	205	359
*SOURCE: IMF Global Financial Stability Report, "Durable Financial Stability, Getting There from Here", April 2011. Excludes leverage of financial institutions.				

Historically, money and credit have never looked after themselves very well, even with discipline and objective rules like the gold standard. But with no discipline, governments behave like a bunch of children with no parental rules when it comes to money. This is also true of bankers and the public at large.

A resolution (as opposed to a solution) to a severe debt crisis can only occur, in the absence of income growth higher than the rate of interest, in very few ways. These are: debt defaults, inflation or forgiveness, all forms of financial repression.

In today's highly complex global financial system with opaque counterparty risk and highly leveraged and seriously undercapitalized banks, financial repression of creditors, as we have seen in the case of Greece, is not without enormous risk. The amount of such systemic risk is directly proportional to the unprecedented debt relative to GDP of virtually all developed countries.

There is a key point which needs to be understood in assessing the magnitude and danger of today's debt levels. First, private debt was much lower in 1929 prior to the crash than in 2007 prior to the recent crash. We only have good data for the U.S. but it is probably representative. In 1929, U.S. private debt:GDP was 120 compared with 170 in 2007. Total debt:GDP (including government) was 160 in 1929 versus 270 in 2007. Moreover, the build-up in debt took place over 40 years in the recent period and undoubtedly led to much lower lending standards than over the 10 year build-up in debt prior to 1929. It is also important to note that many governments (France, Germany and the UK excluded) had much lower debt:GDP in 1929 than currently because of a combination of high inflation in the early 1920s and debt repayments with budget surpluses. However, even countries with low debt:GDP, such as the U.S., were not willing (because of fiscal and monetary orthodoxy) to bail out banks and the private sector until well into the depression.

Fault Lines

The entire global financial system and economy are clearly fragile, but so far the simmering crisis has not yet spilled over to the point of creating an out-of-control catastrophe. However, there are a number of fault lines, which could provide the spark to tip the current situation into something far more dangerous. The main one at present is the flight out of European paper.

The sovereign debt crisis and round two of the European banking crisis has caused a growing revulsion of European paper assets, causing governments to retrench with fiscal austerity and banks to retrench by selling off assets and calling loans. A credit crunch is well underway, risking a classic Irving Fisher debt deflation. Troubled debtors within the eurozone cannot devalue or print their own money in the face of massive maturing debt rollovers in 2012. It is estimated that the UK, Italy, Spain and France are facing €1.3 trillion, not counting ongoing deficits. And this leaves out Greece, Portugal, Ireland, Belgium and others. In addition, banks are facing €800 billion of maturing debt to roll over plus the need to raise €110 billion in new capital to meet capital requirements.

These rollovers will be the key to whether the crisis can be contained in the near term. So far, it does not look good as banks continue to refuse to lend to each other, the run on European paper continues and the European Financial Stability Fund (EFSF) is far too small to pick up the pieces should a panic occur.

The Inverted Credit Pyramid and the Gold Price Potential

So, with the debt crisis only slightly off the boil as we go into 2012, we have to think of what the great reflation of 2008-2010 will morph into and what that means for gold. Over the next 5 to 10 years, will it become another great crash, great recession or depression, great debt monetization and inflation?

We can only guess at how it will play out because of politics, public attitudes, and weak and unstable institutions. There will be the constant risk of policy mistakes and miscalculations. However, we do know that when economies and balance sheets are totally out of equilibrium, adjustments will take place whether we like it or not. The question is whether those adjustments will take place in an orderly or disorderly way.

Unwinding of massive private and public debt excesses is imperative. But if we couldn't do that with the great reflation and a two year recovery, how can it happen with the recovery faltering in the face of bankrupt governments? Clearly, a conventional "growth" solution that got countries out of high post WWII debts is not an available option. When debts become unserviceable, creditors must get repressed. This can only happen in three ways, as mentioned above.

