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GOLD AND PRICE STABILITY

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It is a pleasure to be here with you this evening at the First Annual COMEX Gold Dinner. Tonight I would like to share with you some of my thoughts on the roles that the price of gold and the prices of commodities can serve for the economy generally and for policymakers in particular. I would like to begin by discussing how these prices can help guide us toward our ultimate objective of price stability. Then I would like to review some of the lessons that the gold standard taught us. And finally I want to reassure you that I remain fully committed to the principle of price level stability. Moreover, I believe that that objective can be brought closer to realization if we react promptly to the signals provided by producer prices, commodity prices, and the price of gold.

No central banker needs to be reminded that before there were central banks and even before there were banks, there was gold. At various times in history, gold has played not just a useful role, but a central role, in the fortunes of nations and in the conduct of monetary policy. Its role is now different. It no longer is used as a reserve settlement asset among central banks. Some things have not changed, however. As always, the price of gold serves as a timely and sensitive barometer of the world's perceptions about monetary policy. But now the price of gold is free from its gold dollar parity role, which permits the price of gold to be a sensitive barometer that conveys

information valued both by those affected by policy and by those who make it.

Since 1979, the Federal Reserve has directed its policies to achieve the goal of moving toward price stability. An integral part of our commitment to expunge inflation from American economic life is to do so both in a moderate way so as to avoid sharp short-run output and employment consequences, but also in a credible way so as to ensure that everyone understands that we will persist until the goal has been realized. for this policy has been widespread throughout the ranks of professional economists, throughout the business community, and across the country. In its reflection of the public will lies the credibility of this objective. That support is buttressed by the memories of the dislocations and pain of the inflation of the That support is also strengthened by the gradualist 1970s. aspect of the policy of moving toward price stability that has helped minimize short-run disruptions. Still, short-run costs have not been completely avoided, and when they become apparent, the strength of support for a policy of price stability is tested. Moreover, a policy of gradualism itself does not necessarily guarantee that the path to price stability will be smooth on all fronts. The expectations of inflation on the part of the public, which are important components of interest rates, especially on the long end, may adjust in a less gradual way than inflation itself, with consequent reverberations on asset prices. Such disruptions may also test the strength of support for the underlying policy.

When inflation was in double digits, there was no doubt about whether the economy was experiencing a serious depreciation of its currency. A decade ago, people expected oil prices to rise to \$60 or \$100 a barrel, other prices were expected to follow. People believed inflation would never end. But now that so much progress has been made in reducing the inflation rate, and the Fed continues in its commitment to move toward price stability, a different question is sometimes asked: How will we know when we have reached price stability? Chairman Greenspan has suggested one way to judge whether the goal of price stability has been achieved: when concern about changes in the aggregate price level no longer figure prominently in the economic and financial decisions and arrangements of businesses and households.

In addition, it would be useful to have quantitative guides. If it were possible to measure prices perfectly, we could judge price stability as having been attained when the inflation rate as measured by the consumer price index, for example, were approximately zero for some period of time. But, it is often thought that measured inflation overstates the actual inflation rate. An upward bias in our measures of inflation can arise from the difficulty of accurately measuring the prices of services and also from inadequately allowing for the quality change that occurs when new products are introduced but are not incorporated into the index. In medical services new procedures are constantly being added but are not counted.

One way to lessen the different problem of measuring the value of services, for example, would be to focus on the producer price index for finished goods, although new products are a problem there as well. To some extent the PPI has fewer measurement problems than, say, the CPI. Consequently we could look to it as a useful proxy for the price measure we are ultimately concerned with. Accordingly, maintaining a stable level of the PPI would seem to be, in effect, a checkpoint in our progress toward a constant value of the CPI level. In addition. the PPI may serve as a more sensitive barometer of overall price pressures. Since wholesale goods prices may react more rapidly to shifts in supply and demand than do retail prices for goods and services, the PPI for finished goods may prove to be a more timely indicator of the effects of monetary policy on prices in general.

Even the PPI has its drawbacks, however. That price measure alone cannot always be expected to indicate whether the economy remains on a track toward price stability. In the short run, it may register sudden decreases or increases as a result of sharp changes in the prices of specific components of the index. Among the most volatile components of the PPI index in recent years have been the prices of food and energy. We saw this effect after oil prices plummeted in 1986, after the 1988 drought in the farm belt, and after the 1990 oil price shock. At times like these, an index like the PPI for finished goods ex food and energy are likely to give a clearer picture of underlying price trends. As such, we could use it as a check against our becoming

too optimistic or pessimistic about progress toward our goals when the PPI for finished goods are impacted by identifiable industry problems.

