

ESSAYS IN INTERNATIONAL FINANCE

No. 70, October 1968

THE GOLD-DOLLAR SYSTEM:
CONDITIONS OF EQUILIBRIUM
AND THE PRICE OF GOLD

MILTON GILBERT



INTERNATIONAL FINANCE SECTION

DEPARTMENT OF ECONOMICS

PRINCETON UNIVERSITY

Princeton, New Jersey

This is the seventieth number in the series ESSAYS IN INTERNATIONAL FINANCE *published from time to time by the International Finance Section of the Department of Economics at Princeton University.*

The author, Milton Gilbert, is Economic Adviser to the Bank for International Settlements in Basle. He was formerly Chief of the Current Business Analysis Division and of the National Income Division of the U.S. Department of Commerce, and later Economic Adviser of the Organization for European Economic Cooperation. This is his second contribution to our series of Essays. No. 53, PROBLEMS OF THE INTERNATIONAL MONETARY SYSTEM, was published in 1966.

In the present essay the author has deliberately not discussed events that have occurred since he prepared the manuscript in the summer of 1967, in order to avoid matters on which there are differences in official views. None the less, the analysis presented of the fixed-rate system with two reserve media—gold and dollars—deserves a public forum.

The Section sponsors the essays in this series, but takes no further responsibility for the opinions expressed in them. The writers are free to develop their topics as they will. Their ideas may or may not be shared by the editorial committee of the Section or the members of the Department.

FRITZ MACHLUP, *Director*
International Finance Section

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The purpose of Part III is to relate the four situations described above abstractly to concrete developments in the system from before World War II up to mid-1967. Specifically, it aims to show that the basic cause of continuing external disequilibrium and gold losses has been the shortage of new monetary gold, and that without the gold shortage the external position of the United States would have been in equilibrium most of the time since 1950. The section ends with a summary of the deterioration of the gold-dollar system that has occurred since 1960.

THE GOLD-DOLLAR SYSTEM: CONDITIONS OF EQUILIBRIUM AND THE PRICE OF GOLD

This essay was written in the summer of 1967; its purpose was to explain the nature of the international monetary system and how it functioned up to mid-1967 as a background to the consideration of various possible improvements in the system. Hence, it deals with the system as it has been—not as it might become. While I have made drafting changes and clarifications, I have deliberately not extended the paper to cover the events of the past year so as to avoid discussion of matters about which there are differences in official views. My objective is to analyze the system and not to enter into the political problems of its future evolution.

More specifically, the essay aims to distinguish between difficulties arising from inadequate adjustment policies of individual countries and difficulties arising from a disequilibrium¹ in the system as a whole, which concerns the relationship between gold and the dollar. The analysis is focused on the persistent deficit in the balance of payments of the United States and is designed to bring out its underlying and transient causes.

The Gold-dollar System

The present system is usually called the gold-exchange standard. As it emerged from Bretton Woods and as it has functioned in the postwar period, however, it is more to the point to call it the gold-dollar system.

It may seem curious that economics textbooks do not provide an analytical model of the system. Indeed, there is not really a formal theory of the gold-exchange standard, comparable to the theory of the gold standard. This may be, partly, because the system has not been static but has been developing under the changing conditions of the last two decades. However, it is also because the system does not lend itself easily to presentation by a simplified model, as does the gold

¹ My use of the terms "equilibrium" and "disequilibrium" to characterize concrete situations in the real world seems to unbalance the editorial equanimity of Fritz Machlup, who has long and resolutely maintained that these terms should be used only with reference to theoretical models with all variables fully specified. For want of more suitable terms, I shall continue to use the proscribed ones in their real-worldly meanings.

standard, since central banks do not constitute a homogeneous universe and do not act according to a set pattern of economic considerations.

The absence of an accepted theory of the gold-dollar system has made for much confusion in public discussion. Economists and officials do not start with a generally agreed conception of how the system works or ought to work, such as they have, say, in dealing with problems of demand management. They do not have a model for the equilibrium of the system or a common view on the respective roles of gold and the dollar. In these circumstances, very diverse, and often contradictory, proposals have been offered to solve the problems of the system and the deficit of the United States. In the main, these proposals are either unconvincing as prescriptions for establishing equilibrium in the framework of the present system, or they involve changes so fundamental as to constitute a new system. It is hardly surprising that the political authorities have not been able to find their way out of the maze.

I. BASIC PRINCIPLES AND BEHAVIOR CHARACTERISTICS OF THE SYSTEM

The system rests on a series of basic principles and behavior characteristics which determine its mode of operation. These derive from law, from international agreements, from the policy aims of central banks and governments, and, in some respects, from technical necessity. It is, of course, an evolving organism, which was different thirty years ago and which will, no doubt, be different thirty years hence. The concern here, to repeat, is with the system as it has existed during the past two decades.

A. Fixed Exchange Rates

1. Fundamental to the system is the aim of monetary authorities to adhere to fixed rates of exchange. Maintenance of the rate has a high priority with all countries and other objectives are often sacrificed to it. It is apparent that fixed rates have overwhelming support from the business and financial community also.

2. To say that we have a fixed-rate system raises the question of what the rates are fixed to. Under the IMF Articles, a country may declare its par value in terms either of gold or of the dollar of the gold weight and fineness in effect on July 1, 1944. There is only a minor technical difference between these two standards.

However, the operative standard for most countries is the dollar as such, and central banks in practice intervene in the market when necessary by buying or selling dollars against their own currencies to keep the dollar exchange rate within agreed limits. The cross rates with other currencies are kept in line by market arbitrage. There are exceptions, of

course, such as the countries of the sterling area, which peg their currencies to sterling and rely on the Bank of England to maintain the fixed rate between sterling and the dollar. But, generally, central banks operate directly on the market for dollars vis-à-vis their own currency, and it is the market rate on the dollar that is significant for their international competitive position—irrespective of the legal gold content of the dollar.

3. The exception in the system is the dollar itself, which both in law and in fact is fixed in terms of gold—at \$35 an ounce. The United States is not obliged to intervene in the exchange market; it has only to be prepared to buy and sell gold at \$35 and can leave it to the intervention of other central banks to maintain fixed rates to the dollar. The United States has intervened in the market at times in recent years, both spot and forward, but the purpose was to avoid losses of gold from temporary movements of funds rather than to keep rates in line.

B. Reserves

1. To maintain fixed rates the monetary authorities must hold reserves so that they are in a position to iron out fluctuations in supply and demand in the foreign-exchange market. Reserves consist of liquid international assets, readily available for intervening in the market, and are almost entirely confined to gold and to foreign-exchange assets in dollars and sterling.

However, while sterling is important to the international economy as a trading currency, it is active as a reserve currency only in settlements between the United Kingdom and sterling-area countries. Hence, it is a regional reserve currency and quite different from the dollar, which is the reserve currency of the system. To simplify matters I will discuss only dollars, thus treating the sterling area (and, likewise, any other monetary area) as a unit which holds reserves in gold and dollars.

It will be seen, therefore, that the system is a gold-dollar system for two reasons: first, currencies are fixed either to the dollar or to gold and, secondly, the reserves of the system are gold and dollars.

2. Each central bank is free to determine the composition of its reserves as between gold and dollars. Its policy in this respect is in its own hands, because it can sell or buy gold against dollars at the U.S. Treasury. If there is any constraint on such exchanges, even psychological or political, the convertibility of the dollar at its fixed relationship to gold comes into question. In practice, there is a wide range among the countries in the ratio between holdings of gold and dollars, indicating that central banks give different weight to the benefits to themselves of the two categories of assets.

3. Dollars are held almost entirely in money-market instruments and time deposits, as these are liquid assets that earn interest. Gold, on the other hand, produces no revenue. It is important to realize that, if central banks could not earn interest on dollars, their reserves would be almost entirely in gold. Some central bankers have stressed that they are not primarily concerned with interest earnings in determining the composition of their reserves. This may be true of marginal changes in reserves; but the point is that, if the United States did not permit central banks to invest dollars at interest, they would never have acquired the dollars in the first place; they would have acquired gold.

Hence, the first requirement for a currency to become a reserve currency is that there must be an open money market in which foreign central banks can freely invest in short-term paper. In addition, the money market must be capable of absorbing large central-bank transactions, and the convertibility of the currency at a fixed rate must be rather secure. It is because New York and London are the only two open money markets of any size that the dollar and sterling are the only two significant reserve currencies. And it is because exchange rates between sterling and other currencies have not been secure that the dollar, supported by large gold reserves, supplanted sterling as the reserve currency of the system.

Other currencies have not become reserve currencies either because the central bank discourages placements of funds at interest by foreign central banks or because their convertibility at a fixed rate does not seem reasonably assured over the longer run. Continental European countries have not wanted to become reserve centers; they are reluctant to have their markets and reserves disturbed by large-scale operations of foreign central banks and some, also, see no point in their country bearing the interest burden attached to having their currency held as reserves.

It has been said that dollars are kept in reserves primarily as a matter of convenience, since dollars can be used directly in the exchange market whereas gold must first be converted into dollars for the purpose of market intervention. However, dollars held in money-market paper or on fixed-term deposit must equally be converted into cash to be available for market intervention, and there is no great difficulty in converting gold into cash.

While a variety of developments went to make the dollar the reserve currency of the system, the United States took no initiative in the matter; its action was only permissive.

4. With respect to its reserves, also, the United States is an exception. While other countries are free to hold their reserves in any combination of gold and dollars they wish, including 100 per cent in dollars, the

United States must hold its reserves essentially in gold. This is because there is no other currency besides the dollar that can be used for general intervention in the exchange market; hence, any foreign currencies held by the United States cannot be used for general support of the dollar in the way that other countries use the dollar as a general support for their currencies. The United States can generally use foreign-exchange holdings only for bilateral settlements. To underline the importance of this point, France could hold all its reserves in dollars if it were so minded, but the United States could only hold a quite small fraction of its reserves in French francs.

The foreign-exchange assets that have appeared in the reserve statistics of the United States in recent years were always acquired for specific purposes. For example, there may be a temporary holding of D-Mark which were acquired in the market in anticipation of repaying D-Mark Roosa bonds to the Bundesbank. Or, there may be small holdings of Swiss francs to be fed into the market when the dollar is under pressure so that the Swiss National Bank will not have to acquire the excess of dollars which it might then want to convert into gold.

The only currency that the United States has held in large amounts has been sterling. These holdings arose mainly because American assistance to the Bank of England was given in the form of swaps of dollars against sterling—rather than as simple advances. The sterling, of course, could not be used at the same time by the United States to meet its own deficit or to avoid gold losses and, therefore, was not “reserves” in the ordinary sense of immediately marketable assets. To count such sterling assets in reserves is about as appropriate as it would be, say, for a business firm to include its accounts receivable in its cash.

5. Since the United States is the only country obliged to hold its reserves in gold, the function of gold as a “discipline” against excessive money creation is primarily applicable to the United States. Other countries are subject to balance-of-payments discipline, but the discipline lies in the loss of any reserves—whether dollars or gold. Even so, a loss of gold makes a much greater impression on public opinion in many countries than a loss of foreign-exchange reserves or foreign borrowing by the central bank. If other countries entirely stopped acquiring gold, the discipline of gold on the United States would become rather theoretical. This is particularly so because increases in its liabilities to foreign official institutions seem to have exerted little discipline on the United States.

6. Why do central banks, apart from the United States, hold non-interest-bearing gold at all and what determines the proportion between their holdings of gold and dollars? Several considerations are involved, to which the various countries attach different importance.

(a) Gold is unique in that the asset of the holding country is not a liability of another country. For dollar assets, on the other hand, there must be a liability in the United States—either money-market paper or bank deposits. Hence, the disposition of gold is entirely in the hands of the holding country, while the use of dollars may require the acquiescence of the United States. However remote it may seem, countries take account of the possibility that exchange balances may be blocked in times of political trouble, such as war, and they hold some gold over which they are the sole masters. This is the “war chest” motive and it is often said that holding gold is an aspect of sovereignty. Gold buying by China in 1965 and 1966 probably reflected this motive, and one sees its influence frequently in times of political stress. The war-chest motive is sometimes disparaged by writers who look upon gold as anachronistic, but it is evident that every major country gives it some weight in its reserve policy. Apart from the fact that gold reserves have been drawn upon in past wars, their existence supports a country’s credit standing in such troubled times. It is a fact also that foreign-exchange balances have been blocked for political reasons.

(b) The exchange risk to a central bank on its gold reserves is limited to a possible fall in the price of gold or to an appreciation of its own currency vis-à-vis gold. On dollar reserves there is the additional risk of its own currency appreciating vis-à-vis the dollar as a result of a rise in the dollar price of gold while its own price of gold remains unchanged. When sterling depreciated in 1931, some central banks had large balance-sheet losses on their sterling holdings by the change in exchange relationships. The small group of central banks that hold almost all of their reserves in gold are concerned primarily to avoid such risk to their balance-sheet position. They do not consider it a primary function of the central bank to earn interest on its reserves; they took their increases of reserves in gold even when there seemed to be no possible threat to the convertibility of the dollar, because they knew, if the risk should arise, there might be practical limitations to conversion of dollars into gold. Having their reserves in gold, they believe, gives them greater independence of action in the event of a future monetary crisis; that is, if the United States should reduce the gold content of the dollar, they would be free to fix their exchange rate with the dollar on prospective balance-of-payments considerations alone—without the complication of a possible loss in the domestic-currency value of their reserves.

In holding gold, of course, a central bank must have confidence in the intrinsic value of gold in terms of its own currency. But, then, they all do—and that is putting it mildly.

(c) Another consideration in reserve policy is the possibility of a universal rise in the price of gold. A central bank which held only dollars in that event would not take any loss on its reserve holdings, but it would not have the benefit of the marked-up value of reserves that gold-holding countries would have. I know of only one central bank which calculated years ago that the book profit from a possible rise in the gold price was too uncertain to set against realizable interest earnings; it, therefore, made the decision to hold a minimum in gold, to take its interest earnings on dollar holdings, and to stick to this policy even if a rise in the gold price became more of a possibility. But many other central banks have not been that unwavering. Besides, some feel themselves open to internal political criticism when their ratio of gold reserves gets much out of line with that of neighboring countries.

(d) A large number of central banks have a very low gold ratio. These are mainly capital-importing countries. They have not given much weight to the exchange risk because they expect to maintain a fixed rate with the reserve currency under almost any circumstances. Furthermore, they look upon their reserves partly as overborrowing by their country from abroad, and they see their interest earnings as a partial offset to the interest payments which have to be made abroad. Some central banks, also, have little scope for earnings on domestic operations and it is only interest receipts on their reserves that allow them some independence from the government.

(e) A few central banks have always considered it an obligation to take at least part of any increase of reserves in gold so that the "discipline of gold" should be a reality for the United States. Likewise, some have continued to buy some gold from the United States to maintain the principle of the convertibility of the dollar, even after it became impractical to exercise the right of convertibility to the limit. They have felt it necessary to resist full acceptance of a dollar standard and have been strengthened in this view by what they consider to be an inadequate priority which the United States gives to correction of its payments deficit. As one official put it, if we accept a full dollar standard, it would be like having a country with two central banks—sometimes working at cross purposes.

