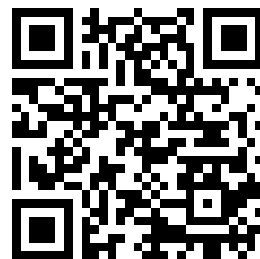


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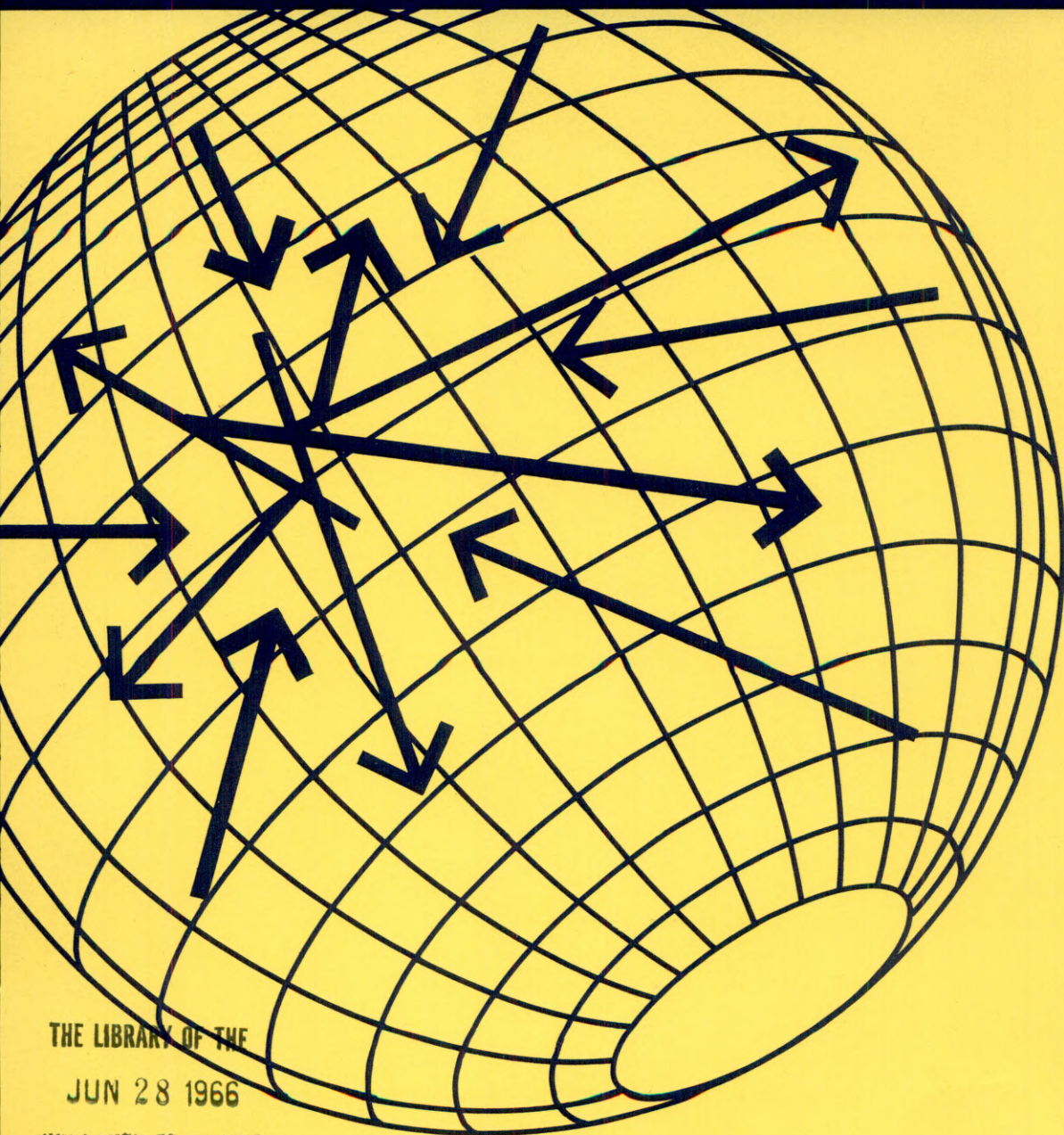
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**UNITED STATES TREASURY DEPARTMENT**

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# UNITED STATES OFFICIAL OPERATIONS IN THE FOREIGN EXCHANGE AND GOLD MARKETS

*by Merlyn Nelson Trued*

ASSISTANT SECRETARY FOR INTERNATIONAL AFFAIRS  
UNITED STATES TREASURY

*"The world not only expects but the world requires  
that the dollar be as good as gold."*

PRESIDENT LYNDON B. JOHNSON  
October 1, 1965

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# CONTENTS

*Foreword by The Honorable Henry H. Fowler, Secretary of the Treasury*

<b>PART I</b>	<b><i>The Foreign Exchange Market</i></b>	<b><i>Page</i></b>
	Why the U.S. Government Participates.....	1
	The Market's Underpinnings.....	4
	What Makes the Market.....	5
	The Flow of Market Effects.....	7
<b>PART II</b>	<b><i>The Tools and Organization for Government Participation</i></b>	
	Reserves, Convertibility, and Stabilization Funds.....	11
	Foreign Exchange Resources—Treasury.....	12
	Foreign Exchange Resources—Federal Reserve System..	13
	The Gold Markets.....	15
	Arrangements at the New York Federal Reserve Bank..	18
	The Flow of Information.....	20
	The Role of the Treasury and the Executive Branch.....	21
<b>PART III</b>	<b><i>The Techniques of Participation</i></b>	
	Red, White, and Blue Chips.....	25
	Conditions Prompting Official Intervention.....	27
	Reaction, Active or Passive.....	31
<b>PART IV</b>	<b><i>Some Results of Participation</i></b>	
	1961—The Deutsche Mark Revalued.....	34
	The Defenses are Strengthened.....	35
	The Line Holds.....	36
	The Threat to the Lira.....	37
	Sterling, From Short to Long.....	39
	<i>Looking to the Future</i>	
<b>APPENDIX I</b>		
<b>APPENDIX II</b>		





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## Foreword

Last year, I visited the major European capitals and conferred with finance ministers and other monetary officials there. These discussions reflected the growing interest among free world nations in the future of the international payments system—the fabric of monetary resources, procedures, and settlements that binds the free world's economy into an interdependent whole.

Over the past 20 years we have witnessed the involvement by the United States in matters of this sort on an unprecedented scale: in the postwar reconstruction of our former allies and other friendly nations; in the creation of international monetary institutions; in the development of new monetary arrangements, both bilateral and multilateral; and in a continuing interflow of consultation and cooperation with consequent benefit to our private enterprise system and the stability and growth of the free world.

In the 1960's, to help maintain the strength of the dollar in its role as the principal reserve currency among nations operating under virtually full currency convertibility, new means were devised to bolster the dollar's defenses.

One of the most immediately effective measures taken was this: our Government returned to its role as an active participant in the foreign exchange and gold markets, buying and selling all principal world currencies. That is what this booklet is about.

In these matters, the United States Treasury has weighty responsibilities. To carry them out, we have an extremely capable staff of civil servants and appointed officials. Their expertise is impressive. They work, furthermore, with others in the Federal Reserve System who are also knowledgeable and trained in this specialized field, and who carry similarly heavy responsibilities, particularly in actual market operations.

To keep abreast of current trends, American citizens need to know as much as possible about the existing monetary system and how it works. This booklet should, therefore, be a valuable aid in the study of our international financial affairs, and can serve as a much needed companion to the excellent publications of the Federal Reserve System, and related information material.

HENRY H. FOWLER,  
*Secretary of the Treasury.*





# PART I The Foreign Exchange Market

Although its daily activity represents hundreds of millions of dollars in sales and purchases of the world's money, the Foreign Exchange Market is not housed in an impressive building on Wall Street; you cannot buy a seat on this exchange; there are no advertisements soliciting public patronage of its facilities.

But this market, like any other, brings together the private buyers and sellers of its commodity—in this instance, money itself—and the rates at which the exchange of this commodity take place are primarily the final products of the great ebbs and flows of supply and demand caused by the free enterprise of the citizens of the free world.<sup>1</sup>

In March 1961, the U.S. Treasury again became an active participant in the foreign exchange markets. Not since the 1930's had our Government engaged in such operations—as foreign central banks have done for many years to support their currencies generally and to guard against harmful effects of speculation. In February 1962, the Federal Reserve System joined the Treasury in this activity. Together, they have worked effectively with the treasuries and the central banks of the major free world nations to form a strong, flexible and alert defense to protect all the major currencies from disorderly foreign exchange markets that might

result from excessive speculative or other unsettling developments.

This booklet is designed to provide some insight into the reasons for this activity by the United States monetary authorities, some detailed information on how the operations are carried on, and some knowledge of the resources backing these efforts. In the final chapter several of the most important engagements in defense of currency stability that were waged and won during the past five years are discussed in some detail. These episodes in our recent financial history display an impressive marshalling of monetary resources and effective cooperation by the monetary powers—but it was done quietly because fanfare might have foredoomed these operations to failure.

## Why the U.S. Government Participates

U.S. official operations in the foreign exchange markets are a logical outgrowth of the position of the dollar as the cornerstone of the international currency system; they are part of a pattern evolved over the last few years which has also brought about continuous consultation among the leading world monetary authorities. Official intervention in the exchange market—for that is what it is—arises from the desire of the free world nations to employ all appropriate means to assure the smooth functioning of payments arrangements that is essential to the continued growth of international trade and finance.

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<sup>1</sup> For an excellent and comprehensive discussion of the foreign exchange market, see *The New York Foreign Exchange Market*, by Alan Holmes and Francis Schott, published by the Federal Reserve Bank of New York.

