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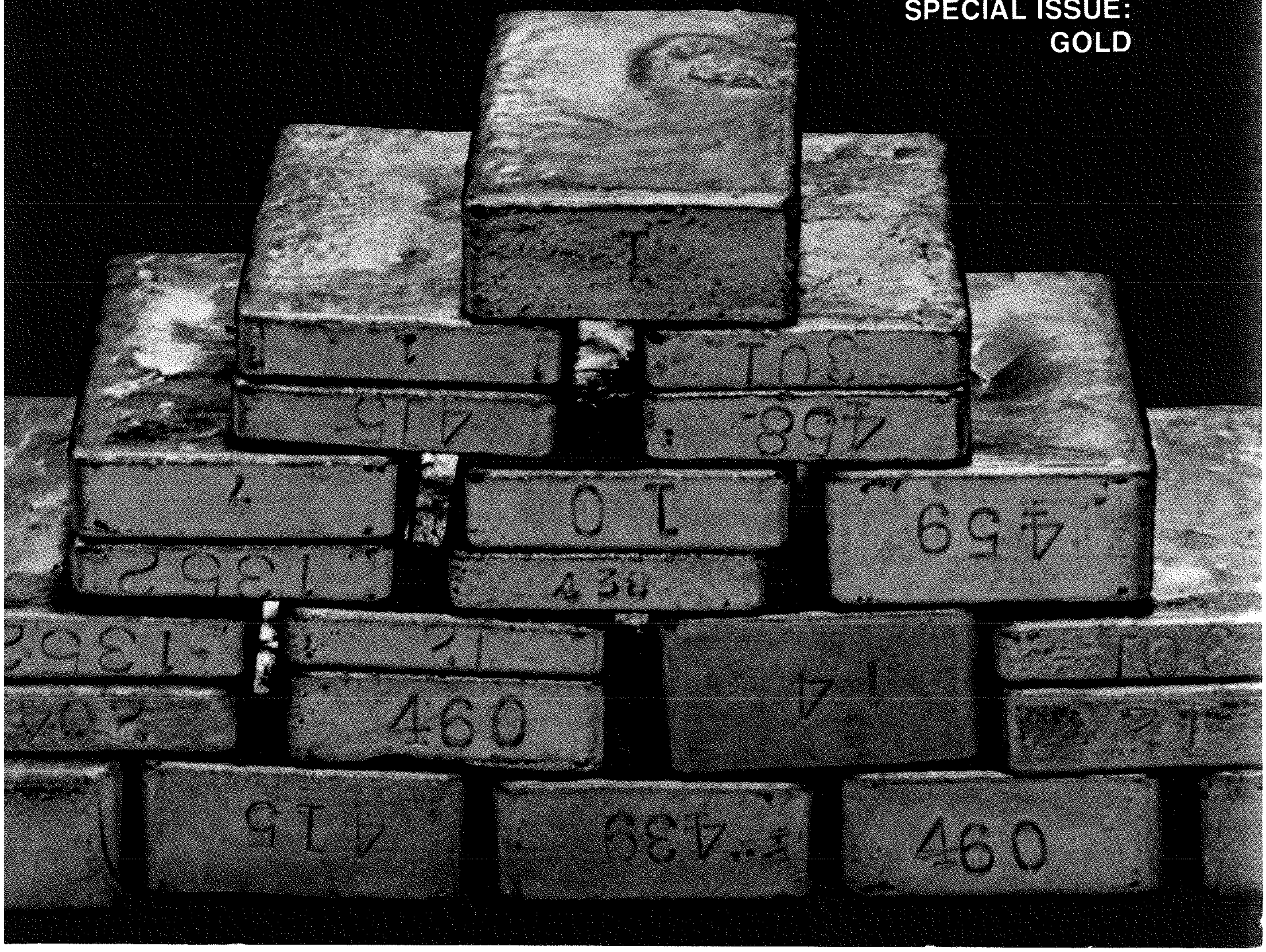

The Changing Role of Gold in the International Monetary System

By Hang-Sheng Cheng and Nicholas P. Sargen

Without any fanfare, the United States has now closed a long chapter in its monetary history. On December 31, 1974, the Government revoked a 41-year ban on U.S. citizens' ownership of gold, and a week later, on January 6, 1975, it started auctioning a portion of its gold stock on the open market. These actions not only signaled the U.S. Government's decision to end the monetary role of gold, but also called into question the metal's future role in the world economy. Symbolically, the auction was conducted not by the U.S. Treasury, a monetary authority, but rather by the General Services Administration, a housekeeping arm of the U.S. Government. Thus, in a quiet way the U.S. Government suggested to the world that henceforth it will handle its gold in the same way it handles its used office furniture.

