

The relationship between gold and the dollar has long mirrored the decades-old battle between real tangible assets and financial assets. Traditionally the dollar has been the representative currency in any analysis of gold, due to its sustained role as the world's reserve currency and the preferred means of exchange and invoicing transactions. The creation of the euro in 1999 and its subsequent ascent as a credible and strengthening currency has certainly started to challenge the dollar's leading position among world currencies, but the euro has yet to dethrone the greenback from its dominating perch. Nonetheless, the probability of such occurrence has been gradually on the rise and may fully materialize as early as 2015.

Considering the 400-year historical connection between gold and paper currencies, the 100 years of dollar dominance, and the role of gold in initiating the present world currency order, it is appropriate to begin this book with the evolution of the relationship between gold, the dollar, and other currencies. Aside from examining the eventual trend between gold and the greenback, this chapter sheds light on how currency market participants can absorb the price developments in gold vis-à-vis currencies and equities in order to gain a better grasp of the cyclical shifts underpinning markets and economics.

During the final third of the nineteenth century, most countries abandoned the silver standard in favor of a gold-based currency standard. These moves were largely triggered by Germany's receipt of a war indemnity from France in gold following the Franco-Prussian war, prompting Germany to unload silver on its trading partners. As Germany adopted the deutsche mark, backing it with a strict gold standard, most nations followed suit and opted for the metal. But the merits of the gold standard were in doubt after the British economy began to slump in the 1880s.

The gold exchange standard ultimately saw its demise in the 1920s when World War I disrupted trade flows and the free movement of gold. In 1931, massive gold withdrawals from London banks triggered Britain's abandonment of the gold standard, and three years later the United States introduced the U.S. Gold Reserve Act under President Roosevelt's New Deal. The Act reset the value of gold at \$35 per ounce from \$20.67 per ounce and ended the legal ownership of gold coins and bullion by citizens for over 20 years.

# END OF BRETTON WOODS SYSTEM MARKS GOLD'S TAKEOFF

The Bretton Woods Agreement of 1944 launched the first system of convertible currencies and fixed exchange rates, requiring participating nations to maintain the value of their currency within a narrow margin against the U.S. dollar and a corresponding gold rate of \$35 per gold ounce. But the U.S. dollar began to lose value in the 1950s and 1960s, due to surging U.S. capital outflows aimed at Europe's postwar recovery, as well as an expanding global supply of U.S. dollars, which made it increasingly difficult for the United States to convert dollars into gold on demand at a fixed exchange rate.

The surge of the Eurodollar market in the late 1960s—where international banks held U.S. dollars outside the United States—coupled with the escalating costs of the Vietnam War led to the near depletion of U.S. gold reserves and a devaluation of the U.S. dollar relative to gold. At the same time, the United States kept on printing more dollars for which there was no gold backing. This persisted as long as the world was willing to accept those dollars with little question. But when France demanded in the late 1960s that the U.S. fulfill its promise to pay one ounce of gold for each \$35 it delivered to the U.S. Treasury, a shortage of gold began to ensue relative to a widening supply of dollars. On August 15, 1971, Nixon shut down the gold window, refusing to pay out any of the remaining 280 million ounces of gold. Figure 1.1 shows the inverse relationship between gold and the dollar since the fall of Bretton Woods.

A series of dollar devaluations in the early 1970s eventually led to the end of the Bretton Woods system of fixed exchange rates, paving the way for a long-drawn-out decline in the dollar. This triggered a rapid ascent in the dollar value of two of the world's most vital commodities, metals



**FIGURE 1.1** Gold prices generally move in inverse relation to the U.S. dollar as they compete over inflation risk, geopolitical uncertainty, and time value of money.

and oil. Oil producers holding the surplus of devalued U.S. dollars had no choice but to purchase gold in the marketplace, driving both the fuel and the metals higher and further dragging down the value of the dollar. A series of devaluations in 1972 culminated in the end of the Bretton Woods system in February 1973. The dollar became freely traded and freely sold.

