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GOLD IN WORLD MONETARY AFFAIRS TODAY

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INTERNATIONAL FINANCE SECTION
DEPARTMENT OF ECONOMICS AND SOCIOLOGY
PRINCETON UNIVERSITY
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This is the thirty-fourth number in the series ESSAYS IN INTERNATIONAL FINANCE published from time to time by the International Finance Section of the Department of Economics and Sociology in Princeton University. It is the third in the series written by the present author, the first one, "Postwar International Lending," having been published in 1947 and the second, "The Price of Gold," in 1952; both have long since been out of print.

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RICHARD A. LESTER, Acting Director International Finance Section

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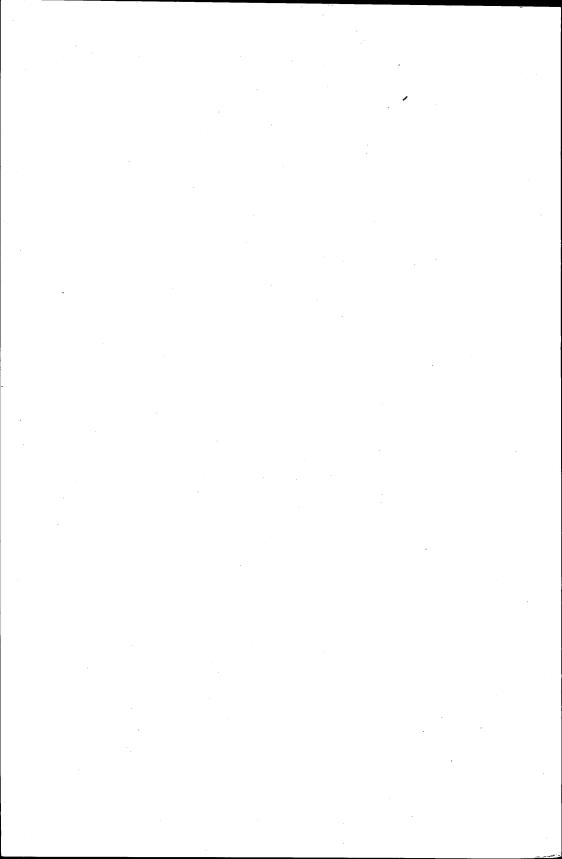
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OLD arrangements in the world today are the outgrowth of the world's currency experience of the last twenty-five years. For reasons that need not be dwelt upon here, the gold standard in the form in which it was reestablished after the First World War had ceased to operate in the 1930's. Gold, of course, has retained its importance in world monetary affairs—not merely because the British Commonwealth is the principal producer of gold and the United States its principal holder, but fundamentally because the currency arrangements of the community of nations continue to make an essential use of it.

The use of gold in international payments will be appraised here by reviewing, in Section I, the gold arrangements in the world today and by analyzing, in Section II, the policies and practices of monetary authorities with regard to international reserves (whether gold, dollars, or sterling). To round off this essay, Section III will discuss the contemporary monetary system in another essential but often neglected aspect—the relationships between domestic currency and international reserves. A few concluding remarks will then sum up the main distinctive features of the international monetary system today and the function of gold in that system.

I. GOLD ARRANGEMENTS IN THE WORLD TODAY

The principal trading nations make essential use of gold for external purposes by reason of the gold arrangements that have evolved in the world since the breakdown of the traditional gold standard in the early 1930's. These arrangements are different in many ways from the earlier ones; at the same time, however, they denote, in their very substance, a basic continuity with the past.

Disappearance of the Domestic Trimmings of the Traditional Gold Standard

In the world today, free and unlimited gold coinage, which has been

the distinctive feature of the gold-coin (or specie) standard prior to 1914 in most countries and prior to 1933 in the United States, has been dispensed with everywhere. Most of the available gold has thus been concentrated in central banks to serve monetary purposes.

In most countries, gold coins were withdrawn from active circulation during the First World War; and when in the 1920's the gold standard was restored the currencies were linked with gold by legally requiring the central banks to redeem their notes not in coin but in bullion, and only in amounts that were set so high by monetary legislation that the general public was effectively discouraged from demanding gold. The reason why England and many other countries gave up gold coinage was that such use had come to be regarded as an "unwarranted extravagance" (the expression of Mr. Churchill, who was the Chancellor of the Exchequer at the time of Britain's return to gold in 1925); the idea of a gold-bullion standard, however, had been David Ricardo's as early as the beginning of the 19th century.

Free domestic redeemability in bullion was in turn abolished everywhere during the 1930's. In 1933, the United States itself withdrew gold coins from circulation, and a year later provided, under the Gold Reserve Act of 1934, that no United States currency should be redeemable in gold, that no gold should be coined, and that it should be unlawful for banks and the general public to hold gold or gold certificates (except gold in its natural state, i.e. nuggets, flakes, etc., and gold coins of recognized value to collectors). Under the Act, the U. S. Government took possession of all monetary gold in the country, including that held by the Federal Reserve Banks.

Like the United States, certain other countries—in particular the United Kingdom—do not allow their citizens to hold or trade in gold. A gold market exists in London, it is true, but—as will be explained later-it does not provide any facilities through which British and other sterling-area residents can obtain gold for sterling, except for bona fide use in the arts and industry. Most countries do allow the domestic holding of gold and some also permit or tolerate free markets where gold can be purchased or sold domestically; in France the authorities intervene on the gold market in order to smooth out day-to-day fluctuations. But nowhere do the monetary authorities deliver gold to their nationals at a fixed price for domestic holding. Recent legislation in Belgium, Canada, and Switzerland provides for the minting of gold coins, but only under certain stipulated conditions; since these are not fulfilled, no coins are being minted. In the United Kingdom new sovereigns are being issued, but only for sale—against United States dollars and other convertible currencies—in markets outside the sterling area.

The Purchase and Sale of Gold among Monetary Authorities

While free gold coinage and domestic redeemability of currency into gold have disappeared, gold remains the means of ultimate settlement among monetary authorities of the principal trading nations. To be sure, the bulk of international transactions is, as it always has been, "cleared" in the exchange markets, and the balances remaining after transactions have been set off against one another are settled, to an extent varying according to the country, by the use of the United States dollar and the pound sterling—currencies in which many central banks and Treasuries keep a part of their monetary reserves. But monetary authorities of leading countries buy and sell gold, at fixed prices or within prescribed margins on each side of a fixed par value, for the settling of international balances; such gold is in the form of bullion (i.e. uncoined or bar gold).*

As under the old gold standard, by far the largest volume of international gold transactions is carried out in New York or London; but the transactions are now effected in quite a different way. For one thing, unlike before the 1930's, the monetary authorities are committed neither to buy nor to sell gold. Monetary legislation no longer requires them to do so (apart from buying gold that nationals may be required by law to surrender to the monetary authorities), and under the Articles of Agreement of the International Monetary Fund, too, there is no obligation on any member to buy or sell gold in transactions with other members.** And, for another, the United States is today the only country that maintains the international value of its currency by making it interconvertible with gold through transactions with foreign monetary authorities. Other countries maintain the value of their currencies through operations in the exchange markets, their monetary authorities being ready to enter the markets as buyers or sellers of United States dollars at the limits of a given range.