(f) In several countries the law requires the central bank to maintain reserves in gold as backing for the domestic currency. This legal provision is a leftover from the days when gold coins were in active circulation and has little relation to present-day conditions. It is the only motive for central banks holding reserves in gold that is entirely traditional.

Given this variety of motives, it is apparent that the comparative benefits of holding gold relative to dollars cannot be calculated. In other words, central banks cannot know what reserve policy will make their country better off—and, perhaps, they cannot even define precisely what being “better off” is. What many do, therefore, is work to some rule of thumb. A few years ago, for example, there were several central banks that aimed to have about a 50-50 ratio between gold and dollars, whereas others held mostly gold and still others mostly dollars. Reserve ratios generally are not set once for all, however, but are subject to change according to circumstances—particularly to changes in the degree of certainty regarding the gold convertibility of the dollar at its fixed price.

7. Besides reserves, IMF facilities are available in the system to assist countries that encounter balance-of-payments difficulties. The amount any country may draw is originally fixed by its quota, which broadly reflects its size and economic strength. In establishing its quota, each country as a rule pays 25 per cent to the IMF in gold and 75 per cent in its own currency and agrees that its currency may be drawn upon in case of need to finance other countries' drawings. The Fund may also finance drawings partly by selling gold in order to acquire the needed currencies.

The right of a country to draw on its gold subscription is practically automatic; so also is its right to draw on any credit balance it may have built up by having had its own currency drawn upon. These two amounts have come to be called a “reserve position in the Fund.” If a country draws on its quota above its reserve position in the Fund, it is taking credit and its right to this credit is conditional upon the IMF judging that its policies are likely to correct its external deficit.

From the standpoint of meeting a deficit, therefore, a Fund reserve position is equivalent to a country's own reserves. But it differs from reserves in three respects:

(i) A drawing on the 25 per cent gold tranche of its quota carries repayment obligations.

(ii) Public confidence in a currency depends more on the size of reserves than on the country's reserve position in the Fund.

(iii) A Fund reserve position—except for credits under General Arrangements to Borrow (GAB)—does not yield interest like dollar reserves, nor does it have the characteristics that induce countries to hold non-interest-bearing gold; thus, when surplus countries supply resources for drawings by deficit countries, they do so as an act of cooperation rather than an act of investment for its own sake.

There has been one instance of a country making a deposit with the IMF; the consideration involved was that the deposit was covered by a full gold guarantee, in contrast to the normal gold-value guarantee incorporated in the IMF Articles. Hence, it is not an arrangement with large possibilities of expansion, because the IMF could not assume the risk on the price of gold.

The credit tranches of a country's quota are not comparable to reserves; they are conditional facilities and any credit obtained carries definite repayment obligations and interest charges.

Some high officials have had the hope that drawings on the IMF would become fairly routine central-bank operations—like the use of bank credit by a business firm to supplement its working capital. Thus far, however, this idea has not been realized; drawings on the IMF have been indicative of a strained or crisis situation in which the IMF is called upon as a rescue organization. In fact, countries have at times emphasized drawing on the IMF so as to gain public support for necessary corrective policy actions.

Since the IMF was established in 1944, there have been two general increases in countries' quotas, by 50 per cent in 1959 and by 25 per cent in 1966, as well as special increases for particular countries. Also, the General Arrangements to Borrow was agreed to by the Group of Ten industrial countries in 1962, whereby they could lend additional resources to the Fund to help meet large drawings by members of the Group. The need for this arrangement arose because the Fund's stock of convertible currencies could be inadequate to meet large drawings under conditions when a balance-of-payments deficit of the United States limited the Fund's use of its dollar holdings or when the United States itself wanted to make a large drawing on the Fund. In either of these cases, therefore, the Fund could have a problem of liquidity; in fact, in the Bretton Woods arrangements it was probably not contemplated that the Fund's dollar holdings might not be freely usable because of a large deterioration in the reserve position of the United States.

It should be noted that transactions under the GAB are covered by a full gold guarantee.

8. In addition to the IMF, short-term central-bank credit facilities have been arranged among a number of countries. These may be used on an ad hoc basis and are designed essentially to help meet reversible movements of private funds and to relieve the pressure on the reserves temporarily while the character of the demand for foreign exchange is being appraised. Such assistance is provided on the credit standing of the central bank, in which the size of the reserves is an essential con-

sideration. They are not conditional in the sense of IMF credit facilities, since the borrowing central bank cannot make commitments about the adjustment policies of its government.

9. Besides reserves and official credit facilities, extensive use is made of foreign commercial-bank credit and other private liquid funds to meet strains on the exchange market. Central banks may do this on their own account, or they may arrange matters so that it is done by their own commercial banks. The scope for such operations has been much enlarged by the development of the Euro-dollar market and the market has in recent years been drawn upon by several countries for quite large amounts. Private credit facilities are certainly a flexible supplement to official resources and are likely to be of growing importance. It would be going too far, however, to consider them a substitute for monetary reserves, especially since a country with inadequate reserves is not likely to have a high credit rating with private banks.

C. The Adjustment Process: Countries in Deficit

1. A country with a balance-of-payments deficit can for a time hold its exchange rate by drawing on reserves and available borrowing facilities. As these are limited, however, and as drawing on them too much may make matters worse by leading to a flight from the currency, the authorities must sooner or later take action to get out of deficit. When this adjustment is not brought about, and the exchange parity depreciates, economic and financial policy are considered by the general public to have failed. Whether maintaining the rate is a reasonable objective in given circumstances, however, depends on whether the authorities can take sufficient policy action to eliminate the deficit.

2. The policy actions available to eliminate a deficit and some limitations on them are, briefly, as follows:

(a) Fiscal and monetary restraint on total domestic demand so as to limit imports and, possibly, encourage exports. After a bout of inflationary pressure, the curtailment of demand to restore external balance often results in a short period of domestic recession. But the Bretton Woods experts did not expect countries to subject themselves to prolonged stagnation in order to maintain the fixed exchange rate of the currency. While this does happen, of course, it is the country itself which sets the priorities among its objectives.

(b) Monetary restraint to raise interest rates relative to rates abroad so as to improve the net external balance on short and long-term capital account. This instrument, too, has limitations because it will cause domestic recession and stagnation if pushed too far—though the limits can be widened by compensatory fiscal action.

(c) Long-term borrowing abroad by the government or by other authorities of the public sector. This is easier for some countries than for others.

(d) Reduction of government expenditures abroad, in cases where such expenditures are relatively large. The limitations on this technique are political but, none the less, real.

(e) Direct controls on imports and invisibles. Import controls are subject to severe limitations by international agreement and their use by an industrial country implies a rather desperate situation. Indeed, as the major purpose of a fixed rate is to encourage liberal trading practices, there is not much sense in maintaining the rate by restrictions on trade. The limitations on controls over invisibles are less severe, but such controls are used much more for protection than for balance-of-payments purposes.

(f) Direct controls on capital exports. Such controls are not limited by international agreement and may be used freely, not only by deficit countries, but even by countries in surplus, without any sanctions being available to other countries. In fact, a country with a balance-of-payments deficit attributable to a deficit on capital account is not normally supposed to be eligible for IMF assistance. Many countries maintain controls on capital movements, either for balance-of-payments or for domestic reasons; others have little need of them because the combination of monetary and fiscal policies they follow leads to market conditions which limit capital outflows anyhow.

Hence, in adhering to the principle of no direct capital controls until a few years ago, the United States was almost alone among the convertible-currency countries. Because of its high per capita income and the huge volume of savings generated by its economy, the United States would have been the dominant capital market in the world in any case. But this position was reinforced by the controls and policies maintained in other countries.

In the last few years the United States has imposed direct capital controls to limit its gold losses. Most other industrial countries find this course perfectly natural and desirable. Indeed, some seem to believe that the deficit of the United States, apart from the effects of the Vietnam war, could be cured by stringent enough capital controls. This view, to my mind, does not take sufficient account of all the links there are between the capital and current accounts, or of the shifts that take place between the various categories of capital outflow and inflow when controls are applied.

3. The force of these instruments can be very substantial when they are used vigorously and there have been many instances in the postwar

period of countries emerging successfully from a period of deficit by means of them—without undergoing deep recession or prolonged stagnation. However, cases can and do arise in which they are unable to restore external balance—usually because domestic inflation has gotten internal prices and costs too far out of line. Hence, the aim of maintaining a fixed rate cannot be considered absolute.

A deficit position which requires a change in the exchange parity to bring about correction is called a “fundamental disequilibrium” and it is provided in the IMF Articles that a country in such a situation may change its rate without sanctions. There is no legal definition of fundamental disequilibrium, but in practice countries do not apply to the IMF for a change in rate before the situation is perfectly obvious; they have always obtained approval. A country that resorts to extensive exchange restrictions in such a situation instead of adjusting the rate is not supposed to be eligible for IMF assistance, though, if the truth be told, some countries have gotten away with murder. It is far from pleasant for the IMF to insist that a country devalue as a condition to drawing IMF credit.

While the evidence of fundamental disequilibrium in some cases is unmistakable, the distinction between transitory and basic imbalance is difficult to make in others. There is no computer program by which the precise equilibrium rate of exchange can be determined, and, even if there were, no country would change its rate to correct a small disadvantage in the structure of exchange rates. There are several reasons which justify this attitude. First, to depreciate the rate by, say, 3 per cent or 5 per cent would be likely to do more harm than good, because of the distrust in the currency that it would engender. Secondly, the policy instruments available for maintaining external balance are sufficient to prevent prolonged reserve losses in such cases, without undue sacrifice of other objectives, for example, by rather small changes in the capital account. And thirdly, there is an adjustment process constantly at work which tends to correct small imbalances, particularly when it is helped along by appropriate demand policy and when it is not negated by continual wage inflation. This adjustment process takes place both within the given country and in the world economy on the outside; its reality is evident from the fact that reasonably well-managed countries are able to maintain fixed rates over long time spans.

Thus, the existence of fundamental disequilibrium is a matter of degree and to specify it in any given case is a matter of judgment. Such a judgment is particularly hazardous when external imbalance is accompanied by excess domestic demand and when there is likely to be some flight of capital contributing to the imbalance. For example, there were

observers who considered that the lira had become overvalued in 1963, but this was proven to be a misjudgment as soon as the domestic inflation was brought under control. On the other hand, all competent analysts considered the French franc to be in fundamental disequilibrium in 1957—and they were right.

4. For the generality of countries in deficit, the availability of a change in rate, which improves the competitive position of exports relative to imports, means that a balance in external payments can always be restored. In fact, it always is restored. When a country delays action until it runs out of reserves and runs out of credit, it must in the end devalue. It may hide this fact from itself by tying its economy into knots with extreme exchange restrictions and multiple exchange rates and by turning its eyes from the black market which always springs into life in such circumstances. But, then, the currency has effectively been devalued *de facto*, if not *de jure*.

Consequently, there is nothing wrong with the adjustment process when it is viewed as including a change in exchange rate as the ultimate policy instrument. We have seen it work perfectly adequately in case after case. Where the external deficit was due merely to excess domestic demand, as in the Netherlands in 1956-57, Italy in 1963-64, or Germany in 1965-66, the deficit disappeared when effective monetary and fiscal measures were taken to restrict internal demand. And where such action would not do, because there was a fundamental disequilibrium, as in France in 1956-57, or Spain in 1957-59, the deficit disappeared when appropriate devaluation was undertaken in combination with restricting excess demand, which was the cause of the imbalance in the first place.

It would be far more satisfying, of course, if the monetary and economic behavior of countries were always such that they avoided falling into fundamental disequilibrium. But if they do not, it is no reflection on the system. And if they choose to suffer the distortions and stagnation of an overvalued currency instead of adjusting to an equilibrium exchange rate, it is on their own responsibility as sovereign nations.

5. Here again, however, the United States is a significant exception because as a practical matter it cannot act directly on exchange rates. This follows to some degree from the fact that the dollar is fixed to gold, rather than to any particular currency. But it is a consequence even more of the weight of the United States in the world economy and the significance of the dollar in the international monetary system. Suppose the United States decided that its balance-of-payments deficit could not be corrected by acceptable adjustment policies, and that it had gone the limit in using its gold reserves and taking IMF and central-bank assist-

ance. It could then either raise the dollar price at which the Treasury buys and sells gold or simply suspend gold sales by the Treasury without fixing a new price for the time being. Whether any changes would then be made in exchange rates vis-à-vis the dollar would depend upon the reaction of other countries. In the first case they could maintain their fixed parities to the dollar, with the result that the price of gold would be higher in all currencies. In the second case, also, they could intervene in the exchange market to maintain the peg to the dollar and let the price of gold in their own currencies be free to move with market forces.

I leave until later the question of what they might do under various conditions and here wish only to stress two points: the first is that the process available to the United States for removing a persistent deficit is different than for other countries; the second is that the equilibrium of the dollar involves the equilibrium of the whole system in a way that is different than for other currencies and is necessarily related to the price of gold. The difference between the dollar and other currencies in this regard may seem to be a difference of degree, but it is so large as to constitute a difference in kind.

6. This position of the dollar is what lies behind the official insistence on improvement of the adjustment process. There is not great concern about the adjustment process in general, because other countries cannot avoid adjustment. And even if they have to adjust by means of a change in exchange rate, it is largely a local affair which does not involve the system as a whole. The key target of the demand for better adjustment is the persistent deficit of the United States because it is likely to involve the stability of the system as a whole. There has been a strong feeling that somehow its deficit has reflected misbehavior on the part of the United States—even when the United States was clearly not having excess demand, when the margin of unemployed resources was unnecessarily large, and when it could not be convincingly shown by what combination of policy measures the United States could meet the demand to eliminate its deficit. However, there have been very few in official circles bold enough to draw the apparently logical conclusion that the dollar was in fundamental disequilibrium; very few have felt that their exchange rate vis-à-vis the dollar ought to have been revalued. For its part, the United States took refuge in the idea that the trouble was with lack of adjustment by the surplus countries—and the charges back and forth left matters more or less at a standstill.

For the past several years, also, criticism of the adjustment process has been directed at the United Kingdom. However, the United Kingdom was having substantial excess demand, domestic inflation, and overfull employment. And at the same time it was asking for very large

assistance from abroad to finance its external deficit. Hence, the grounds for complaint were quite different than in the case of the United States before the start of the Vietnam inflation.

7. A final point with regard to deficits. Given the nature of the policy instruments available for correcting a significant deficit position, it will be apparent that the process of adjustment is necessarily a relatively short-term affair. When it does not take place fairly quickly, it simply means that the authorities have not taken the appropriate measures—either deflation and capital controls, if the imbalance is not fundamental, or devaluation, if there is fundamental disequilibrium. And when the exchange rate is significantly overvalued, there is no way to adjust other than by changing the exchange rate.