A drawback of even that subset of the PPI measure, however, is that some of its prices may respond sluggishly to actual and perceived circumstances and policies. The prices of commodities, on the other hand, are not likely to move sluggishly. Like the prices of financial assets, the prices of these physical assets are likely to respond virtually immediately and completely to changing assessments of conditions generally and to the outlook for inflation particularly. The uptick in commodity prices from mid-1986 to mid-1987 presaged an overheating economy and a rise in the inflation rate. Two and one half years ago, the weakness in commodity prices proved again to have been a leading indicator for the generally downward trajectory in the inflation rate. Further, since many important commodities trade in auction markets, they can instantly provide price data measured with a level of precision that other price indexes cannot hope to match.

Another advantage of commodity prices as an indicator may be that the relationships between them and future inflation are less subject to some of the shifts that can upset other relationships. Experience, some recent and some not so recent, has shown that the money supply, interest rates, and other indicators are sometimes useful guides, but can also be unreliable at times.

Which brings us back to consider gold. The price of gold is one of the most sensitive barometers of expectations of future inflation. More than for most commodities, changes in the price of gold are primarily reflections of changes in inflation expectations. As in the determination of any price, other supply and demand forces may also come into play, of course, but relative to inflation expectations they tend to be short-lived influences. For example, when new information about the supposed level of official gold stocks in the Soviet Union or its constituent republics came into the market a few weeks ago, the price of gold adjusted rather quickly. However, once new information like this is evaluated and assimilated, the adjustment in the price of gold largely ends. Changes in inflation expectations, by contrast, impart a lasting change to the trend of movements in the price of gold.

At times in the past, these interesting properties of the price of gold have led people to try to exploit it as a means to control inflation directly. By adopting a gold standard, these societies attempted to let the movements of gold into and out of their economies determine the money supply and therefore the price level. The notion generally was that if a currency could be credibly tied in a permanent way to gold, an automatic mechanism would be in place to avoid bouts of chronic inflation, or chronic deflation, for that matter. The overall price level might change, even for substantial periods of time, but the self-correcting mechanisms embodied in the gold standard would eventually reverse these movements and restore the pre-existing

overall level of prices. At the same time, there would be no interference with the movement of relative prices, which is necessary in order to ensure the best allocation of resources among competing uses.

These commitments to price stability in the gold market as a means to general price level stability have not always worked as well in practice as their proponents had hoped. Changing external conditions have often provided the need or the excuse to break the commitment to gold and accept the inevitable inflationary consequences.

As you know, the United States was on the gold standard in the years leading up to the time when the Federal Reserve was created. In fact, though it was born of the Banking Panic of 1907, to which perceived rigidities in the gold standard may have contributed, the Federal Reserve was arguably meant to serve as the central institution through which the pre-existing international gold standard would operate in the United States. Federal Reserve notes and deposit liabilities were restricted not to exceed specific multiples of the Fed's gold holdings in Fed vaults. Member banks were required to deposit reserves, generally in specie, at their Federal Reserve Bank. As gold moved into and out of the country in response to changes in prices and economic activity here relative to those abroad, it was assumed that these inflows and outflows would influence the stock of high-powered money, thereby supposedly influencing the price level and causing adjustments in economic activity that

would tend to correct the relative imbalances that had induced the gold movements.

Of course the Federal Reserve System had another goal at the same time. This was to provide an "elastic" currency that would prevent banking panics, like the one in 1907. Panics are the result of shifts in the public's desired ratio between bank deposits and currency that cannot be accommodated by the banks. The Federal Reserve was to provide short-term liquidity relief to banks faced with demands to convert their deposit liabilities to "lawful money," namely, gold or currency. By keeping Federal Reserve notes "as good as gold," the gold-standard rules under which the Fed operated were also meant to contribute to the public's confidence in Federal Reserve notes and its willingness to accept them in exchange for bank deposits. Thus, the Fed initially represented an effort to maintain gold parity, while tempering the rigidities of the gold standard by introducing a degree of flexibility.

Unfortunately, wartime conditions erupted almost immediately after the founding of the Federal Reserve. These conditions provided a test of whether the political will existed to maintain an international agreement such as the gold standard during a severe crisis like World War I. In this instance, changed political and economic objectives resulted in an abandonment of the prewar commitment to price level stability among the belligerents.