This historical decision presaging an end to the monetary role of gold has important implications for the world at large. As far back as mankind's memory extends, gold has been associated with money as a store of value, as a means of payment, and as a backing for national currencies. Because of the deep-rooted association of gold with money, many people will continue to regard gold as a prime financial asset for a long time into the future. Advocates of gold will question not only the Government's wisdom in attempting to demonetize the metal, but even its ability to end unilaterally the monetary role of gold, either in the international monetary system or in the minds of the public.

Subsequent to the U.S. actions, France announced on January 9 a revaluation of its official gold holdings, from the former official price of \$42.22 per ounce to \$170.40 per ounce, in order to bring the valuation closer to the market price of gold. It also declared that another revaluation would be made six months later. The operational meaning of the French decision was unclear, since nothing was said about the intended relationship, if any, between the "valuation price" and future official gold transactions. Since France holds the world's third largest official gold reserves[1] and has long advocated a stronger international role for gold, its policy will undoubtedly have a very large influence on the metal's future.

In this atmosphere of controversy and uncertainty, it is essential that the public obtain a clear understanding of the changing role of gold in the international monetary system. In the gold market, perhaps more than in any other market, demand and supply conditions depend crucially on what governments do with their huge stock of the commodity.[2] Although predictions are difficult to make, it is well to remember that there is a long evolutionary process behind recent government actions, as well as a certain logic that limits and compels policy decisions.

The next section provides an historical perspective on the role of gold in international finance. The third and fourth sections then consider the rationale of recent Government actions towards demonetizing gold, especially in view of the criticism that much of the recent financial disorder, national and international, can be traced to the gradual abandonment of the gold standard. The final section explores the future prospects of gold in the international monetary system.

After examining the various options available to governments, we conclude that the prospects for a resurrection of gold are rather dim. Unless a new "gold-center country" emerges to buy and sell gold at fixed "official" prices—which appears unlikely—gold will soon join silver as just another relic of the past. If, as seems likely, the mystique of gold does begin to fade away, there might be a scramble of governments to sell off gold but few buyers for the metal. The market price conceivably could tumble very sharply in view of the huge official gold stocks relative to the potential size of the world gold market. In that case, an international agreement might become necessary to maintain the value of official gold holdings for preserving national savings already embodied in such assets. The International Monetary Fund possibly could function as an ultimate depository of unwanted official gold in exchange for Special Drawing Rights (SDRs) at some agreed official price. In any event, some contingency planning might be needed in order to forestall large-scale dumping of official gold, which could result in disorderly conditions in the market to the detriment of the interests of gold producers, users, and holders alike.

Historical Perspective

The international gold standard, although extinct in practice, continues to survive in the minds of men today. Intelligent laymen frequently ask, "If the dollar is not backed by gold, what holds up its value?" Such misgivings are deeply rooted in tradition. Historically, the value of money in most major countries was anchored on gold. For centuries gold coins circulated within those countries as well as across national boundaries as a generally accepted means of payment. Throughout the nineteenth century, especially during the last quarter of the century, monetary authorities were above all concerned with maintaining the public's confidence in the national currency by insuring its convertibility into gold.

This mode of official thinking lasted well into the twentieth century, long after most nations abandoned the gold standard in the 1930's. Although private citizens could no longer convert dollars into gold, U.S. monetary authorities continued in the 1960's to speak of the need to "defend the dollar" at its then par value of $35 per ounce of gold. When that value became indefensible, the dollar was twice devalued, and the action was officially described each time as a devaluation in terms of gold: first to $38 per ounce in December 1971 and then to $42.22 per ounce in February 1973. It is thus small wonder that the general public should continue to view the dollar's value in terms of gold.

The popular misgivings seem to stem from two fundamental misconceptions about the relationship between gold and money. The first suggests, mistakenly, that it was the gold backing of national currencies that supported their values under the gold standard. The second misconception ignores significant changes that have occurred in the international monetary system since the high watermark of the gold standard nearly a century ago.

