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The Gold Market: A Primer

Gold is no ordinary commodity. The market for it is driven by its unique history as money and a store of value.

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Gold is one of the few investments that have done well in the past decade. While stocks, real estate, and many commodities have experienced volatile booms and busts, the gold price has increased by more than 300 percent since 2001. It reached $1,200 an ounce in December, a record high in nominal terms.

Investor interest in gold is higher than at any time since the 1970s. Some are simply chasing the latest hot investment. Some are disillusioned with stocks or trying to diversify their portfolios. Others are buying gold because its unique properties and history resonate strongly now, in the wake of the past year's financial and economic turmoil and the immense scale of the federal policy response.

Simply put, gold is no ordinary commodity. Gold is money, and throughout history it has served as a store of value and as a safe haven during uncertain economic times. It is both imperishable and liquid. It is produced not just for consumption (as are most commodities) but also for accumulation. Its primary function is as a liquid store of wealth, not as an industrial input or item of consumption.

Consider that the annual production of consumed commodities (such as oil) roughly matches annual demand, and relatively little is left to add to above-ground supplies. Gold is different. Virtually all the gold that has ever been mined throughout history still exists today in above-ground stocks. Because of its high value, very little is ever lost. According to GFMS, a leading industry research firm, the known world gold stock today is about 163,000 metric tons, or 5.2 billion troy ounces, an amount that could fit into a 66-foot high cube.

By comparison, the amount of gold produced from mines each year is relatively small. In 2008, 78 million troy ounces were mined. This is less than 2 percent of the total global

Table 1: **World Gold Supply and Demand**
(millions of troy ounces)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Supply										
Mine production	84	84	85	84	84	80	82	80	80	78
Official-sector sales	15	15	17	18	20	15	21	12	16	8
Gold scrap	20	20	24	28	32	28	29	36	31	39
Total Supply	119	120	126	130	136	124	132	128	126	125
Demand										
Fabrication										
Jewelry	101	103	97	86	80	84	87	74	77	69
Other	19	18	15	15	17	18	19	21	22	22
Total fabrication	120	121	112	101	96	102	106	94	99	92
Producer de-hedging (net)	(16)	0	5	13	9	14	3	13	14	12
Implied net investment	15	(2)	9	16	30	8	23	20	13	22
Total Demand	119	120	126	130	136	124	132	128	126	125
Gold Price										
(London PM, $/oz)	$279	$279	$271	$310	$363	$409	$444	$604	$695	$872

Source for Tables 1 and 2: GFMS, Ltd. Figures may not add up because of rounding.

stock. Because mining output is so small compared with the above-ground stock, changes in output have less impact on the price of gold than, say, changes in oil production have on the price of oil.

Only a small fraction of the world's gold is traded each year, and a variety of factors drive these trades, some more important than others. They are summarized in Table 1.

On the supply side, mine production accounted for about 60 percent of the 125 million troy ounces of total market supply in 2008. Global mine production has been flat or falling for the past decade, reflecting a lack of investment by mining companies in the 1990s, when the gold price was drifting downward (eventually reaching a low of $260 in 2001). Mine output fell even in 2008, despite the higher gold price, because mining companies, like many other businesses, faced major production hurdles. Early in the year, the costs of petroleum and other inputs soared; later in the year, financial capital dried up as the global credit markets tightened. Production can be expected to rebound eventually if the gold price remains high relative to costs.

The top gold-producing countries are China, the United States, and South Africa. (See Table 2.) China's production has soared in the past decade, while output in South Africa, which was long the world's leading gold producer, has fallen by half since 1999. The best deposits have been exhausted there, and production has been hampered recently by country-wide electricity shortages.

Table 2: **Top Gold-Producing Countries, 2008**

	(Millions of ounces)
China	9.4
United States	7.5
South Africa	7.5
Australia	6.9
Russia	6.1
Peru	5.8
Canada	3.1
Indonesia	3.0
Ghana	2.6
Uzbekistan	2.5
World Total	**77.7**

Another major source of supply is gold scrap. This will be familiar to anyone who has tried to raise extra cash by selling their old jewelry. In the global market, much of this scrap is relatively crude and heavy jewelry that is readily marketable and can be sold at close to bullion value. A large portion of it comes from the Middle East, East Asia, and the Indian sub-continent, where such jewelry serves not just as an adornment but as an investment and a store of value.