This booklet, in attempting to demonstrate how this intervention is achieved operationally, is also designed to give some insight into the nature of market forces and the scope of shorter-term objectives. The process of decision-making is discussed in some detail; from it, one can infer that the views held by a wide range of specialists and policy makers are crystallized rapidly and can be translated speedily into action when necessary.

### **Part of Larger Program**

A note of caution is in order: although U.S. authorities and their counterparts abroad are taking an active official role in foreign exchange operations that promote orderly day-to-day markets, attention to these tactics should not divert us from appreciation of the larger program for the defense of the dollar. Over the longer run, the measure of success achieved by the market operations will depend upon a favorable trend in the basic forces at work in the international monetary system. Essentially, this means that the international payments position of a country must, over reasonable periods of time, show a fair degree of balance. The United States is not exempt from this fact of international financial life. This desirable end, in turn depends upon a broad array of influences affecting the entire range of activities involving our payments abroad, and our receipts from abroad.

Except for 1957, the United States suffered deficits in its balance of payments for the past 15 years. Prior to the late 1950's these were of no great concern, as there was a large demand for dollars for reconstruction abroad and to rebuild the war-depleted official reserves and private working balances of most European countries. But two factors developed in the late 1950's which combined to create a need for U.S. re-entry into the market phases of exchange stabilization operations: the renewed convertibility of the major European currencies, and the continuing U.S. balance of payments deficits.

By this time, reconstruction efforts had resulted in the rebuilding of new competitive plants in Europe and the restoration on a satis-

factory level of the reserves of most European countries. These developments in turn led to the adoption of convertibility, at least on external account and for current transactions, by the major currencies which since the 1930's had been inconvertible and whose value had been maintained, after a fashion, by exchange restrictions and controls.

As other industrial countries prospered, the earlier demand for dollars dwindled and more of the surpluses were converted into gold which came primarily from U.S. stocks. By 1960 the continuing and enlarged balance of payments deficits of the United States, and the concomitant gold losses we experienced, gave rise to fears for the stability of the dollar. In March 1961 the German mark and the Netherlands guilder were revalued upward by 5 percent. These actions set off a wave of speculative activity in the gold and exchange markets as fears of further realignments of currency values were fanned.

These were the conditions when the United States resumed exchange operations. This booklet will look into some details of these events. In describing the evolution of the defenses now available for use in the exchange markets, it may also sharpen understanding of the strong deterrent values which came into play on two occasions when they were most needed: during the Cuban missile crisis, and on that bleak day in November 1963 when the President of the United States was assassinated.

But again, U.S. official exchange operations, even as they exert strong psychological effect under such traumatic conditions, must be viewed as part of the larger framework of our Government's recognition of dangers arising from chronic balance of payments deficits and consequent outflows of gold.

Three times in the past five years these chronic deficits have triggered defense efforts on a wide front. The first was announced by President Kennedy in a message to Congress early in 1961. The second expanded the field of action to counter new and still heavier outpayments by the United States. This was the campaign outlined by President Kennedy in July 1963, which dealt primarily with the rising rate of capital outflow resulting from U.S. investors' purchases

of foreign securities. Chief among the new measures taken was the Interest Equalization Tax.

In February 1965, President Johnson introduced an effective voluntary restraint program, entered into by U.S. bankers and businessmen, aimed at limiting capital outflows as he broadened the impact of the earlier program. Also included were new limitations placed upon the value of goods exempt from customs duties brought back to this country by returning travelers, and reinforced vigilance to hold down Government outpayments for its commitments abroad. Throughout the entire period, debt management and monetary policy sought firmer short-term interest rates without disturbing those flows of longer-term funds required to support domestic expansion, and late in 1965 monetary policy was tightened even more significantly.

While these weapons in our arsenal are being put to use to attack the balance of payments problem, official U.S. operations in foreign exchange continue to help keep this market orderly and effective. The Treasury's activity in this field, as in other areas concerned with programs designed to achieve equilibrium in our balance of payments, come under the operational control of the Office of the Assistant Secretary for International Affairs. The policies guiding these operations stem from the highest councils of Government.

As to the future, discussions are now under way concerning possible changes in the international financial system. One such change suggested is that some new reserve asset be internationally agreed upon, and take its place in the reserve holdings of central banks and governments alongside gold and dollars. No one has proposed that such a new asset would be traded in the foreign exchange market or be held outside strictly official channels. The introduction of such an asset therefore should not be expected to alter the nature, the scope, or the purpose of official operations in the foreign exchange markets as described in this study.

Essentially, the introduction of a new reserve asset could bring two desirable ingredients into the international monetary system. First, the ability on the part of a group of nations to create

an asset fully acceptable in exchange among themselves and other nations would relieve the United States of the primary responsibility that it has thus far carried since World War II for assuring adequate additions to world liquidity in the form of reserves. The United States would then no longer face an implied need to run a deficit in its balance of payments simply because other nations needed additional reserve holdings. This is not to say that deficits in the U.S. balance of payments might not, on some occasions, be appropriate in the developing patterns of world trade and payments; but the world should not be kept, in effect, dependent upon continuing U.S. deficits to assure the growing reserves that sustained growth will require.

The second ingredient that a new asset could bring into the international monetary system is distinct from, although related to, the first. The introduction of the new asset would spread responsibility among a number of nations for insuring that the system works well. This is a sobering responsibility and could help substantially to insure international cooperation in finance as a continuing principle.

Some proposals being discussed are more far-reaching, and their adoption could change more or less substantially the nature of the payments system itself with consequent changes in the range and extent of official operations in the market. One such suggestion is that the margin for currency fluctuations now allowable by the International Monetary Fund Agreement—presently 1 percent either side of parity—be widened somewhat. The French franc, for example, might, if margins were widened to 3 percent either side of parity, be permitted to fluctuate at prices ranging between 4.79 and 5.085 per dollar rather than the present 4.90 to 4.974.

Other even more radical changes sometimes suggested include freely fluctuating exchange rates, the abandonment of gold as a feature of the system, and the creation of a world central bank, among others.

While we cannot predict the course to be taken over the long term, one thing can certainly be predicted. Further changes in the system will inevitably come. The revolution in the



international financial system of the past five years is not at an end. New circumstances and new problems dictate the need for flexibility in operations and policies. Innovation and gradual adaptation will remain the order of the day.

### **The Market's Underpinnings**

There are certain ground rules under which the foreign exchange system of the world operates. Since these give the market its basic characteristics of fundamental importance, they should be known and understood before we look into the official operations by the United States Government in this market.

**The key fact behind foreign exchange trading as conducted today is that all currencies used to any extent in international finance have a value officially defined in terms of the U.S. dollar or of gold, or of both.**

Under the Articles of Agreement of the International Monetary Fund, to which virtually all the free world's nations have adhered, each country has committed itself to maintain the value of its currency in its market within a range of one percent on either side of an official parity.<sup>2</sup> The government of a country may, of course, acting in accordance with the rules set up in the Articles of Agreement, change the par value of its currency. Indeed, as will be discussed later, anticipation of such changes may on occasion be a predominant force in the market. Fortunately for major currencies, such changes have been limited in number since the wave of devaluations in 1949.

The United States, for its part, has met its obligation under the Articles of Agreement by undertaking to sell gold at \$35 per fine troy ounce, plus  $\frac{1}{4}$  percent, on demand to all foreign central banks and monetary authorities, and to buy gold offered by such institutions at the same \$35 price, less  $\frac{1}{4}$  percent. This works out at \$35.0875 and \$34.9125.

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<sup>2</sup> These limits are known in market parlance as the "ceiling" and the "floor."

The special role played by the U.S. dollar, along with the concept of fixed parities and margins for the world's currencies, has some important implications for official U.S. activities in foreign exchange. A foreign country meets its responsibility by buying and selling its currency against U.S. dollars; the foreign currency-dollar rate is thus the focal point. Exchange rates for that currency against other currencies (except the dollar) then become simply mathematical calculations. Thus, the French franc-Deutsche Mark rate would be calculated on the basis of the French franc-U.S. dollar and Deutsche Mark-U.S. dollar rates. If, for example, the Deutsche Mark rate moved from 3.97 DM to 4.00 per dollar while the French franc remained at 4.90 per dollar, the rate for the DM against the franc would be adjusted from 1.225 to 1.25 francs per DM. Rates for one foreign currency against another, so-called cross rates, thus are adjusted automatically through market arbitrage to reflect changes in the rates for each currency against the dollar. Indeed, most transactions in the market will go "through the dollar," the dollar thus serving as a vehicle currency in fashioning conversions of, say Deutsche Marks into Italian lire. Accordingly, although no country with an important currency can neglect third currency effects of changes in dollar rates for its currency, its attention nevertheless can be largely concentrated on the dollar-local currency rate.

But for the United States, interest must range widely among all currencies traded significantly in the exchange market. While some rates are relatively more important than others, all must be viewed constantly since all are quoted in dollar terms. The pound sterling, for instance, widely used in international trade and finance, is the most actively traded currency apart from the dollar and accordingly is of primary importance. Generally speaking, however, official U.S. interest must be widely diffused and the administrative and analytical machinery somewhat broader than that of other nations.

A number of the major Western European countries have adhered also to the European Monetary Agreement under which each has

committed itself to maintain the value of its currency in the spot market within three-fourths of one percent on either side of parity. Thus, for practical purposes, most of the world's major currencies are traded against the dollar within narrower limits than those permitted under the Articles of Agreement of the International Monetary Fund. But regardless of the particular margin involved, the principle remains the same in that each country has obligated itself to maintain the value of its currency within a certain range on either side of an established par value.