Governments are often reluctant to accept this proposition because of the stigma usually connected with a change in the exchange rate; so they think up all sorts of pseudo-measures for the long-run correction of the deficit. In recent times, however, there is not a single successful case of long-run adjustment of a sizable balance-of-payments deficit—apart from the special cases of reconstruction of war damage to the productive potential of the economy. And even those cases did not take very long. In former times, when stagnation of the economy led to declining wages and prices, such adjustments often occurred. In our day of downward rigidity of wages and prices and of the high priority given to full employment, however, such an adjustment can take place only through wages in the deficit country rising less than in the outside world—and the margin of correction that has been possible by this process has proven relatively small.

The United States, in particular, has had a long-term program to restore balance for seven years and yet the goal is as elusive as ever. Failure to face up to this reflects political attitudes—not economic analysis.

D. The Adjustment Process: Countries in Surplus

1. It is often said, from the standpoint of the system as a whole, that both surplus and deficit countries must share the responsibility for achieving balance in international payments. However, the primary responsibility, and the active role in the adjustment process, falls in fact on deficit countries because it is their exchange rates that are in jeopardy. When a country is in surplus, the central bank can feel free to concentrate on domestic objectives of full employment and growth. But when the country is in deficit, it cannot. Thus, there is a natural bias toward being in surplus, since the surest way to avoid any risks to the exchange rate is to stay on the right side of the line. When a country is in mod-

erate surplus, therefore, it will not take deliberate action to reduce the surplus and, even when the surplus is fairly large, deliberate corrective action is rather limited. The cooperative actions taken by surplus countries have been confined largely to facilitating the financing problem—such as prepayment of long-term debt, provision of special facilities to the banks to acquire foreign-exchange assets, and accepting special exchange-guaranteed assets instead of gold. Several countries also have used special techniques to limit the inflow of funds from abroad.

2. Besides the general aim of protecting the exchange rate, several more specific factors militate against an active adjustment policy by surplus countries:

(a) The basic objectives of economic policy are usually stated as full employment, stable prices, and external balance. Now, reasonable judgments can be made about full employment and price stability, but external balance is too hazy a concept to serve as a guide to operating policy. It needs a lot of interpretation. It is a normative, longer-run idea, whereas policy is made for a shorter run in which true “equilibrium” can hardly ever be said to exist. The authorities are acutely aware that the external position may change rapidly and are inclined to expect that a surplus this year may disappear or be smaller next year. The relative cyclical position of the country may favor a sizable surplus at the moment, but it is likely that both the cyclical position and the surplus will be different a year from now. The surplus may reflect other temporary influences which can always change and probably will change, such as an inflow of liquid funds or unusual imports of long-term capital. Appraisal of the underlying situation is often difficult because of changes in the foreign position of the banking system. Exports may be quite favorable, but there is the possibility that wage increases may erode the country’s competitive position. And so on.

When the European countries were receiving Marshall aid, the external position was always appraised with the aid apart—quite sensibly, too, because if the aid had not been looked upon as temporary how would the countries have ever arrived at a position in which aid was no longer needed? Similarly, American military expenditures in Europe tended to be regarded as a temporary factor in the balance of payments—quite different from a country’s own exports as a means of earning a foreign-exchange surplus. In sum, to the extent that surplus countries aim at adjustment, they tend to discount what they regard as temporary elements of the surplus.

(b) A somewhat similar influence arises from countries’ objectives with regard to the structure of the balance of payments. This affects their willingness to pursue adjustment policies, the policy instruments

they use, and the view they take of the position of the currency in the structure of exchange rates. The point may be illustrated by contrasting Canada and the Netherlands.

Both countries devote about the same percentage of GNP to gross investment and there is not a significant difference in their per capita real output. Yet, no doubt largely for historical reasons, their balance-of-payments aims are quite different.

Canada looks upon itself as a developing country with a capital requirement that cannot be fully met by internal savings. It expects the current account of its balance of payments to be in deficit and to be compensated by net capital imports. Thus, while Canada aims to avoid a deficit in its overall payments position, its use of fiscal and monetary policy is conditioned by the view that net capital imports are normal. When Canada fixed a lower rate of exchange in 1962, the obvious purpose was to reduce the deficit on current account. But obviously, also, the rate chosen, of 0.93 Canadian to the U.S. dollar, was not intended to secure current-account balance but allowed for continuing capital imports.

The Netherlands, on the other hand, considers itself among the relatively well-off countries of the world and thinks that it should have a surplus on current account to allow for foreign aid and net capital exports—particularly to finance the foreign investment of Dutch international enterprises. Hence, it uses fiscal and monetary policy to secure a volume of domestic savings, including savings in the public sector, that exceeds domestic investment, and it generally manages to do so. If this aim is frustrated, say, by an inflow of foreign direct investment or foreign purchases of Dutch securities, the authorities are unwilling to allow the current account to adjust to this situation. The result is an increase in official reserves or improvement in the external position of the banking system. When the Netherlands followed Germany in revaluation of the currency in 1961, it was certainly not with the idea that the current-account surplus would be wiped out.

This view of balance-of-payments aims is characteristic of many continental countries; that is, they aim at being in surplus on current account and some even extend the objective to the trade account. They consider it inappropriate to allow adjustment of their current-account surplus to compensate for capital exports by the United States. They could, and do to some extent, arrange their "policy mix" or relax controls so as to obtain some offset by exports of domestic capital funds. But this often poses difficulties in the domestic sphere—political and other. They think it is mainly up to the United States to take action against its "excessive" capital exports.

Since the imposition of direct controls on capital exports by the United States, there has been a sizable volume of international issues on the Euro-bond market which has tended to increase Europe's net capital exports. In addition, some countries have arranged capital exports by public-sector institutions, including the central bank, to help absorb a current-account surplus. But it would take a great change of attitude indeed for the European countries to allow these techniques to expand enough to deteriorate their reserve positions, and this would not be a sustainable situation in any case.

(c) Finally, the tolerance for surpluses is influenced by the fact that international transactions have a strong upward trend. It is recognized, therefore, that reserves must increase also if they are to remain adequate to defend fixed rates against balance-of-payments fluctuations. The growth in reserves and transactions may not need to be at the same rate, since policy action may become more effective in narrowing balance-of-payments fluctuations. Also, a country's reserves for the moment may be more than adequate, so that their growth could be allowed to slide for several years without causing trouble. But after a time their upward trend would have to be resumed. This is true for individual countries and for all countries taken together. Furthermore, as an increase in reserves comes about by having an external surplus, one must say that the norm is for countries to be in surplus. Hence, equilibrium for an individual country, and for all countries together, is not simply a situation of balance between external receipts and payments; there must on average be surpluses. A country that fails to achieve a reasonable growth in reserves is bound to meet with difficulties on external account and declining confidence in its currency. Sterling is a striking example of a currency falling into this kind of situation. Since the early 1950s the United Kingdom authorities have wished to secure an upward trend in their reserves to provide better support for the sterling-area system. But the aim was constantly being crowded out by other objectives—economic and political—with the result that sterling has been subjected to repeated exchange difficulties.

The mercantilist flavor of official attitudes toward the balance of payments comes from recognition that a surplus approximates equilibrium in a growing world better than does a constant level of reserves. And, of course, economists have stressed the need for global reserves to rise. The Netherlands central bank formerly set a quantitative target for the growth of its foreign reserves and tried to arrange domestic liquidity creation so that the target would be met. Other central banks are influenced by the same idea, if in a less precise fashion.

3. While a reasonable, or even moderately large, surplus may be in the vicinity of equilibrium, cases arise of persistent extreme surplus. This is a situation in which, after total demand has been pushed to a full-employment level, the surplus does not fall to reasonable proportions. In the conventions of international cooperation, there is no obligation on surplus countries to pursue inflationary demand policies in order to bring down the surplus.

The only provision in the Fund Articles for such cases is the "scarce currency" clause. It has never been called upon and, indeed, was expected only to be applicable to the United States. A country declared to have a "scarce currency" would not have to do anything itself, but other countries would have a right to discriminate against it in their trade and payments regulations.

To be parallel with devaluation in cases of fundamental disequilibrium, countries in extreme surplus ought to revalue their currencies. But, the high priority on fixed rates holds for currency appreciation as well as devaluation, and revaluation is a rare occurrence. The only recent case was the revaluation in 1961 of the German Mark and the Dutch florin by 5 per cent.

However, revaluation must be recognized as the ultimate policy weapon available to countries that want to stop the inflationary consequences of an extreme surplus. The surplus is an inflationary force because, in pegging the rate, the central bank has to buy the excess of dollars offered in the market against domestic currency and there are practical limits to the extent to which the authorities can neutralize this increase of domestic currency by other policy actions. The revaluation of the Deutsche Mark was undertaken precisely on these grounds.

Two other cases show that the authorities do have the power to act against an extreme surplus when they feel that it constitutes an intolerable danger to internal monetary stability. Canada adopted a floating rate in 1950 to combat a huge inflow of investment funds from the United States; the Canadian dollar appreciated between 5 and 8 per cent and a balance was achieved in the market with a less inflationary inflow of funds from abroad. Switzerland, for some years after the war, also allowed its rate to float for most transactions other than trade and a part of tourism, when faced with an unmanageable inflow of funds from abroad. The Swiss franc on the free market appreciated as much as 30 per cent to the dollar, against the par of 4.37. It should be noted that both Canada and Switzerland could have converted their dollar inflows into gold in those days without any reproach from Washington. But it was the large surplus they did not want—even in gold.

Although rare, these instances of revaluation are significant from two standpoints. First, they show that the United States cannot foist any amount of dollars on the rest of the world; beyond a certain point other countries would sever their fixed ties to the dollar. The fact that they have not done so indicates that they have not considered their currencies to be undervalued. Secondly, the system provides countries in extreme surplus with a remedy, if they care to use it. If they do not, it is on their own responsibility. The saving grace from the standpoint of other countries is that an extreme surplus tends to be eroded by internal inflation.

4. By comparison with any previous time, there has been a high degree of international monetary cooperation in these postwar years. It must be recognized, however, that every country gives priority to its own basic interests and that the demands on cooperation cannot violate those interests. As the world is made up of sovereign states, ultimate responsibility both for the convertibility of each currency and for the control of inflation within each country is a national responsibility.

II. THE "NUMBERS" IN THE SYSTEM

I have discussed above the nature of the system from the standpoint of individual countries. It appears that countries individually can manage in accordance with the principles of the system if they are prepared to use available policy instruments effectively. Only the United States is an exception in certain respects, related to the fact that the dollar is fixed to gold and is the reserve currency of the system. We may now consider the special case of the United States and the workability of the system for all countries taken together. This involves the quantitative aspect of the system, or what I may call the "numbers" in the system.

It will be apparent that, to maintain a norm of fixed rates, reserves and official credit facilities must bear an appropriate relation to the volume of international transactions. This is not because official liquid resources are used directly to finance trade and other external transactions, but because the fluctuations in external deficits and surpluses, which they do finance, can be expected to be a function of the total volume of transactions. And, as the volume of transactions has an almost continuous upward trend, there must be growth also in the resources available for official settlements. This is what I mean by the "numbers."

Thus, the adequacy of the "numbers" may concern either the global total of international liquidity or its annual rate of increase. With regard to the former, it is not possible to formulate narrow criteria for any judgment as to its adequacy, since the effectiveness of global reserves will be influenced by how they are distributed among the countries and since the limits to the credit resources that might be made available are

not fixed. In any case, unless the stock of liquidity is patently at one extreme or the other, the macroeconomic feasibility of equilibrium is more directly related to the rate of increase in international liquidity and it is on this flow that I will concentrate.

For the purpose here I may leave aside IMF and central-bank credit facilities; they have been increased several times and can be increased further as the need arises. Reserves in dollars have grown enormously, and there has been much complaint that they have grown too much. While I accept this view, I think it is often exaggerated and believe that the world's access to dollars has contributed greatly to postwar prosperity and economic growth. On one point, however, there has been complete agreement from the start of the official discussions on the problems of the system: that is that the amount of new monetary gold is not sufficient to provide for an adequate growth of total reserves. We may therefore examine the effects of this shortage on the United States and the system.

As already noted, gold is unique in that it is at present the only reserve asset for which there are not corresponding liabilities elsewhere in the system. Consequently, it is only by means of increments to gold reserves that any countries can be in surplus without other countries being in deficit. The arithmetic of this proposition for the system can be set out as follows:

Let surpluses and deficits be defined as changes in official net reserves (ignoring the foreign-exchange position of the banks for the sake of simplicity) and let "S" stand for external surplus, "D" for deficit and "G" for gold reserves; then, $\Sigma S - \Sigma D = \Delta G$, and $\Sigma S = \Delta G + \Sigma D$. These identities simply mean that the sum of all balance-of-payments surpluses minus the sum of all deficits is equal to the increment to gold reserves; hence, what finances surpluses is new gold plus deficits, and the amount of new gold fixes the extent to which there can be surpluses without deficits. To be sure, surpluses are generally taken partly in dollars, but these must come from the dollar reserves of other countries or from a deficit of the United States, corresponding to an increase in its liabilities to foreign central banks.

The state of the gold-dollar system under conditions of sufficient new gold and under various degrees of gold shortage can be shown by four situations.

Situation I: Adequate new gold. An adequate amount of new gold may be defined as an amount which, after private demand is met, permits global reserves to grow at the rate required by the growth rate of total international transactions. As in the case of economic magnitudes such as full employment and stable prices, an adequate increment of mone-

tary gold cannot be specified with precision; one must rely on judgment and experience to arrive at a workable approximation, with some range between shortage and excess. But the objective is clear: the growth of global reserves should be large enough to allow reasonable elbow-room to the countries in the system to meet normal fluctuations in the exchange market and yet not be so large as to take away the pressure of balance-of-payments discipline.

In this situation of adequate new monetary gold, it must be readily feasible for both the United States and the system as a whole to achieve equilibrium. The amount of new gold would cover both the demand of surplus countries and a flow of gold into the reserves of the United States—the United States being the residual buyer of gold in the system. As there are relatively few countries with a high preference for gold when the convertibility of the dollar is safe, surplus countries would be acquiring dollars as well as gold, and the dollar liabilities of the United States would be rising. But the convertibility of the dollar would not be in doubt so long as the increase in the gold stock of the United States gave reasonable coverage for the increased dollar reserves of foreign central banks. It can be expected, in fact, that equilibrium for the United States would normally be a net external deficit—its gold stock increasing less than its dollar liabilities—and that the scope for net surpluses of other countries would be larger than the amount of new monetary gold. The rise of both gold and dollar holdings would allow global reserves to increase in reasonable relationship to the growth of total international transactions.

The large deficits of the United States in various years since 1958 have tended to obscure this point. Some criticism of the United States implies that it is its deficits which cause foreign central banks to have increased dollar reserves. However, if its gold reserves were rising in Situation I, the causation over time would be the other way around: that is, it would be foreign central banks' demand for or acceptance of increases in dollar reserves that would result in a deficit for the United States. In my view, the larger part of the increase in ordinary dollar reserves (excluding special credit transactions) over the years 1950-66 was of this character. When there is free access of countries to the capital and money markets of the United States, the dollar is, in fact, the flexible element in the reserve-creating mechanism of the system.