Apart from the United States dollar, there are but few currencies whose value is defined by monetary legislation in terms of gold. Under the International Monetary Fund Articles of Agreement, however, the

^{*}The usual bar weighs about 400 ounces, measures 7 by 3 9/16 by 1 11/16 inches, and is worth approximately \$14,000.

^{**} The only obligations provided for in the Articles of Agreement with regard to gold are that a member must sell its currency to the Fund for gold if that becomes necessary in order to replenish the Fund's holdings of the currency in question, and a member must buy its currency from the Fund with gold when it has to fulfill its obligations to repurchase its currency from the Fund. Apart from these requirements, a Fund member is free to buy or sell gold as it wishes, provided it does so at prices corresponding, within certain margins, to the par value of its currency accepted by the Fund.

sixty-eight participating nations have accepted the obligation to establish par values for their currencies that are binding for their foreignexchange as well as their gold transactions. These par values are expressed in terms of gold, or in terms of the United States dollar of the weight and fineness in effect at the time that the Fund Agreement was signed (1944). Members are obliged to maintain stable rates of exchange based on these par values; and they are not to permit rates to vary by more than I percent on either side of the par values. The device of par values thus connects with the United States gold price the par values of currencies that are not themselves defined by statute in terms of gold, and accordingly makes the United States gold price serve as an anchor for the world's currencies. The United States itself fulfills its undertaking under the Fund Agreement to maintain the external stability of the dollar by buying and selling gold in transactions effected with other monetary authorities for the settling of international balances.

The U. S. Treasury thus sells gold at the official price for the settlement of international balances and other legitimate monetary purposes to foreign governments and central banks; these can exchange dollars for gold virtually automatically for these normal purposes. On the other hand, the U. S. Treasury stands ready to buy gold from foreign governments and central banks without limitation in amount at the official price.

Sales and purchases of gold by the United States are at its official price of \$35 per troy ounce, plus or minus ¼ of 1 percent, i.e. at the buying price of \$34.9125 and the selling price of \$35.0875 per fine ounce. This price was established by Presidential Proclamation on January 31, 1934, under the authority conferred on the President by the Gold Reserve Act of 1934; the Proclamation reduced the gold content of the dollar from 25.80 grains nine-tenths fine to 15 5/21 grains of gold nine-tenths fine (13.71 + fine grains), thus changing the dollar parity from \$20.67 to \$35.00 a fine ounce. This reduction in the gold content of the dollar to 59.06 percent of its former parity fixed the value of the dollar in the foreign-exchange market at about the level to which it had depreciated in 1933. The President's power to devalue the dollar further (to 50 percent of its former parity) expired on June 30, 1943; only an Act of Congress can now alter the gold content of the dollar.

A distinction is sometimes made between the gold content of the dollar, which can be changed only by an Act of Congress, and the market price for gold, which could be changed under Sections 8 and 9 of the Gold Reserve Act authorizing the Secretary of the Treasury to buy

and sell gold, at home and abroad, "at such rates and upon such terms and conditions as he may deem most advantageous to the public intertest," i.e. at rates other than \$35 per ounce. This authority has, however, been circumscribed by the obligations assumed by the United States as a member of the International Monetary Fund. Furthermore, it is stipulated in the Bretton Woods Agreement Act of July 31, 1945 that any change in the par value of the United States dollar shall require legislative action by Congress.

Present gold arrangements in London are likewise very different from those under the traditional gold standard. The London gold market was reopened in March 1954 after a closure of sixteen years. Only residents of countries outside of the sterling area may purchase gold on the London market (the exception is the sale for industrial, commercial, and artistic uses); furthermore, they may acquire gold only if payment is made in dollars or other currencies convertible into dollars simultaneously sold on the London exchange market or in the so-called "external-account" sterling, i.e. sterling earned—from trade, and not from sale of property or securities—by others than residents of the United Kingdom and overseas sterling countries. Such sterling, which is convertible for nonresidents at the official exchange rate, was established at the close of 1958; previously, gold could, in effect, be bought in London only against dollars.

Sellers in London of gold mined in the sterling area of course receive resident sterling, but the sterling area's gold-producing countries have free access to the London exchange market and their sterling holdings are thus convertible into dollars, subject to gentlemen's agreements not to convert existing balances at too rapid a rate. As to gold sold by non-sterling countries, it is paid for in external-account sterling, which can be freely converted into dollars or used to buy gold.

The London gold market thus functions, in effect, like a dollar market. Access to it is denied to residents, and even nonresidents can buy there only if payment is made in dollars or other currencies convertible into dollars. The chief differences between the London market and the gold arrangements in force in the United States are that, on the one hand, private interests can purchase gold in London but not from the U.S. Treasury, and, on the other, the London price is allowed to fluctuate within a prescribed range while the U.S. Treasury's buying and selling prices are fixed.

As already noted, the British monetary legislation does not define the pound sterling in terms of gold, as it did before September 1931. The United Kingdom has, however, the obligation under the International Monetary Fund's Articles of Agreement to maintain an official exchange parity of £ 1=\$2.80, to which corresponds a gold parity or par value of 250s. per fine ounce. Furthermore, under the Fund's rules, a member can buy or sell gold only within prescribed margins based on the par value of its currency. The fluctuations in the London price of gold are thus strictly limited.

The price in shillings is established at the daily "fixing"—the ceremonial meeting of the six major bullion dealers at which they attempt to match up their orders to buy and to sell gold, in the light of their knowledge of the demand and supply in the market as a whole, including such interventions as the Bank of England, as a residual buyer and seller, may undertake in order to maintain an orderly market. The trading during the day is done on the basis of the price at "fixing," although it may vary from that price because of new developments or movements in the sterling-dollar rate. Generally, the sterling price of gold increases whenever the dollar price of sterling decreases and vice versa. This inverse relationship reflects, basically, two essential aspects of the working of the London market—the fact that it is mainly a market for central banks that have the alternative of operating in New York, and the fact that the British authorities, by adjusting their offerings of gold selling more gold, for instance, when the dollar-sterling rate is weakcan influence the offerings of dollars by foreign gold buyers and thus reduce the necessity for themselves intervening in the exchange market.

As appears from Chart I, the dollar equivalent of the London gold price from the reopening of the London market in 1954 through the end of 1957 fluctuated almost continuously between the United States buying and selling prices. On only a very few occasions did the dollar equivalent of the London gold price touch the U.S. Treasury's selling price (as at certain times in 1954) or fall slightly below the U.S. Treasury's buying price (as in late 1956 and at the beginning of 1957). In contrast, during 1958 it stood above the U.S. Treasury's selling price of \$35.0875; the peak was reached in October 1958, but by the yearend the price fell to \$35.09. It declined further during the first quarter of 1959, but rose subsequently to \$35.12 in May (monthly average).