Gold scrap is very sensitive to price. Last year, the high price of gold, along with distress selling triggered by the global economic downturn, helped push the supply of gold scrap to a record high.

Another source of supply is gold sales by central banks and international institutions. Europe's central banks have sold large amounts of gold over the past decade. More recently, the International Monetary Fund (IMF) announced plans to sell up to one-eighth of its large reserves in order to finance its global assistance programs. In November, India bought 6.4 million ounces from the IMF.

Even so, central banks and other official institutions still hold vast amounts of gold. (See Table 3.) The United States has the largest official reserves in the world, 262 million ounces. China's gold reserves are much smaller but have been increasing, a trend that could continue if the Chinese government decides to diversify away from its vast holdings of Treasuries and other dollar-denominated securities.

On the demand side, gold's rising price and the global economic downturn have reduced its use as an industrial input and in jewelry. As shown in Table 1, jewelry fabrication fell sharply in 2008, reaching the lowest level since 1989. Jewelry makers have been trying to bolster sales by shaving the gold content of jewelry and shifting toward lower-carat, gold-filled, and silver products.

Another source of demand, but a relatively minor one, is "de-hedging" by gold producers. Hedge contracts became popular with gold mining companies in the 1990s as a way to protect themselves against falling gold prices. Now, with the gold price higher, the companies are de-hedging—buying gold in an effort to unwind their hedges.

As demand for gold as a commodity and a consumption item has shrunk, investment demand has soared. As shown in the table, "implied net investment demand" rose to 22 million ounces in 2008—a 69 percent increase over the year before.

(We use the term "implied" because these estimates are calculated as a residual—that is, they capture the net physical impact on the gold market of all the transactions that are not attributable to other sources of supply and demand. They also do not include jewelry purchases that may be made for investment purposes. As such, the data are not precise, but the broad trends they suggest are probably accurate.)

The main factor in rising investment demand is concern over the global financial system and over the possible consequences of the fiscal and monetary policy responses from governments and central banks. There are growing worries over how long U.S. policies can be sustained and over the future of the U.S. dollar—its domestic purchasing power, its exchange value, even its role as the world's reserve currency. Amid the worst financial crisis since the Great Depression, interest in gold as a safe haven has surged.

Gold is also attracting speculators, including "hot money" from hedge funds, commodities traders, and other institutional investors dealing in derivatives tied to gold

Table 3: **Largest Official Gold Reserves, September 2009**

	(millions of ounces)
United States	262
Germany	110
IMF	97
Italy	79
France	79
China	34
Switzerland	33
Japan	25
Netherlands	20
Russia	18
India	18
European Central Bank	16
World Total	**953**

Adjusted for recent sale of gold to India by IMF.
Source: World Gold Council.

and other commodities. According to GFMS, shifts in the flow of institutional money have significantly affected short-term trends in the gold price in recent years. For example, a surge in sales by hedge funds in late 2008 at the height of the financial crisis reportedly put downward pressure on the price.

Investors are also turning to gold as a means of diversifying their portfolios. Since 1968, when the market price of gold was allowed to float, it has been negatively (or very weakly positively) correlated with other asset classes. This leads to a surprising result: Even though the price of gold was very volatile during these years, including it in a diversified portfolio could have reduced the portfolio's overall volatility, without reducing the overall rate of return. (For more on this, see "How to Own Gold," AIER *Economic Bulletin*, September 2009.)

Regardless of the motive, it is now easier for investors of all stripes—individual and institutional, short-term and long-term—to invest in gold than it was during the last bull market for gold, in the 1970s. Back then, the only way to invest was to buy bars, coins, and other physical gold. Today's gold market has been transformed by the availability, since 2003, of gold-backed exchange-traded funds (ETFs).