From January 1971 to February 1973, the dollar dropped 26.0 percent against the yen, 4.0 percent against the British pound, and 17 percent against the deutsche mark. And from 1971 to 1980, the dollar lost 30 percent of its value in trade-weighted terms against a basket of currencies (deutsche mark, Japanese yen, British pound, Canadian dollar, Swiss franc, and Swedish krone).

# FED TIGHTENING AND FX INTERVENTIONS REIN IN GOLD RALLY

A series of geopolitical events coupled with rising U.S. inflation increased gold prices more than fivefold in the later 1970s as financial markets sought refuge in the security of the precious metal from the eroding value of paper

money. The falling dollar was exacerbated by OPEC's price hikes, which added fuel to the inflation fire. Surging social unrest in 1978 led to the 1979 hostage crisis at the U.S. Embassy in Tehran, which culminated in the overthrowing of the Shah and the Iranian Revolution. Oil prices nearly tripled between 1979 and 1980, and gold's last major surge spiked before starting a 20-year period of hibernation. The Soviet invasion and occupation of Afghanistan in December 1979 raised fears of renewed tensions between the United States and the Soviet Union, further destabilizing the security outlook in the region. In just three weeks, gold jumped from \$520 to \$835 per ounce. But what later ensued was a testament to the importance of economics over geopolitics in the behavior of gold.

In autumn 1979, U.S. inflation hit a 32-year high of 13 percent, despite double-digit interest rates. In October the Federal Reserve, under the new leadership of Paul Volcker, made the historical decision to shift monetary policy toward the targeting of money supply, away from the targeting interest rates. This meant that the Fed would manage monetary policy so as to lower monetary aggregates, with interest rates acting as a secondary element. The two years of ultratight monetarism saw interest rates hit 20 percent in 1981, leaving international investors little choice but to seek the high-yielding greenback as a way to offset double-digit inflation. Figure 1.2



**FIGURE 1.2** Deteriorating geopolitics of the 1970s propelled gold prices up on the back of soaring inflation before Fed's tight monetarism headed off 20-year bear market in gold. *Source:* U.S. Geological Survey.

shows U.S. inflation was more than halved in 1982, dragging gold down with it. In the first half of the 1980s, the dollar index jumped 50 percent while gold tumbled by the same amount to hit a six-year low.

# CENTRAL BANKS' GOLD SALE AGREEMENTS

In 1997–1999, several central banks from Western Europe sold substantial amounts of their gold in an uncoordinated manner, with the principal aim of realizing substantial capital gains in the gold holdings they had purchased several decades earlier. Those gains helped beef up national budgets and state finances. The 11 European nations that first joined the Eurozone had to abide by strict fiscal conditions requiring that budget deficits not exceed 3 percent of GDP. The gold sales helped erode the value of the metal by 25 percent between 1995 and 1998, and lifted the U.S. dollar against the Japanese yen and deutsche mark by 84 percent and 36 percent respectively.

Central bank gold sales were particularly punishing for the precious metal in 1999 as both the Bank of England and Swiss National Bank stepped up their selling. In May 1999, gold's decline began after the announcement from the UK Treasury that it planned to sell 415 tons of gold. The announcement triggered a massive wave of producers' hedging activity and front-running speculation. A month later, the Swiss National Bank (SNB) decided that gold was no longer an integral part of monetary policy making and announced the sale of half of its 2,590 tons of gold reserves over the next five or six years. The central banks' announcements led to a 13 percent fall in gold to \$252 per ounce, the lowest level in 20 years. Without any systematic limits on volume and frequency of the sales and no coordination, central banks were free to dump gold at their own choosing, creating sharp declines in the metal, and rapid moves in currency markets.

The resulting price action in gold ultimately paved the way for the first central bank agreement on gold sales, which provided the framework for subsequent gold sales by the Swiss National Bank, the European Central Bank (ECB), and 13 European national central banks. Under the agreement, the SNB sold 1,170 tons, which accounted for the bulk of the total 2,000 tons in sales by all participating central banks. As gold prices accelerated their fall, the European central banks sought to boost confidence in the metal and stabilize the plummeting value of their newly created euro currency by establishing the Washington Agreement on Gold. On September 26, 1999, 15 central banks (the ECB plus the 11 founding members of

the Eurozone, Sweden, Switzerland, and the United Kingdom) announced a collective cap on their gold sales at around 400 tonnes per year over the next five years.