On the first point, recent studies have indicated that it was the national currencies that supported the value of gold, not the other way around.[3] Throughout the nineteenth century, the convertibility of major national currencies into gold provided the necessary support of the value of gold in terms of those currencies. Whenever the price of gold threatened to fall below its official support price, as happened in the case of major gold discoveries or technological breakthroughs in metal refining, the monetary authorities would buy up all the gold offered to them. Moreover, at the officially fixed prices, newly mined gold poured into official reserves in both the gold-avalanche periods of 1849-72 and 1893-1913 and the leaner years of 1873-92.[4] This suggests that the market-equilibrium price of gold in the absence of official support would have been consistently below official support prices between 1849 and 1913. A similar phenomenon occured in the 1930's when the United States raised its official support price from $20.67 to $35 per ounce, thereby setting off a gigantic flood of gold into its monetary reserves.

The national monetary authorities supported the value of gold throughout this period because gold then played a key role in the international monetary system. Over the last one hundred years, however, that role has gradually diminished. Instead of saying that the U.S. dollar is no longer backed by gold, we should say that gold is no longer supported by the U.S. dollar.

When in August 1971 the United States closed its gold window even to foreign official dollar holders, it severed in one stroke the last functional link between the dollar and monetary gold.

The decline and fall of the gold standard has been so exhaustively analyzed in standard textbooks and popular writings[5] that it would not be worthwhile repeating here. Suffice it to say that gold's relative importance started to decline even during the nineteenth centry, as its share in the aggregate money supply of Britain, France, and the United States declined from about one-third in 1815 to only one-tenth in 1913, while the share of bank deposits expanded from a mere six percent to sixty-eight percent.[6] Robert Triffin has characterized this period as a century of "gradual euthanasia" of gold money and its replacement by credit money.[7]

After World War I, national monetary authorities made numerous efforts to restore the prewar gold standard, but their efforts ended in complete collapse in the 1930's, when all nations, one after another, went off gold. Rising economic nationalism and the huge dislocations of the Great Depression completely destroyed any chance of success for the interwar restoration of the gold standard. On the other hand, the restoration of that standard at inappropriate par values of national currencies contributed significantly to the economic instability of the 1920's, and the failure of the "gold-bloc" nations to go off gold until 1936 retarded economic recovery in the 1930's.[8]

The post-World War II international monetary system, as set forth in the Articles of Agreement of the International Monetary Fund, was nominally a gold-exchange standard but functioned primarily as a dollar standard. The United States took upon itself the responsibility of maintaining the convertibility of its currency into gold for foreign official holders at a fixed par value, while other member nations pegged their currencies to the U.S. dollar. The coexistence of both gold and the dollar as international reserve assets proved to be a major source of instability for the IMF system. After 1965 strong speculative pressures developed against the dollar, when it became increasingly apparent that that currency was overvalued.

The rest is familiar history. When in August 1971 the United States closed its gold window even to foreign official dollar holders, it severed in one stroke the last functional link between the dollar and monetary gold. Nevertheless, another three years passed before the world's monetary authorities decided, in January 1975, to abolish the official price which has maintained gold nominally as the standard of the international monetary system. The U.S. Government is now treating its stock of gold as an ordinary commodity to be auctioned off piecemeal if it so wishes. For this country at least, there is little prospect that gold will ever again play a prominent role in the reformed international monetary system.

The Case Against Demonetization

The objective of the U.S. Government to demonetize gold has hardly gone unquestioned. Indeed, the advocates of gold believe that its role should be strengthened rather than weakened. They advance three arguments: (1) the constraints of a gold standard would check excessive monetary expansion and world inflation; (2) stable exchange rates based on the gold par value of national currencies would facilitate international trade and investment; and (3) gold remains superior to either SDRs or foreign exchange as a reserve asset.

(1) The "discipline" of the gold standard and domestic price stability

One of the gold advocates' strongest arguments is the need for the so-called "discipline" of the gold standard to set prescribed automatic limits to the powers of national monetary authorities. When a country's money supply is not tied to gold or to some other commodity standard, it is asserted, political expediency or misguided judgment would too often lead the monetary authorities to expand the money supply at an excessive rate for a prolonged period of time, resulting in inflations followed by recessions. But economic instability could be avoided or at least lessened if money were rigidly tied to a commodity standard, under which the monetary authorities would be obligated to convert the national fiat money into gold or another commodity (e.g., silver) or into a standard basket of commodities at some fixed rate. Convertibility could be either universal or limited; in the first case, it would be available to all holders of fiat money (domestic or foreign) and, in the second case, limited to foreign official holders.[9] The standard of reference in most of these discussions is the 1870-1914 version of the international gold standard and the monetary doctrines underlying it.