Even with the "numbers" right, individual countries would inevitably encounter balance-of-payments difficulties, perhaps for cyclical reasons, or because of crop failures, or because of domestic inflation. But any country that ran into difficulties could adjust with reasonable ease by appropriate policy measures, because there would not be a competitive

struggle among countries for an inadequate flow of new reserves. As the scope for surpluses without deficits, apart from a technical deficit of the United States mentioned above, would be adequate, cases of fundamental disequilibrium would generally reflect rather conspicuous neglect of sound policies and the system would move along with a minimum need for changes in exchange rates. In other words, the system as such would be workable and the problems confronting the authorities would be confined exclusively to the adjustment process.

Similarly, the United States would not be immune to periods of external imbalance brought about by adverse cyclical changes or by failure to observe the rules of monetary stability. By demand or cost inflation which deteriorated the current-account balance, by excessive money creation which inflated capital exports, or directly by overly large government expenditures abroad, the United States might get into real balance-of-payments difficulties and suffer losses of reserves. But this would be entirely due to American policies and could be corrected by appropriate modification of those policies. In such circumstances, other countries would be obtaining not only surpluses sufficient for equilibrium but the additional surpluses arising from the American deficit, so that they would not be forced into defensive actions as the United States took corrective measures.

Furthermore, an adequate flow of new gold does not of itself prevent the United States from inflating to the point of fundamental disequilibrium, which would require an adjustment through a change in the structure of exchange rates. In the limiting case in which the dollar was overvalued vis-à-vis most other countries, equilibrium could be restored by the United States raising the dollar price for gold while other countries held to the existing price in terms of their own currencies. Much more probable, however, is that many countries would follow the United States in raising the price of gold and that only a few countries in extreme surplus would allow their currencies to appreciate vis-à-vis the dollar. Or else, the extreme surplus countries might take the initiative in appreciating their currencies, with the dollar price of gold remaining unchanged. In either case, it could not be said that the system itself was in disequilibrium.

If one abstracts from temporary deficits encountered by individual countries, and looks upon equilibrium as a normative condition attained on average over time, one sees that the function of the growth of global reserves in the system is not to finance deficits but to finance surpluses. This idea has been expressed by saying that the need of the system is for reserves to hold—rather than reserves to spend.

Situation II: Shortage of new gold. With any significant shortage of new gold, the system would be in disequilibrium because, even if the rise in global reserves were adequate, the relation between gold and dollars would be deteriorating. This is bound to have adverse effects on the functioning of the system and these adverse effects would be more or less intense depending on the size of the gold shortage.

In this spectrum, let us assume for Situation II a degree of shortage such that the increment to total gold reserves is less than the demand by the surplus countries. Obviously, the United States, as the residual buyer and seller of gold, would have little chance of getting any on balance and there would be a strong tendency for its gold reserves to decline.

The smaller amount of new gold would mean a smaller margin in the system for surpluses without deficits, so that countries would fall into deficit more easily and would find the adjustment process more difficult. The countries that tended to have a precarious balance-of-payments situation would be those less favored in the exchange-rate structure, where domestic monetary discipline was less strict and where there was a tendency for wage costs and prices to rise relative to those of the surplus countries. For, in order for all countries, other than the United States, to share proportionately in the smaller margin for surplus, all these monetary relationships would have to be much more finely attuned. As policy instruments are not high-precision tools, however, and as chance factors affect countries' positions, there would surely be some strong currencies and some weak currencies—quite aside from countries that continuously mismanage their monetary and fiscal affairs.

In this unhappy situation it would be almost a necessity for a large part of the aggregate deficit required by the existence of surpluses to fall on the United States. As stated earlier, when other countries incur deficits, it must be a temporary affair because their reserves and access to official credit facilities are limited. Whether by restrictive policies or by a change in the exchange rate, they must come back to balance. Hence, they would tend to have high interest rates to attract investment funds from abroad and to arrange foreign borrowing (mostly in dollars) by the government and public-sector institutions, to control capital exports, to limit or reduce their official commitments abroad, and also to resort more often to devaluation. In fact, so long as the United States did not adopt restrictive policies or direct controls to limit its external deficit and gold losses, the pressure on other countries would remain moderate.

The United States could not compete easily in this kind of game, for several reasons. With a vast domestic economy and a small balance of payments, restrictive fiscal or monetary policies by it have a much larger

domestic impact than balance-of-payments effect. Then, too, the political position of the United States imposes responsibilities for foreign aid and defense that are difficult to avoid. In addition, because of its high real income, much more is expected of the United States in these matters by the rest of the world than is expected of other countries. An interesting example of this is that American participation in assistance to another country in balance-of-payments difficulties is more or less taken for granted, even when the United States itself is in deficit, whereas other deficit countries would usually abstain from such cooperation. And, also, the very conditions that made the dollar the reserve currency of the system, namely, the size of and free access to its capital and money markets, and the strong reserve position that gave the world confidence in the convertibility of the dollar, tend to make the required deficits back up on the United States. So, there are very strong pressures in the gold-dollar system for the vacuum created by a shortage of gold to be filled to a significant extent by a deficit of the United States. This would happen even though it tolerated some stagnation and excess unemployment and even though it maintained price stability, because the United States could not match other deficit countries in restrictive policies and changes in exchange rates. While the United States would be in disequilibrium, it would really be a victim of a disequilibrium of the system arising from the gold shortage.

This disequilibrium would mean an undermining of the reserve position of the United States, since its gold reserves would tend to fall and its dollar liabilities increase. Hence, it would in time raise a threat to the convertibility of the dollar at the fixed price of gold. This threat would not be fictitious, because sooner or later the United States would have either to suspend gold sales or to raise the price of gold. As this threat developed, the demand of central banks for gold rather than dollars would increase; they would tend to raise the gold ratio in their reserves and to avoid parting with gold when they were in deficit. The public, too, would soon see the handwriting on the wall and the private demand for gold in various forms would be accentuated.

How would the United States react? Since it could not very well urge the State of New York or Consolidated Edison to borrow in the Zurich or Frankfurt markets, it would arrange official borrowing of one kind or another with foreign central banks and governments. Also, it would turn to controls like tied aid, paying higher prices in the United States for military supplies needed by its forces abroad, quantitative restrictions on certain imports, and controls on capital exports and bank lending. Then, too, it would try to minimize gold losses by urging foreign central banks not to convert dollars into gold. And, perhaps, other techniques of

pseudo-adjustment would be called upon. However, the prospect of running out of gold would remain unless the United States were able to convince other countries to give up their demand for gold reserves.

It must be emphasized that the disequilibrium caused by a gold shortage does not depend upon other countries having a deliberately planned policy to increase their reserves by being in surplus. They only have to accept the reasonable surpluses that fall to them in preference to taking active measures to avoid surpluses and to back up their aim of fixed rates with active policy correctives when they fall into deficit—as they must. Then, on balance, they will have surpluses, and the surpluses will require deficits elsewhere in the system. Even on the fanciful hypothesis that all countries, including the United States, could and would manage their policies so as to iron out fluctuations in their reserves completely for a time and to have a constant ratio between gold and dollars, the system would still be in disequilibrium because the longer-term need for reserves to grow would not be met.

The deficit of the United States due to the gold shortage would be made worse, of course, if there were excessive overall demand and relative price and cost increases in the United States. In this respect the United States is like any other country, but the swings in its external balance would be around a “normal” deficit position, whereas for other countries as a group the swings would be around a “normal” position of surplus. Also, the deficit could be enlarged by very high government expenditures abroad. In general, when a high-income country finds itself incapable of using a reasonable percentage of its national income on government expenditures abroad without getting into balance-of-payments difficulties, it is a sign of an overvalued currency. However, official spending abroad can be so large as to be an independent cause of external deficit. It could be rather artificial to consider this as just a case of overvaluation, since the size of government expenditures abroad does not depend upon comparative price relationships.

Situation III: Zero new gold. In this situation the market supply of gold is all taken up by private purchases; total gold reserves are at a constant level. Obviously, all the ill effects of the gold shortage on the system noted in Situation II would be intensified. In particular, the possibility and expectation of a rise in the price of gold would be increased, which would tend to immobilize gold reserves and greatly complicate the financing of international imbalances. The growth of reserves would come to depend more on the use of IMF facilities and central-bank assistance, and the debtors would have a harder time meeting repayment obligations, because they could only do so by surplus

countries shifting to deficits. Exchange restrictions would increase and the structure of exchange rates would become more fragile. And the deficit of the United States would be larger—even though it might be mitigated from time to time by sizable deficits of other countries.

In this situation there is no margin for surpluses without deficits; any surplus must be matched by a deficit. Imagine the private-enterprise system in a fix of this kind. To remain in a sound condition, every business firm should make a profit or, at least, avoid taking a loss—just as every country is supposed to have a reasonable surplus or at least avoid a deficit. But suppose, by some quirk, business earnings in the aggregate had to equal zero and every firm that made a profit did so at the expense of some other firm suffering a loss. Businessmen would be likely to look upon this state of affairs as intolerable, particularly if the quirk were some government decree. Anyhow, I doubt that they would try to set up an arrangement for firms in the red to draw profits from firms in the black—just to pretend that nothing was wrong! While profits and balance-of-payments surpluses are not comparable economic concepts, this analogy illustrates the condition of the system in Situation III.

In this situation, also, no country could increase its gold reserves without drawing down the gold reserves of one of its trading partners—primarily of the United States. Under such circumstances the “discipline of gold” would become absurd, because the United States would be under perpetual discipline, whether its policies were sound or not. Other countries might hesitate to convert dollars into gold, to avoid responsibility for bringing on a monetary crisis, so they would come to regard dollar holdings as lending to the United States. Yet the growth of dollar reserve holdings would slow up because the inconvertibility of the dollar would only be a matter of time. In place of dollars or gold, the monetary counterpart of surpluses would be special credit transactions on a substantial scale. This would mean that the semi-automatic process which provided for the growth of reserves in Situation I would not function and that management of the system would be constantly needed.

Suppose the United States, now in desperate straits, decided that its first duty was to itself and its responsibility to the world economy had to be sacrificed. It might clamp down savagely on capital exports, bring the troops home and make its tourists see America first—and second too. It might cut down on its aid to less developed countries, also raise barriers against imports and give incentives to exports. And so, by some combination of restrictions and restraints, it might get out of deficit. What would be the economic situation in the rest of the world? It would be a return to the period of dollar shortage, with a new stage setting. One would no longer hear that there was no shortage of global

reserves, and restriction and deflation would be the order of the day, with the impact probably more acute on the developing countries. Cassel's dictum that, under the gold standard, gold reserves must rise year after year to keep the world economy from stagnation, would come again into its own.

As the United States might have little disposition to carry direct controls to the bitter end, one must suppose that the eventual outcome would be either suspension of gold sales or a rise in the price of gold. Suppose first that the United States raised the price of gold. How could one tell whether this action was brought about by the shortage of gold or by the United States itself being in fundamental disequilibrium? If other countries held their fixed exchange rates on the dollar, and thereby allowed the price of gold in their own currencies to rise, the difficulty would have to be attributed to the shortage of gold. But if they held the price of gold and allowed the exchange value of the dollar to fall, then the difficulty would have been a fundamental disequilibrium in balance of payments of the United States. If, on the other hand, the United States simply suspended gold sales, it would be more difficult to appraise the true situation because inconvertibility would be likely to lead to a flight from the dollar and to force its partial depreciation in exchange markets, even if the dollar were not basically overvalued. In the system as constituted at present, therefore, a fixed relation between gold and the dollar is required to assure a norm of fixed rates.

It may be noted that, when the gold shortage is in the vicinity of Situation III, it becomes impractical for a maladjustment in exchange rates between the United States and a group of countries in extreme surplus to be corrected by an appreciation of the surplus countries' exchange rates on the dollar. The reason is that this action would lower the price of gold in terms of those currencies and thus accentuate the overall shortage of new monetary gold.

Situation IV: Negative new gold. Finally, there is the situation in which the market supply of gold is less than total private demand. To prevent the price from rising, central banks would have to make up the deficiency out of their reserves, and gold reserves in the aggregate would be declining. The state of the system would be such that deficits would necessarily be larger than surpluses and, even if no country was in surplus, there would still be deficits.

An eventual rise in the market price of gold would be inevitable, as central-bank reserves would sooner or later be depleted. And if central banks decided not to set a new official gold price while this was going

on, some sort of new system would have to be brought about in which gold reserves had no active role.

The gold-dollar system in this situation may be said to be in fundamental disequilibrium, since the market price of gold must rise regardless of the propensity of the central banks to hold gold. Of course, if all central banks shared in the loss of gold reserves, the adjustment process could take a considerable time. But, probably some central banks would find the prospect of advancing bravely toward zero gold reserves uninviting and leave their share of gold loss to the United States.

Conditions of equilibrium and disequilibrium. The conditions of equilibrium and disequilibrium, assuming growth in the world economy, can be summarized from the previous discussion:

(a) Any non-reserve country is in balance-of-payments disequilibrium when its net reserves do not tend to rise in an appropriate relation to the increase in its trade and other external transactions. It is in fundamental disequilibrium when its balance-of-payments position cannot (without intolerable cost) be put right without a change of the exchange rate.

(b) The United States is in disequilibrium when its gold reserves tend to fall or not to rise sufficiently to maintain an appropriate ratio between its reserves and the dollar reserves held by other countries. If, however, this is due to a shortage of new gold for reserve purposes (at the fixed price), the system also is in disequilibrium. The United States is in fundamental disequilibrium when, with new monetary gold being adequate, the deterioration of its reserve position can only be corrected by a change in exchange rates vis-à-vis the dollar; the price of gold, either market or official, would have to rise in terms of dollars but not in terms of a significant number of other currencies.

(c) The system is in disequilibrium when, regardless of the position of the United States, the growth of global reserves is not at a rate adequate to the growth of transactions. And, finally, the system is in fundamental disequilibrium, regardless of the position of the United States, when total gold reserves are declining because the level of private gold demand at the fixed price is larger than new supplies and the difference is being made up out of official reserves.