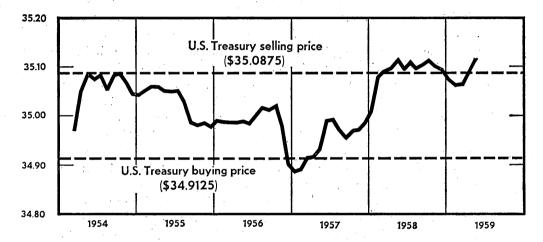
Bullion dealers are not able, as under the old gold standard, to purchase gold from the United States (they could, however, offer gold for sale here). But the impossibility of private gold arbitrage does not diminish the importance of the London gold price as compared with the U.S. Treasury's buying and selling prices. Central banks, stabilization funds, and Treasuries (and the international financial institutions) have the alternative of buying or selling gold in New York or in London, and in fact conduct their transactions where the price is most advantageous at any given time (assuming that the location of

the gold itself is a matter of indifference, and that the London market can accommodate, at any given time, all possible sellers and buyers). The relationships between the sterling price of gold, the sterling-dollar exchange rate, and the dollar equivalent of the London gold price

CHART I

THE DOLLAR EQUIVALENT OF THE LONDON GOLD PRICE, 1954-1959 (Monthly averages in dollars per fine ounce)

U.S. Dollars



therefore bear importantly on the direction and the volume of international gold movements today.

A Bird's-eye View of International Gold Movements

No comprehensive data are available on gold settlements among monetary authorities. The United States is the only country that publishes—with a lag of three months—certain information regarding its gold purchases and sales, in the aggregate as well as by countries and international institutions; these data are quarterly and on a net basis and, therefore, do not give a full account—only a broad statistical picture—of United States gold transactions with foreign monetary authorities. Until the reopening of the London gold market in early 1954, the pattern of world gold transactions had been marked principally by direct transfers between foreign monetary reserves and those of the United States. Since the development of trading in the London market, however, many central banks have been dealing in gold there, for

reasons already explained; and since no data are released on transactions in that market, the pattern of international gold movements has actually tended to become less visible. Nevertheless, by collating and surveying the published data, including the periodic returns of central banks, it is possible to make a number of broad inferences regarding the magnitude and direction of international gold movements.

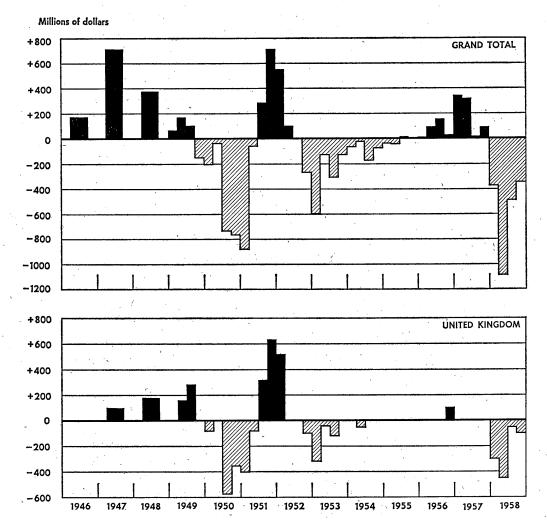
The magnitude and direction of United States gold transactions with foreign countries and the International Monetary Fund from 1946, following the end of the Second World War, through December 1958 are shown in the upper grid of Chart II. As clearly appears from it, there have been six distinct phases in United States gold transactions, with large-scale purchases alternating with large-scale sales. These shifts of the United States from the position of a net buyer to that of a net seller of gold—together with changes in the official dollar holdings of foreign countries—basically reflect, on the one hand, the state of the United States "cash" balance of payments (i.e. the excess of outpayments to foreign countries over receipts from them, and vice versa), and on the other, the decisions of foreign monetary authorities to purchase gold rather than build up dollar balances or to sell gold in order to replenish dollar balances.

To understand more fully the working of the international currency mechanism, however, it is necessary to look beyond these aggregate fluctuations in the United States gold position. Two aspects, in particular, are significant. The first is the importance of gold transactions between the United States and the United Kingdom. As may be seen from the lower grid of Chart II, the United States gold purchases from, or sales to, the United Kingdom accounted, as a rule, for a sizable portion of total United States gold transactions; and secondly, the United Kingdom frequently repurchased gold from the United States that it had sold during an earlier period. These alternating purchases and sales of gold reflect, of course, the wide fluctuations in the sterling area's gold and dollar payments; they also reflect, however, Britain's practice of holding most of its reserves in the form of gold, and of acquiring gold at times of balance-of-payments surpluses and disposing of it during periods of deficits.

Other countries also sell gold to, or purchase it from, the United States, but in amounts much smaller than the United Kingdom. Among the Continental European countries, Belgium, the Netherlands, and Switzerland have had transactions with the United States fairly frequently during the postwar years; France, Germany, and Italy, intermittently. Canada sold sizable amounts in some of the early postwar

CHART II

UNITED STATES NET GOLD PURCHASES AND SALES, 1946-1958 (+ = purchases; - = sales)



Note: 1946-1948 quarterly averages; 1949-1958 quarterly figures.

Source: Federal Reserve Bulletin

years, as did South Africa. Argentina, Mexico, and Venezuela also made important purchases or sales.

The second aspect of United States gold transactions that emerges from Chart II is the decline in volume from the reopening of the London gold market in early 1954 to the end of 1957 and the rapid rise in 1958. Behind these gold movements were, of course, the swings in the balances of payments of the United States, the sterling area, and Continental European and other countries. But the reopening of the London gold market and the growth of gold transactions there were also a factor of great import. Obviously, so long as sellers receive a higher price for gold, and monetary authorities find it cheaper to acquire gold in London rather than in New York, transactions will be conducted in London (provided the location of gold is a matter of indifference); only when it becomes cheaper to buy gold in New York will transactions converge there. The movements in the London gold price and the differentials with the U.S. Treasury's price, which are shown in Chart I, directly affect United States gold movements, as summed up in Chart II.

Sellers have continuously received a higher price in London than in New York. The South African gold producers are required to sell their whole output to the South African Reserve Bank, which in turn sells most of it, through the Bank of England, on the London gold market. The South African Bank has no commitment to sell gold there but, according to an official statement, "the maximum use" is made of the London market because, "having regard to the international nature and the leading position of the London market, it appears unlikely that a better price could normally be obtained elsewhere." During the year ended March 1958, the South African Reserve Bank's sales of gold thus totaled \$632 million, of which \$625 million was on the London market and \$2 million against payment in Swiss francs. In addition to the South African output, which represents some 80 percent of the entire sterling area's production, London also receives the sizable output of Ghana, Southern Rhodesia, and certain other sterling countries; unlike South Africa, these countries dispose of their output directly through bullion houses. Gold originating from various nonsterling countries is also sold in London.

There are no published data of the volume of newly-mined gold sold in London; the British foreign trade returns contain, however, data regarding gold imports, and although these differ from actual sales (because they exclude earmarking operations), they nevertheless indicate that some \$450 million worth of gold arrived in London during each

of the years 1953-1955 (latest year available); most of this gold came from South Africa and other sterling-area producing countries, while about 11 percent was Russian gold. Occasional statements by the Chancellor of the Exchequer in Parliament throw some light on more recent developments. Thus, according to a statement in March 1958, total British gold imports during 1957 amounted to \$840 million; of these, imports from Russia equalled some \$200 million. Assuming therefore, that all gold sold by the USSR to the United Kingdom was physically imported into the country, all other gold imports totaled \$640 million.