There is indeed considerable truth in these arguments. The chief virtues of a commodity standard are impersonality and automaticity. A gold standard or, for that matter, any commodity standard is "impersonal," because it is mechanically governed by set rules, requiring no forecasting and no administrative or legislative decisions; hence it is not subject to the hazards of erroneous forecasting and bad decisions. The mechanism is also "automatically stabilizing," because—under certain conditions[10]—it tends to augment national income when it is relatively low and to subtract from income when it is relatively high.

In fact, however, neither the gold standard nor the silver standard worked out very well. Discoveries of new mines and breakthroughs in refining technology were major sources of instability in the nineteenth-century international monetary system. Indeed, far from the idealized version, the world economy during the heyday of the gold standard was characterized by wide fluctuations of both output and prices. As Robert Mundell has pointed out, instead of controlling liquidity in order to avoid inflation and deflation, "under the gold standard, inflation and deflation were the means by which liquidity was controlled."[11]

Twentieth-century reality has also conflicted with the idealized version of the gold-standard adjustment mechanism, which presumes a great deal of price flexibility in both upward and downward directions. Wage and price rigidity has increased significantly, especially since the end of World War II, as a result of growing unionization and oligopolistic market structures throughout the world. Given the present structure of the economy, sustained monetary deflation would result in widespread unemployment and business recessions to a much greater extent than in the preceding century. Moreover, given modern full-employment policies, a strict adherence to the gold-standard rules of monetary management probably would be politically unacceptable.[12]

This is not to imply that the world monetary system in the twentieth century has fared any better than in the nineteenth century.[13] Rather, the central point is that a gold standard is neither necessary nor sufficient for insuring monetary stability. If national monetary authorities can accept rigid monetary restraints, then tying currencies to gold is clearly not necessary. On the other hand, the experiences of the nineteenth century and of the 1920's and 1930's show that adherence to a gold standard was not sufficient to insure a situation of monetary stability.

(2) Exchange-rate stability and international trade

Gold advocates have frequently argued that, when national currencies are tied to gold at fixed prices, the resultant fixed-exchange rates would effectively tie the various national economies together in a common-currency area and thus greatly facilitate international trade and investment. Conversely, flexible exchange rates would break up these ties and hamper international trade and investment.

The argument has lost much of its former attractiveness in the past decade. Throughout the 1960's and early 1970's, the mounting barriers to international trade and investment in the name of "defending" the par-value system made an irony of the argument, and in the last few years, our actual experience with flexible exchange rates has further demonstrated its hollowness. Even the most dedicated opponents of flexible exchange rates must admit that the system has worked much better than they had expected, and that restrictions on capital flows are much less now than previously.

In this contradictory world, characterized by national policy decisions in a tightly-integrated and mutually-interdependent world economy, national governments have tried but failed to maintain a fixed-exchange-rate system. They now realize that a flexible-exchange-rate system may well be the only workable system under the circumstances. Furthermore, even if countries wished to reestablish fixed rates at some time in the future, they could readily achieve this goal without resorting to gold as an intermediate measure of value.

(3) Gold as a superior international reserve asset

As far back as man can remember, gold has been used as a safe store of value. National currencies may come and go, but gold remains precious in people's minds. Especially during times of war and inflation, when national currencies rapidly lose their value, the public seeks refuge in that precious metal. Why has gold been universally regarded as a safe asset in preference to national currencies?

The answer has already been suggested, but it is worth reiterating here. Historically, gold and silver were regarded as safe stores of value, not because of any intrinsic value, but rather because of their adoption at one time or another as the bases of national and international monetary standards. The official endorsement of these metals as standards of value—and the official assurance of their convertibility into national currencies at fixed prices—supported their values and thus their general acceptance as stores of value. During times of war and inflation, these metals were preferred to depreciating national currencies because of the fact (or belief) that gold or silver could be converted into other foreign currencies that were not falling so rapidly in value in terms of commodity-purchasing power. Ever since the rise of fiat money, it was the ultimate official support of the price of gold in terms of a national currency that made this metal valuable, not the other way around.

The popular idea of gold being a safe store of value puts the cart in front of the horse. Also, it stems from a set of institutional arrangements that have long since passed into history. Witness the fate of silver. After the monetary authorities stopped supporting the price of silver in terms of their national currencies, silver became no more than an ordinary metal. Now that the United States has stopped supporting gold and no other nation has shown any readiness to take her place, gold cannot be considered a safe asset any longer.