(Thus, for example, the French franc has a fixed par value of 20.255 U.S. cents per French franc. If francs are in demand in the market and the price tends to rise, finally reaching a price of 20.4082 cents (i.e.,  $\frac{3}{4}$  percent above parity), the Bank of France is committed to supply French francs to the market in amounts sufficient to assure that the price will not increase further. In the process then, the Bank of France would be supplying francs to the market and taking in U.S. dollars, which dollars are, of course, added to its international reserves and thus remain available for selling at a later date should the French franc weaken. In the latter case, if the price were to drop to 20.1045 cents per franc, the Bank of France would undertake to purchase all French francs offered at that price, thus giving up U.S. dollar holdings which, of course, lowers its foreign exchange reserves.)

All other major currencies follow a similar pattern. The pound sterling, for example, has a par value of \$2.80 and the Bank of England is obligated to furnish all sterling demanded if the price increases to \$2.82 per pound and to buy all sterling offered in the market if the price were to decline to as low as \$2.78. It is most important to realize, however, that most monetary authorities, most of the time, enter the market well before the upper or lower limit of the permissible range has been reached. As discussed later, the central bank may enter the market at prices lying well within the range, for a variety of reasons.

So far, we have been discussing foreign exchange dealings in the spot market: that is to say, purchases and sales of a currency for im-

mediate delivery. The term "immediate" may mean either one-day or two-day delivery depending on the particular currency involved. In either case, the essential nature of the transaction remains unchanged. But for several currencies there is also a foreign exchange market for so-called forward delivery. In this market purchases and sales of foreign exchange may be made at a price set today but for execution later: 30, 60, or 90 days—or even longer. The principal forward markets involve, of course, the major currencies which are used in international trade for purposes of invoicing and making payments. A United States exporter, for example, may accept payment in German marks under the terms of an agreed contract under which the marks will not be received until 90 days hence. During the 90-day period the U.S. exporter would be uncertain as to the exact amount of dollars he will receive in exchange for his marks. In order to ascertain the actual amount of dollars he will receive, he can offer the marks he will receive in the forward market and establish a certain rate, thus removing any risk he would otherwise run owing to possible changes in the market value of that currency.

As will be shown later, decision of an importer to sell his marks forward—or "cover" his transaction, as it is called—depends upon a variety of circumstances and has important implications for exchange dealings. For the moment, it is sufficient to note that forward markets do exist and that the rates prevailing in such markets are not subject to the margins within which spot dealings proceed. Forward quotations may thus lie well outside the range permitted for spot exchange; nevertheless, they remain subject to market forces, including the actual and permitted narrow range of spot rates, at least under normal conditions, and are, of course, responsive to official activity, if and when such activity is undertaken.

## What Makes the Market

In 1965, the United States exported to other countries some \$26 billion worth of commodities and imported over \$20 billion worth—a considerable proportion of all world exports of com-

modities, which may well have totaled over \$160 billion. Such transactions, among others, are international in character and provide the grist for the workings of the foreign exchange markets.

All those who participate in a transaction in which any one of the participants receives or pays out a currency which he does not use domestically plays a role in the foreign exchange market. Thus, a Des Moines, Iowa, exporter of agricultural equipment making a sale to a German firm becomes a factor in the foreign exchange market: either he or the German customer will operate in a currency not his own.

The contract between these two parties may be invoiced in German marks or in U.S. dollars, or even in a third currency, perhaps in British pounds sterling. If the contract is concluded in terms of U.S. dollars, the U.S. exporter avoids any problems associated with the international nature of the transaction; the German importer, however, must face the problem of securing the dollars necessary to make payment.

Similarly, a U.S. investor wishing to purchase Canadian Treasury bills must secure Canadian dollars in order to make the purchase. Accordingly, both trade and financial transactions have an impact upon the foreign exchange markets.

The particular influence which any participant in the market exerts depends on a variety of considerations; such things, for example, as how much of what currency is involved, how that currency is sold or held or invested, and whether the participant seeks to "hedge" an operation in some manner so as to guard against losses from an adverse swing in the future value of the currency in which he is dealing.

If someone wishes to hedge, he may avail himself of the forward market mentioned earlier; that is he may sell or buy at a rate agreed upon for delivery at an agreed time in the future. Thus, the parties to the agreement know they will have to pay (or will receive) a particular currency some time hence. Although active forward markets are maintained for only a few currencies, they are those currencies which are most widely used in international transactions.

To take one example, let us suppose that the Des Moines exporter of agricultural equipment concludes a contract with a German importing firm, and that the contract calls for payment in dollars to the U.S. exporter three months from the date of the contract. The U.S. exporter knows the amount of his local currency, dollars, that he will be obtaining and hence, is not a direct participant in the market. However, the German partner to the contract has a payment obligation in dollars, and he must consider the various possible ways of making that dollar payment. He has a number of alternatives. He may take his local currency, Deutsche Marks, and purchase dollars in the "spot market," that is to say, for immediate delivery; he could then hold such dollars in an account in a U.S. bank and make payment on the due date. In the interim, he may invest those dollars in short-term money market obligations in the United States and thus earn an interest return. His German bank, through one of its correspondent banks in the United States, would be in a position to arrange such an investment.

On the other hand, the German importer may prefer to use his marks in his local operations for the three-month period. This actually might permit him to avoid borrowing marks for, say, working capital purposes. But he would then be exposed to an exchange risk, in case the dollar should become more expensive in terms of marks by the time the due date arrives, 90 days later. (In the language of the foreign exchange market, he would in these circumstances probably want to "cover" his dollar obligation. He may choose to avoid the risk of uncertainty by buying the U.S. dollars in the forward market at the price prevailing today for dollars to be received in 90 days. To do so, he concludes a contract, normally with a commercial bank, that he will pay over to that bank a certain amount of German marks in three months, at which time the bank will put at his disposal the agreed-upon amount of dollars.) The German importer then knows, in terms of his own currency, exactly how much he will be paying for the imported goods.

As a further alternative, illustrating the wide range of possibilities, the German importer

may find it more convenient or cheaper to borrow sterling in London, sell the sterling for U.S. dollars immediately, invest those dollars in U.S. money market obligations and use the dollar proceeds as those obligations mature in 90 days to make payment; at the same time, he may contract to purchase sterling forward against marks. When his borrowing in London is due, he would pay marks for the sterling, and in turn employ the sterling to pay off the loan in London.

Obviously, the full range of possibilities of market operations is extensive, and the transactions may sometimes become quite complex. The particular method our German importer chooses depends upon a variety of factors, including relative interest rates in the different markets and the pattern of spot and forward exchange rates among the leading currencies, as well as the customary practices and habits of trading concerns and the facilities regularly available to them.

Essentially, however, the summation of the myriad of daily transactions involving payments or receipts of a foreign currency, makes up the principal volume of trading which flows through the foreign exchange market.

(Normally, a participant in the foreign exchange market will, as noted previously, work through his commercial bank. That particular bank may itself have a foreign exchange department and operate actively in the market.) If so, it will have accounts in banks abroad into which its purchases of foreign currencies can be deposited and out of which payments can be ordered when foreign exchange is sold. However, only a relatively few banks do in fact have these arrangements. It is unlikely, for example, that a smaller bank in the mid-West would have established direct relations with banks abroad. On the other hand, it is quite likely that it would have established a correspondent relationship with one of the large U.S. commercial banks—perhaps in New York, San Francisco, Chicago, or Boston—which does have such relationships abroad.

Thus, from the wide circle of individuals, businesses, and traders who participate in international commerce and finance, activity originating through a multitude of banks flows into

a smaller group of banks which have direct connections and thus maintain deposit accounts with a number of banks in foreign countries. Accordingly, the forces in the market resulting from the offerings of currencies and demands for currencies, gradually become channeled into a limited number of banking institutions which form the heart of the foreign exchange market in each of the major countries of the world.

The motivation for banks to undertake foreign exchange activity is, of course, that of earning some return for the services performed. However, the earnings from this source are generally too small to cover the full range of expenses, day by day, and the banks rely upon other related activities to make their overall foreign operations profitable. The foreign exchange operations of those banks are here appraised in a very wide sense, as they attract other business within the bank's entire activity. The foreign exchange activities of the large banks are established as a means of servicing customer requirements in the broadest terms: that is, the conversion of currencies may well be only an incidental part of the total activity undertaken for a customer and hence, a minor part of the total services provided a customer and of the earnings received from all such services.

The need for a complex of inter-related operations to reach a level of activity large enough to make the maintenance of a foreign exchange department worthwhile helps to explain the limited number of banks that are active in the market. Through these institutions, which constitute the foreign exchange market in its most active sense, flow all the pressures upon the market that arise from transactions which may be undertaken by traders, financiers, speculators, investors, and tourists.

### The Flow of Market Effects

Against this background it may be helpful to follow a hypothetical flow of transactions through the market to show their potential effects upon our national economic and monetary policies. As seen earlier, transactions may arise from the activity of any international trader or financier whose order for a currency passes through his local bank to a large, New



York commercial bank which maintains accounts abroad and is a key participant in the foreign exchange markets.

### When Supplies Increase

As continuing offerings of a particular currency—let us say sterling—are made to this and other commercial banks, the commercial bank makes payment to the seller in dollars, and receives its payment in sterling deposits (or balances) in its correspondent bank in London. As the sterling deposits (that is, supplies of sterling) held by the commercial bank increase, the bank becomes increasingly reluctant to take additional amounts. Accordingly, the price which the bank will pay for that currency in terms of dollars will tend to decline. In the parlance of the market, the currency weakens. If the price should reach its lower limit, official action is automatically triggered: the Bank of England, as central bank of the country concerned is, at that point, committed by its agreement with the International Monetary Fund and the European Monetary Agreement to step into the market and buy all of its currency that is offered. Thus, the British Government would not permit the price of its currency to drop below \$2.78 per pound sterling. In practice, of course, it may enter as a buyer of sterling well before that lower limit is reached.

