

# Will the Dow Jones Get to 2,000 Before Gold Gets to \$1,000?

Robert Z. Aliber

Graduate School  
of Business

The University  
of Chicago

Robert Z. Aliber is professor of international economics and finance and director of the Center for Studies in International Finance at the Graduate School of Business of the University of Chicago. He received an A.B. from Williams College, an A.B. and an A.M. from Cambridge University, and a Ph.D. from Yale University. Before joining the Chicago faculty in 1965, Professor Aliber was a senior economic adviser for the Agency for International Development (1964-65) and staff economist for the Committee for Economic Development (1961-64) and for the Commission on Money and Credit (1959-61). In addition to lecturing extensively in the United States and abroad, he has been a visiting scholar at the Federal Reserve Bank of San Francisco, professor at the Salzburg Seminar in American Studies, and National Westminster Professor of International Finance at the London Graduate School of Business Studies. He has served as consultant to the Board of Governors of the Federal Reserve System and other U.S. government agencies, to the World Bank and International Monetary Fund, and to research institutes and private firms; he has also testified before several congressional committees,

Professor Aliber has written extensively about exchange rates, gold, and international finance and banking. His recent publications include: *The International Money Game* (4th ed.), 1983; *Money, Banking*, and the *Economy* (2nd ed.) (with Thomas Mayer and James S. Dusenberry), 1983; *Your Money and Your Life*, 1982; *Stabilizing World Monetary Arrangements*, 1979; and *Exchange Risk and Corporate International Finance*, 1979.

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## *Introduction*

Over the last decade or so it's been instructive to follow the *Wall Street Journal* investment advertisements of the precious metal houses like the International Gold Bullion Exchange, the Bullion Reserve of North America, the International Metals Exchange Ltd., and the Mincal Resources Corporation as well as the International Diamond Exchange. Regardless of location, their pitches were similar-if you bought their goodies, you could beat inflation. You could call the 800 numbers and learn that silver would be up \$2 by the end of the month. The International Diamond Corporation guaranteed to buy your diamonds back at your purchase price-although in the end there was no one around to guarantee its guarantee. Alan Saxon ran the Bullion Reserve of North America into a \$60 million hole; after his customers demanded their accounts be liquidated, Saxon engaged in self-liquidation. The Alderdice brothers of Miami, owners of the International Gold Bullion Exchange, promised precious metals at below-cost prices to customers willing to wait for delivery. Some customers are still waiting, for most of these firms are bankrupt. It's clear they were Ponzi operations, able to stay in business only as long as the price of gold and the price of diamonds continued to rise. They lived off the float, for today's buyers would receive gold six or eight weeks in the future. As long as the price of gold was increasing, everyone was happy.

These precious metal houses traded on the idea that gold and diamonds were good inflation hedges. They were more than right. When the inflation rate was rising, the price of gold increased more rapidly than the inflation rate. So did the price of diamonds. Ian

Fleming reminded us that diamonds are forever, but he also warned us that their price may fall.

There are three topics on today's agenda. The first is to explain changes in the market price of gold, especially the big price swings of the last decade. The second centers on presenting stylized facts about the Dow Jones over the last three or four decades. Finally, the third involves plausible stories about the price of gold compared with the Dow Jones under a number of inflation scenarios for the United States.

### *Gold*

Investors were attracted to gold in the 1970s in the belief that it was an inflation hedge. The source of this belief is a puzzle, since during most of the 200 years of the U.S. Republic, gold was near the bottom of the list of inflation hedges—a paradoxical result of the U.S. government's price-fixing policy. The real rate of return on gold was usually negative because while the consumer price level increased the dollar price of gold was fixed or pegged. During and after World War I, for example, the U.S. consumer price level more than doubled, but the dollar price of gold remained unchanged at \$20.67. So the real value of gold fell. During and after World War II, say from 1940-1952, the U.S. price level nearly doubled; this time the dollar price of gold was unchanged at \$35. Indeed the U.S. price of gold went up only once from the time of George Washington to the 1970s. In 1934, in response to a 30 percent decline in the consumer price level and a large number of business failures, President Roosevelt tried to double the U.S. dollar price of gold from \$20.67 to \$41. He

believed that if he raised the price of gold he could reverse the decline in the consumer price level; then bankruptcies would decline, and the U.S. economy would get going again. Obviously, gold wasn't an inflation hedge then.

The one episode in U.S. history where gold was an inflation hedge was during the Civil War. Then the dollar price of gold increased to match the increase in the U.S. price level, which more or less matched the increase in the dollar price of sterling. Sterling was pegged to gold, and any change in the U.S. dollar price of sterling would be reflected in the U.S. dollar price of gold. After the Civil War, the U.S. price level fell, and so the dollar price of gold fell. Gold thus proved to be an inflation hedge; but the price of gold increased at about the same pace as the price of the market basket of goods.