The Case For Demonetization

But why should the U.S. Government decide to demonetize gold? The answers are twofold: (1) the gold-dollar standard was unstable, and (2) SDRs have emerged as an international reserve asset superior to gold and foreign exchange.

(1) Instability of the gold-dollar standard

For a quarter-century following World War II, the international monetary system was formally on a gold-dollar standard, with the value of the dollar tied to gold at a fixed price of $35 per ounce and linked to other national currencies through a system of fixed exchange rates. With respect to exchange-rate adjustments, the United States was in a fundamentally different position from other countries, in that each of the latter could repeg the exchange rate of its currency against the U.S. dollar, subject to approval of the International Monetary Fund, for correcting a "fundamental disequilibrium" in its balance of payments. The United States, on the other hand, with its currency pegged to gold, was not well situated to alter the exchange rates between the dollar and other currencies for correcting its own balance-of-payments problems—as was demonstrated by the difficult dollar depreciation of August - December 1971.

Compounded with this asymmetry was a devaluation bias in the exchange-rate adjustments that took place in the quarter-century between the establishment of the IMF system in 1946 and its collapse in 1971. Except for the reserve-currency country, the stock of any deficit country's international reserves ultimately placed a limit on the extent to which devaluation could be delayed. However, there was no corresponding constraint forcing a surplus country to revalue its currency against the dollar. In fact, with the exceptions of the German mark, the Dutch guilder, and the Canadian dollar, all the exchange-rate adjustments during that quarter-century were devaluations against the dollar. This development took place against the background of a significant lag in U.S. productivity growth, relative to its major trading partners, and an acceleration in U.S. inflation after the mid-1960's. Thus, over time the U.S. dollar became increasingly overvalued.

The progressive overvaluation of the dollar had two major consequences. First, U.S. payments deficits resulted in an accumulation of dollar liabilities in foreign official holdings increasingly larger than what foreign monetary authorities desired to hold. By mid-1971, such liabilities amounted to about $50 billion, nearly three times their size five years earlier, and almost five times the then-official value of U.S. gold reserves. The reality of gold convertibility of the dollar was already dead when the United States officially closed its gold window in August 1971.

The second major consequence was a mounting stress in the U.S. domestic economy, as industries here found it increasingly difficult to compete with foreign products in either the export or the domestic markets, and as investment incentives turned more and more in favor of production abroad than in the United States. Demands for protectionist legislation against imports and overseas investments mounted in the Congress and among the general public.

The gold-dollar standard under the IMF system, *in principle,* was not necessarily unstable. It could have endured, for instance, if (a) the surplus and deficit countries had been equally ready to adjust their exchange rates against the dollar, (b) the growth rate of the U.S. money supply had been more in tune with what was required for the stability of the international monetary system, and (c) there had been an adequate growth of world reserve assets other than liabilities of individual countries.

However, since none of these conditions was met, the system was *in fact* unstable. The United States found itself increasingly in an untenable position, with mounting liabilities to foreigners and mounting problems among domestic producers. In one stroke, it severed the link between the dollar and gold in August 1971. Since then, it has resisted all pressures to retie the dollar to gold.

(2) SDRs as a primary international reserve asset

Since their initial creation in January 1970, the IMF Special Drawing Rights (SDRs) have grown to a total of $10.6 billion at the end of 1974. Although they account for only about five percent of total world reserves,[14] SDRs possess a number of highly attractive features as an international reserve asset.

First, unlike gold, SDRs are costless to produce; this is an important feature in a world of expanding trade and investment, where there is a need for steady growth of reserve assets. Second, they provide a means for internationally controlled growth of world liquidity. This is in contrast to gold, the supply of which can fluctuate considerably because of technological or speculative factors, or to the dollar, the supply of which is controlled by the monetary authority of a single country. The creation of SDRs reflects the collective will of the international community and hence might avoid both inflationary and deflationary extremes,[15] and it is thus more rational than the creation of liquidity under the gold-dollar standard.