When the Washington Agreement on Gold expired in 2004, a new agreement was reached for the 2004–2009 period, called the Central Bank Agreement on Gold. The new arrangement raised the amount of annual gold sales to 500 tonnes from 400 tonnes set in the original agreement. The higher threshold of gold sales would help stabilize the value of the U.S. dollar, after the currency had lost 22 percent between 1999 and 2004 and the metal rallied 60 percent over the same period. As of 2007, central banks held nearly 20 percent of the worlds' aboveground gold stocks as a reserve asset, with individual nations holding approximately 10 percent of their reserves in the metal.

# **GOLD-USD INVERSE RELATION**

One of the most widely known relationships in currency markets is perhaps the inverse relation between the U.S. dollar (USD) and the value of gold. This relationship stems mainly from the fact that gold serves as an inflation hedge through its metal value, while the U.S. dollar holds its value via the interest rate commanded by it. As the dollar's exchange value falls, it takes more dollars to buy gold, therefore lifting the value of gold. Conversely, when the dollar's exchange value rises, it takes fewer dollars to buy gold, thereby dragging down the dollar price of gold. Unlike currencies, government bonds, and corporate stocks—all of which are determined by demand and supply as well as the issuing power of central banks and corporations—gold is largely dependent on demand and supply and is therefore immune to shifts in monetary and corporate policies and the new issuance of equity, debt, and currency.

While gold's distinction from fiat currencies maintains an inverse relation with currencies other than the U.S. dollar, the negative correlation remains most striking against the U.S. dollar due to the currency's dominance in central bank currency reserves. Figure 1.1 showed the inverse relationship between gold and the dollar from 1970 to 2008. Figure 1.3 illustrates the highly inverse relationship between gold and the dollar between January 1999 and May 2008, highlighting a -0.84 correlation.

# RECENT EXCEPTIONS TO THE INVERSE RULE

As with all close relationships between two assets, the USD-gold relationship has not been without its temporary periods of decoupling. The most



**FIGURE 1.3** Monthly correlation between gold and U.S. dollar index from January 1999 to May 2008 ran as high as -0.84, with a slight break in the relationship in 2005.

striking break in the relation occurred between April and December 2005 when both gold and the dollar appreciated. Figure 1.4 shows that the correlation had run as high as 0.66, showing a remarkably strong positive relationship. The explanation for this unusual correlation relates to developments pertaining to gold, the dollar, and the euro.

Gold was in the midst of a secular bull market that had started in 2001 and gathered strength in 2002 with the peak and the subsequent decline in the dollar. The rally was further intensified by the 2005 revaluation of China's currency, which enabled it to step up appetite for gold and other commodities.

The dollar's role in the temporary break in the USD-gold inverse relationship owed to the two-year campaign of U.S. interest rate increases (from June 2004 to June 2006), which lifted U.S. short-term interest rates above their Eurozone counterpart in the fourth quarter of 2004 for the first time in three years. As the U.S. interest rate advantage over the Eurozone was further widened by the Fed's 2005 rate hikes, the U.S. dollar strengthened against the euro, especially as the European Central Bank maintained rates at a historic low of 2.0 percent.

Also contributing to the dollar's 2005 recovery was a temporary tax break granted by the Bush administration to U.S. multinationals, allowing them to repatriate their profits from their overseas subsidiaries. The



**FIGURE 1.4** The gold-U.S. dollar relationship became positive in 2005 due to higher U.S. interest rates, temporary U.S. tax incentives, and political Eurozone uncertainty, while gold rallied on strong Chinese demand.

Homeland Investment Act, designed to improve job creation, slashed the tax on multinationals' overseas profits from 35 percent to 5.25 percent. U.S. multinationals rushed to take advantage of the substantial tax break and repatriated an estimated \$600 billion, prompting a surge of inflows into U.S. dollars from euros, especially in the second half of the year. Unsurprisingly, the temporary inflows of 2005 gave the dollar its best annual performance against the euro since 1999.