As a neutral country, the U.S. did not immediately go on a wartime footing, but it did experience a surge in external

demand from the Allies. Payment for these exports was largely in gold, and these gold inflows led to a great expansion of Federal Reserve deposits and notes, with a consequent increase in the price level. By one measure, wholesale prices rose 18 per cent per annum from June 1914 through March 1917. The Federal Reserve did not actively attempt to sterilize these gold inflows, in part because it had no non-gold assets to sell in order to offset the gold-based expansion in its liabilities, but also because the Federal Reserve Board and the Reserve Bank governors did not clearly understand sterilization as an option. Moreover, they likely would not have considered sterilization in any event, as sterilization would not have been consistent with "the rules of the game." The wartime gold flows and inflation were regarded as temporary phenomena that would surely be reversed once hostilities ceased.

Among the Allies, however, a different response to the "rules of the game" emerged. These countries were capable of at least partially sterilizing the gold outflows they were experiencing, and they had powerful incentives to do so. Even if they, like the United States, believed that the wartime forces were transitory and would be reversed later, they could not afford to allow the gold outflows released by those forces to dampen economic activity, reducing imports and freeing up domestic resources for exports. Instead, they needed to ensure that both domestic resources and imports would continue to be available for the war. As a result, the war saw the curious outcome that even more inflation was observed in the Allied

countries that were losing gold than in the U.S., which illustrates that the results for everyone change when there is even a temporary abandonment of the rules of the gold standard by one or more countries.

This little foray into the early history of the Fed under a gold standard is an example of how a mechanism for automatically achieving price level stability, like the gold-flow type of gold standard, can be disrupted by changing circumstances. The commitment to gold among the Allies gave way to a greater need to prosecute the war. On the U.S. side, where no means were available to offset the effects of the inflows of gold produced by the war, the mechanism designed to promote price level stability led instead to inflation.

An alternative means of exploiting gold in the service of price level stability is gold-price targeting, about which I will have more to say later. By adjusting policy according to the signals provided by the sensitive barometer of gold, the monetary authorities could, I believe, achieve many of the benefits of a gold standard without the rigid rules of gold flows. This approach might improve the durability—and therefore the credibility—of the authorities' commitment to price stability.

I believe there is much to be learned from the lessons of history. Another interesting episode in U.S. financial history took place a few years later, when the Federal Reserve, having by then discovered how to influence credit conditions through open market operations, began to conduct monetary policy

in a way that today would be labelled "discretionary." Since the country nominally remained on the gold standard during this period, it might be thought of as a time of a discretionary or "managed" gold standard.

As an institution largely based on gold in the early years of its existence, the Fed had few earning assets. To finance expenses, the Federal Reserve Banks relied heavily on assessments levied on member banks, as well as on earnings from their discounting operations. Over time, however, the Federal Reserve Banks began to acquire portfolios of government securities, primarily as an additional source of income. In what seemed a curious development at the time, fluctuations in the pace of these acquisitions were observed to be negatively correlated with fluctuations in the volume of discounting sought by member banks. As this phenomenon came under scrutiny, it began to become apparent that the accumulation of assets by the Federal Reserve Banks affected credit conditions more or less equally whether the assets acquired were gold, commercial paper (known as real bills), or government securities.

With this new understanding, the Federal Reserve began to behave more like what we think of as a central bank that creates high-powered money. A committee was formed in 1922 to coordinate the Fed's credit activities—a precursor of the FOMC. The System began to use its independent influence over credit conditions to sterilize movements of gold into and out of the United States. For most of the Twenties, Federal Reserve credit adjustments largely offset the monetary effects of gold movements

across U.S. borders, even when the country-by-country return to a gold standard affected gold flows to the United States. In the early years, this practice seemed justified by the unsettled post-war conditions and uncertainty in market expectations about a European return to gold. Depending on what price for gold might be chosen in European countries, a generalized return to gold was recognized as potentially leading to large inflows or outflows of gold from the U.S., unrelated to relative prices and activity in the U.S. and Europe. Speculative flows of gold induced by these uncertainties were not permitted to affect credit conditions in the United States.

Where this approach went wrong, in my opinion, was its continuation after the resumption of gold parities in Europe. The European return to gold was meant to reintroduce the automatic rules of the gold standard. On this side of the Atlantic, by contrast, a discretionary system was in fact in place, notwithstanding the nominal adherence to gold. automatic international gold standard is incompatible with a discretionary policy regime. When gold inflows into the United States were sterilized, it meant that the entire burden of international adjustment fell on the countries with the gold outflows. The sterilization of gold flows that would otherwise have had monetary effects in the U.S. prevented the signals that were meant to be associated with these flows from exerting their corrective influence on the underlying imbalances between the United States and Europe. The result was a cumulation of imbalances and a chronic inflow of gold to this country.