Third, SDRs represent a more equitable way of distributing reserve assets than does either gold or the dollar. Money embodies command over resources. The issuer of money possesses the power to command resources—"seigniorage"—wherever the money is accepted as a means of payment. The United States, as the principal issuer of international money under the gold-dollar standard, was widely accused of abusing the seigniorage privilege by excessive monetary expansion, especially after the mid-1960's. The benefits of seigniorage under a pure gold standard accrued to gold-producing nations, to the extent that the official price of gold was set above its production cost. In contrast, the seigniorage gains of SDR creation are distributed to IMF members in accordance with internationally agreed rules.

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Fourth, unlike gold, SDRs pay interest. The annual interest rate was 1½ percent until mid-1974, but it was then raised to 5 percent, adjustable periodically in line with money rates in several major markets. Also, SDRs have a more stable foreign-currency value than any single national currency, since their value is now set daily by the IMF on the basis of a weighted composite of 16 major currencies. Moreover, with gold's future in doubt, SDRs should be a less risky international reserve asset than gold. Indeed, in view of all the desirable properties enumerated here, SDRs can be expected ultimately to replace gold as a primary international reserve asset. The U.S. phase-out of gold as a monetary instrument contributes to that objective.

Prospects of Gold in the International Monetary System

What will be the future role of gold in the aftermath of U.S. demonetization? The subject was discussed in a meeting of the IMF Interim Committee (successor to the Committee of 20) on January 15-16 in Washington. Agreement was then reached to abolish the official gold price and to allow all central banks to value their gold and use it in any way they want.[16] Subject to ratification by the IMF Governors at their annual meetings in September, the agreement would in effect demonetize gold for the international monetary system as a whole, but leave it to individual countries to decide on their national gold policies. It is useful to explore what options there are for individual countries, and what problems are likely to arise when and if those options are exercised.

The basic facts are fairly straightforward. As shown in the table below, the world's official gold reserves—holdings of the monetary authorities of non-Communist nations as well as the International Monetary Fund (IMF) and the Bank for International Settlement (BIS)—amount to about 1.2 billion ounces. There is no way to measure the size of the world's private gold holdings, although they probably amount to about 2.5 billion ounces.[17]

This country is by far the largest official holder of gold, followed by Germany, France, Switzerland, and Italy. The U.S. holdings amount to about one-fourth of total official gold holdings. In addition, the IMF also holds a sizable amount—more than any individual country except the United States.

Because of the size of this country's holdings, U.S. policy should be the most important, if not the deciding, factor governing the future course of gold. The United States has begun to demonetize gold, but others might still question the finality of that decision. After all, the modest amount—less than one million ounces—that was sold in the recent auction represents only a small fraction of the U.S. gold stock.

One proposal reportedly advanced in earlier meetings on international monetary reform was the establishment of a new, higher official gold price.[18] The proposal would have prolonged the use of gold as a means of settlement between national central banks, and thus might have avoided too abrupt a termination of gold's age-old role as a major international reserve asset. Raising the official price of gold, however, would run the risk of conferring official sanction on an arbitrary price which has little prospect of adjustment. It is hard to conceive how gold could be phased out once an official price was restored. More importantly, on the basis of the preceding analysis of the U.S. experience with the former gold-dollar standard, it is extremely doubtful that the U.S. Government would be willing again to tie the dollar to gold.

Official Gold Holdings
(End of June 1974)

	Million oz.
United States	276.0
West Germany	117.6
France	100.9
Switzerland	83.2
Italy	82.5
Netherlands	54.3
Belgium	42.2
Portugal	27.9
Canada	22.0
Japan	21.1
United Kingdom	21.0
Austria	20.9
South Africa	18.5
Other Developed Countries	36.5
Latin America	28.3
Middle East	28.8
Other Asia	18.0
Other Africa	11.5
IMF	153.4
BIS	6.1
Total	1,180.3

Source: Based on data in International Monetary Fund, *International Financial Statistics*, December 1974. Original data are values in U.S. dollars, converted to ounces at $42.22 per ounce.

More modest proposals for a transitional monetary role for gold have been to allow official transfers of gold at variable market-related prices or to use gold as collateral for official loans. While no government or central bank (as far as is known) has yet shown any interest in buying gold at the market price,[19] one large gold-collateral loan has been made. In 1974, Italy borrowed approximately $2 billion from Germany on this basis. This transaction illustrates the type of transitional arrangement which can assist countries traditionally dependent upon gold reserve assets through a period when outright gold transactions are no longer feasible measures.