Now, as the central bank buys supplies of its own currency, it pays out amounts of dollars which form, along with gold, its official exchange reserves. With payments of dollars thus being made, its foreign official reserves drop. As its available dollar balances decline, the central bank may find it necessary to replenish its dollar account. This it may do by selling out some of its short-term investments, normally U.S. Treasury bills, which it has made in the United States. Sales of such investments would have a potential impact on the money market. Accordingly, the Federal Reserve System, with its responsibility for monetary policy, would take these sales into account as it determines the type and amount of open market operations in which it will engage.

Should the pressure on a currency continue still further, the central bank may find it neces-

sary to sell out some of its gold holdings, an action which is generally accomplished by sales of gold to the United States Treasury—the only government authority in the world which stands ready to buy or sell gold at a fixed price. The dollar proceeds of such gold sales then supplement existing dollar balances which the central bank may use to defend its currency in the market.

Payments of U.S. dollars by the foreign central bank may be made to the New York commercial bank out of the central bank's account at the Federal Reserve Bank of New York. This transfer of funds from the central bank's account at the "Fed" results, of course, in an increase in the reserves of U.S. commercial banks. Thus, such operations may affect commercial bank reserve positions, and, unless offset by other Federal Reserve operations, have an effect upon monetary conditions; in the example used, the lending capacity of U.S. banks would tend to be increased.

In practice, of course, intervention in the market by a central bank may be effected throughout the full range of the permissible fluctuations. Such intervention may serve to prevent too fast a drop or increase in a currency's value, rapid changes which might otherwise lead to unwarranted expectations in the foreign exchange market and hence, toward exaggerated movements of rates and shifts in foreign reserves of gold and dollars. Whether a central bank intervenes only at the margin or decides to make its influence felt at an earlier time, depends upon the particular circumstances and features of the market at a given moment.

### When Demand Rises

Let us take an example using the reverse situation. Suppose that the foreign currency rather than being heavily offered, is in sharp demand. In this case, again using sterling for our illustration, traders and financiers would, on balance, be seeking to purchase sterling. The orders would again be channeled through the various commercial banks on to the center of the market—the large commercial banks with foreign departments. The sterling balances of those banks now tend to decline. As those balances decline, the price of the pound will tend to rise in terms of U.S. dollars. As the sterling balances

of the commercial banks become minimal or threaten to become exhausted, the commercial bank will quote increasingly higher prices which may reach, or approach, the upper limit for sterling, \$2.82. At that point the Bank of England, on behalf of the Exchange Equalization Account of the British Government, is committed to supply all sterling demanded against payment in dollars.

In the process of supplying the sterling, the Bank of England takes into its account an increasing accumulation of U.S. dollars and hence, its official foreign exchange reserves rise. As these balances increase, the central bank will normally invest some portion in interest-earning assets in the United States, thus earning a return on marketable instruments which can be promptly sold so cash reserves can again be readily available in case of need. Continued accumulation of dollars to the central bank's account may, at some point, result in a purchase of gold as it seeks to adjust its holdings of gold and foreign exchange in accordance with its customary, chosen preference. The purchase of gold will, of course, normally be made from the United States Treasury.

Thus again, in the process, the purchases of securities for the account of a foreign central bank has some potential effect upon the New York money market which, as in the reverse case, has implications for the Fed's overall operations in conducting monetary policy.

From the foregoing, one must infer that certain trends or indications, as they become visible, or even sensed, are signals that prompt official decisions to intervene or not to intervene in the foreign exchange markets by a particular nation's monetary authority. These developments in the market may relate to the actual level of the exchange rate in the spot market, the extent and rapidity of changes in that rate, the relationship of the forward exchange rate to the spot rate, the level and changes in official holdings of foreign exchange reserves, and shifts into and out of gold—all within the context of the market's tone at a particular moment. In the process of making such intervention effective, there are further implications, the most important of which involve the potential effects of the particular transaction on domestic U.S. commercial banking reserves and upon security prices in the money market.

It is the interrelationship of all these forces and developments in the market which have prompted over the years the majority of central banks to participate in foreign exchange activities, and to develop what are frequently very sophisticated techniques for achieving determined objectives.



## PART II    The Tools and Organization for Government Participation

### Reserves, Convertibility, and Stabilization Funds

During the early post-World War II period, most foreign countries had few resources in terms of U.S. dollars or gold. But due to their own vigorous efforts and the frequent help of timely and massive assistance from the United States aid programs, reconstruction was accomplished and their economies revived. By 1958, European countries and Canada and Japan were adding large amounts to their dollar reserves, and, at the end of that year, nearly all countries with currencies important to the foreign exchange market undertook the responsibility of a convertible currency, as defined in Section VIII of the Articles of Agreement of the International Monetary Fund.<sup>3</sup>

Although such convertibility—the freedom to exchange holdings of one currency for any other currency—was not uniformly extended to residents of each country, for practical purposes, nevertheless, all “foreigners” gained the right freely to buy and sell each currency in the course of business. In the United States, this right has always been available to both residents and nonresidents. At the end of February 1966, holdings of gold in the monetary reserves of non-Soviet countries (excluding the international institutions and the United States) amounted to more than \$27 billion in value, and the official holdings of foreign exchange, primarily U.S. dollars, amounted to over \$21 billion. These dollars provide the resources on hand to monetary authorities in foreign countries to be used in the market to

affect the rate for their currencies.<sup>4</sup> In addition, these countries have quotas in the International Monetary Fund totaling about \$16 billion against which drawings can be made to provide currencies for exchange operations or to buttress reserves already in hand to meet settlements. During 1966 the quotas are being increased to well over \$20 billion. It should be noted that some \$5.8 billion was held by the various international financial institutions and \$11 billion by private individuals and institutions in other countries.

For a period of many years most foreign countries have had “exchange stabilization funds,” a reservoir of resources in gold and foreign exchange, which they have used in executing official transactions in the market. Thus, the British have an Exchange Equalization Account, operated by the Bank of England, and ultimately a responsibility of their Treasury. Similarly, the Bank of France operates its Stabilization Fund for the account of the French Finance Ministry. Although names may differ and amounts of resources vary, such stabilization funds generally constitute the international base for official activities that may be undertaken to maintain the value of a nation's own currency. Operating criteria and exact techniques vary, of course, among the nations.

In the United States both its Treasury Department and its “central bank,” the Federal

<sup>3</sup> See *International Financial Statistics*, April 1966 (Published by IMF); IMF Annual Report, 1965; Treasury Bulletin, March 1966.



Reserve System, are deeply involved in foreign exchange activities. Let us take a brief look at the resources available to them to carry out such operations.

### Foreign Exchange Resources—Treasury

Purchases and sales of foreign currencies by the United States Treasury for stabilization purposes are made for the account of the Exchange Stabilization Fund (ESF). This fund was established by Section 10 of the Gold Reserve Act of 1934<sup>5</sup> and had as its initial resources the \$2 billion which became available when the United States revalued gold in 1934–5 by raising the price from \$20.67 to \$35 per fine troy ounce. In 1947, the fund's resources dropped when \$1.8 billion was paid out of it as part of the United States' quota in the International Monetary Fund. On the other hand, the fund's resources had increased somewhat over the years, owing largely to a ¼ percent charge made on sales and purchases of gold and profits on foreign exchange transactions. Such receipts, together with some other income mainly from investments, more than offset expenses of various operations defrayed by the fund. At the end of fiscal year 1965, the ESF's "permanent" resources stood at some \$375 million.

The ESF therefore provides a means whereby the United States Treasury can accumulate foreign currencies by purchasing them in the market. However, the fund's resources have also been used in connection with stabilization agreements, undertaken largely with Latin American countries. Under such agreements, concluded on a bilateral basis, dollars held by the ESF are made available to the foreign country against payment in its own currency to an account which the U.S. Treasury opens in the central bank of that country. The holdings of foreign currencies in these accounts are not available to the United States for market operations, but are reconvertible into dollars in accordance with provisions of the agreement, usually in a pattern of payments spread over a year or two. As a result, the resources of the fund actually avail-

able for market operations—that is to say, convertible currencies—may be less than the fund's total assets.

The foreign exchange resources directly available to the ESF may be indirectly bolstered in several ways. The United States may accept from foreign governments some repayments of indebtedness in the currency of the country concerned. For example, \$100 million of the \$587 million German debt prepayment in April 1961 was made in German marks. In addition, and more importantly, the United States Treasury, under the Second Liberty Bond Act of 1917,<sup>6</sup> has authority to sell abroad United States Treasury obligations denominated in foreign currencies. The foreign currencies realized from such sales also are the property of the Treasury, not of the ESF. But again, such currencies, held for the Treasury's General Account, may be sold to the ESF for dollars, as required, for purposes of exchange operations. Thus the foreign exchange holdings of the ESF may be increased, although, since payment is made by the fund to the Treasury, the overall ESF resources are unchanged.

It is important to note the distinction between the Treasury's General Account and its Exchange Stabilization Fund. While the Treasury may secure foreign exchange resources and hold them, it is the Exchange Stabilization Fund which is responsible for maintaining dollar stability through the purchase and sale of foreign exchange and gold in the market. Thus all market stabilization operations are effected through the fund.

U.S. drawings (borrowings) from the International Monetary Fund have also served to increase Exchange Stabilization Fund resources, first in the form of the foreign currencies drawn, and then the dollar proceeds of the sale of those currencies. When the United States makes a drawing of this kind, the Treasury's General Account purchases foreign currencies from the International Monetary Fund, issuing non-interest-bearing notes for the purpose and, by law, transfers the currencies free of payment to the Exchange Stabilization Fund. At the end of calendar year 1965, \$400 million of ESF re-

<sup>5</sup> See Appendix I.

<sup>6</sup> See Appendix I.

sources came from this source, although in mid-1965, this source supplied the much lower amount of about \$125 million.