During inflations the price of virtually every commodity increases; that is what an inflation hedge is all about. Indeed, there is little reason to believe that the price of one commodity is likely to increase significantly more rapidly than the prices of other basic commodities. During inflation, the prices of all real assets-rare books and postage stamps, farmland and real estate, Chippendale originals and Chippendale reproductions-tend to increase. The Franklin Mint recognized this demand by producing in sterling silver limited editions of the flags of the fifty states and busts of the great presidents-although they had an unlimited number of limited editions. True, the prices of some inflation hedges will increase more rapidly because they are easier to use as hedges.

The increase in the dollar price of gold in the 1970s was unexpected by most political

forecasters and most academicians. A few investment advisers, like Franz Pick and Harry Schultz, did predict the rise, but they were generally considered mavericks on the fringe. A few academic economists-very few-thought that the price of gold would have to be increased, but few had any sense of the magnitude. Aliber's First Law that no price is fixed forever led to the view that the U.S. dollar price of gold would have to be increased and to an earlier departure from Washington than my family had anticipated. Yet in the mid-60s, I was writing about a \$70 gold price; by the late 1960s a price of \$100 seemed possible, though unlikely.

Initially, the price of gold went up by about as much as world commodity prices. In 1970, world consumer prices increased by 6.1 percent, while the price of gold increased by 6.1 percent. In 1971, the consumer price level increased by 6 percent; the price of gold, by 17 percent. In 1972, the consumer price level again increased by 6 percent; the price of gold, by 75 percent. From 1971 on, there was no apparent systematic relationship between changes in the consumer price level and the price of gold. By mid-1972 there was a bubble in the price, and the increase fed on itself, people bought gold because the price had been increasing and they expected the price to continue to increase-for a while. The greater fool theory applied. Investors were buying gold knowing that the price increases couldn't continue indefinitely. Each hoped to sell before the bubble burst.

The price of gold began to rise in 1976 and peaked at a price of nearly \$1,000 an ounce in the third week of January 1980, three months after the Federal Reserve had changed its operating procedures to bring about a tougher anti-inflation policy.

For most of the past year, gold has been trading in the \$300-\$400 range. When interest rates on dollar securities fall, gold prices rise. When interest rates rise, gold prices decrease. These changes in the spot price of gold reflect that the current price of gold is the anticipated price for some distant future date discounted to the present by the interest rate. So, with interest rates of 12 percent on riskless securities, investors appear to believe that the price of gold will increase by 12 percent a year-more or less. The "more" involves the premium for holding a risky asset. And the "less" involves the convenience yield which traditionally was estimated at about 3 or 4 percent.

The opportunity cost of holding gold today is probably about 8 percent; this cost is the nominal return on riskless securities, so the current price of gold already embodies an anticipated rate of a price increase of 8 percent. The major reason for buying gold today would be the belief that the inflation rate is going to exceed 8 percent a year and hence that the price of gold will rise by more than 8 percent. Whether the current gold price is reasonable depends on a view of the inflation rate for the next decade.

#### *Ups and Downs with the Dow Jones*

The Dow Jones reached 1,000 for the first time in 1968. The pace of the price increase in previous decades was extensive; the Dow was 200 in 1950 and 600 in 1960. The annual rate of increase was 12 percent in the first decade and 9 percent between 1960 and 1968. The decade of the 1950s was one of low inflation. During the 1950s, the Dow increased more rapidly than U.S. economic growth and corporate profits. The value of the Dow in the 1940s was clouded by the

memory of the Great Depression with the result that the Great Bull Market of the 1950s can be viewed as a belated response to the increase in corporate profits that occurred in the 1940s. Similarly, inflation in the first half of the 1960s was low-about 1 percent a year.

In the 1960s the sales pitch for common stocks was that they were an inflation hedge. The story was straightforward: the price of equities was supposed to increase with the commodity price level because corporate profits were supposed to rise with the consumer price level.

Part of the story proved true in the 1970s. Corporate profits increased about as rapidly as the consumer price level. Dividends increased almost as rapidly as corporate profits. Yet equities proved to be an inferior inflation hedge. The Dow Jones was 850 in mid-1982. The real value of common stocks fell by almost a hundred percent when deflated by the increase in the consumer price level.

The story, or at least my story, is that as the inflation rate increased, interest rates increased and bond prices fell; as bond prices fell, stock prices fell. Interest rates went up by a factor of three, from 5 percent on long-term government bonds in the late 1960s to 15 percent in late 1981. And when bond prices fell, stock prices fell sharply.

In retrospect, what went wrong with the premise that stock prices would rise with inflation was that the impact of inflation on the level of interest rates was ignored. The purchase of an equity is the purchase of an anticipated return. And when inflation increases, these anticipated future returns are discounted to the present by the higher interest rates. And the interest-rate element has a

greater impact on current prices than the increase in anticipated profits.

Moreover, when interest rates went up, the price of growth stocks fell by more than the price of dividend-paying stocks. The price of long-term bonds fell by more than the price of short-term bonds. And the price of stocks fell by more than the price of long-term bonds.