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With the U.S. Government committed to a course of demonetizing gold, the question arises of what it should do with its remaining 275 million ounces. Since the gold stock serves no useful function and only costs money to store, the taxpayers' interest might dictate selling it off as quickly as the market can absorb, at prices that would maximize the return to the Treasury without unnecessarily antagonizing foreign central banks. In 1973, we imported (net of exports) more than 2 million ounces of gold—down sharply from the nearly 6 million ounces in 1971, but still a very substantial volume. Now that gold ownership is permitted to U.S. citizens, U.S. demand for gold ought to be met out of idle government stocks, rather than out of imports.

The U.S. Government's decision certainly will affect what foreign governments do with their gold. Traditionally, many of them have strongly supported the status quo and thus have resisted the U.S. attempt at demonetization of gold in the international monetary system. The recent French action in raising the value of its official gold reserves to $170.40 per ounce might suggest the possibility of a new "gold bloc" arising around the French franc as it did in the 1930's. The European Economic Community (EEC) nations, with official holdings of about 450 million ounces, account for about 35 percent of total world gold reserves, and they might conceivably attempt to preserve gold's former role by agreeing to an official price of gold in terms of one of their currencies. In such an event, that chosen currency would in effect become the reserve currency for the gold bloc and for all other countries that might wish to tie their currencies to gold-bloc currencies. The center-currency country would then be called on to "defend" the gold parity of its currency, thus finding itself in much the same position as the United States did prior to August 1971. However, it appears rather unlikely that any of them would be willing to be maneuvered into such an unenviable position.

The question of how to handle the transitional role of gold is particularly significant in view of the serious balance-of-payments problems resulting from the recent quadrupling of world oil prices. The official gold reserves of the major industrial nations originally had been accumulated through past balance-of-payments surpluses. Now, their balance of payments have turned adverse. It stands to reason that these nations should at least have the option of using their gold reserves for financing oil-related payments deficits, rather than suffering a large depreciation of their currencies.

But, who might be the potential gold buyers? Offhand, they would appear to be the buyers in the world's private gold markets. In fact, however, those markets are notoriously thin. If a number of governments started to unload their gold stocks there, the gold price could decline substantially before reaching equilibrium. Potential gold purchasers would probably react quickly and add to the downward pressure by speculating on further declines in the gold price. The already thin market would become even thinner on the buyers' side.

Even if the private demand for gold remained strong because of the public's deep-rooted attachment to gold, official gold sales would only shift the balance-of-payments problem from gold-selling nations to gold-buying nations. Such a move might cushion the balance-of-payments adjustments between surplus and deficit countries, but it would not help the financing of the oil deficits of consuming nations unless oil-producing nations were willing to absorb gold.[20]

But would the oil producers be willing either to take gold for oil payments or to purchase gold from the open market? The former probably would be hard to negotiate because of the difficulty of agreeing on a price for gold. The latter would be quite unlikely, especially if the gold price started to tumble. In any case, the Middle East nations, contrary to their popular image, traditionally have not been large gold holders.[21]

What governments could do with their existing gold holdings, aside from financing oil deficits, remains an unanswered question. The foregoing analysis suggests the possibility of a disorderly market, with governments attempting to sell off their gold stocks and few buyers on the other side of the market. The analysis might be overdrawn, in view of individuals' traditional preference for gold over national currencies, especially during periods of world inflation. Yet such an eventuality could well arise, say, several years down the road. This suggests the need for some sort of contingency stabilization plan, if only for the preservation of the value of the gold assets in official reserves, which after all represent substantial amounts of national savings.

As one possibility, the International Monetary Fund could be asked to purchase from national monetary authorities any gold they wish to sell in exchange for SDRs at an agreed price, say, at the current official price of SDR 35 per ounce. National monetary authorities should also be free to sell gold on open markets at higher prices when possible. The IMF gold price would support the value of official gold assets only to the extent of indirectly supporting the open market, by forestalling potentially large liquidations of official gold stocks at prices below SDR 35 per ounce. Alternative approaches could also be devised, but since negotiations on international monetary issues take time, it is not too early to start thinking now about various types of contingency plans.

FOOTNOTES

[1]After the United States and Germany. For data on official gold reserves, see table on page 12.

[2]For a detailed analysis of demand and supply conditions in the gold market, see the accompanying article by Michael W. Keran and Michael Penzer, "Gold as a Private Hedge Against Inflation."

[3]Robert Triffin, *Our International Monetary System: Yesterday, Today, and Tomorrow* (New York: Random House, 1966), especially pages 3-60; and Robert A. Mundell, *The International Monetary System: Conflict and Reform* (Quebec, Canada: The Canadian Trade Committee, 1965), especially page 21.