Although there is no specific legal requirement for the Exchange Stabilization Fund to repay the General Account, the policy has been adopted that, when the Treasury must repay the International Monetary Fund through the purchase of currencies, the ESF will buy the necessary currencies on the market to make the repayment, bearing the exchange risk, and supply them to the Treasury's General Account without cost. When other countries draw U.S. dollars from the IMF, these drawings restore the U.S. position, and in effect, amount to repayment by the United States. Such drawings by others, however, require the Treasury to redeem its non-interest-bearing notes and supply cash to the International Monetary Fund. In this case, the Exchange Stabilization Fund will, at the end of each fiscal year, when the sum of all drawings and repayments is balanced out, repay to the Treasury an amount equivalent to the net amount of notes redeemed.

A simplified balance sheet of the ESF may serve to illustrate the nature of its resources. As of the end of fiscal year 1965, the resources were accounted for as shown in the following table:

*ESF Balance Sheet, June 30, 1965*  
[In millions of dollars]

<b>Assets:</b>			
Cash and U.S. Government Securities-----		\$257.9	
Gold -----		115.2	
Foreign Exchange held in Reserve-----		89.3	
Due from Banks-----	28.5		
Invested in foreign Government securities -----	60.8		
Foreign Exchange held under Stabilization Agreements-----		52.2	
Other -----		3.3	
			<u>\$517.9</u>
<b>Liabilities and Capital:</b>			
Liability to Treasury for Advance of IMF drawing-----		\$126.0	
Other -----		16.2	
Appropriated Capital-----	2,000.0		
Less Payment IMF 1946-----	1,800.0	200.0	
			<u>175.7</u>
Accumulated Net Income-----			<u>\$517.9</u>

Finally, it should be noted that insofar as forward operations are concerned, the amount of the Exchange Stabilization Fund's cash resources is not a strictly limiting factor. Forward sales of a foreign currency are a contractual obligation, but require no immediate cash. Indeed, as subsequent discussion of actual operations will show, extensive U.S. intervention in German marks and Swiss francs involved substantial forward sales of those currencies. There is, of course, a management problem in achieving an appropriate distribution of maturities, and providing resources for liquidation or arrangements for renewing contracts.

Thus, borrowing of currencies abroad, acceptance of foreign official debt payments in foreign currencies, and the use of forward operations, while not adding directly to the Stabilization Fund's permanent resources, do permit greater flexibility for effective operations than the fund's own rather narrow resources might suggest. And, in addition, drawings on the International Monetary Fund directly enlarge those resources, in semi-permanent fashion.

### Foreign Exchange Resources—The Federal Reserve System

The Federal Reserve System had operated for its own account in the foreign exchange markets in the 1920's and 30's, largely for the purpose of providing inter-central bank stabilization loans. As a result, the Federal Reserve Bank of New York, when it undertook operations for the System's account in February 1962, had accounts on the books of the central banks of Canada, England, and France. The System's initial operations in its resumption of activity were undertaken for the purpose of opening additional accounts and establishing operational procedures; accordingly they consisted of purchases of small amounts of Deutsche Marks, French francs, Dutch guilders, and Italian lire from the Treasury's Stabilization Fund. Subsequently other accounts were opened from time to time.<sup>7</sup>

<sup>7</sup> The New York Bank's authorization for open market transactions in foreign currencies stem from Section 12a, Paragraphs 2 and 3, and Section 14, Paragraphs 1 and 6, of the Federal Reserve Act of 1935, as amended.

The Federal Reserve's resources available to conduct operations in foreign exchange are not limited in the same sense that the Stabilization Fund's resources are. This is because the Federal Reserve has the power to create dollars. Of course, there are very real limits imposed upon this process, not only by the legal authorizations cited, but also by the nature of conditions in the foreign exchange markets at particular times, and by the system's prudent guidelines adopted to govern such operations.

But it is of fundamental importance to recognize that, while the Federal Reserve can create dollars, it *cannot* create foreign currencies. Thus, if the dollar is weak in the exchange markets—as was the case in the early 1960's and as normally will be the case when the United States is running a sizable balance of payments deficit—the opportunities to acquire exchange by purchases may in fact be quite limited. Dollars would already be in good supply on the market. If the Federal Reserve, in such circumstances, were to enter the market, there would simply be an added supply of dollars to the market, eventually flowing to foreign central banks. As a result, foreign official dollar reserves would rise, tending to bring on added demands for gold from the U.S. Treasury. Therefore, although some modest acquisitions of a particular foreign currency might be possible at times of pressure on the dollar the possibilities are limited. This is, of course, true whether purchases were to be made either for Federal Reserve, or for the Treasury's Exchange Stabilization Fund Account.

To acquire foreign exchange for market operations, the Federal Reserve has made considerable use of "swap arrangements" concluded with various foreign central banks. This technique, the actual use of which will be discussed later, involves the spot purchase and forward sale of a currency simultaneously. As a result of the spot purchase, a currency balance is made available which the Federal Reserve can use in effecting the transactions it deems desirable. But since the Federal Reserve at the same time sells the currency forward, normally on a three- or six-month basis, swaps essentially are providing only short-term resources in foreign ex-

change. The major technique used in meeting more sustained market pressure has involved U.S. Treasury borrowing of foreign currencies either by the sale of securities or borrowing at the International Monetary Fund.

At this point it should be recalled that foreign exchange operations conducted by the Federal Reserve can affect the U.S. money market, as has been previously noted; accordingly, such operations are taken into account in the Federal Reserve's determination of open market operations in U.S. Government securities designed to achieve domestic monetary policy objectives.

Suppose a foreign currency is being sold by the New York Reserve Bank for the account of the Federal Reserve System. Swiss francs, let us say, are sold to one of the New York commercial banks, the sale being made July 16 for value July 18, thus conforming to the two-day time period normally observed in spot foreign exchange dealings. The original transaction is concluded by telephone, with written confirmation on a standardized form following promptly thereafter. The Federal Reserve then sends a cable to the National Bank of Switzerland, authorizing the latter to charge the Fed's account with the appropriate amount of francs and to pay them over to the Swiss commercial bank designated by the New York buyer of the francs for the account of the New York bank. On the value date, the National Bank of Switzerland executes the order while, at the same time, the Federal Reserve receives dollar payment from the New York commercial bank.

Generally, the Fed obtains payment by charging the reserve account it holds of the New York bank concerned in the transaction. Thus the reserves of the commercial bank drop on July 18 and, in the absence of any offsetting open market or other operations, member bank reserves would decline and monetary conditions would tend to be somewhat tighter.

If the Swiss francs were sold by the New York Federal Reserve Bank for the account of the Stabilization Fund, it would cable the National Bank of Switzerland ordering payment of Swiss francs to a particular Swiss bank from the account the Reserve

Bank maintains as fiscal agent of the United States. On the value date, the Stabilization Fund's dollar account at the New York Fed would be credited with an amount of dollars received from the New York commercial bank in payment of its purchases of Swiss francs. Again, in the absence of offsetting measures, U.S. commercial bank reserves would be decreased as dollars flowed into the Treasury's account at the New York Fed and conditions in the money market would tend to tighten.

In cases involving an official purchase of a foreign currency, there would, of course, be the reverse of operations and an opposite influence on the money market. Thus, official foreign exchange operations may act on domestic monetary conditions in the same way as would other factors which affect the Federal Reserve System's open market operations in U.S. Government securities. However, while the latter activities are directed specifically toward influencing commercial bank reserves, the effect of the foreign exchange operations in this direction is only a by-product of an activity devoted to maintaining the value of the U.S. dollar in the markets of the world. The Federal Reserve officials responsible for open market operations are always currently informed of the effects of official foreign exchange transactions, however, and can adjust their own operations so as to take advantage of the impact of these transactions, or to offset their impact, in accordance with over-all policy.

**Foreign exchange operations by the Federal Reserve Bank of New York, whether conducted for the account of the Exchange Stabilization Fund or the Federal Reserve System, have the same basic objectives: maintaining the position in the exchange markets of the United States dollar, the currency which forms the keystone of the mechanism through which the world's trade and investment activities are facilitated, by prevention of sharply erratic movements of a disruptive nature in the exchange rates.**

A final major source of foreign exchange lies in sales of gold. A brief look at the markets

for that important monetary metal, and the relationship of those markets to the foreign exchange markets, is therefore necessary. After that, we will examine the principal operating routines, reports and procedures that go into the decision-making process essential to the success of official U.S. intervention in the market.

## **The Gold Markets**

The major gold market, in an official monetary sense, lies, of course, in the United States. For, among the world's currencies, it is only the dollar that is officially convertible at a fixed price into gold. The United States Government stands ready to redeem dollars held by foreign official institutions into gold at \$35 per ounce and to pay out dollars against receipts of gold at that same fixed price. In making such purchases and sales, the United States generally makes a charge of  $\frac{1}{4}$  of one percent. Also, the IMF does not permit buying and selling prices to exceed one percent either side of the par value. This is an important feature of the present international monetary system and provides the link to gold which has brought to the system the designation of the Gold-Exchange Standard. Through this market for gold in the United States the major conversions of dollars into gold and gold into dollars take place. It is a bulk market, limited to official transactions, and the United States does not buy or sell gold for non-monetary purposes except to cover duly licensed industrial and artistic demands.

A number of other gold markets, catering primarily to the "retail trade," do exist. Until 1954, these markets were generally limited to places such as Beirut, Tangiers, Macao, and Hong Kong. For the most part, these retail outlets provide gold in relatively small quantities to meet the demands of persons wishing, under conditions of more or less economic or political uncertainty, to own something considered to be of "real value." These markets still siphon off a part of world gold production, which is generally centered in South Africa, plus some significant amounts from Australia and Canada. The bulk of sales of new produc-

tion, however, has moved from South Africa to London as South Africa found need to replenish its reserves by sales of gold, its major export earner.