At various times prior to September 1957, gold sold on the London gold market came not only from imports but also from Britain's official monetary gold stocks; this was, of course, the consequence of the pressures on sterling, which necessitated official intervention in the exchange markets and sales of gold in the gold market to replenish official dollar balances. On the other hand, during the last quarter of 1957, in 1958, and in early 1959, sterling was strong, and the British authorities not only recovered some of their earlier reserve losses, but also purchased South African and other gold that otherwise would have found its way into the London gold market. The supply of gold on the London gold market did not match the demand, and the dollar equivalent of the London price accordingly rose above the United States selling price. Not only did the British authorities keep in their reserves the bulk of gold acquired from South Africa, but they also purchased gold in New York.

The principal buyers in London are the central banks in Continental Western Europe—so long as it is advantageous with respect to price, as already explained. Gold is also purchased on the London market—against convertible currencies—by private operators, especially for export to the Middle and Far East. On the other hand, there is evidence of gold sales there by central banks in order to obtain dollars.

No data are available regarding central-bank gold acquisitions or releases in London; but some indication of such gold operations may be obtained by relating the changes in the gold reserves published in foreign central-bank returns with the data of United States gold purchases and sales; the bulk of gold that was purchased from sources other than the United States was obviously acquired in London. Thus, the German central bank purchased during January 1955-December 1958 \$10 million in the United States, and \$2,013 million "elsewhere."

Gold purchases and sales in London and New York are an integral part of the working of the international currency mechanism. However, an understanding of the place of gold in international payments also requires consideration of the policies and practices of monetary authorities with regard to the form of monetary reserves—whether gold, dollars, or sterling.

II. THE PLACE OF GOLD IN INTERNATIONAL RESERVES

The staff of the International Monetary Fund has recently analyzed the forms of international reserves in their aggregate with a view to appraising the adequacy of reserves and prospective reserve requirements.* There is no need, therefore, to describe here the broad composition of international reserves and the factors behind it. What has to be done, however, is to lift the veil of these aggregates and discuss the actual policies and practices of monetary authorities of each of the principal trading nations with regard to the composition of their international reserves.

Gold versus Dollars

Although most monetary authorities publish data regarding official monetary gold stocks, very few disclose the composition of foreignexchange holdings. Enough information is released, however, to make it possible to give an approximate—but, on the whole, representative—indication of the importance of dollar reserves in total gold and dollar reserves of leading countries, as shown in Chart III. A glance at the chart, which covers sixteen individual countries holding some four-fifths of the aggregate world gold and dollar reserves apart from the gold stocks of the United States and the International Monetary Fund, shows that most Western European countries hold much larger amounts of their reserves in gold than in dollars. Thus, the United Kingdom during most of the years 1950-1958 held some 90 percent of its gold and dollar reserves in gold. Belgium, the Netherlands, and Switzerland (as well as Portugal, which is not shown on the chart) likewise hold the bulk of their reserves in gold. France and Sweden held, during most of the years 1950-1958, about three-fifths of their total gold and dollar reserves in gold. The Federal Republic of Germany, which had no gold and only a very small dollar reserve in 1950, has built up its reserves in a spectacular fashion while gradually increasing the proportion of gold in total reserves from 8 percent in 1951 to almost 60 percent in 1958. Of these Western European countries, Belgium, Germany, the Netherlands, Portugal, and Switzerland during 1950-

^{*}International Reserves and Liquidity, published in September 1958.

1958 added much more to their reserves in the form of gold than of dollars.

Italy at the end of 1958 held in gold somewhat less than one-half of its reserves, and Austria somewhat more than one-fourth; the proportion was one-third and one-fifth, respectively, in 1957. Among European countries not shown in the chart, Norway held about half of its reserves in gold, and Denmark and Finland about one-third.

Outside Europe, Canada holds three-fifths of its gold and dollar reserves in the form of gold, and South Africa almost 90 percent. The Philippines and Japan, on the other hand, hold by far the largest part of their reserves in dollars. During the past few months, however, Japan has made gold purchases to increase the proportion of reserves held in this form.

The distribution of official reserves between gold and dollars depends, of course, upon the preferences of the monetary authorities concerned. There are, basically, three reasons for holding gold in preference to dollars—statutory requirements for note circulation and other centralbank liabilities, the desire of monetary authorities to show gold in their reserves in order to favorably impress public opinion, and the need to protect the country's monetary reserves against the hazards of depreciation.

Today, some thirty central banks are required by law to hold reserves of gold, or gold and foreign exchange, against their note issue and, in many cases, their deposit liabilities. Besides the United States, however, there are only four countries where the statutory reserves must be held exclusively in gold—Belgium, El Salvador, Switzerland, and the Union of South Africa; elsewhere, it is provided that the required cover shall consist of gold and foreign exchange. Furthermore, the prescribed level of the required reserves is lower today than under the post-World War I gold standard.

The desire of monetary authorities to hold gold continues to be strong throughout much of the world. Above all, in countries whose populations have been, within a generation or two, victims of currency disorders, the showing of gold in the central bank's balance sheet is, at times, an essential monetary tactic. This is true even of central banks whose statutory requirements have been suspended or actually repealed or who have never been subject to such requirements.

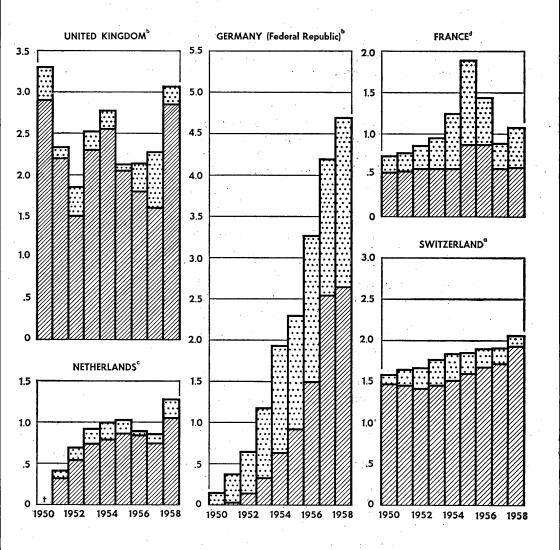
The third reason, which may well be the determining one, is the tradition in many countries of holding the bulk of reserves in gold—a tradition that reflects the desire of the central banker, responsible for the country's monetary reserves, to protect them against possible hazards of depreciation. It is presumably because of such considerations

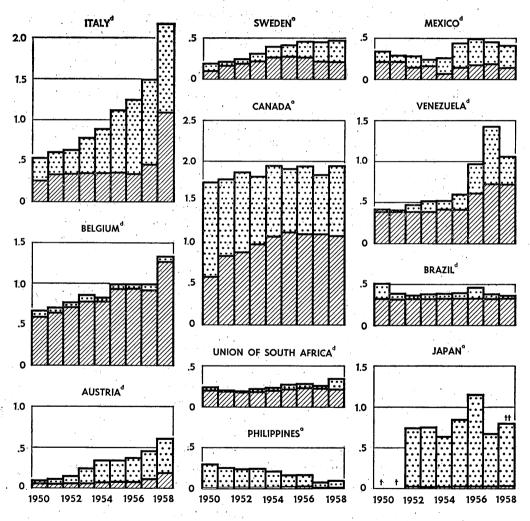
CHART III

APPROXIMATE COMPOSITION OF GOLD AND BOLLAR RESERVES, 1950-1958 (In billions of dollars)

Gold

Dollars*





* Dollar reserves: (a) Official United States dollar holdings. (b) Official United States and Canadian dollar holdings. (c) Official "convertible" currencies. (d) Official and commercial bank United States dollar holdings. † Not available.