Gold ETFs, which are invested in gold bullion, have made it much easier for investors to buy and sell gold (or, more accurately, to buy and sell pieces of paper backed by gold held in a vault). They have also opened up the gold market to institutional investors. For example, most pension funds are prohibited by law from investing directly in gold or other commodities, but they are allowed to invest in ETFs.

ETFs and related investment products accounted for fully a quarter of gross gold purchases in 2008. ETFs also collectively hold more gold now than many individual central banks. This sea change raises an interesting possibility. In making it so easy to enter and exit the market, ETFs could also make gold more volatile and more vulnerable to speculative bubbles and busts.

In sum, a variety of factors influence the gold price—the volume of mining; buy-and-sell transactions among speculators, central banks, jewelry makers and buyers, and industrial users; and institutional and individual investors.

Over the longer term, however, the most important factor determining the gold price is its role as a store of value. When confidence in currencies wanes, the price of gold usually rises. The financial history of the world tells us that the purchasing power of currencies erodes over time, and many have become worthless. The purchasing power of gold, in contrast, has remained relatively constant.

That gold retains its real value over the long term is evident in

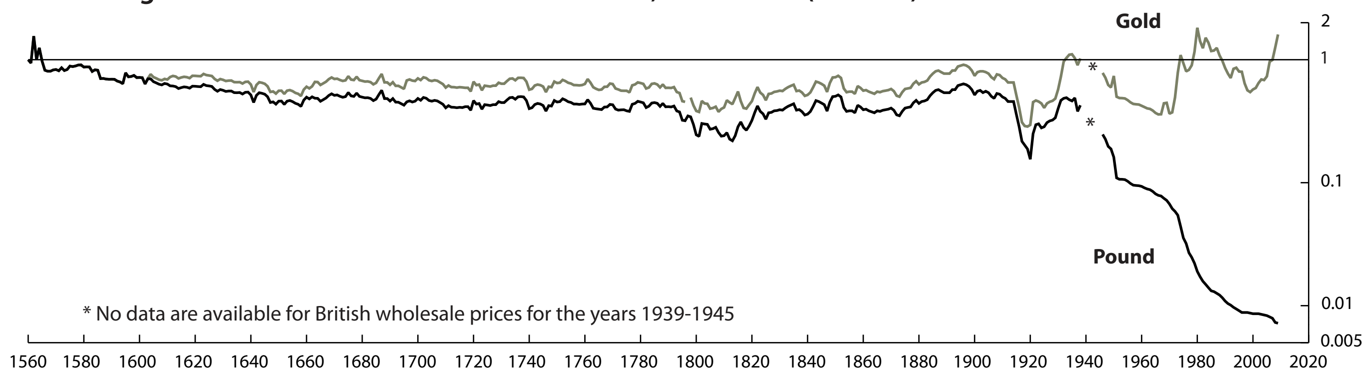
Gold and Money

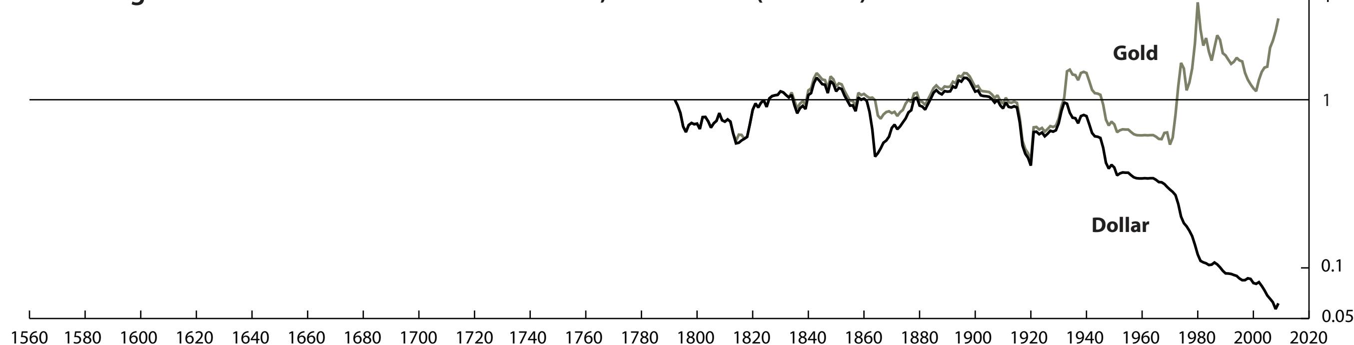
Gold has served as money throughout history. It was first coined more than 25 centuries ago and has been used as money by all great civilizations. Greece and Rome used gold money, the industrial revolution of Britain and America were built on a foundation of gold-convertible money, and relatively rapid and noninflationary growth was achieved in the United States, Germany, and Japan after World War II under the gold-based Bretton Woods system.