The year 1954 brought a basic change in the character and direction of the market when the free gold market in London was reopened. The London market promptly became the channel for the sale of South Africa's huge gold production and the principal wholesale outlet feeding markets throughout the world. Although prices had fluctuated and moved as high as the equivalent of \$60 per ounce in the small retail markets without significant implications for the value of currencies or for the foreign exchange markets generally, the opening of the London market constituted a semi-official outlet where the price was much more meaningful. It was not, however, until the "Gold Rush of 1960" that this basic fact became fully apparent.

The London gold market consists of five dealers whose representatives meet at the offices of N. M. Rothschild and Sons each morning at 10:30 o'clock London time. The Bank of England, although not physically represented, has direct telephone contact with the participants. This group then matches offers of gold against orders for gold and seeks to determine a price which will clear the market. This establishes the so-called "fixing price" of the day. Obviously, if there were no official intervention, the price would be set at whatever level would equate supply and demand. Although trading at the fixing is done in terms of sterling, the trading thereafter takes place against dollars with the dollar price being determined by the dollar/sterling exchange rate at the time. British residents are not permitted to buy or hold gold, just as is the case with American citizens, so the market reflects external forces of supply and demand.

Trading does continue after the fixing, sometimes with brisk activity, and at prices that may vary substantially from the fixing price. But, by far, most of the dealings are through the five member firms which constitute the market, although other "authorized" banks in the United Kingdom may also have transactions in gold.<sup>8</sup>

<sup>8</sup> The history, organization and operations of the London gold market have been discussed in some detail in *The Bank of England Quarterly Bulletin*, March 1964.

It was such trading that triggered the gold crisis in October, 1960, when little gold was offered to meet demand as the price shot sharply upward to more than \$40 per ounce. This steep rise cast doubt upon the dollar's backing, and tended to bring added strain upon the dollar in the world's exchange markets which were influenced at that time by the large deficit in the U.S. balance of payments.

This price outbreak resoundingly brought home the need to protect the foreign exchange markets from excesses in the gold market. Measures were immediately undertaken to guard against the recurrence of needless price movements in the gold market with their consequent disruptive speculation in the foreign exchange markets. Although support of the London market was at first in the hands of the Bank of England, the entire obligation ultimately fell upon the United States, since the United States alone stood prepared to sell gold at a fixed price, and the Bank of England could thus reconstitute its gold stock if losses occurred. Accordingly, the Secretary of the Treasury made an announcement which, along with the statement by Bank of England officials, served to dampen market pressures which had been excited by speculation as to whether the U.S. gold commitment still held good. Fundamentally, the statement reaffirmed that the United States stood prepared to sell gold to the Bank of England on demand, while leaving to the Bank of England decisions on the form and amount of intervention in the market.

Over time, it became increasingly clear that much of the market pressure and excesses in gold were unrelated to the United States balance of payments deficit, or to forces within the control of the United States. For example, a *coup d'état* in the Middle East, military developments on the Indian border, or political revolt in South America could generate demand for gold regardless of the United States position on its external accounts. It was also increasingly recognized that excesses in the London gold market reflected not alone on the dollar, but also on other currencies. These considerations spurred the European central bankers meeting monthly in Basle, Switzerland, to explore the

matter with a view toward sharing responsibility and costs in the market—and also to provide means of allocating gold when supplies in the market exceeded demand. Thus was the London gold pool established.

Under the London gold pool arrangement—a flexible unwritten agreement that has proved highly effective—eight governments agreed to provide gold up to a certain amount when demand in the market exceeded supply, and similarly to have the right to get gold when supply exceeded demand. The United States share of the pool is 50 percent, its commitment and its right thus matching the contributions and rights of all other members.

With this assurance of supply—initially by the United States and then under the pool arrangement—the Bank of England, through its direct contact with dealers at the fixing, could offer gold if the fixing price threatened to be unduly high and potentially disruptive to the exchange markets. It could of course also take gold from the market if supplies were more than adequate.

Quite clearly, it is desirable to permit the price to rise when demand is heavy in the gold market and thus to make hoarders and speculators pay the maximum. If, however, upward movements are allowed, it is also as a matter of course desirable to permit, and in fact encourage, downward fluctuations in the market so that no one is assured of a gain (or protected from loss) from speculative activity. At the same time, it is necessary to limit price changes to those amounts which will not have either a real or a psychological impact leading to disruptive developments in the foreign exchange markets themselves. Official intervention in the market is thus a matter of judgment with sometimes conflicting objectives. Decisions must be made promptly and developments dealt with effectively and without delay.

The gold pool arrangement has generally worked well and has succeeded in avoiding the type of crisis that occurred in the fall of 1960.<sup>9</sup> The London gold market serves as an efficient

<sup>9</sup> A more detailed discussion of operations of the gold pool is contained in the *Monthly Review* of the Federal Reserve Bank of New York for March 1964. More recent developments in the gold market are periodically reported upon in the *Monthly Review* in the semi-annual articles on *Treasury and Federal Reserve Foreign Exchange Operations*.

channeling for the major South African production (which amounts to over \$1 billion of total world production of about \$1.4 billion, excluding the Soviet Union) and for other supplies as well. Its establishment, however, also brought problems. Some observers believe the market itself is fundamentally undesirable, since it caters to private hoarding and speculative demand and draws off gold that could be much more usefully centered in official monetary reserves. Certainly the United States and many other governments consider it preferable to concentrate gold in official reserves. The fact remains, however, that private gold markets exist even within the continental European countries. Even more evident are the private gold dealings that take place in so-called less developed areas where the threat of economic and political disturbance is sometimes profound, and where investment in a small amount of gold may seem to provide over time the only assured item of value. In these areas, gold demand reflects the heritage of centuries, and is not easily discouraged.

Some observers, on the other hand, find that the London gold market may well provide the channel through which a part of any gold production can effectively flow into monetary reserves. In this view, an effective, well-functioning market provides a way for avoiding many of the excesses and, hence, assures that monetary reserves will benefit to the greatest practicable extent—given the fact that hoarding and speculation cannot quickly be removed from the scene in many parts of the world.

The gold pool arrangement provides responsibility, cooperatively shared among a number of countries, and lessens the burden of the United States in an area of common concern. More basically, it means that a potentially disruptive market is brought under effective control, thus reducing, if not eliminating, possible associated threats in the sensitive foreign exchange markets of the world.

For the future, speculative activity in the gold market may well decline or, in any event, assume less importance for the international monetary system. The trend of current discussions on international liquidity has made it clear that all responsible authorities are firmly against any

change in the fixed \$35 per ounce price of gold in dealing with international liquidity or other associated problems. Rather, such discussions, even when conflicting recommendations for further arrangements are taken into account, indicate that the most likely outcome will be the development of additional sources of liquidity to supplement gold and reserve currencies in official reserve holdings. The need for augmentation of gold reserves from new production should, therefore, become over time considerably less important. Thus, it can safely be predicted that speculation in gold will continue to be a losing proposition.

### Arrangements at the New York Federal Reserve Bank

Specifically, how and where do the United States Government's official operations in the foreign exchange market take place? What about the flow of information which supports the decisions to intervene? First, let us go to the foreign exchange trading center at the New York Federal Reserve Bank, where the foreign exchange operations for the account of both the U.S. Treasury and the Federal Reserve System are conducted.

The New York Fed is the only one among the twelve Federal Reserve Banks which has a Foreign Department. This Department, which may be thought of as a sort of "bank within a bank," was established to handle all transactions with foreign central banks and monetary institutions. In all its foreign operations (except those executed as Fiscal Agent of the United States), the Federal Reserve Bank of New York operates on behalf of the twelve Federal Reserve Banks, all of which participate in the activity, both in the sense of policy and in operational terms. They participate, because each Federal Reserve Bank, under an agreed-upon method of allocation, undertakes responsibility for a portion of the liabilities outstanding on the New York Fed's books, carries a share of the foreign currency assets held, and each assumes some of the losses or earnings from foreign transactions.

The Foreign Department of the New York Fed includes three divisions employing some 150 people. The Cable Division transmits and

receives all telegraphic and cable instructions or messages to or from foreign central banks. Some of these are encoded, some in "open" language. The Foreign Assets Control Division processes matters for the United States Treasury related to regulations which apply to trade and financial transactions with designated countries, primarily countries behind the Iron Curtain, but particularly Mainland China, North Vietnam, North Korea, and Cuba.

The third, the Foreign Operations Division, handles the accounts of some 95 foreign central banks and monetary institutions. Its activities include the making of payments or receiving funds for the accounts of correspondents, maintaining records of those accounts, investing the dollar holdings in U.S. Government securities or other earning assets in accordance with instructions from the correspondent, certifying exchange rates for the Secretary of the Treasury for customs purposes, effecting purchases and sales of gold, and operating in the foreign exchange market. The latter is the immediate responsibility of a Foreign Exchange Section, the heart of which lies in the Trading Room.

Located on the seventh floor of the New York Federal Reserve Bank is a completely enclosed area containing eight desks arranged in "T" formation. Five of these are normally manned, each by a highly experienced expert called a Trader. On each desk is a "turret" of telephones through which the Traders can make immediate contact directly with the trading rooms of the foreign exchange departments of the major commercial banks, some 16 of which are the major elements of the foreign exchange market. By a flick of a switch, a Trader can order purchases or sales of exchange at any one of the principal banks, or receive information on current rates. In addition, direct telephone lines connect desks with other Fed officials directly responsible for supervising foreign exchange activities, and who have immediate access to the senior officers of the Foreign Department.

The principal official with over-all responsibility for the Foreign Department is a Vice President of the Federal Reserve Bank of New York, who is also the Special Manager of the



System Open Market Account for Foreign Currency Operations. The latter position was established by the Federal Open Market Committee at the beginning of the System's Operations in foreign exchange. The Committee also designates the particular person to fill this position. The pattern set a number of years ago by the Federal Reserve System's operations in U.S. Government securities was followed to a considerable degree in fashioning the new administrative arrangements relating to foreign exchange operations.