Since the euro makes up 58 percent of the dollar index, it is worth mentioning one factor specific to the Eurozone behind the euro's 2005 decline against the dollar and other major currencies. France's rejection of a proposed European Union Constitution dealt a blow to confidence in the European Union and the future of its currency, particularly because France is the second-largest economy of the Eurozone.

# USING GOLD TO IDENTIFY CURRENCY LEADERS AND LAGGARDS

Assessing the performance of currencies against the value of gold enables a transparent examination of the strength of a nation's currency, without

the influence of dynamics in other currencies and their economies. A rising euro against the U.S. dollar, for instance, may not necessarily be a reflection of improved fundamentals in the Eurozone but of deteriorating fundamentals, technicals, and/or sentiment in the U.S. dollar. Meanwhile, the euro could be selling off against the Japanese yen and be little changed against the British pound—a different performance from that against the dollar. Charting the euro against gold would allow for a secular view of the euro, which is not influenced by factors specific to individual currencies. Unlike currencies, which are largely influenced by interest rate movements resulting from economic policies and capital flows, gold is mainly a reflection of supply and demand, and not a direct result of any particular central bank actions.

Charting several currencies against the price of gold presents a broader view of currencies against a neutral asset such as gold, enabling a less biased look at the currency in question. Figure 1.5a shows the percentage increase in the value of gold against the aussie (Australian dollar, AUD), loonie (Canadian dollar, CAD), euro (EUR), and kiwi (New Zealand dollar, NZD) from January 2001 to May 2008. All charts show an uptrend, reflecting gold's appreciation against all currencies since 2001. The graph with the least appreciation throughout most of the eight-year period is against the loonie, showing that gold grew the least against the Canadian currency. Nonetheless, at the end of the period, gold ended up 90.5 percent against the aussie versus 123 percent against the loonie, meaning gold's appreciation was the least against the Australian dollar. This suggests that the Aussie was the best-performing currency in the group. The weaker increase in gold against the AUD, CAD, and NZD reflected the broad rally in those currencies due to their dependence on rising commodities as well as high interest rates prevailing throughout the period.

Similarly, Figure 1.5b measures gold against the U.S. dollar, Swiss franc (CHF), Japanese yen (JPY), and British pound (GBP) over the same period. Note how gold's performance against these currencies was mostly higher than its performance in Figure 1.5a, suggesting these currencies have underperformed the AUD, CAD, EUR, and NZD. Thus, with gold showing the highest percentage increase against the USD and the lowest percentage increase against the AUD, we can conclude that playing the AUD/USD currency pair (buying AUD and selling USD) would have produced the highest rate of return if held between January 2001 and May 2008. Indeed, opportunities in foreign exchange markets are not limited solely to trading currencies against the USD, but also in those pairs involving non-USD currencies. Charting gold against different currencies over a three- or six-month period enables a truer assessment of individual currencies than comparing them against the dollar or the euro. This way, traders can not only determine the secular performance of currencies but may also rank them

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CURRENCY TRADING AND INTERMARKET ANALYSIS





**FIGURE 1.5** Measuring gold in various currencies enables more secular assessment of those currencies and better determination of strongest and weakest players.

in order of strength and be better able to buy the strongest against the weakest.

Figure 1.6 shows a more recent performance of gold against AUD, GBP, JPY, and USD, measuring currencies between January 2007 and May 2008. The aussie was the strongest performer against gold, followed by the



**FIGURE 1.6** Gold's performance was weakest against AUD and JPY between January 2007 and May 2008, illustrating the strength in both of these currencies relative to GBP and USD.

yen, which fared significantly better than in Figure 1.5a. The yen's improvement owed primarily to the unwinding of carry trades as traders exited positions in high-yielding currencies and shifted their proceeds back to the lower-yielding yen for safety. Carry trades are discussed in more detail in Chapter 5.

# **GOLD'S SECULAR PERFORMANCE**

The preceding exercise enabled investors to obtain a clearer picture of currencies' performances by valuing them against gold. Yet we could also aggregate each of the individual currencies' return performance against the price of gold to obtain gold's *total performance* for a specific period.