†† Figures as of November 30, 1958.

Source: Adapted from International Monetary Fund, International Financial Statistics.

that many central banks that have the statutory right to hold foreign exchange do not always make use of this right and often prefer to hold gold; and that banks not bound by statutory requirements nevertheless keep a large portion of their reserves in the form of gold.

To be sure, even under the old gold standard there were a few countries like India and the Philippines that held their reserves in another country's currency-sterling or dollars-which was itself convertible into gold; this variant was called the gold-exchange standard. And during the 1020's a number of countries in Europe and elsewhere resorted to the gold-exchange standard. But none of the principal trading nations retained large amounts of foreign exchange in its reserves. Germany converted part of its foreign-exchange reserves into gold as early as 1025, and Italy and Poland in 1028. Even where no large or sudden shifts were made, the proportion of foreign exchange in total gold and foreign-exchange reserves was allowed to decline gradually. In France, during the de facto franc stabilization from mid-1926 to mid-1028, there was a large inflow of funds from abroad. The Bank of France thus acquired sizable amounts of sterling under a French Government guarantee and took over at its own risk these sterling assets after the franc's legal stabilization in June 1928. During the following three years it converted a large part of this sterling into gold, but refrained from converting all of it—out of regard for the "monetary difficulties of other countries." Nor did the Netherlands Bank and the National Bank of Belgium withdraw their entire sterling balances: as the latter explained, an early conversion of sterling into gold was not considered because of "feelings of international monetary solidarity." The three central banks consequently suffered large losses because of the sterling devaluation in September 1931. The bookkeeping losses have now been made good, but the episode has not been forgotten.

Today, foreign monetary authorities hold United States dollars for a number of reasons, which vary, of course, with the particular needs and circumstances. One of them is the need for operating balances, which has greatly increased with the expansion of United States foreign trade and with the increasing importance of dollar settlements in the trade between third countries. Official dollars in excess of operating balances are held because the United States dollar is eligible as cover for domestic currency under the monetary legislation or actual central-banking practice of many countries or simply because monetary authorities wish to hold interest-earning assets rather than gold.

Obviously, as foreign monetary authorities have built up their dollar holdings, the newly acquired dollars have come to be regarded less as additions to operating balances and more as reserves for longer-

run contingencies; such reserves, while they have to be kept essentially liquid, may suitably be invested in short-term securities, whether Treasury bills and certificates or bankers' acceptances and commercial paper. or held in the form of time deposits at commercial banks. Among the many considerations bearing on the preference of monetary authorities for short maturities are the need for liquidity, unwillingness to incur the risk of price fluctuations and thus capital losses if it should be necessary to sell longer-term securities, and legal restrictions in central-bank statutes. The preference of the various monetary authorities for any particular form of dollar-earning assets is partly a matter of the spread in the yield among these forms of investment, and partly a matter of taxes; during the periods when the spread is relatively narrow, tax considerations are undoubtedly important.*

At the close of 1958, foreign central banks and stabilization funds as a whole held \$18.0 billion in gold and \$8.7 billion in short-term United States dollar assets. For the most part, they have continuously added to their dollar holdings, having thus used only a part—though, at times, a sizable part—of newly acquired dollars to purchase gold from the United States. As a matter of fact, there are only two instances when foreign monetary authorities purchased gold with dollars drawn from pre-existing dollar balances; but both of these instances are significant and bear importantly on the functioning of the international monetary system today.

The first of these instances was in the closing months of 1950 and early 1951, at a time when, shortly after the Korean outbreak, the United States was experiencing acute inflationary pressures; on the other hand, foreign countries, because of the sharp rise in commodity prices and the increased commodity imports by the United States, earned all of a sudden much larger amounts of dollars. Not only did the foreign monetary authorities convert the dollars into gold as these were acquired, but they also converted, in the aggregate, some

* Interest paid to all foreign residents on acceptance holdings and on time deposits is exempt from the United States federal withholding tax of 30 percent. On the other hand, interest on foreign holdings of U. S. Treasury securities is exempt only if the holders are foreign governments or are among the central banks that have been given tax-exempt status under U. S. Treasury rulings and various tax treaties. A large number of foreign central banks thus remain subject to the United States tax. The tax status of a particular monetary authority is, therefore, important in determining the net yields available to it on alternative investments.

For central banks and other institutions that are tax-exempt, differences in the yields on Treasury bills and bankers' acceptances have, on the whole, been narrow. For banks that are subject to tax, however, acceptances yield more than Treasury bills. For such banks, time deposits also yield more; even for the central banks that have a tax-exempt status, time deposits on occasion may yield more than Treasury \$300 million of pre-Korea dollar holdings. By April 1951, however, these trends had undergone a sharp change. Foreign gold purchases from the United States came to a sudden halt, and beginning with the third quarter of 1951 were followed by heavy sales.

The sharp reversal in United States gold transactions in April 1951 undoubtedly reflected many factors, in the United States as well as abroad; the most important immediate one appears to have been, however, a marked change in expectations of foreigners regarding inflationary prospects in the United States. This change in expectations obviously took account, among other things, of the cessation of the rise in American prices in early 1951, the introduction of wage and price controls, the increase in output, the slowing down in the rate of consumer. purchases after the post-Korea scare buying, etc. But the adoption of monetary and debt-management policies designed, under an "accord" between the Treasury and the Federal Rerserve System, to minimize further monetization of U.S. Government securities through Federal Reserve purchases was, beyond any doubt, also important. The readiness and the determination of the United States to curb inflationary pressures largely removed the immediate motive for the monetary authorities of foreign countries to maintain a greater-than-usual proportion of their reserves in the form of gold.

In 1958, foreign countries as a whole purchased gold from the United States with currently acquired dollars, not with dollars drawn on pre-existing balances; they bought \$2,294 million worth of gold from the United States and added \$745 million to official short-term dollar assets. But some of the countries that made the largest gold purchases, in particular the United Kingdom, Switzerland, and Belgium, drew, to a varying extent, on their previously accumulated balances. Even though the reductions in dollar reserves by these countries were made up by increases by others, last year's experience points once again to the conclusion that a fundamental underpinning of the working balances and monetary reserves held by other countries in the form of dollars is firm confidence in the ability and determination of the United States to maintain its official price of gold. Any spread of doubt concerning that price can materially lessen the flexibility and reliability of monetary arrangements throughout much of the world.