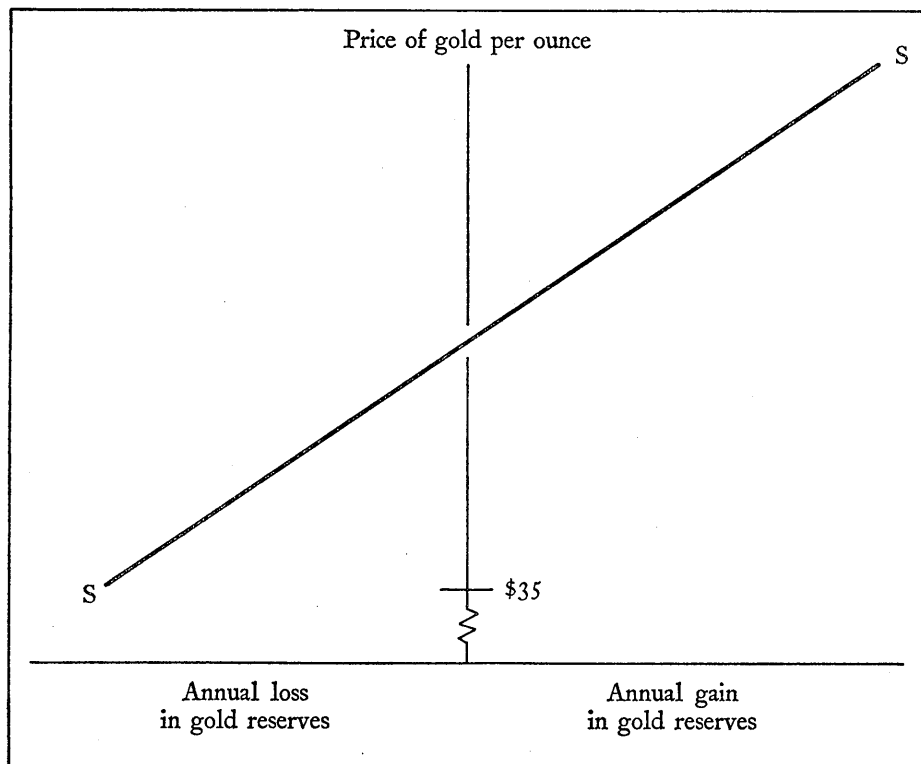
An appropriate growth of reserves is, therefore, a condition of equilibrium for all countries and for the system, and, in addition, a growth of gold reserves is essential for the United States and the system. Moreover, to extricate itself from the disequilibrium caused by the shortage of new gold and still maintain the present gold-dollar system with a norm of fixed rates, the only recourse of the United States is its sovereign power over the dollar price of gold.

It is surprising to hear it said occasionally that the deficit and gold losses of the United States would be unaffected by a rise in the price of gold. However, when the state of the system is changed from Situation II or III to Situation I, an adjustment process would inevitably be set in motion that must tend to correct the disequilibrium. For example, exports of the United States would benefit directly from the higher demand for imports by gold-producing countries, and its capital balance would benefit by the effect of the larger value of gold output on comparative interest rates and also by the reduced demand for foreign capital in some countries. Even if the larger margin for surpluses without deficits in the system tended mostly to raise the surpluses of the surplus countries in the first instance, this in itself would have adjustment repercussions that would favorably affect the American position. Either the extreme surplus countries would be subject to inflation, which would tend to erode their current-account surpluses, or their interest rates would fall, which would tend to increase their exports of capital. It may be said, indeed, that, when the flow of new gold is adequate, surplus and deficit countries tend to participate more equally in the adjustment process. And, of course, if the system had been in Situation IV, so that the United States had been losing gold to supply private demand, the reduction of private demand consequent upon a higher price for gold would have directly reduced its gold losses.

While one cannot anticipate the precise effects on the various components of the American payments balance, the impact of this process on American gold reserves can be illustrated by the diagram below.

Assume that the United States is not in fundamental disequilibrium and is observing balance-of-payments discipline. Assume, also, that there is no short-term speculative buying of gold, which, at a given time, could make the supply curve of gold for the United States erratic. Then, increases in the price of gold would (i) raise the total value of existing gold output, (ii) reduce the quantity of gold taken by private demand, (iii) increase the possibility of exploiting marginal gold deposits, and hence (iv) increase the total volume and value of new gold available for monetary purposes. Of necessity, therefore, the supply of gold to the United States must rise as the price is higher—that is, the supply curve must have an upward slope. At \$35 an ounce the United States suffered losses of gold reserves; at some higher price the amount that the rest of the world would be willing to spend for gold would be satisfied by the higher value of new output, without any drawing on American reserves; and at some still higher price there would be a residual share of total gold supply to flow into American reserves. The price of gold needed to secure equilibrium for the United States in these

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circumstances would depend on the rest of the world's capacity to absorb surpluses without inflation.

If the United States were failing to observe balance-of-payments discipline, a sufficient rise in its price of gold would stop reserve losses momentarily, but they would soon recur. And if the United States were persistently undisciplined, the dollar would not for long remain the reserve currency of the system and a change in the structure of exchange rates would be unavoidable. That is to say, a rise in the price of gold cannot be a substitute for balance-of-payments discipline; all that it can do is to correct the difficulties that arise from the shortage of new gold itself.

Thus, it should be evident that to remove the price of gold from the model of the system is to make analysis of some situations impossible, and to rule out any change in the price of gold from the adjustment process in some situations is to make the system unworkable on the Bretton Woods principles.

III. CHANGES IN THE STATE OF THE SYSTEM

The four situations of gold availability presented above are not idle theory; they reflect changes that have actually occurred in the state of the system and point to certain changes that will come in the future. In real life, to be sure, there have been other complications.

1934-38. For Situation I, one must go back to the time before the war. From 1934 to the outbreak of World War II the increment to total gold reserves was certainly sufficient and there was much talk of a glut of gold. The price had just been raised to \$35 an ounce and, given private supply and demand conditions, yielded an average annual increase in total gold reserves of \$1.3 billion. These were troubled years for the world economy, but the difficulties had nothing to do with a gold shortage. As economic cooperation was at a low ebb and the possibilities of using policy measures to attain overall objectives were only beginning to be realized, there is little point in a general comparison with postwar economic conditions. This prewar period is of interest only to show that Situation I is not unattainable.

1939-48. During the war most countries had full-scale direct controls and trade was subject to economic warfare; the increment to total gold reserves was of little importance. For any country at war, however, the size of its reserves, and particularly of its "war chest" in gold, was quite important; even the gold reserves of the United States fell by \$2.7 billion from Pearl Harbor to the end of 1945.

The war had three consequences of significance to the postwar monetary system. First, Britain, in its desperate struggle, was forced to spend abroad much more than it could pay for currently, so that its liabilities in sterling rose enormously relative to its reserves. The figures speak for themselves: reserves, £615 million at the end of 1938 and £610 million at the end of 1945; sterling liabilities (breakdown between official and nonofficial not available), £598 million at the end of 1938, and £3,567 million at the end of 1945. Thus, the United Kingdom came out of the war with its net reserve position greatly weakened. Appropriate policies after the war could have improved the position of sterling and reestablished the importance of London as an international capital market, but other objectives were given a higher priority.

Secondly, the dollar came out of the war enormously strengthened: the productive potential of the American economy was greatly increased; wartime inflation was less in the United States than in other belligerent countries, and its reserve position was in a class by itself. Thus, the experts at Bretton Woods inevitably recognized the unique status of the dollar in the arrangements they made for the postwar monetary system.

Thirdly, the war led to a large rise in the general level of prices, which continued for several years after the war as direct controls were being relaxed. Between 1938 and 1948 prices in the United States more than doubled; the price of gold remained at \$35. The effect on cost-price relations for the gold-mining industry was to more than wipe out the margin from the earlier rise in the price of gold from \$20 to \$35. In addition, money incomes were greatly increased during the war so that private gold demand at the fixed price was also increased. In the event, these forces not only erased the excessive prewar flow of gold into reserves, but created a shortage of the degree described in Situation II.

1949-59. The widespread devaluation of currencies vis-à-vis the dollar in 1949 put the postwar monetary system on a workable footing and the state of the system continued without profound change until the market price of gold rose above \$40 an ounce in 1960. The realignment of par values was not based on a studied plan to achieve an equilibrium structure of exchange rates. After the United Kingdom announced a 30 per cent devaluation of sterling, other countries hurriedly decided to what extent they would follow, and these decisions were accepted by the international community and the United States. The resulting exchange-rate structure was more favorable to some countries than to others, not only vis-à-vis the United States, but vis-à-vis one another, and partly explains the subsequent emergence of a group of strong currencies. However that may be, the period from 1950 to 1959, and even up to 1965, corresponds to Situation II. We may first examine the development of the statistical position of gold.

In the early years of the great depression gold output was stimulated by declining costs and vast unemployment, it being the only product for which demand at a fixed price was unlimited. However, output rose more sharply after the price was raised from \$20 to \$35 an ounce and reached a peak of \$1.3 billion in 1940, a level that was not surpassed again until 1962. Output fell during the war and by the years 1946-49 it averaged \$800 million; about half the new gold was absorbed by private demand and half was available to increase monetary reserves. Thus, the annual increase in reserves, which had been \$1.3 billion from 1934 to 1938, was reduced to \$400 million in the face of a substantially higher value of total international transactions. So the transition from Situation I to Situation II had been made. The cause was not, as often alleged, the vagaries of gold production or the creeping inflation since 1950; it was the violent inflation during the war. Without the rise of prices and money incomes from 1939 to 1948, the gold price of \$35 would still be yielding an adequate flow of new monetary gold.

Then came the Korean War, which raised the price level a further 6 to 7 per cent and also increased the private demand for gold. By 1952 the increase in gold reserves was down to \$230 million. The position was not much above Situation III of zero new monetary gold. Had the shortage remained this acute, the disequilibrium of the system would soon have been apparent. However, with the advances in gold-mining technology and the development of new gold fields, there was some respite.

Gold output in the first half of the 20th century came largely from fields discovered in the previous half-century: California, 1848; Australia, 1851; Witwatersrand and Western Australia, 1886; and Alaska, 1896. Then, rich new fields were discovered in the Orange Free State in 1938 and gold-mining was being developed in Russia. Exploitation of the new South African areas was held up by the war, but significant output began in 1953 and was followed up by rapid expansion, comparable only to the earlier exploitation of the Witwatersrand. From under \$420 million in 1953, gold output in South Africa rose to \$1,070 million in 1965. This upward trend was due entirely to the new mining areas, as the output of the older mines in South Africa declined.

The volume of Russian production is not known, nor its real cost per ounce, but Russian sales in the world market jumped to \$150 million in 1956 and averaged \$250 million over the years 1957-62. Output in the rest of the world has had a declining trend since 1953, despite support by subsidies in many countries, as the higher level of postwar costs in the face of the fixed price reduced the scope for profitable mining operations.

Without the new fields in South Africa and Russia, the gold shortage would probably have corresponded to Situation IV by 1956, if not earlier. As it was, the availability of monetary gold increased from its low point in 1952 and averaged \$660 million between 1954 and 1959. This was in spite of an upward trend in private demand, which averaged just over \$500 million during the same years.

Let us see how the system behaved under these conditions. The change in the structure of exchange rates in 1949 immediately shifted the American balance of payments from surplus to deficit, and from 1950 to 1959 the deficit was continuous, except under the unusual circumstances of the 1956-57 Suez crisis. Over this decade, that is until the market price of gold broke loose in 1960, the United States took little restrictive action to limit its deficit, so that the operation of the system was not distorted from the standpoint of foreign central banks. From the end of 1949 to the end of 1959 American liabilities to foreign official institutions rose by over \$6 billion and its gold reserves were drawn

down by \$5 billion. Thus, the deficit in terms of the official settlements averaged \$1.1 billion a year and the total deterioration of the reserve position of the United States was \$11 billion.

The increase in official liabilities could have reflected an "equilibrium-type" deficit characteristic of Situation I. But the decline in gold reserves, given the low level of the annual increment to monetary gold, shows that the state of the system was Situation II.

It has been argued by several observers that this country's gold losses did not become significant before the sharp widening of the American deficit in 1958-59. This case rests upon discounting the 1950 gold loss of \$1.7 billion as a reflow of gold lost by foreign countries before the devaluations of 1949. But the fact is that the rebuilding of foreign reserves had to come largely from gold stocks of the United States, as there was not enough new gold to meet the demand, and that from 1950 to 1955 American gold stocks were drawn upon to the extent of \$2.8 billion. Furthermore, if one wants to explain away the gold shortage by special factors, it should be noted that the gain in this country's reserves of \$1.1 billion in 1956-57 was a result of the Suez crisis and that this unusual gain partly explains the heavy loss of \$2.3 billion in 1958. No matter how much one juggles the figures or emphasizes special factors for its gold losses in particular years, the fact that reserves of the United States declined on balance cannot be glossed over. Even then, the facts point to Situation II as the state of the system, because official liabilities of the United States were rising without any chance of even minimum support from rising gold reserves.

A possible alternative to Situation II, namely that the United States failed to "put its house in order" by appropriate adjustment policies, was never alleged and may easily be seen to have no foundation. In the early 1950s the United States was giving substantial economic and military assistance to Europe to ease the dollar shortage; almost all the European currencies were inconvertible until 1958 and there was widespread discrimination against dollar imports. There was a moderate demand inflation in the United States at the time of the Korean War and some wage-push during the post-Korean boom of 1955-56. For the ten years as a whole, however, price and cost stability was better maintained in the United States than in Europe. As against the several years of high overall demand, there were several years of recession and on balance there was excessive unemployment. Hence, there was no "need" for a better adjustment process; the deterioration of the American reserve position was a response, in the nature of the system, to the aggregate of surpluses under conditions of a shortage of new monetary gold.

Was there a failure of the adjustment process on the other side? That is, were the surpluses too large? Germany was the only case of rather persistent extreme surplus; its gold and dollar reserves increased from zero to \$5.7 billion by the end of 1958 and, besides, it built up a credit balance in the European Payments Union of \$1.1 billion. Revaluation of the D-Mark was seriously considered and, indeed, the sterling crisis of 1957 was set off by rumors that a 15 per cent change in parity of the D-Mark was under discussion. The impact of the German surplus appeared to be more on other countries of the European Payments Union than on the United States, however, and the latter gave little support to the pressure other countries were putting on Germany to reduce its surplus—by revaluation, if necessary.

In any case, the feasibility of equilibrium for the system as a whole cannot be judged by the position of one country. The narrow margin for surpluses without deficits in Situation II was creating difficulties for all countries less favored by the structure of exchange rates and less firm in their monetary policy. Thus, whereas Germany had an extreme surplus for some years, and some other countries had ample increases in reserves, the United Kingdom was under pressure on external account and failed to achieve a much needed increase in reserves, France lost substantial reserves during its currency and price inflation of 1956-57, there were quite a few cases of currency depreciation and many less-developed countries were in exchange difficulties in the years after the Korean War. If all these deficit countries had been able to manage their affairs so strictly as to have moderate surpluses, the ample surpluses would have been narrowed. But, also, the United States would have felt the repercussions and its deficit would have been larger.

From a global standpoint, monetary gold stocks increased by \$5 billion over the ten years, dollar reserves by \$6 billion, and there was also \$5 billion drawn out of American gold reserves. Excluding the United States, the net surplus in the system was therefore \$16 billion, or an annual increase in reserves of \$1.6 billion. To have had equilibrium in the system, however, the gold reserves of the United States would have had to have risen in a reasonable proportion to dollar reserves of other countries. Suppose, for example, that longer-term confidence in the dollar could have been maintained by a rise in American gold reserves of one-half the rise in its official liabilities and that the American reserves rose by \$2 billion over the period. The net surplus of other countries could then have been equivalent to \$3 billion of gold and \$4 billion of dollars, or an annual increase in reserves of \$700 million—instead of \$1.6 billion. It is evident that the demands on the adjustment process at fixed rates would have been beyond practical possibilities; European

reserves could not have been so well reconstituted; exchange restrictions could not have been relaxed as much; convertibility would probably not have been possible, and more exchange-rate changes would have occurred.