The first is forgiveness. This was the accepted method for 10,000 years when half the population of a country became either enslaved or imprisoned. It cannot work now because most creditors are also debtors—banks and insurance companies, for example. And then there are all the complex global counterparty risks. You cannot

simply wave a wand, wipe out debt and not do a lot of damage. The Greek saga of attempting a so-called “Private Sector Involvement” (or PSI), is an attempt at pretended forgiveness but it is only thinly disguised forced creditor repression. And it has already spread contagion to debtors further along the quality spectrum.

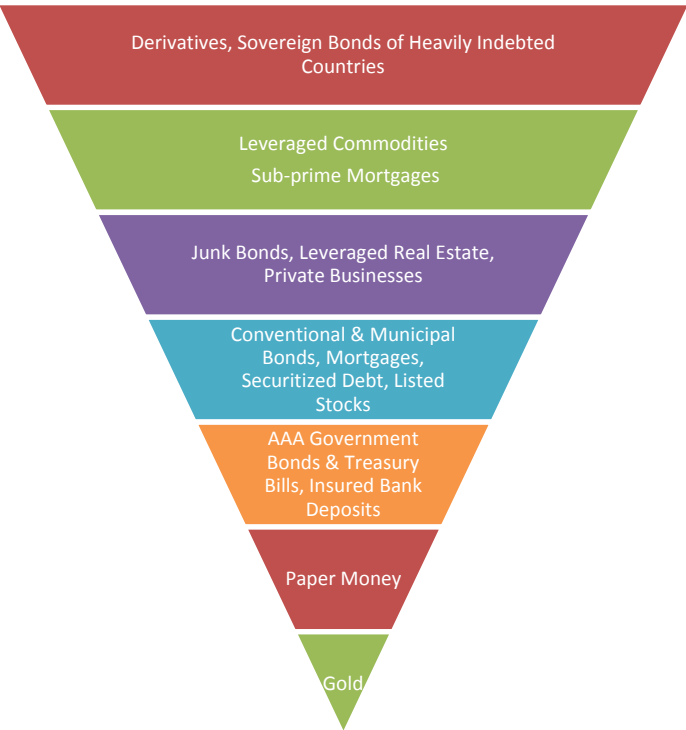
The second is debt default. The scale required to accomplish much debt reduction is unthinkable as it would mean a worse debt deflation and depression than the 1930s. The social fabric is far too thin to accept this outcome, as indicated by the social and political upheavals already in existence in most countries.

The third option is inflation as we turn to central banks as the ultimate backstop going into Phase II of the great credit crisis. They are the only game left in town as over-indebted governments have been taken out.

A useful way to illustrate where we are going in Phase II of the international monetary crisis is to think of an inverted credit pyramid. This is a concept I first heard from John Exter⁴ in the late 1960s when he accurately foresaw the end of the Bretton Woods International monetary system, the subsequent money and credit inflation of the next 50 years and the inevitable collapse of the credit structure and deflation. Exter graphically illustrated his theory with a form of the inverted pyramid of credit, an example of which is shown below.

⁴ John Exter was a Citibank Senior Vice President and international monetary advisor for the bank’s International Banking Group and a Federal Reserve official before that.

The Inverted Pyramid



Gold is at the bottom of the pyramid and it supports everything above it—essentially paper claims that increase in risk depending on how high up they are in the pyramid. All paper is ultimately based on credit, some involving more leverage and risk than others.

For example, Federal Reserve notes are the visible portion of money, which is backed by Federal Reserve assets primarily in the form of government bonds. This is the first asset class above gold in the pyramid and is based on the credit quality of the government and Federal Reserve. Next is money in the form of deposits at commercial banks, which are highly leveraged institutions. Treasury bills, government bonds, corporate bonds, mortgages, listed stocks, etc. provide the ascending asset tranches in

the pyramid. The location of each asset within the pyramid is subjective and varies depending on circumstance. For example, the quality of mortgage lending deteriorates in a housing bubble. The pyramid drawn here is just for illustrative purposes.

The point is that as the pyramid builds, the assets get riskier, the leverage greater. Near the top you could place sub-prime mortgages, derivatives, CDOs, CDSs, Greek bonds, etc. In 2007-2008, credit derivatives totaled trillions of dollars.