Today, such apprehensions regarding the assured stability of the United States gold price are ill-founded and can only do harm. But the fact that there has been no massive liquidation of foreign short-term dollar holdings should not give rise to complacency. The United States is exposed to inflationary pressures that will not necessarily be, as during the earlier postwar years, weaker than those in other major

trading nations. A flight from the dollar might, therefore, be touched off if the idea gained ground that conditions were developing under which a rise in the United States dollar gold price would appear inevitable. If this were to take place, the pressure on the dollar could come not only from foreigners withdrawing their balances, which has its natural limits, but from Americans themselves. Renewed inflationary stresses in the United States ought to be prevented, of course, for overwhelming reasons of a domestic nature, economic and financial as well as political and social; but injury to the international standing of the dollar clinches the case.

Sterling versus Gold and Dollars

The third principal form of international reserves is the pound sterling. Under the old gold standard prior to 1914, sterling balances were used as an international currency in place of, or in addition to, gold; today, too, sterling continues to be widely used in international payments—financing perhaps some two-fifths of world trade—and is held as a reserve currency throughout much of the world. But holdings of sterling by monetary authorities of other countries (excluding Britain's colonies) are only about one-half as large as those of dollars. Furthermore, the bulk of official sterling reserves is held by countries that have traditionally had close political and economic ties with the United Kingdom; the holdings of nonsterling countries are much smaller.

It is an essential attribute of a reserve currency that there should be no restriction on its use for ordinary payments. The members of the overseas sterling area are free to use their sterling reserves for payments to countries other than dollar countries; and they are increasingly able to acquire dollars against sterling (as a practical matter, the degree of discrimination against dollar payments has been reduced during recent years, in the United Kingdom as well as in other sterling countries). Residents of nonsterling countries can, as a result of "external" convertibility reestablished at the close of 1958, make sterling payments to any part of the world or acquire gold on the London market.

There remain, however, several differences between sterling reserves today and before the Second World War—differences brought about by the war and its aftermath. Thus, external sterling liabilities of the United Kingdom, which are counted as reserves by other countries, greatly exceed its own gold reserves; the low-level of Britain's gold (and dollar) reserves in relation to its own obligations bears importantly on sterling as an international currency. Also, there has been increasing evidence of late that members of the sterling area now desire to build

up gold and dollar reserves of their own. With more dependent territories acquiring independence and establishing central banks, the tendency toward holding a portion of reserves in the form of gold and dollars has been noted in countries like Ghana, Iraq, and Malaya.

The picture contains, however, light as well as shade. Admittedly, British reserves are not as big as might be regarded desirable for an international center, but this insufficiency can be exaggerated. Sterling balances, which look big on paper, are in part held for long-term purposes. Also, a large portion of these balances is earmarked as backing for domestic currencies; to be sure, the local currency legislation can be amended in order to release the monetary reserves to meet external deficits, as in India during recent years, but the use of sterling balances as legal cover nevertheless remains important in all sterling-area countries.

Another sizable part of balances now represents working capital for the proper handling of settlements in sterling. The very fact that sterlingarea countries can draw down their balances whenever they run payments deficits, just as they build them up in good times, is a most useful contribution to the smooth financing of a large part of the world's trade. These sterling assets are thus invaluable, but as the British authorities have repeatedly stressed, sterling cannot continue to finance a large part of the world's trade and be used by other countries as a medium of reserve unless it remains strong.

Now that sterling acquired through trade has once again become convertible for nonresidents of the sterling area, not only into dollars but also into gold, the position of London as an international financial center has been greatly enhanced. This is a development of great import that will have far-reaching implications for the financing of world trade, the international movements of funds, and the functioning of the international currency system.

To be sure, there have been for several decades other financial centers alongside London. But while the emergence of New York as a major international center goes back to the 1920's and the 1930's, its importance has greatly increased during the postwar years at a time when London itself had seen its position weaken for political, economic, and financial reasons that do not have to be mentioned here. With the strengthening of sterling and the renewed importance of London as an international financial center—and also with the rebuilding of the secondary financial centers on the Continent of Europe—the international monetary system operates in a multi-centered environment. Nobody can tell how these arrangements will work out. All that can be said is that—to use the words of the International Monetary Fund's staff—"it

may well be that a multi-centered world can function as well as a one-centered world in periods of calm, but in periods of stress it is subject to wide and sweeping movements. Such movements may create severe strains in the international financial structure."* The need for effective international financial cooperation will, therefore, be even greater than during the past quarter of a century.

III. DOMESTIC CURRENCY AND INTERNATIONAL RESERVES

The international monetary system described in Sections I and II in which gold plays an important role functions in a political, economic, and financial environment different in many ways from that of the old gold standard. Section III will therefore review the actual functioning of the monetary system today in its most important domestic aspect—the relationships between the domestic currency and international reserves.

The Link Between International Reserves and the Domestic Money Supply

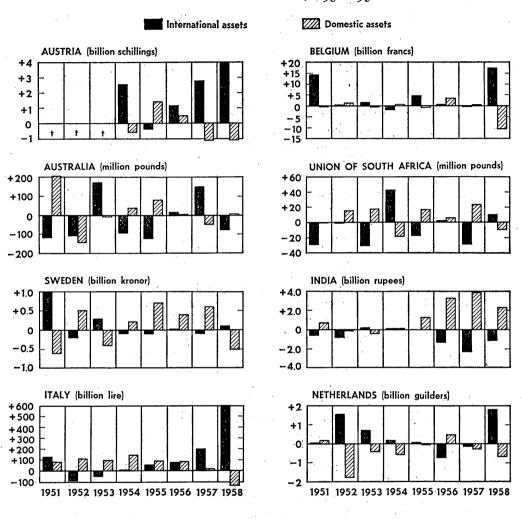
Whether or not the note circulation and other central-bank liabilities are subject to statutory reserve requirements, no government or central bank can frame domestic economic and financial plans and policies without regard to the external influences to which the country is subject or the external repercussions of the country's own domestic economic and financial conditions. The state of the country's international reserves is, of course, only one criterion for central-bank policy, and the importance of this guidepost varies from country to country, and over time; it is clearly of greatest concern to countries that are heavily dependent on foreign trade, or that have to operate on a narrow margin of reserves.

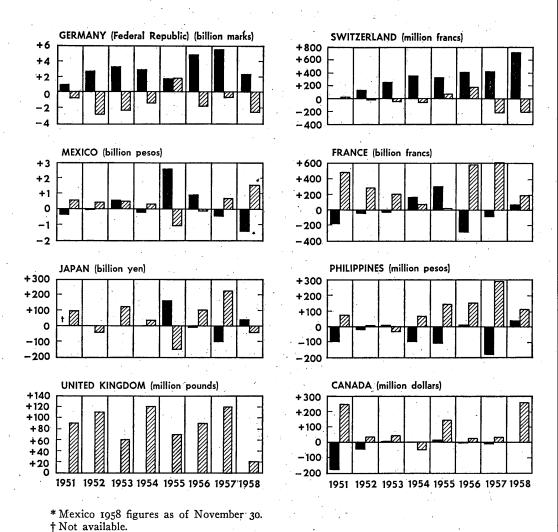
The link between international reserves and the domestic money supply is, in large parts of the world, much looser today than before the early 1930's and even looser than before 1914. Available evidence is summed up in Chart IV, which shows for sixteen countries the annual net change since 1951 in the central bank's international and domestic assets (i.e. in gold and foreign-exchange holdings, on the one hand, and in claims on the government and on the private sector of the economy, on the other). These changes in international and domestic assets determine, of course, the behavior of the note circulation and

^{*}International Reserves and Liquidity, p. 4.