In reality, of course, the gross sum of surpluses from year to year was larger than the American deficit plus new gold because there were other deficits. But these deficits changed from one country to another—only the American deficit provided continuous scope for surpluses.

During these years the maintenance of the price of gold at \$35 did not come into question. Hence, the demand for gold, both by central banks and by private buyers was not distorted by a likely prospect of a rise in the gold price. The dollar was fully and freely convertible so that central-bank reserve ratios represented their true preferences as between gold and dollars. Private demand reflected genuine industrial use, traditional saving in gold, and lack of confidence here and there in currencies other than the dollar. In that sense, demand for gold was normal and the calls made upon American gold reserves were simply indicative of the shortage of new supply at the fixed price. Yet, both the United States and the system were in disequilibrium because the deterioration of the reserve position of the United States was not sustainable.

That confidence in the dollar was not shaken in these years was due, of course, to the fact that the reserve position was superstrong to start with. The United States held over \$24 billion of gold at the beginning of 1950 and this allowed ten years of deterioration of its reserve position before the price of gold became suspect. The reserve strength of the dollar in 1950 is a unique case in monetary history and unique also is the example of a country being able to run a deficit of the relative size of \$1.1 billion for ten years.

The unprecedented expansion of economic activity and world trade in the postwar period is often cited as proof of the successful operation of the system. This is, at best, a half-truth. In fact, the system was in disequilibrium and the deficit and gold losses of the United States were integral elements in the functioning of the system. Until almost the end of the 1950s there was little suspicion that the trends in the system were unsustainable. It was considered desirable that the large American gold reserves should be redistributed to support a return to convertibility and liberal trading practices. With the benefit of hindsight, however, it is evident that this conception was mistaken. The redistribution of the gold stock of the United States was not caused by its desirability and would not stop when further redistribution became undesirable. Certainly, if it could all be done over again, the devaluations of 1949 should

not have been so haphazard and should have been combined with an appropriate rise in the price of gold to counterbalance the inflation during the war. The rebuilding of European reserves would then not have had to draw on the gold reserves of the United States, certain surpluses in the 1950s would have been more moderate and the benefit of the devaluation of sterling to the United Kingdom would not have been so watered down by other unnecessary devaluations. It is ironic—after the setting-up of the IMF at Bretton Woods with the aim, *inter alia*, of preventing competitive devaluations—that the first major monetary action of international scope in the postwar years was competitive devaluations.

1960-65. In October 1960 the market price of gold broke away from the official price of \$35 and for some weeks was at a significant premium. With this event the system entered the deterioration phase of Situation II, which continued until 1965. That is, the increment to gold reserves continued to be positive, but private absorption of new gold became appreciably larger and the preference of central banks for gold as against dollars increased. The spectre of an eventual rise in the gold price led to significant changes in the character of the system.

The reserve position of the United States at the end of 1959 was still impregnable: gold reserves were \$19.5 billion and its reserve position in the IMF \$2 billion additional, whereas its liabilities to foreign central banks were \$10 billion. Why, then, the sudden suspicion of the price of gold? First, the balance of payments had shifted from a surplus of \$1.1 billion in 1957, brought about by the Suez affair, to an average official-settlements deficit of \$3 billion in 1958-60. Secondly, gold losses of the United States had been large in 1958 and 1959, and it was evident to the public that the American authorities had become deeply concerned. Thirdly, the market apparently considered that the post-election government might increase the price of gold or suspend gold sales if the balance of payments proved to be a restraint on domestic expansion objectives. Demand in the market came partly from central banks, so there was already reluctance to buy gold directly from the U.S. Treasury and doubts about the free convertibility of the dollar at \$35 in the future.

In other words, the market price of gold did not rise in 1960 because American reserves were on the verge of exhaustion. The suspicion, rather, was that conversion of dollars at the U.S. Treasury would become difficult and that the United States might take the practical step of ending the shortage of gold by raising the official price.

The statistical position of gold in the years 1960-65 was dominated

by two leaps in the level of private demand. It exceeded \$1 billion in 1960, in contrast to \$670 million the year before. Thereafter, the public seems to have considered gold at \$35 to be rather cheap, as private demand was 10 per cent higher by 1964. Industrial use grew at a rapid rate and gold hoarding was also at a much higher level than in the 1950s. Then, in 1965, there was a second leap in private demand to \$1.6 billion, provoked partly by a change in French gold policy and partly by hostilities in India-Pakistan and Vietnam.

On the supply side, South African output continued to increase strongly, more than offsetting the decline in other countries, and Russian sales averaged \$500 million in 1963-65, when large wheat purchases were being made from abroad. Thus, the new gold available for official stocks averaged \$560 million from 1960 to 1964, compared with about \$660 million over the previous six years. In 1965, however, even though total supply had risen to almost \$2 billion, only \$370 million was left for official use—and of this, \$150 million was bought by China, which was a new factor on the demand side. The official stocks of the free world rose by \$220 million—not much above Situation III.

In the years 1960-65 the shortage of new gold continued to be the basic cause of disequilibrium in the system, particularly in view of the rapid rise in international transactions. In addition, however, the imbalance was widened because of inadequate adjustment policies by some of the principal countries.

The American balance of payments (official-settlements basis) shifted to a deficit of \$3 billion in 1958. This change came largely from a fall in exports, caused by the reopening of the Suez Canal and the economic recession in Europe. There was a recession in the United States also in 1957-58, so the deficit was not a result of excess demand in the United States; in fact, American imports declined slightly. The deficit continued at the same average level in 1959 and 1960; this was due, first, to large steel imports during the strike of 1959 and, second, to the sudden interest of American consumers in European automobiles. In 1960, also, although exports rebounded with returning expansion in Europe, short-term capital exports (mostly bank lending) from the United States rose sharply, with the return of recession and low interest rates.

It will be seen that the larger deficit of these years cannot reasonably be attributed to failure of adjustment policies; it reflected changes in the cyclical position and in consumers' preferences of precisely the kind against which central banks hold reserves. Even if the flow of new gold had been adequate all along, the United States would have been in external deficit in 1958-60 and its reserve position would have suffered a deterioration.

By 1961, however, the competitive reaction of the American automotive industry had much reduced foreign-car imports, the European economy was booming, and the American surplus on goods and services account was substantial. Moreover, up to mid-1965 the United States maintained stable prices, did not have excess demand, and had a small decline in wage costs. While imports tended to rise with domestic recovery, exports also rose and the balance on current account was helped by a steady rise of income from foreign investments.

Why, then, was the United States in persistent deficit? In part, I may repeat, the deficit was caused by the shortage of new monetary gold. In addition, it reflected a rising tide of American capital exports—primarily to Europe. For a time the American authorities acted as though they were powerless in the face of this large capital outflow. A basic aim of the United States was to achieve a higher rate of economic growth, after the stagnation of 1957-60, and policy was based on the theory that this required low interest rates. Thus, the natural tendency for an external deficit to tighten domestic monetary conditions was entirely offset by Federal Reserve action. At the same time, the tendency towards inflation in Europe from excessive total demand was fought mainly by restrictive monetary policy, which reinforced the disparity in interest rates between the two sides of the Atlantic. The remedy to the unbalanced capital flow expounded by the United States was that Europe should develop its capital markets to reduce the net outflow from the United States, while Europe saw itself as the innocent victim of “imported inflation.” However, it seemed at the time, and has been shown by later developments, that greater reliance on fiscal stimulus by the United States and on fiscal restraint by Europe would have allowed more balanced interest-rate levels and have narrowed the imbalance in capital flows. One must question the wonders of international cooperation if the principal countries are not prepared to make this sort of accommodation in their policy mix to manage the payments situation—especially as it would have been in accord with national as well as international interests.

It was shortsighted also, I believe, that military expenditures in Europe by the United States were not scaled down in this period. After 1958, with most countries in a strong payments position and with their productive potential not only restored but greatly expanded, Europe was clearly capable of providing to a greater extent for its own defense. This view has been expressed in the United States, but American military expenditures in Europe remained at the \$2 billion level. The question here is not the total size of the defense effort, judged by competent American authorities as necessary in the light of the international politi-

cal situation. But what seemed to be ignored was that the strength of the dollar was essential to the United States as a world power and that the task of strategic planning was to devise a global defense effort that did not put too great a burden on the dollar. For the time could always come, as it did with the Vietnam war, when a sacrifice of the reserve position would be a necessity.

Another important factor in the worldwide imbalance was the deficit of the United Kingdom and confidence movements against sterling. It was recognized that sterling had been for some years at a disadvantage in the exchange-rate structure and that the reserves were small in relation to the volume of transactions between the sterling area and the outside world. Despite rather slow growth of the economy in the 1950s, the United Kingdom's competitive position failed to improve because of the continuous tendency for wage increases to exceed productivity gains—in good years and bad. These conditions made the United Kingdom one of the countries to suffer from the tightness of the system arising from the shortage of new gold.

Against this background strong expansionary measures were taken in 1962-63 to overcome the stagnation of the economy. By mid-1964 there was substantial excess demand and a large external deficit, but, with an election scheduled for November, possible restrictive action was postponed. The new government was duly incensed by its inherited balance-of-payments problem, but it did not take effective measures to curtail excess demand and to maintain confidence in sterling. By the third quarter of 1966, when the first real attack on excess demand was made, over \$4.5 billion of official external financing had been used—obtained by drawing on the IMF, on Switzerland, on the Treasury's portfolio of dollar assets, and on central-bank assistance.

This massive use of official resources aggravated the gold-dollar problem. That is to say, to the extent that the resources came from encashing the Treasury portfolio of dollar securities and from short-term assistance given by the Federal Reserve and the U.S. Treasury, the effect was to add to the oversupply of dollars in the market coming from the American deficit. So far as its reserve position was concerned, the United States might just as well have had the larger deficit itself.

Being unwilling to adopt strong adjustment measures, American officials reconciled themselves at first to a sizable external deficit. The Brookings Institution was commissioned to forecast what the balance of payments would be in 1968 and happily concluded that there would be pie in the sky—if only continental Europe inflated itself out of its surplus. However, the shorter-term pressures on its reserves could not be ignored, so, besides devising techniques to minimize gold losses by

borrowing abroad and organizing the gold pool to help manage the gold market, the United States turned to direct capital controls—first with the interest-equalization tax in 1963 and then with broader guidelines to limit capital exports in 1965.

A priori, the large persistent deficit (in the absence of excess demand), coupled with the adoption of direct controls, could be seen as an indication of fundamental disequilibrium. Some nonofficial economists reached this view; it seemed implausible to them that the large payments gap could be closed by reasonable fiscal and monetary adjustment measures—unless the measures were so strong as to impose internal deflation. The hidden assumption was, however, that the shortage of new monetary gold, based on the existing price, is taken as a datum. But it is precisely the characteristic of Situation II that reasonable adjustment behavior is insufficient to secure equilibrium. The real question about the years 1961-65 is, therefore, whether reasonable adjustment policies would have worked if, in addition, new gold had been as in Situation I. It is instructive to consider the actual deficits in a few years from this standpoint.

In 1961 the American deficit was \$2 billion, with a recorded short-term capital outflow of \$1.4 billion and a significant additional outflow hidden in the “errors and omissions” item of minus \$1 billion. It seems clear to me that a reasonable narrowing of interest-rate differentials could have reduced this outflow enough so that, if the new gold supply had been adequate, gold reserves of the United States would have risen. As it was, they fell by \$0.9 billion.

To skip to 1964, this was an unusual year—something like the year of the Suez crisis—due to bad harvests and booming demand in Europe. American exports rose by over \$3 billion and, although imports increased strongly with the expansion of domestic activity, income on foreign investments also continued its favorable trend. Hence, the surplus on goods and services account soared to \$7.6 billion (compared with \$5.0 billion at the time of Suez). Despite an outpouring of long-term capital of \$4.3 billion and of short-term capital of \$2 billion, the overall deficit was only \$1.6 billion. With reasonably effective adjustment policies, this would have been a year of surplus. As it was, the gold loss was only \$0.1 billion; if there had not been a shortage of new gold, American gold reserves would have risen substantially.

In 1965 the rise in exports slowed down while imports increased sharply, as economic activity moved past the full-employment level late in the year; the goods and services surplus fell to \$5.9 billion. In this year, however, the voluntary restraint program and a somewhat tighter monetary policy shifted short-term capital outflow of \$2 billion

to an inflow of \$0.9 billion. Hence, even with a further rise in long-term capital exports, the overall deficit was at \$1.5 billion. Again, it is not difficult to visualize that a reasonably stronger adjustment could have enabled balance to be attained—if the availability of new gold had been as in Situation I. The gold loss in 1965 was \$1.7 billion; but, if there had not been a shortage of new gold for quite some years, French reserve policy would not have suddenly been changed and General de Gaulle would not have been advocating a return to the gold standard.

1966. A new state of affairs came about in 1966 for the first time; the system moved approximately to Situation III. Gold reserves of the western world actually declined by \$45 million. The change from Situation II to Situation III occurred despite a drop in private absorption of gold of over \$200 million from its very high level in 1965. The key factor was the total absence of Russian gold sales, which had amounted to \$550 million the year before. But also on the supply side, it is significant that western gold production showed no increase—for the first time since 1953. South African output still rose in the first half of the year, but a downward trend began to appear from mid-year onwards; for the full year South African output increased only \$10 million—just enough to offset the decline elsewhere.

For the time being, however, the effect of the change in the gold situation on the external position of the United States was overshadowed by other forces. The sharp increase in military expenditures for the war in Vietnam after July 1965 gave a strong boost to total demand, which quickly led to inflationary pressures on both the domestic market and the external accounts. With the consequent soaring of imports, the American trade surplus in 1966 declined by \$1 billion; in addition, direct military payments abroad rose by \$800 million. Thus, there was a large deterioration in the external position on current account.

This deterioration was more than offset, however, as a result of severe monetary restraint, imposed to dampen inflationary pressures in the absence of an appropriate tax increase. The unavailability of funds in the United States and the very high level of interest rates produced a tremendous change in the external capital account; even with American direct investment abroad rising slightly, the net deficit on private long-term capital transactions fell from \$4.5 billion in 1965 to \$1.6 billion in 1966 and, in addition, about \$2.7 billion of short-term money was drawn into the United States through the banks. While such an improvement in the capital account could not be repeated without drastic repercussions around the world, the effect for the moment was largely to offset the underlying American deficit. In fact, the overall balance of payments on an official-settlements basis, as it is measured statistically

by the United States, even showed a slight surplus. This was rather too good to be true, however, as it reflected \$400 million of official long-term debt prepayment to the United States. In addition, from the reserve point of view, this included the asset counterparts of Federal Reserve assistance to the Bank of England and of a year-end swap drawn on the Federal Reserve by the BIS. None the less, it did indicate that the huge capital-account deficit during the previous years of very easy monetary policy could be significantly narrowed.