Figure 1.7 illustrates gold's aggregate annual returns against AUD, CAD, CHF, EUR, GBP, JPY, and NZD from 1999 to 2007 and the first five months of 2008. The chart shows a gradual increase in gold's aggregate annual growth from 1999 to 2001 before slowing the pace of growth in 2002 and 2003. Gold's aggregate growth rate was a negative 8 percent in 2004 before soaring by 239 percent in 2005. Growth was nearly halved in 2006 to 124 percent, then edged up to 145 percent in 2007. Since those returns are

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CURRENCY TRADING AND INTERMARKET ANALYSIS



**FIGURE 1.7** Gold's aggregate annual return versus AUD, CAD, CHF, EUR, GBP, JPY, and NZD illustrate the metal's broad performance between January 1999 and May 2008.

the aggregate of individual gold returns in distinct currencies, gold's performance is generally a function of the performance of individual currencies and paper currency in general.

By exploring the annual growth rates in detail, we note a sensible explanation to each of the moves. The 25 percent and 37 percent returns in 1999 and 2000 were clearly on the low side of the 82 percent annual average registered between 1999 and 2007. In those years, gold was under the dominance of a multiyear bull market in equities founded on low inflation and steady growth. Such were suitable ingredients for shutting investors' appetite in the precious metal. In fact, gold prices fell 6 percent in 2000 against the greenback, concluding a nine-year market. The following year, 2001, was the first in nearly a decade in which gold would rise against all of the major eight currencies. This increase was due to a combination of an ensuing bear market in U.S. and world equities as well as a general slowdown in the global economy. The September 11 attacks also had a role in lifting gold as investors sought refuge in its safe-haven status at a time when a major financial center was under assault.

Gold went on to rally in 2002, before showing a mere 15 percent increase in 2003 and an 8 percent decline in 2004. Since these returns are an aggregate of gold's individual performance against several individual

currencies, the main driver to gold's retreat in 2003–2004 was the individual performance of each of the currencies. The common theme in 2003 and 2004 was broad dollar weakness. Thus, despite gold's modest showing in aggregate terms, it rallied 24 percent and 20 percent against the dollar. The rally halted in 2004 when global central banks began raising interest rates. But in the secular bull market in commodities, China's voracious appetite for metals and gold triggered an 18 percent advance against the dollar and a 239 percent rally against all eight currencies. Gold's bull market extended into 2006 and 2007 on a combination of deteriorating economic and financial conditions in the United States and a general shift of global investor capital into rising commodities such as gold and oil.

## VALUING CURRENCIES VIA GOLD

While Figure 1.7 illustrated gold's aggregate returns over a 10-year period, we could also use gold to compare currencies' performances across different periods. Figure 1.8 shows how gold fared in 2000 against the eight different currencies. Note how gold's two highest rates of returns occurred against the so-called commodity currencies of Australia and New Zealand due to the 2000 price slump in wheat, copper, and dairy products, all of which are primary sources of export revenue for these two countries. Conversely, gold showed the highest negative performance against the USD, followed by the CAD, which helps traders conclude that the USD was the



**FIGURE 1.8** Gold's highest returns in 2000 fared against NZD and AUD, reflecting the slump in dairy products, copper, and wheat, primary exports in New Zealand and Australia.



**FIGURE 1.9** Gold's 2007 currency performances were almost a mirror image of 2000 as the commodities rebound lifted NZD, CAD, and AUD at the expense of USD.

highest-performing currency against all other currencies, with the CAD in second place.

It is important to note that currencies' ranking against gold does not always imply a similar ranking against one another. A few exceptions have occurred, such as in 2000 when the Swiss franc fared as the third-worst underperformer against gold due to the Swiss National Bank's sales of its bullion. In that year, however, the Swiss franc stood as the second-highest performer (after the U.S. dollar) when measured in aggregate terms against all seven other currencies.

Fast-forwarding seven years ahead, we find a largely different picture for gold in 2007. Gold had not only outperformed all currencies—reflecting the emerging bull market in the metal and commodities in general—but also showed the relative performance of currencies during the year. Put in another way, the 2007 relative performance of currencies was the near opposite of 2000, dominated by the commodity boom as well as commodity currencies. Similarly, with the U.S. dollar underperforming all major currencies during the commodity rally, gold showed the highest performance against the greenback. (See Figure 1.9.)