CHART IV

CHANGES IN INTERNATIONAL AND DOMESTIC ASSETS OF FOREIGN CENTRAL BANKS, 1951-1958





Source: Adapted from International Monetary Fund, International Financial Statistics.

central bank deposits, and hence of the entire money supply. The year-to-year figures may conceal seasonal and other temporary movements, but the over-all picture is quite clear.

First, there are many countries—in particular Austria, Belgium, Germany, and Switzerland, as well as Australia, New Zealand, the Union of South Africa, and Mexico—where the gold and foreign-exchange inflows and outflows are a more important factor in the money supply than the changes in domestic assets. More often than not, an increase in international assets is accompanied by a smaller rise in domestic assets or even by an actual fall.

In Italy, the rise in the central bank's note and deposit liabilities rested during 1955-1956 on both foreign and domestic assets; however, the source of monetary expansion in 1957-1958 was almost entirely the inflow of foreign assets. In the Netherlands, the rise in the central bank's international assets was largely offset by a fall in domestic assets during 1952-1954. The loss of international assets in 1956 was made good by an expansion of domestic assets, which in 1957, however, fell more rapidly than the gold and foreign-exchange reserves; last year, the large inflow of gold and foreign exchange was partly offset by a reduction in domestic assets.

In a few countries, the United Kingdom and Canada in particular, the domestic money supply is isolated from the gold and foreign-exchange flows, and the counterpart of the currency issue consists almost entirely of government securities. In the United Kingdom, this arrangement dates back to 1939 when virtually the entire gold reserve was transferred to the Exchange Equalization Fund (the latter was established in 1932, when it was entrusted with a large portion of the Bank of England gold) and the whole issue of the Bank of England became fiduciary. In Canada, the Exchange Fund was established in 1940.

The absence of a relationship between the domestic money supply and international reserves does not, of course, in any way imply that the monetary authorities are unaware of the consequences for the country's external payments position of a monetary and credit expansion out of line with the physical capabilities of the economy. Furthermore, a practice under which the money supply rests on central-bank domestic assets rather than on the bank's international ones may well be suited to particular countries or particular circumstances. The postwar monetary experience of many countries, however, points to the conclusion that a supply of money and credit entirely separated from the central bank's international reserves has its dangers, and can be, and often has been, allowed to expand in excess of the currency needs

that are compatible with reasonable exchange stability. Conversely, a money supply related to international reserves has proved flexible enough to enable the authorities to retain full control over domestic currency. The relation need not be a formal one, and has not been in many countries, including several with the most developed central-banking systems in Western Europe.

Concern Over the Effects of Domestic Economic and Financial Conditions and Policies on International Reserves

Whether or not the accruals and the losses of gold and foreign assets are a factor in the formation of the money supply, the monetary authorities as well as the governments are necessarily concerned over the effects of domestic economic and financial conditions and policies on international reserves. Their concern stems, first of all, from the necessity to decide between holding reserves and spending them on purchases from abroad that may be regarded as more important or more urgent than gold and foreign exchange. This is a familiar dilemma in countries that wish to speed up at all cost the rate of economic growth; but such countries frequently tend to forget that investment in monetary reserves may, within a short period of time, prove more productive than the domestic investment foregone, for instance by avoiding an exchange crisis and the accompanying restrictions on economic growth.

Furthermore, the monetary authorities continually look upon gold and foreign-exchange reserves as an essential guidepost because they are aware of the consequences of disorderly monetary conditions for external balance. This is self-evident, but as a matter of fact it has required, during the past decade, prolonged efforts to have the obvious relationships between money supply and international reserves accepted once again as a determining consideration in domestic policy-making.

The marked reluctance during the early postwar years to let the state of the country's balance of payments influence domestic monetary conditions and policies appeared nowhere more strikingly than in the apparent surprise with which a British Chancellor of the Exchequer noted at the height of the first postwar sterling crisis in August 1947 that:

the contrast is most remarkable between the great difficulty of the overseas position . . . and the relative ease of the purely domestic financial position, in which things are very much better and easier than we would have had any reason to expect two years ago.*

^{*} Parliamentary Debates, House of Commons Official Report, July 18, 1947.

The "relative ease of the purely domestic financial position" was brought about, it may be recalled, by an expansion of money supply—on top of the wartime "suppressed" inflation—to hold down short-term interest rates at the exceptionally low levels established during the war and, even, to reduce government bond yields for a time below their wartime levels.

The lack of concern over the supply of money and credit, was, of course, a legacy of the 1930's when British theoreticians—having in mind primarily the United Kingdom and the United States, countries for which they could discard balance-of-payments "complications"—resented the link between domestic currency and gold as taking the control of money supply out of a country's own hands. They paid little attention to countries that could not afford to neglect their international reserve position; they failed also to work out the case of the United Kingdom on the assumption that it would find itself with inadequate reserves. The idea thus took root during the Second World War and the immediate postwar years that it would be possible to speed up economic reconstruction and expansion by abundant and easy money.

As time passed, however, it was gradually realized that adherence to easy money, essential as it was during a period of prolonged and exceptional unemployment, was harmful during a period of unprecedented strains on economic resources, and would necessarily exert adverse consequences on the country's balance of payments and international reserves. The balance-of-payments deficits came therefore to be regarded once again as basically related to the pressure of excess demand and to the cost-push effects of rising prices and wages. Many countries accordingly sought to restrict home demand and prevent or moderate the rise in domestic costs, and thus to expand exports, hold down the rise in imports, and maintain confidence in the currency—and, as a result, rebuild monetary reserves.

The wheel has thus turned a full circle. This is not surprising since the hard core of the problem of maintaining a sustainable economic balance, domestically as well as internationally, has necessarily remained unchanged. The problem today, as in the past, is primarily how to maintain a rapid economic growth in dynamic economies where these are unable to achieve rising levels of output, employment, investment, and consumption without causing inflationary pressures and balance-of-payments deficiencies. Whenever these deficiencies require sizable drawings on gold and foreign-exchange reserves and borrowing abroad in the form of emergency credits from the International Monetary Fund, United States and other countries, and private banks, they are a prima-facie indication of faulty domestic policies. Such policies

may take the form of tolerating inflation, which brings about excessive spending on imports and draws exportable goods into domestic uses, or of failing to correct price and cost disparities, which reflect an inflated level of home prices and costs. To be sure, the balance-of-payments problem of a given country actually may well be more than merely a by-product of inflation; but even though the structural aspects of production, productivity, and foreign trade are important, they cannot be realistically appraised without giving consideration to internal inflation which greatly aggravates the effects of these special factors.