The conspicuous victim of Situation III in 1966 was the United Kingdom. One may be reluctant to put the matter this way, because the government did not deal realistically with excess demand and wage increases until July 1966. The fact is, however, that Situation III required that there be deficits in the system so long as there were any surpluses. And since the United States was offsetting its deficit by drawing in funds from abroad, it was a near certainty that they should be drawn to a significant extent from London. The pressure on British reserves was quite heavy, even after the measures taken in July 1966, and a reflux of funds to London did not occur until very late in the year, when the Federal Reserve relaxed monetary restraint.

In any case, the gold shortage took its toll on American gold reserves in 1966, with a loss of \$570 million.

1967 (first half). Another change in the state of the system occurred in the first half of 1967, as the position of gold moved to Situation IV; total official gold stocks declined by about \$200 million. This came about essentially through a further increase in the private absorption of gold. On the supply side, western gold production ran slightly below the 1966 level and there were no Russian sales.

Situation IV may not yet be a continuous state of affairs, since a resumption of gold sales by Russia could bring about a change to Situation III or Situation II. Russia might not be selling gold because of a particularly favorable balance-of-payments situation; or it might simply be reluctant to sell at the present price—like almost all other central banks—and have arranged its balance of payments accordingly. However that may be, the prospects are abundantly clear. Private demand for gold is on a strong upward trend, whereas western output is no longer rising. While private demand has been influenced by a belief that the price of gold will eventually rise, there has been relatively little gold bought as a short-run speculation. (Written in the summer of 1967.) Hence, it is evident that before long Situation IV will prevail in the future more or less continuously.

I have earlier designated this situation as a fundamental disequilibrium of the system and may repeat what the consequences must be.

First, the market price of gold must eventually rise. This will happen whenever the monetary authorities in the gold pool decide to stop making up the shortage in the market out of their reserves or, at long last, when the more tenacious ones run out of gold.

Secondly, the monetary authorities are being faced rapidly with two alternatives with respect to gold: either to raise the official price so that there is an adequate amount of gold for reserve purposes, or to limit the use of gold in the monetary system and allow it to become an inactive component of reserves.

Thirdly, there are the consequences for balance-of-payments positions and the feasibility of operating on a norm of fixed rates. So long as there is a negative increment of monetary gold, there must be some country or countries losing reserves, even in the impossible circumstances that no country has one dollar of balance-of-payments surplus. In these circumstances, official credit transactions will be likely to increase and exchange rates to be under frequent threat. In fact, this is already the case in Situation III.

In the light of these prospects, one may face the question of whether the dollar is at present overvalued and the balance of payments of the United States in a fundamental disequilibrium that can only be corrected by a realignment of exchange rates. If the United States must achieve equilibrium within the confines of the shortage in the flow of new monetary gold, then the answer must be yes. The reason for this is that there is no way by which its external accounts can be brought into balance without extensive use of direct controls or imposing underutilization and stagnation on the economy. Even then the system would be under constant threat, as other countries would probably soon be forced to defend themselves by retaliatory measures and changes in exchange rates. While the payments deficit of the United States has been aggravated by the Vietnam war, there was a long-standing and intractable deficit before the war.

However, if one considers that the amount of new gold flowing into the system is a variable subject to change by policy action, then the answer must be no. There has been no time from 1950 to 1965 when the dollar was clearly overvalued vis-à-vis any significant number of other currencies. One may consider that this or that individual country was at times in rather extreme surplus, but no extreme surplus was as persistent as the deficit of the United States. This is still the situation at present. There does not seem to be any country that considers its currency significantly undervalued vis-à-vis the dollar or any that would accept a significant revaluation in terms of the dollar. This means that it is gold, rather than the dollar, that is in fundamental disequilibrium.

Deterioration of the System

Since the eruption of the market price of gold in 1960, there has been a steady deterioration in the operation of the system and a change in its character. I summarize the main aspects of this deterioration from the review of developments already recounted.

1. The standing of the dollar as the reserve currency of the system has become compromised as there is less readiness to hold dollars freely. To minimize conversion of dollars to gold under these circumstances, the United States has resorted to giving guarantees on various of its external liabilities.

2. The United States has used moral suasion to prevent dollars being converted to gold. It is no secret that such conversions are considered to be at least uncooperative, and in some cases unfriendly. Some foreign central banks have refrained from demanding gold for dollars so as not to rock the boat. Hence, central banks no longer have full freedom over the composition of their reserves; nor is it quite right to say that the dollar is still freely convertible *de facto*.

3. After the rise of the market price of gold in 1960, the principal central banks formed the gold pool in order to keep control over the price. At the start, the assumption of the pool was that there would normally be an excess of market supply over demand—which may include buying by central banks that are not members of the pool. By 1967, when Situation IV was reached, the pool had to supply not only the deficit of gold for private demand but the market demand of non-member central banks as well. The residual supplier, of course, was the United States, since the other pool members could offset their gold losses to the pool by purchases from the United States.

4. The threat overhanging gold has restricted its use in official settlements; except in desperate circumstances or for political ends, central banks try to meet temporary difficulties by other means.

5. While gold losses act as a discipline on the United States, they have become an uncertain guide for judging its balance-of-payments performance. At one moment the authorities expressed a firm intention to balance the external accounts. When they realized that this unilateral undertaking was impossible, they said that the surplus countries must carry a fair share of the burden of adjustment—without specifying what a fair share for the United States would be. The latest posture seems to be a resigned attitude towards the balance-of-payments deficit, with its persistence and size being attributed to the war in Vietnam. One can only conclude that the authorities of the United States have not formulated a set of standards for judging whether its responsibilities for the

reserve currency of the system are being fulfilled. In fact, of course, with the shortage of new gold anything like as severe as it is at present, it cannot be done.

6. With the growing tightness of the system, it has become a matter of high priority to prevent any excitement on the exchange markets and to resort to extreme means to gain market confidence. One aspect of this is a fear of changes in exchange rates and a belief that almost any change in rates constitutes a threat to the stability of the system. This is in the face of the necessity for rates to be much more finely adjusted in conditions of a gold shortage than would be needed with an adequate flow of gold.

7. Owing to limitations on the growth of reserves through gold and dollars, the system no longer has a built-in mechanism for the increase in reserves. As a consequence, the growth of reserves has depended to a large extent on special credits negotiated to finance deficits. Such arrangements are often influenced by political considerations, to the general detriment of strictly monetary and financial standards in the system. And, as the repayment of such credits would require a substantial contraction of global reserves, it is not easy to visualize their orderly liquidation.

The changes in the system that have occurred since 1960 are often presented as an evolution and strengthening of the system. While there have been innovations of permanent value, the essence of the matter has been a series of shoring-up operations to accommodate to a basic disequilibrium of the system. Far from the system being strengthened, it has been disintegrating. This can hardly be considered an evolution of the gold-dollar system, since it consists of replacing both gold and dollars with quite different instruments for the growth of reserves. The past six years have been transitional, and it is evident that the pattern of gold and credit financing followed in those years cannot be repeated in the next six years. If ways are found in the years ahead to suppress the official demand for gold, it will mean that a basically new system has come into being.



APPENDIX

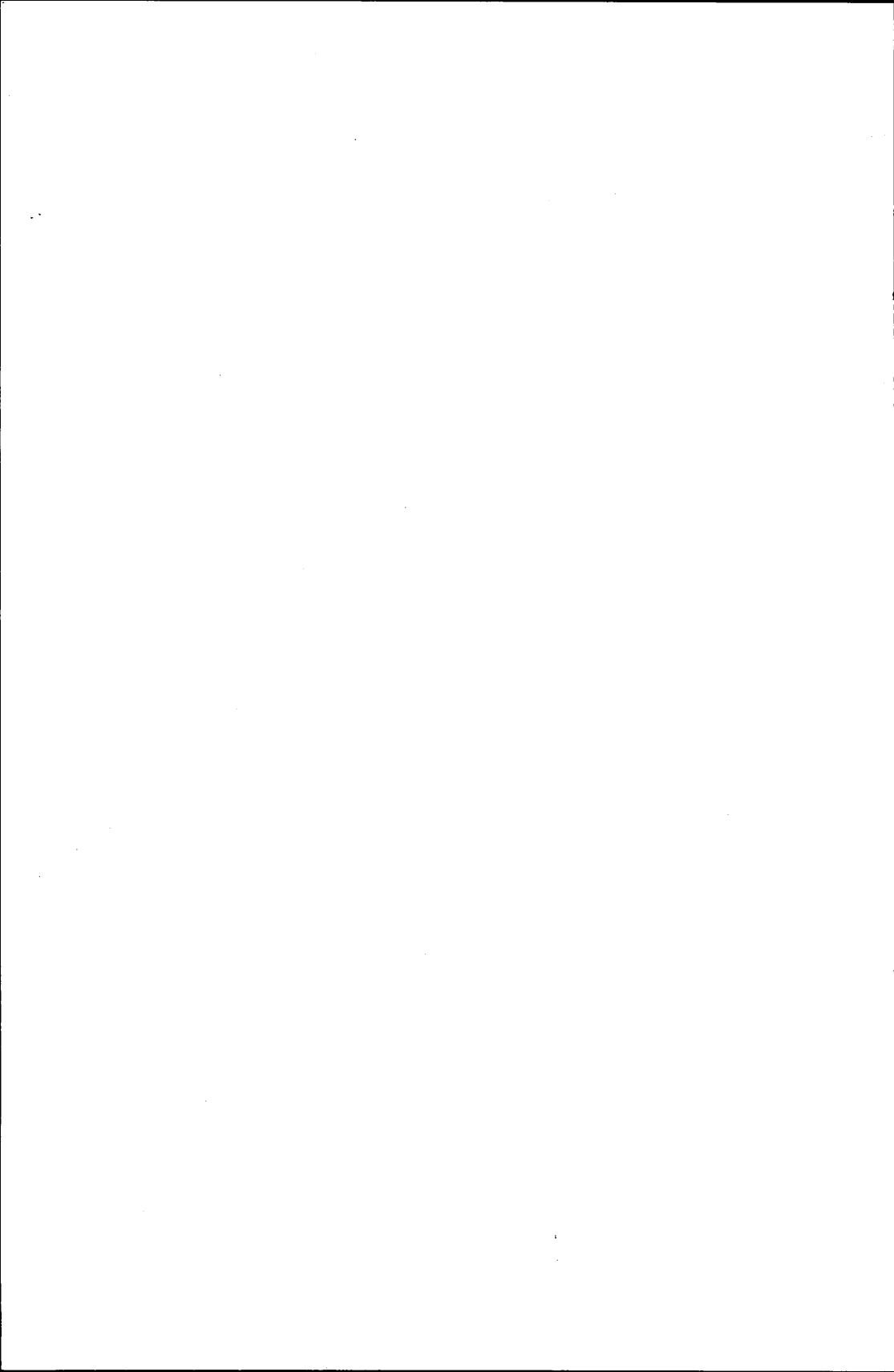


TABLE 1: GOLD PRODUCTION

Years	South Africa		Canada	United States	Australia	Ghana	Japan	Philip- pines	Colombia	Mexico	Other	Total world ²
	Old mines	New mines ¹										
in millions of U.S. dollars at \$35 per fine ounce												
1929	364	•	67	72	15	7	12	6	5	23	69	640
1934	367	•	104	96	31	11	17	12	12	23	142	815
1940	492	•	187	170	58	31	30	39	22	31	250	1,310
1946	417	—	100	55	29	21	1	0	15	15	97	750
1947	392	0	108	76	33	20	2	2	13	16	88	750
1948	402	3	124	71	31	24	4	7	12	13	99	790
1949	403	7	144	67	31	24	5	10	13	14	107	825
1950	400	8	155	80	30	24	5	12	13	14	109	850
1951	393	10	154	66	31	24	7	14	15	14	97	825
1952	389	25	157	67	34	24	8	16	15	16	99	850
1953	372	46	142	69	38	26	9	17	15	17	99	850
1954	375	88	153	65	39	28	11	15	13	14	94	895
1955	359	152	159	66	37	24	10	15	13	13	92	940
1956	349	207	153	65	36	22	10	14	15	12	97	980
1957	333	263	155	63	38	28	11	13	13	12	91	1,020
1958	325	293	160	62	39	30	11	15	13	12	90	1,050
1959	335	367	157	57	38	32	12	14	14	11	88	1,125
1960	330	418	162	59	38	31	12	14	15	11	90	1,180
1961	327	476	157	55	38	29	13	15	14	9	82	1,215
1962	325	567	146	55	37	31	15	15	14	8	87	1,300
1963	315	645	140	51	36	32	15	13	11	8	89	1,355
1964	306	714	133	51	34	30	16	15	13	7	86	1,405
1965	293	776	126	59	31	26	18	15	11	8	77	1,440
1966	276	804	115	63	32	24	19	16	10	7	74	1,440
1967	265	804	104	51	29	27	24	17	9	6	74	1,410

¹ Members of the Transvaal and Orange Free State Chamber of Mines which started mining operations after 1945.

² Excluding the USSR, eastern Europe, mainland China and North Korea.

TABLE 2: SUPPLY AND USE OF GOLD

Years	Supply of gold			Net official pur- chases	Private demand			
	New produc- tion	Russian sales	Total		Reported industrial use		Other private absorp- tion	Total
					United States	11 other countries ¹		
in millions of U.S. dollars								
1946	750	—	750	335	154	35	226	415
1947	750	—	750	480	49	40	181	270
1948	790	—	790	415	55	50	270	375
1949	825	—	825	445	109	70	201	380
1950	850	—	850	325	98	75	352	525
1951	825	—	825	265	69	80	411	560
1952	850	—	850	230	96	80	444	620
1953	850	75	925	455	75	85	310	470
1954	895	75	970	670	44	90	166	300
1955	940	75	1,015	665	46	100	204	350
1956	980	150	1,130	490	49	118	473	640
1957	1,020	260	1,280	690	51	145	394	590
1958	1,050	220	1,270	680	64	137	389	590
1959	1,125	300	1,425	755	88	134	448	670
1960	1,180	200	1,380	295	105	158	822	1,085
1961	1,215	300	1,515	605	97	188	625	910
1962	1,300	200	1,500	370	125	204	801	1,130
1963	1,355	550	1,905	820	102	223	760	1,085
1964	1,405	450	1,855	710	168	262	715	1,145
1965	1,440	550	1,990	370 ²	185	289	1,146	1,620
1966	1,440	—	1,440	30 ²	212	290	908	1,410
1967	1,410	—	1,410	—1,380 ³	224	•	•	2,790

¹ Australia, Austria, Belgium, France, Germany, Italy, Japan, the Netherlands, Sweden, Switzerland and the United Kingdom. Figures for the years 1946 to 1955 are partly estimated.

² Including purchases by China, about \$150 million in 1965, \$75 million in 1966.

³ Including estimated purchases by non-western countries of \$200 million.