I am simplifying history a good bit here, of course, but again my purpose is to draw a lesson. Here we had a case where a discretionary policy of sterilizing gold movements for a time protected the economy from speculative shocks. Eventually, however, this same protective discretion became a means for shielding economic activity and prices from influences in the external economy that needed to be felt.

Even though the automatic version of the gold standard could not prevail under a regime of sterilized gold flows, I believe that the sensitivity of gold prices to inflation expectations and the immediacy of the information about changes in such expectations that is afforded by the auction markets where gold is traded recommend a strategy that takes the greatest possible advantage of these characteristics. Accordingly, I watch with interest movements in the price of gold.

It has even been suggested by some Fed-watchers that I would be in favor of targeting the price of gold at some particular price, say, \$350 an ounce. Under such a program, the Federal Reserve would tend to tighten the monetary reins somewhat whenever the price of gold moved more than transitorily above the target, and we would loosen when the price fell below that level.

Since the price of gold was about \$350 an ounce when I began my term of office in February 1986, I have sometimes mentioned \$350 in examples I have given of gold-price targeting. It does give me some comfort that the price of gold has not trended up or down during the last 5-1/2 years. However, I have not said that \$350 an ounce is the "right" price for gold, and,

indeed, I do not know precisely what the right price would be. I am confident that sound money, which means price level stability, will be accompanied by a reasonably stable price of gold. I am also sure that persistent shifts in the trend of the price of gold can tell us much about the state of inflation expectations in the economy and can therefore provide important signals to the Federal Reserve about the proper course of action. The idea of a gold-price target is therefore appealing.

At least three considerations have to be weighed before adopting a particular target for the price of gold. In the first place, some difficulties lurk in the choice of the "right" price. A choice that turns out to have been too high, relative to the general price level would tend to permit a continuation or possibly even an acceleration of the prevailing rate of inflation as the general price level caught up to the target price of gold. Likewise, a choice that turns out to have been too low would set in train sharp deflationary forces that would tend to curtail economic activity. A fortuitous choice of a price between these extremes would confer highly desirable benefits of gradual disinflation. And it is tempting to view \$350 an ounce as a realistic target in light of the pattern of fluctuations around that level over the past 5-1/2 years, including the recent period of monetary restraint. But, since we have come such a long way already in bringing down chronic inflation, it would be a high price to pay to choose a target that might unleash new upward forces on the overall level of prices.

A second reason for being cautious in explicitly setting a gold-price target is that, once the target is adopted, we will lose the advantage of the exceptional signalling properties of the price of gold. The weight of Federal Reserve monetary policy aimed at a price of, say, \$350 an ounce would tend to fix the price at \$350. A price for gold that is constant will no longer tell us what it could about changes in inflation expectations.

A third reason for not announcing a target price for gold is political. Under the Full Employment Act of 1946 as amended by the Humphrey-Hawkins Act, the Federal Reserve is mandated to attempt to control inflation by setting targets for monetary aggregates, which are reported to the Congress semiannually. No political consensus for changing this system has yet been marshalled, least of all, to my knowledge, by the Federal Reserve. If a majority of the Board of Governors and the Reserve Bank presidents on the FOMC favor such a step, that development would have to be characterized as one of the "secrets of the temple" -- and one that has not yet been shared with me.

But even though we are not ready to adopt a target level for the price of gold, the indicator value of the price of gold remains important to a strategy of price level targeting.

Our money should be, and should be perceived as being, a lasting standard of value. It should not be debased by continual price increases. Properly measured, neither consumer prices nor producer prices should be allowed to drift up over time. Prices of commodities, including gold, should not be expected to trend upward over time on account of generalized inflation pressures.

Prices of individual commodities would still fluctuate under pressures from supply and demand, and these changes would be welcome. They would represent the vital flexibility in relative prices that assures the proper allocation of resources in a free-market system. But such movements would not represent an overall decline in the value of money.

The ultimate objective of monetary policy is price level stability. I continue to advocate generalized price level targeting as the most efficient course to sustain and enhance economic growth. The level of commodity prices, the level of producer prices, and finally the level of consumer prices can be stabilized to the benefit of economic growth. Once these stable price level conditions are realized, I would expect the price of gold to remain stable as well.