In 1971, the Bretton Woods system broke down and President Nixon severed the last official link between gold and the dollar. Since then, all of the world's major currencies have been purely paper. That is, under a gold standard they were convertible at an official rate into gold, and under the Bretton Woods system foreign currencies were convertible into dollars, which in turn were convertible into gold at a fixed price. Now, all currencies are officially convertible into nothing more than other paper currencies.

The switch from currencies based on gold or other commodities to currencies based solely on paper was a watershed in the history of money. Although this worldwide paper system is now taken for granted by most people, it is worth remembering that in the long sweep of history, 40 years is a short time—too short for a verdict on how well it will work as political and economic developments unfold.

As Milton Friedman put it in his 1992 book *Money Mischief*, "a world system has emerged that has no historical precedent: a system in which every major currency in the world is, directly or indirectly, on an irredeemable paper money standard—directly, if the exchange rate of the currency is flexible though possibly manipulated; indirectly, if the currency is unified with another fiat-based currency…The ultimate consequences of this development are shrouded in uncertainty."





Note: On April 2, 1792, Congress established the dollar (then legally equivalent to 24.75 grains of pure gold) as the nation's monetary unit. The changes in purchasing power shown in the charts were calculated from annual averages of U.S. and British wholesale price indices and the annual averages of the exchange ratio of dollars and pounds for gold. Data for 2009 through November.

the charts above, which show the purchasing power of gold, the dollar, and the British pound.

For most of U.S. history, currency was redeemable in gold. However, all this changed in 1933, when the Roosevelt Administration made it illegal for U.S. citizens to conduct private monetary transactions in gold. Gold's role as a medium of exchange was limited to official transactions with foreign governments and central banks.

This arrangement ended in the 1970s, when President Nixon "closed the gold window" (refusing to redeem any more of the foreign governments' dollars for gold). After that, the dollar became a pure fiat currency and its purchasing power plummeted.

The price of gold soared in the 1970s, reflecting the crisis of confidence in the dollar and in U.S. policies. The gold price subsequently declined in the 1980s and '90s, as price inflation subsided, economic growth resumed, and confidence in the U.S. economy and government policies revived.

The experience of the 1980s and 1990s offers a couple of important lessons. First, a rise in the gold price—that is, a loss of confidence in the dollar—is neither inexorable nor irreversible. The crisis-ridden, stagflationary 1970s were followed by an economic and financial turnaround that few predicted and that continued virtually uninterrupted for 20 years. Second, confidence in the dollar can be maintained despite very high budget deficits. Deficits are not necessarily inflationary.

The current outlook is highly uncertain. The financial crisis has abated, and the recession appears to be ending. But the U.S. government is running budget deficits on a scale previously seen only for brief periods during wartime. The politicians will face continued pressure to borrow massive amounts of money to finance Social Security and other programs (and to deal with any future crises). Foreigners, especially the Chinese, are underwriting much of this debt. This situation is genuinely unprecedented. No one knows at what point it will become unsustainable, but the dollar appears more vulnerable to a collapse of confidence than at any time since the 1970s.

Even if the situation deteriorates, this does not necessarily mean the price of gold will continue to rise. Its purchasing power is now exceptionally high relative to what it has been throughout history. Over the long run, its purchasing power has tended to remain relatively constant, not to increase ever higher. In other words, history tells us that the main reason to own gold is to not to *make* money, but to *have* money.

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