At the opening of business each day at 9:00 a.m., the foreign exchange markets in Europe have already been active for some five or six hours. First indications of the nature and type of markets that have prevailed in Europe that day become available through cables received from the principal central banks abroad and dispatched to reach the New York Federal Reserve Bank at the opening of the day. The first order of business, therefore, is to distribute to the officials and staff members, the exchange rates and comments received by the Cable Division—while the urgent task of decoding all communications proceeds at a rapid clip. When the quotations for currencies as received from the European markets reach the Trading Room, they are recorded on a "spread sheet," at the top of which the closing rates in the New York market the previous day have already been noted. By 9:30 a.m., all the Bank officials and responsible staff members have had an opportunity to review the changes in currency rates and to consider the various features of the market which may be important in having brought them about.

At the same time, most of the commercial banks with foreign exchange departments have also received and are analyzing information from the European markets, having made their initial contacts by telephone or cable with their principal correspondents abroad. Thus, against the background of developments in the European markets, trading in the New York foreign exchange market can actually begin as early as 8:00 a.m., but generally is not conducted in volume until after 9:00 a.m. The New York market does, to some extent, represent a carry-over of the European market and frequently re-

ceives its initial tone and substance from activities concluded abroad.

Meanwhile, the Trading Desk has been in contact with the various commercial banks and has obtained the initial quotations for various currencies in the New York market. Some information regarding market tendencies and pressures, and incidental intelligence or preliminary views of the market may also be picked up in the process. Significant developments, whenever they occur, are of course immediately flashed to higher Federal Reserve and Treasury officials in New York and Washington, to be matched with other political or economic intelligence received bearing on any event or conditions which affect the market.

Shortly after 9:45 a.m., the officers in the Foreign Department at the New York Federal Reserve Bank, together with some staff assistants, will have met in the Trading Room or in the quieter confines of an adjoining office to exchange views on the position of the market and the meaning of the day's opening exchange rates. From this comes the initial and tentative approach to any policy decisions that may have to be made; areas of interest are also designated for prompt and comprehensive analysis.

Soon after the market opens, the Trading Desk makes initial contact with the responsible officials at the Board of Governors of the Federal Reserve System and at the United States Treasury in Washington to convey the opening rates and the substance of information received up to that time, thus providing a basis for an evaluation of rate changes which may require activity. Immediately following these preliminary exchanges of views, telephone contact will probably be made with those central banks abroad which have indicated significant changes in their currency rates or which, from an appreciation of previous activities and background information, are the most likely to be responsible for currencies under pressure in the market. Cabled instructions ordering payments or advising of receipts, or requesting gold sales or purchases, may well suggest the possible usefulness of a direct exchange of information and views.

While these developments are under way, as throughout the day, the Trading Desk maintains continuing contact with the banks active

in the foreign exchange market to obtain quotations on currencies and such information as market participants may be willing to convey. All quotations, recorded on the "spread sheets," provide the material for the brief reports on currency quotations and principal developments which are regularly made available by the Trading Room to all those engaged in the foreign exchange side of activities at the New York Federal Reserve Bank. These are supplemented by verbal reports of noteworthy changes in the market or level of rates to provide a continuing stream of information.

When and as official intervention becomes desirable, the Special Manager, on the basis of authorizations given by the Federal Open Market Committee and by the Treasury, orders the execution of transactions by the Trading Desk. Such operations may be of a decisive nature or may, in the early stages, reflect a holding action to preserve a certain market pending further study and developments. If operations are of a substantial nature, telephone contact may well follow rapidly, even simultaneously, with officials of the System, the Treasury, and foreign central banks.

By noontime in New York, most foreign exchange markets abroad have closed and trading activity becomes most clearly centered in New York. Shortly thereafter, the final cabled instructions from foreign central banks regarding transactions for their accounts are received in the Cable Division. Operating criteria for the remainder of the day have by then been considered and agreed upon with the monetary authority abroad.

At 2:30 p.m. a regularly scheduled daily call to Washington is made. This call, joined in by representatives of the Treasury, the Federal Reserve Board, and the New York Federal Reserve Bank, consists primarily of a report by those officers directly responsible for contact with the market—the men who handle the operations at the New York Bank and who are familiar with all the developments of the day. At that time, an evaluation can be made of the market on the basis of about four hours of activity, half of which has taken place after the close of the European exchanges. A report of the 2:30 call, prepared at the Federal Reserve

Board, is then sent before close of business to all members of the Board of Governors, the Reserve Banks throughout the country, and to appropriate Treasury officials.

Throughout the day, developments in the market remain subject to continuing review and evaluation aimed at forming recommendations for appropriate actions to meet exchange market pressures. Bits of information jotted down from all sources, as well as the comprehensive "spread sheet" of recorded quotations, provide the basis for a summary memorandum at the end of the day. This summary, in turn, provides a prime source of information in the preparation of the regular reports directed toward the Treasury and the Federal Open Market Committee.

### **The Flow of Information**

It is clear that effective, timely and appropriate decisions depend upon information channelled promptly to all appropriate and responsible officials.

In addition to the 2:30 p.m. telephone conference call from New York to Washington and the daily summary report, there is a regular weekly report, which like the others, is the responsibility of the Special Manager of the System Open Market Account for Foreign Currency Operations. It is transmitted to the U.S. Treasury, the Presidents of all Federal Reserve Banks and the members of the Board of Governors, and other interested parties so as to reach them at the opening of business the following Monday.

This weekly report, covering a very narrow period in historical terms, discusses extensively the day-by-day developments in the market and attempts an evaluation of the forces at work, highlighting any overtones that may have a bearing upon activities during the forthcoming period. At this stage, it becomes possible to separate some of the very momentary pressures in the market from the more significant forces at work.

Another regular report, quite similar in format, is prepared in anticipation of the scheduled meetings of the Federal Open Market Committee, which normally take place every three

weeks. It includes a report by the Special Manager of the Open Market Account for Foreign Currencies, similar to the custom followed in the conduct of open market operations in U.S. Government securities. It is a report which reflects the advantages of the longer reporting period and delineates more closely between the purely transitory and the more lasting forces in the market.

Following discussion of the Manager's report, the Committee's attention focuses on the approvals requested for the conduct of future operations. Here policy is hammered out and a consensus developed. At the conclusion of the meeting, a directive will have been approved. This provides the ground rules within which the Manager may conduct operations for the account of the Federal Reserve System during the next interim three-week period.

But all conceivable contingencies cannot be guarded against. Special circumstances may require action well before any scheduled meeting. Developments in the foreign exchange markets can sometimes move with startling speed. When that occurs, the Manager may contact U.S. Treasury officials and the Secretary of the Federal Open Market Committee (who is a senior official at the Board of Governors and appointed by the Federal Open Market Committee). Through him, contact can be made with members of the Committee to obtain telephonic approvals of such action as the Manager may propose.

Finally it should be noted that close touch is always maintained with the market, not only by continual contact day-by-day with the participating commercial banks, but also through meetings scheduled with what is known as the Foreign Exchange Committee. This is composed of representatives chosen by members of the foreign exchange group of commercial banks, and represents its membership in discussions. The New York Federal Reserve Bank is represented by the Special Manager and other officers. The meetings thus provide an informal exchange of views on market developments and serve as a forum for the discussions of particular operational problems which the commercial banks may experience, and in which the New York Federal Reserve Bank has a part.

## **The Role of the Treasury and the Executive Branch**

Although the "feel of the market," gained from intimate contact with it, and from analyses of momentary influences and pressures, is perhaps the principal influence triggering decisions to intervene or not to intervene, a variety of data and information from wide-ranging sources play a major background role in this process. Research goes on steadily both in the U.S. Treasury and by the Foreign Research Division in the New York Federal Reserve Bank, which is constantly engaged in the preparation of memoranda exploring developments, and reporting on foreign exchange reserves, gold holdings, and other pertinent data. The research staff at the Federal Reserve System's Board of Governors also continually analyzes and evaluates developments abroad, many of which carry with them far-reaching implications.

At the Treasury, operations in foreign exchange are the special responsibility of the Director of the Office of International Gold and Foreign Exchange Operations, serving under the Assistant Secretary for International Affairs. The staff and facilities of this office, located on the fifth floor of the historic Treasury Building, a stone's throw from the White House, serve as the nerve center of Treasury and Administration interests in matters related to foreign exchange.

The activities of this office somewhat parallel those of the New York Federal Reserve Bank, in that information concerning the market is freely discussed, analyzed and subjected to decisions through the reporting system, by close telephone communications, and frequent personal contact. The principal responsibility of this Treasury unit, however, is broader in nature; it serves to inform and advise officials in the Executive Branch of the Government so as to achieve full policy guidance from the highest levels when needed, and in reverse, to acquaint the Federal Government's policymakers in this field with the kind of information it receives from foreign exchange market sources.

On the procedural side, the Director of the Office of International Gold and Foreign Exchange Operations makes his evaluation of for-

foreign exchange matters, along with that from the Federal Reserve, available early each morning to the Secretary and other top Treasury officials. Events of significance during the day are promptly conveyed by telephone, personal contact or by memorandum to the Assistant Secretary for International Affairs, and to higher official levels as circumstances dictate. A final report at the close of the market evaluates the day's events for review and, if needed, for action the following day.

Advice and information passed on by other sub-offices of the Assistant Secretary are also important in the making of policy decisions related to foreign exchange. These offices are closely concerned with the U.S. balance of payments, and are responsible for monitoring, evaluating, and advising on trends and developments in the major industrial countries abroad. They maintain highly professional staffs alert to provide assessments on a moment's notice as each day's activity develops along the entire financial front.