[4]Triffin, *op. cit.*, page 25.

[5]For instance, "The Rise of Gold as a Domestic Standard" in this *Review*, May 1961, pages 84-96.

[6]Robert Triffin, *op cit.*, Table 1.2, page 26. The balance of the aggregate money supply in 1913 was accounted for by silver (3 percent) and currency (19 percent), both of which had declined sharply since 1815.

[7]*Ibid.*, page ix.

[8]See the accompanying article by Kurt Dew, "Gold Policy: The Thirties and the Seventies."

[9]For earlier proposals of commodity standards other than gold and silver, see Benjamin Graham, *Storage and Stability* (New York: McGraw-Hill, 1937) and *World Commodities and World Currency* (New York: McGraw-Hill, 1944); also Frank D. Graham, *Social Goals and Economic Institutions* (Princeton, New Jersey: Princeton University Press, 1942), pp. 94-119. For an analysis of the conceptual basis of commodity standards in general and the commodity-reserve standard in particular, see Milton Friedman, "Commodity-Reserve Currency," *Journal of Political Economy*, June 1951, pp. 203-232.

[10]Among the necessary conditions for the smooth working of a commodity standard are (a) a close relationship between GNP and changes in money's share of total national assets and (b) the existence of a large stock of the commodity currency that can readily shift into or out of official money holdings in response to small changes in commodity prices. On the other hand, if monetary changes exert only a weak impact on GNP, the smooth functioning of a commodity standard requires (a) a highly elastic supply of the currency commodity, such that the output of the commodity can be rapidly expanded or contracted in response to small changes in the general price level, and (b) that the industry producing the commodity (say, gold) account for a sizable fraction of GNP. Friedman notes that gold satisfies only one of these conditions—the existence of a large private stock capable of shifting back and forth between monetary and private holdings. He cites Charles O. Hardy's view that common building bricks (except for their lack of glamor) would be a much better currency commodity than gold. Friedman, *op. cit.*, pp. 204-210, esp. p. 208.

[11]Mundell, *op. cit.*, p. 22.

[12]In Robert Mundell's words, "Trade unions made the gold standard inefficient, while universal suffrage made it unpalatable." *Ibid.*, p. 23. It can also be argued, of course, that expansionary monetary policies since the 1930's have indirectly supported unions and oligopolistic producers by "validating" cost-push price increases. The latter interpretation, however, is not inconsistent with the view that growing unionism and market concentration have made monetary contraction politically and economically less feasible than previously.

[13]In fact, one could well argue that price and output fluctuations in the nineteenth century were mild in comparison with those in the last fifty years. Moreover, since the 1930's there has been a pronounced inflationary bias in the system, which was not true under the gold standard.

[14]Foreign exchange holdings (mostly dollars) comprised about 70 percent; gold, about 20 percent; and IMF reserve positions, 5 percent of total world reserves.

[15]The system *per se*, however, does not preclude over- or under-creations of SDRs. Creations of SDRs require the approval by an 85-percent weighted vote of IMF participants. A handful of surplus countries conceivably could block SDR creations if they together hold more than 15 percent of the vote. On the other hand, excessive creations could arise if members holding more than 85 percent of the vote were so inclined.

[16]*New York Times*, January 17, 1975, p. 39.

[17]Merrill, Lynch, Pierce, Fenner & Smith, Inc., *Gold, Special Report*, November 1974, p. 14. The Soviet Union's gold reserve is a tightly held national secret, but is perhaps on the order of 64 million ounces. *New York Times*, November 6, 1974, p. 67.

[18]See, for instance, *The Wall Street Journal*, July 23, 1973, p. 1.

[19]Indeed, IMF members are legally prohibited by the present Articles of Agreement from buying gold at prices in excess of the current official price.

[20]The same stricture applies to the so-called "Ossola Plan," proposed by the Deputy Governor of the Bank of Italy, Rinaldo Ossola. Under this plan, the IMF would sell gold-denominated bonds to help provide temporary relief for the countries hardest hit by oil-price increases. *New York Times*, December 3, 1974, p. 57.

[21]Middle East nations hold small amounts both in absolute terms and in relation to the size of their total reserve holdings. At mid-1974, they held only $1.2 billion of their $21.1 billion total reserves in gold. International Monetary Fund, *International Financial Statistics*, December 1974.