In prosperous times, money moves up the pyramid as borrowers and lenders become increasingly optimistic. The leverage increases and the pyramid becomes increasingly top-heavy and unstable as the base supporting it—physical gold and cash—increases very slowly. At some point, the business cycle turns down, credit strains appear and risky assets become bad assets. As the quality and viability of assets is undermined, so too are debts which are collateralized by those assets. Money starts to flee the riskiest assets and moves back down the pyramid looking for safety. When this happens, it creates a self-feeding spiral which destabilizes the pyramid. The more top-heavy it becomes in the prosperous phase, the more it wobbles in the deleveraging phase. In extreme circumstances, the wobble starts to go out of control and money moves faster and deeper down the pyramid into the safest assets—cash, government bills and bonds of the safest countries and ultimately gold.

Money has clearly been going into gold and related assets for some time. It is also moving increasingly into cash and other perceived safe, liquid assets. In a panic, there is never enough liquidity, as the Europeans discovered in 2011 and almost everyone in 2008-2009.

The only way to increase such liquidity to meet new demand is for the central banks to expand their balance sheets. They do this by buying or lending against assets (government bonds and other assets) and thereby increase their liabilities, which is new money creation.

Charts 5 and 6 show what the major central banks for this rich world have actually been doing—expanding their balance sheets dramatically. Note the ECB, in spite of its pronouncements, has joined the big leagues recently pushing its assets up to 30% of GDP, almost as high as Japan.

Chart 5

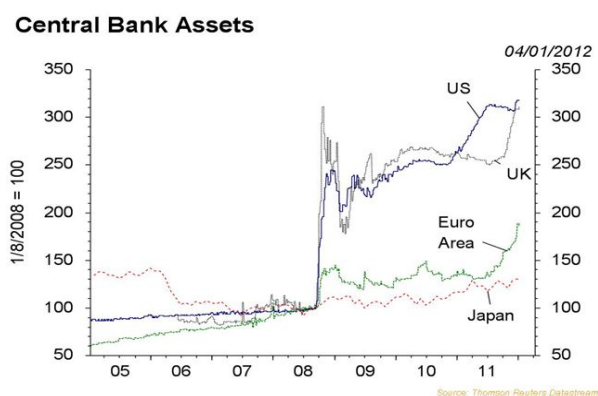
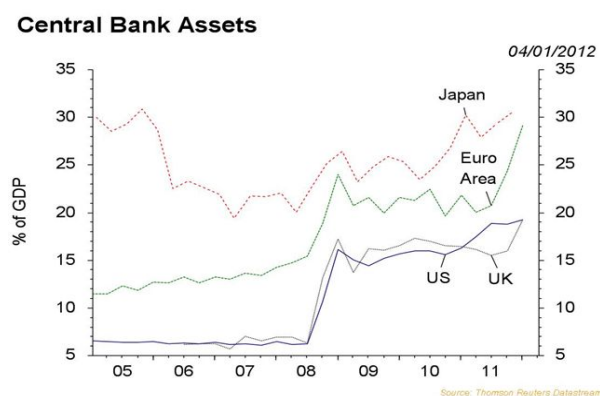


Chart 6



This represents unprecedented debt monetization in peace time. It seems clear, that as the sovereign debt crisis deepens and credit downgrades continue (note last Friday's new round of S&P downgrades of Italy, France, Spain and Austria), central bank purchases will have to continue and even increase if interest rates move higher. This is the only way to prevent an uncontrolled debt crisis in which the credit pyramid wobbles out of control and topples.

In the event that the credit pyramid topples as a result of an accident, policy mistakes or German fright at ECB debt monetization, it is possible, even likely, that gold, which is the base of the pyramid, will become the preferred “safe asset” for many millions of people. Safe, however, no longer means free from price fluctuation. Under the gold or gold exchange system, when the dollar (and earlier the pound sterling) was pegged to gold and freely convertible, price fluctuations in gold were not possible. Central banks were the price guarantors, buyers of last resort at the fixed price. They no longer are, so the price of gold fluctuates quite sharply from day to day and week to week as it attracts speculative capital, panic capital and momentum investors along with the traditional buyers looking for wealth protection.