The purchase of equities is like the purchase of gold; it involves discounting the future returns, presumably at interest rates that are not very different. When the rate of inflation goes up, why do the prices of gold and other real assets go up while the prices of equities fall?

Commodities outperform financial assets when the inflation rate increases for several reasons. One reason, the differential taxation of ordinary income and of capital gains, has two stories. The tax rate on capital gains is only 20 percent of the tax rate on ordinary income, and, for some taxpayers, capital gains on real assets aren't taxed because they don't report the gain. Another reason is that inflation taxes capital because the tax system is based on historic cost rather than on replacement cost. And to some extent stock prices fell in the early 1970s because the "bubble," a very small bubble, associated with the Great Bull Market of the 1950s and the 1960s, was being deflated.

### *The Inflation Outlook, and the Price of Gold and Equities*

To bet whether the Dow will get to 2,000 before the price of gold gets to \$1,000 requires a view on the U.S. inflation rate over the next several years. If the U.S. inflation rate increases significantly, the price of gold is

was it instead a supply-side story about cost-push? Or is it both? The cost-push pressures appear because the demand expansion is sustained too long.

A number of different approaches toward the inflation rate can be identified. The monetarists' view is that the rate of money-supply growth two years ago can be used—after adjusting for changes in the demand for money—to predict inflation. The model of one of my favorite monetarists forecasts a 5 percent inflation rate for 1985 on this basis. He doesn't like the results, so some ad hoc adjustments are used to get to a 7 percent inflation rate.

One structural view is that firms are able to pass on price increases when the rate of capacity utilization exceeds 81 or 82 percent. Currently the level of capacity utilization is about 80.7 percent. Steel and textile capacity should be viewed in international terms rather than domestic terms. Excess capacity in those basic industries outside the United States is substantially higher than inside the United States. Food prices are up 18 percent year on year, while nonfood commodity prices are up only 2 percent. True, the foreign exchange value of the dollar eventually will fall; a 10 percent decline might be associated with an increase in the consumer price level of 1 to 2 percent.

A second structural approach for obtaining an estimate of the inflation rate uses the rate of increase in wage settlements, adjusted for productivity gains; in this story the price level rises to reflect increases in labor costs or in the core inflation rate. The wage increase in many industries is no more than 5 percent, which is only a few percentage points more than the likely increase in productivity. What strikes the casual observer is the number of

industries in which cuts in wages have been occurring. Many of these industries are those traditionally associated with large wage settlements, especially when business has been good.

The free-rider approach to forecasts is to take the consensus forecast for the inflation rate, which is 4.9 percent for 1984, and either accept or adjust the results. The actual inflation rate for 1983 was 3.2 percent. The consensus forecast is only modestly below the forecast embodied in interest rates. My own view is that the consensus forecast is on the high side of the likely inflation rate.

Three distinct inflationary scenarios can be identified. One scenario is more or less already embedded in current interest rates and more or less consistent with the consensus forecast. This scenario assumes an inflation rate of 6 to 7 percent a year from now until the end of time. Moreover, there would be no significant changes in interest rates under this inflation scenario. The market price of gold would increase by 6 percent a year. Twelve years from now, the price of gold would be \$800 rather than \$400. Fifteen years from now—more or less the end of this century—the price of gold would reach \$1,000.

Under the six-percent-a-year inflation scenario, the total increase in the price of equities would be 11 percent a year, which is the sum of the increase in equity prices in a noninflationary environment of 5 percent plus an inflation rate of 6 percent. With the Dow now at 1,150, reaching 2,000 would take about six years, or 1,990 plus or minus a few months. So the Dow would get to 2,000 a decade before gold gets to \$1,000.

One thing we know, however, is that inflation is rarely constant from one year to the

next, especially when its level is significantly above zero. Traditionally, the inflation rate rises in expansions and falls in contractions. Thus the average inflation rate over the next few years will either be higher or lower than 6 percent. If the increase in inflation during an expansion exceeds the decline in a contraction, the inflation rate rises. This was the story of the 1971-75 cycle. Alternatively, the decline in inflation during contraction might exceed the increase in expansion. Then the inflation rate would fall, as was the story from 1976 to 1983.

Assume that the scenario for the next several years is for more robust increases in the consumer price level than are now apparent. For example, one might assume that the trough-to-peak increase in the inflation rate would be seven percentage points, comparable to the increase in the late 1970s cycle. Seven percentage points may not sound very large, but it's four to five percentage points higher than is now forecast in financial markets and would mean a 1985 inflation rate of 10 percent. The impact of this inflation scenario on the price of gold depends on whether real interest rates fall or rise. To the extent real interest rates fall, the price of gold might rise; and there's a nontrivial likelihood that it could rise enough to trigger the launching of a bubble. The likelihood of a significant decline in real interest rates seems low. So the price of gold is more likely to fall than to rise. And equity prices would also decline.

Consider the second alternative to a consensus forecast, namely that the inflation rate falls over the next several years. This scenario assures a trough-to-peak increase in the inflation rate of two to three percentage points, more or less comparable to the increases in