# **GOLDEN CORRELATIONS**

The inverse relationship between gold and the U.S. dollar has implied a generally positive relationship between gold and currencies whose correlation with the dollar has the highest negative correlation. The euro has

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proven to be the most negatively correlated currency against the U.S. dollar due to the fact that EUR/USD is the largest traded currency pair in the foreign exchange market. And because the Eurozone is the world's second largest economy after the United States, its currency is most apt to act as the *anti-dollar*, rallying at the expense of the greenback and selling off to its benefit.

Figure 1.10 illustrates the six-month gold correlations with the dollar index, the aussie, the euro, the yen, and New Zealand dollar from January 2002 to May 2008. The USDX is the only currency with negative territory, illustrating an average rolling six-month correlation of -0.53. Both EUR and AUD show the highest average positive correlation at 0.53 each, with the former acting as the anti-dollar and the latter correlating with its vast mining industry. The JPY had the lowest positive average correlation at 0.39. Notably, NZD's six-month correlation with gold stood at 0.78 over the last four months of the measured period. Nonetheless, the *average* of the NZD's six-month rolling correlation from January 2002 to June 2008 stood at a mere 0.43. Any close correlation between the NZD and gold is attributed to the nation's dependence on dairy products as well as lamb and mutton, which have shown considerable proximity to the trend in gold. But the correlation between the agriculturedependent currency and gold proves insufficient to last through most of the seven-year period.



#### FIGURE 1.10 Gold's correlations are highest with Aussie and Euro.

# DON'T FORGET FALLING GOLD PRODUCTION

So far, much has been discussed about the financial market underpinnings of the rally in gold: falling dollar, falling interest rates, rising inflation, and investors seeking the safety of the metal during equity market sell-offs. But, as is explored in more detail in Chapter 8, the gold rally has been founded considerably on major supply and demand conditions. These included plummeting world production, rising commercial demand by wealthier working class populations, and soaring demand for commodity-based funds.

Simply mentioning falling production as a reason is not enough for addressing factors behind the bull market in gold. Falling production has resulted from several factors, including chronic underinvestment in the mining sector; widespread power shortages in China and South Africa; prolonged strikes and mounting contract negotiations by mine workers demanding higher share of profits from surging metals prices; lack of skilled labor force as well as aging population of workers; and environmental restrictions adding to existing delays. World gold production fell more than 1 percent to 2,444 tons in 2007, reaching its lowest level since 2004. After producing as much as 1,000 tons of gold in 1970 and assuming the world's number one spot in gold production, South Africa has seen its mining production decline for five straight years into 2007. In 2007 alone, South African production fell 8 percent to 272 tons of gold, dropping to second place for the first time since 1905, according to GFMS.

Falling global oil production was somewhat stabilized by China's rising production, where output rose 12 percent to 276 tons of gold in 2007, accounting for 10 percent of total world production. China went from producing 71 tons in 1988 to 134 tons in 1998 and to 276 tons in 2007. (See Figure 1.11.)

# GOLD AND EQUITIES: HARD VERSUS MONETARY ASSETS

Earlier in this chapter, several currencies were measured in terms of gold in order to gauge their true strength, rather than simply measuring them against the U.S. dollar or other currencies. Similarly, gold can fulfill the same purpose for major stock indexes. Instead of measuring the value of the S&P 500 or Dow Jones Industrial Average index against the U.S. dollar as is customarily done, we can price it in gold terms. As in the previous



**FIGURE 1.11** Falling gold production results from South Africa's supply problems, but China's recent number one position in world production fills the gap. *Source:* U.S. Geological Survey (http://www.goldsheetlinks.com/production.htm).

exercise with currencies, pricing the major stock averages in terms of gold enables a truer perspective for equities because they are compared against the currency of gold, whose value is solely influenced by natural forces of supply and demand and cannot be manipulated by any issuing authority as is done to national currencies by their central banks. And since gold cannot be easily produced as the way money is printed, its secular nature presents a fair benchmark for valuing other assets. By comparing gold with equities, we assess the two most popular measures of corporate market value seen in the major equity indexes (stock indexes) to a classic measure of real asset value (gold).