Considerations like these can be corroborated by many specific instances drawn from postwar currency experience. To quote but one example, during each of the postwar sterling crises in Britain, most retrenchment through restrictive fiscal and monetary policies fell on investment; during the more or less automatic operation of the gold standard, investment, too, bore the brunt of adjustment. If a single lesson emerges from the postwar currency experience, therefore, it is that the relationships between domestic economic balance and the country's international reserves, even though less formalized than under the traditional gold standard, remain nonetheless real.

IV. CONCLUSION

I believe that our [monetary] system . . . may be worked safely; but if we wish so to work it . . . we must not think we have an easy task when we have a difficult task. . . . Money will not manage itself.—Walter Bagehot

The gold arrangements in the world today fulfill essential domestic and international functions. But do these arrangements supply the essential elements of a gold standard?

They do—in the sense that the gold standard is, basically, an institutional arrangement, as described in this essay, not an "automatic" system that, in some indefinable but inexorable way, can by itself provide monetary and exchange stability. For behind the institutional device lie, in a given set of historical circumstances, the problems of policy in each country and in the community of nations. These economic and financial problems change continually, but an institutional arrangement that makes essential use of gold can help handle them more efficiently and more safely than would otherwise be possible. Walter Bagehot's words, quoted above as the leitmotiv of these concluding remarks, are as relevant today as more than eighty years ago when the traditional gold standard was approaching its apogee.*

^{*} Lombard Street, London, 1878 (Seventh edition), page 20.

While a monetary system using gold cannot be regarded as endowed with intrinsic virtues capable of bringing about monetary stability at home and exchange stability in the community of nations, it has made in the past, and will make in the future, essential contributions to monetary stability. Domestically, it restrains the issuance of money by making it necessary to relate the money supply to international reserves, and internationally, among countries with broadly similar gold arrangements, it comes as near as is probably possible to providing a single world-wide currency system. To be sure, the concept of the gold standard as a currency system in which countries, tied together through fixed exchange rates, held each other automatically in balance as a result of the free interplay of economic forces working through cost-price mechanisms was greatly oversimplified even for its own day; but there was a kernel of truth in it.

Today, the international function that gold continues to fulfill has actually become more immediately visible than the domestic function; but the latter is as relevant as the former since a sustainable domestic balance is, as it has always been, one of the essential prerequisites for external balance. This is another way of saying that a country cannot indefinitely consume or invest more than it produces: it can live beyond its means only so long as it spends its gold and foreign-exchange reserves or receives loans and grants from abroad. True, the adherence to the fairly simple rules of the pre-1914 gold standard is now a thing of the past. But the need for monetary discipline is as real, and the sanction for its disregard as direct, as under the traditional gold standard.

This does not, of course, imply that monetary and fiscal policies are now devised exclusively with regard to a country's balance-of-payments situation and with little or no thought to its domestic situation; such a concept of the old gold standard was always greatly over-simplified. All nations today are committed to "monetary management" (and for this end, fiscal policies are as important as monetary policies). At the same time, however, there is a growing awareness that "management" must be more skillful and more courageous than it has always shown itself during the past decade. This calls, among other things, for central bank-government relationships under which the bank is the government's natural adviser in all matters of finance, domestic as well as external, and is able to fulfill its duty of cooperating with the government to the fullest possible extent. To quote an analogy drawn by the first postwar governor of the Bank of Italy and former President of the Republic of Italy, Mr. Luigi Einaudi, the position of the central bank in relation to the government is like that of the slave who had to sit

on the chariot of the triumphant conqueror returning to Rome and remind him all the while that the Tarpeian Rock was close to the Capitol!

Similarly, there is, in substance, much less difference than is sometimes believed between the functioning of the international monetary system today and under the traditional gold standard. Gold continues to serve as a common denominator of currencies and a means of ultimate settlement among nations. By far the most important difference is that, under the old gold standard, the limit to the balance-ofpayments deficit that a country could run on current account was determined by the size of its disposable gold (and foreign-exchange) reserves plus the amount that it (or rather its nationals) might borrow abroad. Today, the function of equilibrating the balance of payments is performed not only by gold and foreign exchange but also-even though within definite limits and subject to certain rules and safeguards-by credits extended by the International Monetary Fund. Intergovernmental loans and grants-in-aid provide additional resources to enable deficit countries to balance their external accounts. The difference between now and then must not, however, be overstated since the Fund resources and intergovernmental loans and grants are necessarily limited. Besides, movements of short-term capital in response to interest-rate differentials between the various money markets, which in earlier days were the prime equilibrating factor, are becoming once again more frequent. A creditworthy country is increasingly able to supplement its reserves by borrowing.

The International Monetary Fund, whose resources are now in the process of being greatly enlarged, has increasingly sought during recent years to conduct its operations in such a way as to strengthen the monetary discipline that is essential not only to restore a balanced position internally in each country but to make an international monetary system function at all well.

Another primary objective of the Fund is to promote exchange stability, to maintain orderly exchange arrangements among members, and to avoid competitive exchange depreciation; but the Fund has made it clear that it stands for stability in rates and orderly changes in rates, and not for rigid rates that are to be permanently frozen. It thus aims at providing a pattern of exchange rates sufficiently rigid to enable traders and investors to count on reasonable exchange stability, and yet supple enough to permit such orderly adjustments of exchange as might be required to deal with a fundamental balance-of-payments disequilibrium.

These supplemental features of the international monetary system

today give it as much flexibility as is desirable to meet changing conditions, and as much stability as may prove feasible in an unsettled world. But these arrangements, while providing temporary relief, do in no way make it less mandatory for a country to live within its means. It is, therefore, not that a country may divorce the domestic economic conditions and policies from its external balance of payments and international reserves, but rather that a certain leeway has been built into the world currency arrangements in order to allow a fuller and more continuous utilization of economic resources than had been obtained, at times, under the old gold standard.

This has been, in the words of Mr. Roger Auboin, "a fascinating evolution, which had played no little part in shaping the Europe and the world of tomorrow by effecting a necessary synthesis between the core of basic truth still remaining in the monetary traditions inherited from the nineteenth century and those aspects of the innovations of the twentieth century which, when put to the test, have proved effective and constructive."*

What will come out of this evolution of ideas, institutions and policies, nobody can foresee. Amidst the many uncertainties in the world today, there can be no assured hope that an effective single international payments system like the pre-1914 gold standard will be reestablished. But if there is any hope at all of succeeding in this endeavor, success will have to come the hard way—not by relying on the formal attributes of the gold standard, but by recreating conditions, in each country and in the world at large, in which free dynamic economies will learn how to maintain a rapid economic growth and high living standards without at the same time allowing the purchasing power of currencies to be whittled away bit by bit and without indulging in chronic balance-of-payments deficiencies. This, indeed, is the hard core of the problem of international equilibrium in the twentieth century.

^{*}Twenty Years of International Co-operation in the Monetary Sphere, 1938-1958, Bank for International Settlements, Basle, September 1958.

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