TABLE 3: DEVALUATIONS IN 1949 AND
RESERVE INCREASES, 1949-59¹

<i>Countries</i>	<i>Devaluation vis-à-vis U.S. dollar</i>	<i>Increase in reserves, end-1949 to end-1959²</i>
	in percentages	in millions of U.S. dollars
Australia	30.5	126
Austria	30.6	605
Belgium	12.3	328
Denmark	30.5	241
Finland	30.4	195
France	38.6	1,156
Germany	20.6	4,594
Greece	33.3	148
Italy	8.0	2,453
Netherlands	30.2	1,008
Norway	30.5	177
Portugal	13.0	351
South Africa	30.5	161
Sweden	30.5	209
Switzerland	0	371
Canada	9.1	832
Japan	0	1,220
United Kingdom	30.5	1,049

¹ Other countries which devalued in September 1949 include: Argentina, Bolivia, Chile, Egypt, Iceland, India, Indochina, Indonesia, Iraq, Ireland, Israel, Jamaica, Jordan, Malaya, Morocco, New Zealand, Nigeria, Sudan, Tunisia.

² Includes IMF reserve position.

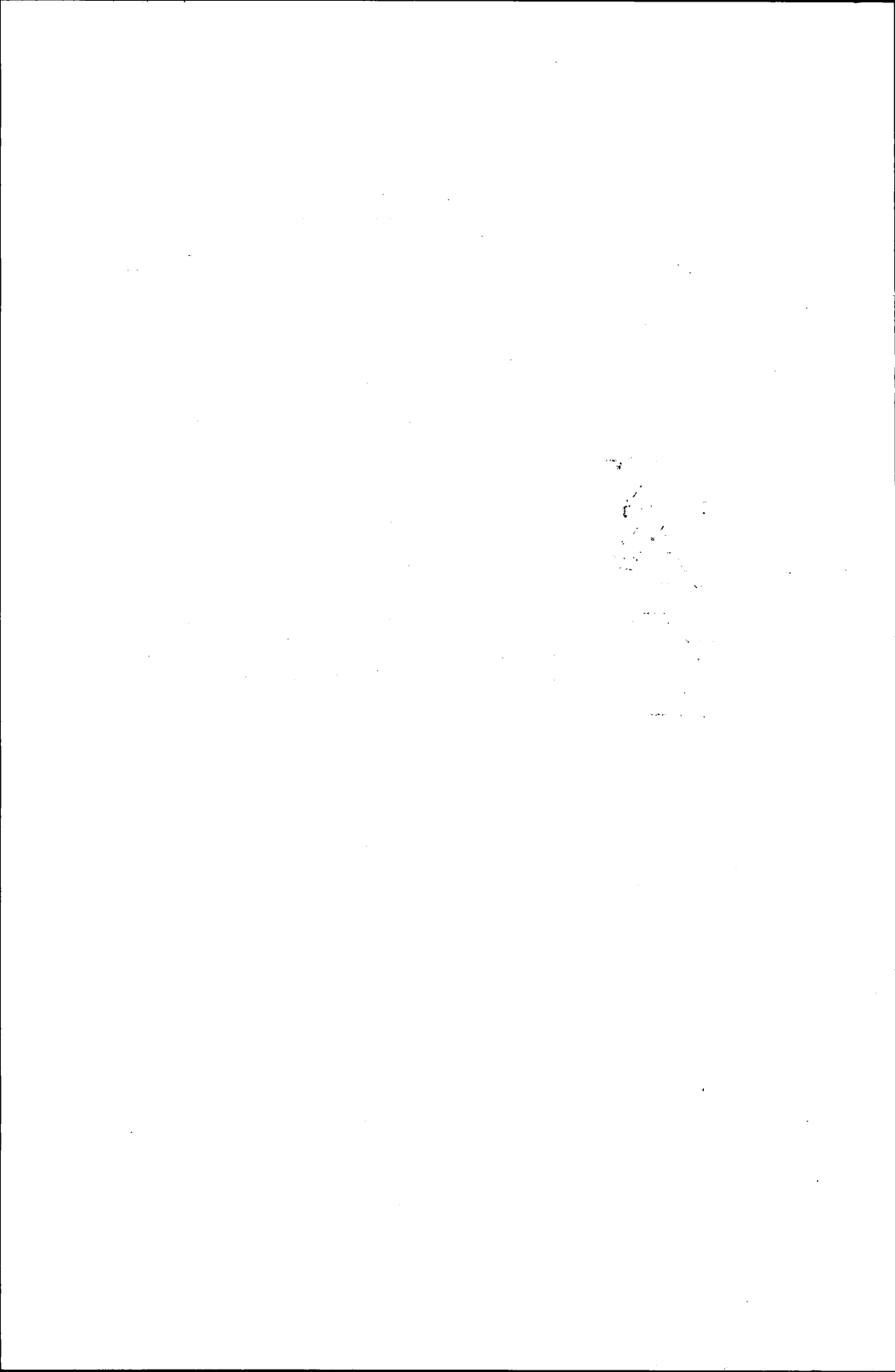


TABLE 5: RESERVE POSITION OF THE UNITED STATES

Year	<i>Amounts outstanding—end of year</i>					<i>Annual changes</i>					Total =balance of reserve trans- actions ²
	Gold stock	Con- vertible foreign exchange	IMF position	<i>Liabilities to foreign official agencies</i>		Gold stock	Con- vertible foreign exchange	IMF position	<i>Liabilities to foreign official agencies¹</i>		
				liquid and certain nonliquid liabilities	of which short-term reported by banks				liquid and certain nonliquid liabilities	of which short-term reported by banks	
in millions of U.S. dollars											
1949	24,563	—	1,461	.	2,908	164	—	102	.	— 72	+ 194
1950	22,820	—	1,445	.	3,620	-1,743	—	15	.	— 712	-2,470
1951	22,873	—	1,426	.	3,548	53	—	20	.	72	+ 105
1952	23,252	—	1,462	.	4,654	379	—	36	.	-1,106	- 691
1953	22,091	—	1,367	(6,100) ³	5,667	-1,161	—	95	.	-1,013	-2,269
1954	21,793	—	1,185	(7,100) ³	6,770	— 298	—	-182	-1,000 ³	-1,103	-1,480
1955	21,753	—	1,044	(7,600) ³	6,953	— 41	—	-141	-500 ³	— 177	- 682
1956	22,058	—	1,608	(8,700) ³	8,045	306	—	563	-1,100 ³	-1,092	- 231
1957	22,857	—	1,975	(8,800) ³	7,917	798	—	367	-100 ³	128	+1,065
1958	20,582	—	1,958	(9,500) ³	8,665	-2,275	—	17	-700 ³	— 748	-3,040
1959	19,507	—	1,997	10,607	9,154	-1,075	—	40	-1,110 ³	489	-2,145
1960	17,804	—	1,555	11,865	10,212	-1,703	—	-442	-1,258	-1,058	-3,403
1961	16,947	116	1,690	12,606	10,940	- 857	116	135	- 741	- 728	-1,347
1962	16,057	99	1,064	13,775	11,963	- 890	- 17	-626	-1,169	-1,023	-2,702
1963	15,596	212	1,035	15,409	12,467	- 461	113	- 30	-1,634	- 504	-2,011
1964	15,471	432	769	16,802	13,220	- 125	220	-266	-1,393	- 753	-1,564
1965	13,806	781	863	16,869	13,066	-1,665	349	94	- 67	154	-1,289
1966	13,235	1,321	326	16,035	12,539	- 571	540	-537	834	527	+ 266
1967	12,065	2,345	420	19,388	14,068	-1,170	1,024	94	-3,353	-1,529	-3,405

¹ Increase in liabilities —.

² Includes, for the years 1946 to 1953, changes in foreign official short-term liabilities as reported by banks in the United States and, for the years 1954 to 1966, changes in liquid and certain nonliquid liabilities to foreign official monetary institutions. Estimates in round figures for the years 1954 to 1959 (see Note 3).

³ Estimates, in round figures, taken from the Report of the Review Committee for Balance of Payments Statistics to the Bureau of the Budget ("Bernstein Report"), April 1965.

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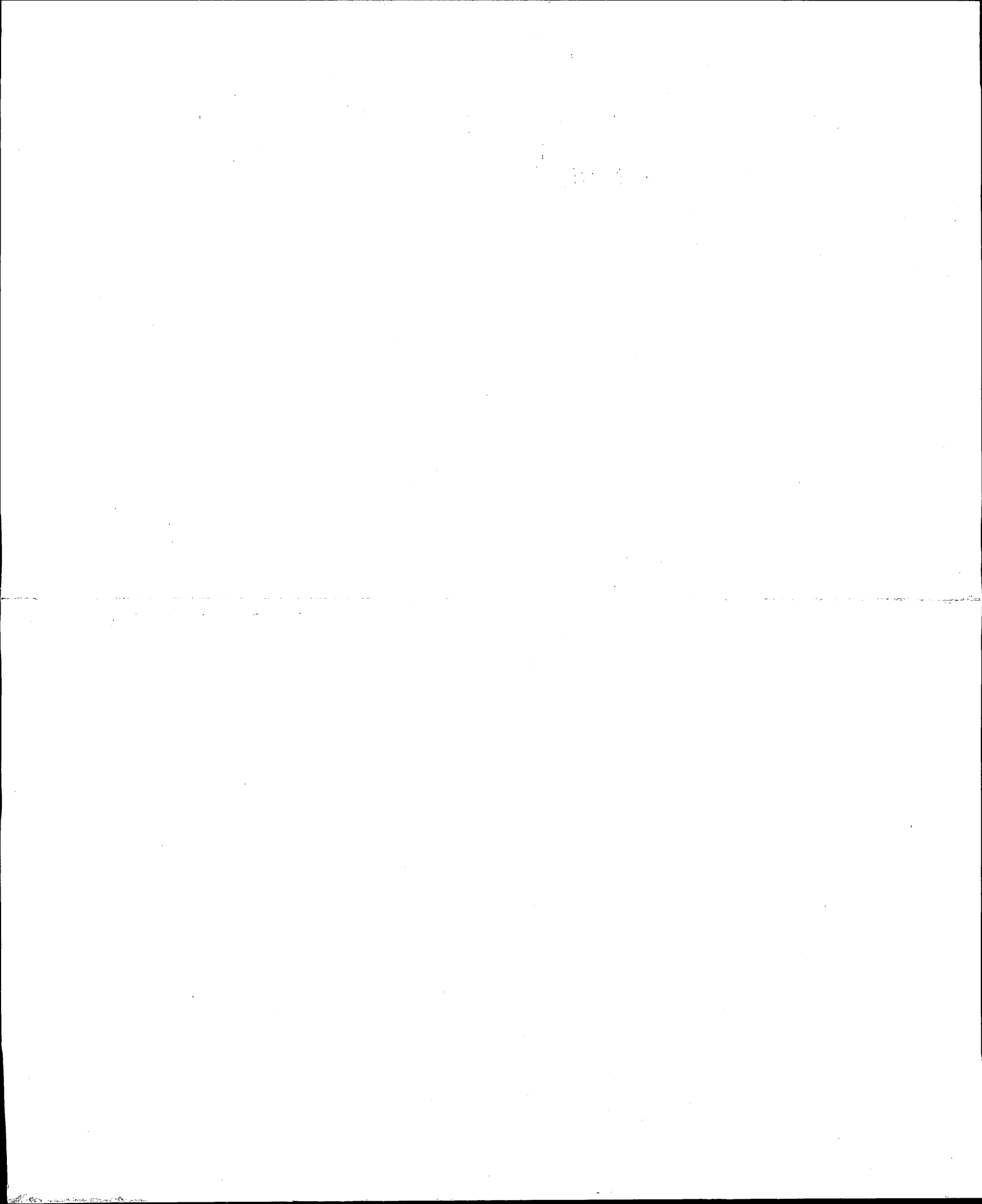
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TABLE 4: BALANCE OF PAYMENTS OF THE UNITED STATES, 1949-67

Type of transaction	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967
	in billions of U.S. dollars																		
Goods and services (incl. remittances and pensions), except transfers under military grants	5.5	1.2	3.2	1.7	0.3	1.2	1.4	3.3	5.0	1.5	0.7	3.3	4.8	4.3	5.0	7.6	5.9	4.1	3.5
Merchandise exports, adjusted	12.1	10.1	14.1	13.3	12.3	12.8	14.3	17.4	19.4	16.3	16.3	19.5	19.9	20.6	22.1	25.3	26.2	29.2	30.5
Investment income and related receipts	1.5	1.7	2.0	2.0	2.0	2.4	2.6	2.9	3.1	3.1	3.4	3.8	4.4	5.0	5.3	6.1	6.8	7.3	7.9
Merchandise imports, adjusted	6.9	9.1	11.2	10.8	11.0	10.4	11.5	12.8	13.3	13.0	15.3	14.7	14.5	16.2	17.0	18.6	21.5	25.5	27.0
Military payments	0.6	0.6	1.3	2.1	2.6	2.6	2.9	2.9	3.2	3.4	3.1	3.1	3.0	3.1	2.9	2.9	2.9	3.7	4.3
Investment income payments	0.3	0.4	0.4	0.4	0.5	0.4	0.5	0.6	0.7	0.7	0.9	1.1	1.0	1.1	1.3	1.5	1.7	2.1	2.3
Other services and transfers, net	0.3	0.5	0.0	0.3	0.5	0.6	0.6	0.7	0.3	0.8	1.1	1.1	1.0	0.9	1.2	0.8	1.0	1.1	1.3
U.S. Government grants and capital, except military grants	5.6	3.6	3.2	2.4	2.1	1.6	2.2	2.4	2.6	2.6	2.4	2.8	3.5	3.7	3.9	3.7	3.6	3.9	4.1
Foreign official capital, except claims of monetary institutions	n.a.	n.a.	n.a.	n.a.	n.a.	0.0	0.1	0.0	0.3	0.3	0.4	0.6	0.4	0.3	0.0	0.0	0.1	1.2	1.0
Long-term private capital	0.6	1.0	0.7	0.9	0.3	0.7	0.5	2.0	2.9	2.6	1.4	2.1	2.2	2.7	3.3	4.3	4.5	1.6	2.1
Short-term private capital, except claims of foreign commercial banks	0.2	0.1	0.1	0.1	0.2	0.6	0.2	0.2	0.0	0.2	0.1	1.6	1.2	0.5	0.3	1.7	1.1	0.0	0.4
Short-term claims of foreign commercial banks	n.a.	n.a.	0.5	0.0	0.1	0.0	0.4	0.4	0.1	0.0	1.2	0.1	0.6	0.1	0.5	1.4	0.1	2.7	1.3
Net errors and omissions	0.8	0.0	0.5	0.6	0.4	0.2	0.5	0.6	1.2	0.5	0.4	0.9	0.9	1.0	0.3	0.9	0.4	0.3	0.6
Special government transactions (i.e. advance repayments of long-term debt to the United States)	—	—	—	—	—	—	—	—	—	—	0.4	0.0	0.7	0.7	0.3	0.1	0.2	0.4	0.0
Total=balance of reserve transactions	0.2 ¹	2.5 ¹	0.1 ¹	0.7 ¹	2.3 ¹	1.5	0.7	0.2	1.1	3.0	2.1	3.4	1.3	2.7	2.0	1.5	1.3	0.2	3.4

Note: ¹ Based on changes in the U.S. gold stock, the IMF gold-tranche position and changes in short-term liabilities to foreign central banks and governments reported by American banks. As from 1954 the latter refers to changes in liquid and certain nonliquid liabilities to foreign official agencies.



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