Before we look at the equity/gold ratios, let's examine the growth in gold prices versus that of major equity indexes. Figure 1.12 shows this growth comparison between January 2002 and May 2008. The beginning of the period occurred near the start of the bull market in gold while coinciding with the intensification of the bear market in equities. As of May 30, 2008, gold was 221 percent greater than where it was at the start of 2002, while the S&P 500 and the Dow Jones Industrial Average were 21 percent and 25 percent higher. But note that since their peak in October 2007, both the S&P 500 and the Dow have dropped nearly 20 percent, while gold rose by 50 percent over the same seven-month period.

For a longer-term perspective on equities and gold, Figure 1.13 compares their performances between January 1997 and May 2008. Note how gold carved out a bottom in early 2000, about the same time that equities topped out. What followed was a four-year inverse relationship



**FIGURE 1.12** Gold rose 10 times faster than the S&P 500 and Dow Jones Industrial Average between January 2002 and May 2008.



FIGURE 1.13 Although equities recovered from the 2000-2002 bear market, their gains paled compared to gold's recovery.

between equities and gold, with the latter prolonging its bull run and the former shedding losses during the post dot-com bust. When the U.S. and global economies recovered by the end of 2003, both equities and gold advanced higher, with the metal rising at a growth rate 10 times faster than equities.

# **EQUITY-TO-GOLD RATIOS**

The rapid rise of gold relative to equities since the start of the decade may elicit some skepticism about the durability of the rally and whether the metal is in the midst of an expanding bubble. Having compared the growth of gold relative to equities, we now look at the two in relative terms by examining the equity/gold ratio. The ratio compares a commonly used measure of market value versus a decades-long measure of real asset value. Gold is known to measure real asset value because of its ability to preserve value during inflationary times. Since prior charts (Figures 1.12 and 1.13) have demonstrated a significantly faster growth rate in gold than in equities, it logically follows that the equity/gold ratio has fallen off its 1999 peak. Figure 1.14 charts the Dow/gold ratio and S&P 500/gold ratio since 1920. Both ratios have fallen more than 200 percent off their 1999 peak, which occurred when gold hit its 20-year lows and equities reached their highs at the top of the dot-com bubble.

Notably, since the 1920s, the equity/gold ratio has peaked approximately every 35 to 40 years: first in the late 1920s, then again in the mid-1960s, and once more in the late 1990s. Following each of these three peaks, stocks fell in a multiyear sell-off, accompanied by a rally in gold.



**FIGURE 1.14** The plunge in the equity/gold ratio reflects the overall recovery in tangible versus monetary assets.

Once having peaked in 2000, stocks headed into a three-year bear market before recovering in 2003 and hitting new highs in late 2007. But as we saw earlier, stocks' 2003–2007 recovery did not prevent the equity/gold rally from extending its decline due to the accelerating advances in gold. (See Figure 1.15.)

The principal conclusion to be drawn from the near 90 years of equity/gold analysis is that each peak was followed by a full retracement to the lows preceding each advance. If this pattern holds into the future, then the equity/gold ratio has further declines ahead of it until recapturing the lows of the early 1980s. Whether this occurs via a faster decline in equities or persistent acceleration in gold's advances remains to be seen. Chapter 8 makes the case for a prolonged increase in the current commodities boom, in which gold will likely play a considerable role. The confluence of supply and demand factors boosting the broad commodity story suggests the bullish trend is unlikely to be reversed soon. Accordingly, prolonged declines in the equity/gold ratio will also imply that the real-asset values of tangibles such as metals, energy, and agriculture/food products will maintain their upward trajectory. A return in the equity/gold ratio to its low levels of the late 1970s through early 1980s is more than plausible.



**FIGURE 1.15** The equity/gold ratio recovered from its lows of March 2008, but the fundamentals underpinning commodities relative to equities suggest a limited rebound.