This is my base case—continued debt monetization and eventually increased price inflation that will repress creditors, hopefully in a fairly manageable way. Given the circumstances, I think it is a fairly optimistic scenario. However, we have to look at the two main alternatives.

The first question is what could go seriously wrong. I mentioned the crash and burn scenario in which the credit pyramid topples. There are many fault lines in the world—economic, political, social, environmental—any one of which could rupture if leadership is less than stellar. The other big risk is a sudden loss of confidence in all paper values. Interest rates would spiral up, sovereign debt would collapse and central banks would only make matters worse if they kept trying to monetize debt. This is the hyper-inflation scenario—very unlikely now but not at all impossible down the road.

The second question is what could go right? In a negative environment, it is always a mistake to think nothing good can happen. There are some possibilities. Continued rapid growth in developing countries is one, and this could support export-led growth of the troubled debtors. Balance sheets and government finances of many developing countries are in much better shape than in the declining West. Technology has frequently come to the rescue in the past and there are many positive developments in that area. For example, some people think that energy technology, which can find and unlock massive unconventional oil and gas deposits in many parts of the world, could make the U.S., Europe, China and many other countries independent of foreign sources and bring the relative price down very sharply over the next 5 to 10 years, giving a huge boost to the income of private debtors. It should also be kept in mind that U.S. and many other corporations have become liquid on a massive scale, preparing for the depression that never was.

While I would not want to bet much on these and other potential positives coming into play in time to “solve” the global debt crisis, we should not dismiss them, particularly over the intermediate to longer term.

Conclusions

You might have guessed that I am bullish on gold. But it must be emphasized that I take a long-term view. Gold has already discounted a lot of chaos. It will remain very volatile. During the 1970s’ bull market, it had a 50% correction in 1974-75. This could happen again before the current bull market ends. Gold has never been tested

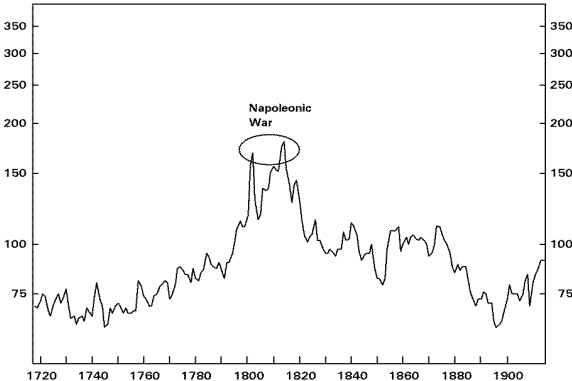
while freely floating in a severe and extended debt deflation. From 1717 to 1971 there was always a central bank ready to buy and sell it at a fixed price, except in times of war. And, as mentioned, some good things could happen, either short or longer term. But I do believe the trend is solidly up.

How much gold should you own? That is very subjective and depends on many factors. Some are happy with 100%, some none. We have recommended that for the “average” investor, something of the order of 10%-15% of the portfolio should be in gold. And the position should be thought of mainly as insurance in a world of monetary disorder that could easily slip into something more chaotic.

Gold does have a multi-thousand year track record of protecting the real value wealth—whether against inflation, controls, regulation or unjust taxation. But it is a long-term record. Chart 7 shows the purchasing power of gold in the U.K. from 1717 to 1914, when the gold standard prevailed except for a brief period during the Napoleonic wars.

Chart 7

Stability of UK Prices under the Gold Standard, 1717—1914



While the real value fluctuated, an ounce of gold in 1914 bought about the same as it did two hundred years before and an ounce of gold today essentially buys about the same as a hundred years ago.

Whether gold will rise another six-fold over the next 10 years in a repeat of the 2001-2011 performance, I have no idea. But gold will protect in the long run.

Date: January 16, 2012

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