And while we are on the subject of the interaction between gold and monetary assets, it is worth weighing in on the current gold rally by comparing the amount of gold available versus the creation of monetary assets. Just as we have seen the ratio of major equity indexes to the price of gold falling to 13-year lows in late 2007, the ratio of total financial assets to physical gold is near the low end of its historical range. As a share of the valuation of all global stock markets and global bond markets, the world's available gold stands at a mere 3 to 4 percent, which is about four times lower than the ratio of the 1980s. Note how this difference in magnitude is similar to the aforementioned difference between the gold/equity ratio as of May 2008 and that of 1980, which was also four to five times greater.

# THE ROLE OF THE SPECULATORS

As the commodity boom got under way, much talk circulated regarding the role of speculators in accelerating the rally in commodities. Chapter 8 is devoted strictly to the fundamentals underpinning the rise in gold and metals as well as energy and agricultural commodities. But let us take a glance at the role of speculators in gold over the past 17 years.

Figure 1.16 indicates a fairly positive correlation between the price of gold and the amount of net long/short positions accumulated in the metal



**FIGURE 1.16** Speculators in gold futures contracts have helped boost gold prices but are not the main driver to the rally.

by futures speculators on the Chicago Mercantile Exchange in Chicago. Note, however, toward the end of the chart how the amount of interest plummeted from a record high of 201,859 net long contracts (more buyers than sellers) in October 2007 to an eight-year high of 74,343 net short contracts (more sellers than buyers) in January 2008. Despite the sharp reversal in net longs to net shorts during the three-month period, the price of gold remained on the rise, soaring from \$750 per ounce to \$895 per ounce over the same period. Thus, although the speculators have significantly curtailed their long positions, they could not reverse the price action in the metal, which was boosted by such events as the assassination of former Pakistani Prime Minister Benazir Bhutto, renewed erosion in U.S. and global financial markets over subprime loans in the United States, and aggressive interest rate cuts by the Federal Reserve.

# **GOLD IS PART OF A LARGER STORY**

In further supporting the notion that speculators are not the principal drivers of gold's run-up, the breadth of the commodities story acts as a firm testament to the realities favoring metals and the rest of commodities. Figure 1.17 illustrates the evolution of the various commodity groups since January 2001. Note how the gold rally preceded all other commodities, starting as early as the third quarter of 2001 before accelerating its advances in the first quarter of 2002 once the dollar had peaked. Gold rallied more than 35 percent between January 2001 and February 2003, until oil caught up with the metal later that month as oil traders bid up the fuel ahead of the 2003 Gulf War. The relationship between oil and the dollar is discussed in more detail in Chapter 2.

For currency investors, not only is it important to determine the trend in gold versus the dollar and other currencies, but it is also essential to assess its performance relative to other commodities. Thus, if a rally in gold is accompanied by other commodity groups, as was the case in 2003, 2004, and 2007, then the U.S. dollar is more likely to be subject to broader secular pressure. If, however, a strengthening in gold occurs independently of the other commodity groups, then the dollar has more chances of holding its own.

The expansion of global foreign exchange markets, along with the emergence of a new array of several economies from the developed and developing world, has given rise to a multitude of new currencies to be traded by institutional as well as individual players. Making decisions about which currencies offer the most profitable opportunities can be as challenging as it is costly. Using gold as a common denominator measure of a group of



**FIGURE 1.17** Gold's bull market preceded other commodities by nearly a year, before the dollar decline triggered a more universal rally in commodities.

currencies enables one to rank these different currencies by order of performance, thereby facilitating the decision to buy the stronger currencies versus their weakest counterparts. For contrarian investors preferring to pick up trends before they occur, a similar exercise may be used to buy and sell currencies near the top and bottom of the ranking of returns. Besides currency valuation and ranking, traders may also compare gold's performance with that of other commodities to gauge whether the metal's behavior is part of an overall commodity trend or an exceptional phase pertaining to it exclusively.

Global financial markets have become more interconnected than they ever were in the past. Identifying the evolving forces shaping broader currency flows via gold is a prerequisite in grasping the currency-commodity relationship, which is explored in more detail in Chapter 8.