The regular flow of reporting cables received from U.S. embassies throughout the world, contact with other Federal agencies, and participation in interagency conferences taking place on all aspects of financial affairs, all provide an assessment of a range of developments which are a step removed from immediate operations in the market. Such an assessment assures that operating decisions will reflect the broadest possible spectrum of policy considerations.

This flow of information focuses within the Treasury in a regular report prepared by the Office of International Gold and Foreign Exchange Operations for the attention of top Treasury and other high Government officials. It summarizes recent market performance and includes highlights of economic and financial developments in major foreign countries. It provides a handy reference to Treasury and Federal Reserve market positions and available resources, gold movements, international interest rate relationships, and reserve positions of important countries, as well as some indication of the current U.S. balance of payments position.

It becomes evident that the link between policy decisions in the international field and actual Government operations in the foreign exchange markets is the arrangement in effect between the Treasury and the Federal Reserve System, with the New York Federal Reserve Bank conducting the actual market operations under a single Manager. But at the Washington end, close cooperation and coordination is required among the remainder of the Executive Departments and other interested Federal agencies, for many of them have responsibilities in the international field vital to the welfare of the United States. There are procedures and arrangements, therefore, that provide the opportunity for consultation on the course of events on the highest level, as well as those which make possible the wider flow of necessary information and administrative contact.

The National Advisory Council on International Monetary and Financial Policies is the principal formal channel for the exchange of information and coordination of policy among those agencies chiefly concerned with the foreign financial activities of the Government. Membership includes Treasury, State/AID, Commerce, Federal Reserve and Export-Import Bank. The Department of Defense, the Department of Agriculture, and the Bureau of the Budget are invited to participate on a regular basis. Major policy decisions are formulated in Council discussions under the chairmanship of the Secretary of the Treasury. Council Alternates, at the Assistant Secretary level, meet as required to coordinate policy positions on particular questions. Regular meetings of the Council's Staff Committee assure a continuing exchange of information and opinion among representatives of the member and associate agencies. Also, to assure coordination with the international financial organizations, the Secretary of the Treasury, with the advice of the Council, instructs U.S. representatives in the International Monetary Fund, the World Bank, the International Development Association, the International Finance Corporation and the Inter-American Development Bank.

One of the simplest, yet most effective means for exchange of information are the luncheon meetings of the Federal Reserve Board and

Treasury officials. Every Monday, the Chairman of the Federal Reserve Board lunches at the Treasury with the Secretary. On Wednesdays, Treasury officials visit the Federal Reserve System's Washington headquarters for similar discussions. As a matter of fact, two other major Federal offices participate in such informal—and informative—discussions. Representatives of the Council of Economic Advisers and the Bureau of the Budget meet every other week for luncheon at the Treasury with the Secretary. These discussions are almost inevitably further amplified by day-to-day, even hour-to-hour, consultations among Executive Branch and Federal Reserve officials at all levels.

The State Department, of course, has a most crucial part to play in the higher level of considerations that bear upon matters of international finance, which often include Government operations in the foreign exchange markets. The reporting machinery and arrangements for consultation with that Department range from Cabinet-level contact to discussions at various staff levels.

To point up the need for the full cooperation of these and other Federal Departments or Agencies consider as an example an emergency situation which calls for massive aid, principally in the form of credit and currency stabilization, to another free world nation. Resolving the questions of what to do and how to do it can involve profound and far-reaching policy implications. First of all, it is generally preferable that assistance be on a multilateral basis, and that in nature it should reflect international agreement.

Many other difficult questions immediately rise: If agreement is lacking, should the United States be prepared to act unilaterally? If it does, will the move, by its effect on key creditors of its own, impair U.S. ability to defend the dollar itself? If assistance is not given, what alternative will the requesting country adopt? Would there follow a reduction of economic assistance to less developed countries? Is it likely that import quotas or other measures will be imposed, with effects upon U.S. trade and its balance of payments? What about the impact of possible devaluation of the currency under

question and its possibly chaotic aftermath? Are more classical and more readily acceptable domestic policies an important part of an appropriate answer? Will refusal to give help weaken the U.S. position in other forums in which discussion of longer range monetary reform is taking place? On the contrary, might the external effect of assistance weaken that position?

The list could be even longer: should the assistance be short-term or longer-term? Could it usefully involve Commodity Credit sales of farm surpluses, long-term Export-Import Bank loans covering sales of U.S. goods and services, further Federal Reserve or Treasury swap lines or longer-term Treasury stabilization credits? What size of credit "package" would be adequate to kill off speculation, representing a convincing demonstration that speculation will inevitably prove costly? Will market operations be aggressively carried out, or be limited to passively absorbing pressures as they arise?

Time for decisions may sometimes be all too short. A decision to provide—or not to provide—the kind of assistance which the conditions call for in this extreme case requires just the sort of wide interchange of information and understanding now being provided. Such interchange must be going on all the time, to assure a readiness for prompt action in cases which erupt quickly into problems, as well as to give a firm foundation for the more deliberate consideration of other problems that unfold slowly. Some actual examples will be examined in Part III of this booklet.

It becomes clear therefore, that, in considering our Government's operations in the Foreign Exchange Market, we are dealing with an activity that takes its shape and color from policy determination at a very high level. In fact, the ultimate responsibility for establishing such policy—which both circumscribes and reflects operations in this market—must rest with the President of the United States. In the discharge of this responsibility, the Chief Executive must rely to a maximum extent upon his Secretary of the Treasury, who is the chief financial officer of the United States. It is the Secretary's immediate responsibility to consider

matters of this nature which may require the broadest political consideration. For this effort, the Secretary is armed with the wide-ranging authority given by the Congress in Section 10 of the Gold Reserve Act of 1934. Under this provision, he is charged with the responsibility of stabilizing the exchange value of the dollar, and thus can engage in a variety of activities to preserve and defend the dollar in markets throughout the world. As we have seen earlier, the Exchange Stabilization Fund is available for use, subject to the approval of the President.

Insofar as the U.S. balance of payments is concerned—which is over time the final arbiter of the dollar's fate in the world's markets—again, the Secretary of the Treasury is the President's principal advisor. For action on this front, interagency advice at the highest official level is provided by the President's Cabinet Committee on Balance of Payments, of which the Secretary of the Treasury is Chairman, consisting of the Secretary of Defense, Secretary of Commerce, Under Secretary of State, Under Secretary of Agriculture, Administrator of AID, Special Representative for Trade Negotiations, Director of the Bureau of the Budget, Chairman of the Council of Economic Advisers, and the White House Representative. At all meetings, the Chairman of the Federal Reserve

Board although not a part of the Executive Branch of the Government, is invited and actively participates. It is largely out of the discussions, evaluations, and decisions of this group that Presidential policy dealing with the U.S. payments situation evolves.

In addition, an Executive Committee of the Cabinet Committee is comprised of representatives of the same agencies at the Assistant Secretary level. The Treasury's Assistant Secretary for International Affairs is chairman of this group. He provides the channel through which broad policy discussions are directed into considerations shaping actual operations in the foreign exchange and gold markets.

Through these processes and channels, developments in the foreign exchange markets move upward for consideration in deciding policy, even while policy decisions are sifting downward to take the forms of actual operations.

Finally, it should be noted that Congress plays its vital role in this area, as in others, of national policy. The Federal Reserve is, of course, directly responsible to the Congress and testimony by Federal Reserve officials before responsible Congressional Committees is a frequent occurrence. In addition, Treasury and other administration officials appear before these Committees as they probe extensively into the bases and effect of policies, testing them against the national interest.

## PART III The Techniques of Participation

The range of resources of the United States for its engagement in foreign exchange market operations were discussed in an earlier chapter, with emphasis upon the accounts, so to speak, from whence the needed funds were drawn. Before considering the technical aspects of the markets, or "signals" prompting intervention, or before discussing details of the market operations themselves, let us briefly review our resources—count our "chips," if you will.

### Red, White, and Blue Chips

(It will be recalled that there have been four principal methods used by the United States to gain foreign exchange: purchases in the market, the use of swap agreements, sales of securities abroad, and borrowing at the IMF.) Also, early in 1961—at the start of the period actually covered by this book—there was an initial prepayment of a half-billion dollars of German debt owed to the United States which included \$100 million equivalent in Deutsche Marks.

If a country is running a rather substantial deficit—as the United States has since official operations were resumed—opportunities to purchase currencies outright in the market may be quite limited. However, since all other countries need not have surpluses as a counterpart of one nation's deficit, purchases of one currency or another have been possible and we have accumulated a limited amount of balances in that fashion. Thus, in some cases, such as one in-

volving the Belgian franc, drawings under a swap agreement were liquidated and some additional balances of francs were created even though the United States continued to run a substantial deficit in its overall balance of payments.

In general, however, the purchases and accumulation of sizable balances under the conditions of an overall deficit are subject to fairly close constraint. If official purchases in the market generally were undertaken, they would simply add to the already abundant supply of dollars in the market, tending to push the dollar to the lowest permitted margin against the currency concerned—if indeed the dollar were not already at that margin. The dollars supplied would then flow more or less directly into foreign official reserves adding to such reserves and thus increasing potential gold demand. Purchases of currencies under such conditions, therefore, would tend to be self-defeating.

On the other hand, during times when there are surpluses in our balance of payments, opportunities would arise to settle some part of the surplus by accepting foreign exchange balances. To the extent such balances are accumulated, they would buttress liquidity in the international financial system and, of course, be available for future use when payments positions again shifted.

Repayment of foreign debt in the currency of the payor has on one occasion thus far provided the United States with foreign exchange re-



sources. As noted earlier, \$100 million equivalent of the German debt payment in 1961 was received in German marks. This provided cover for extensive forward commitments undertaken at that time and also for some other operations in the spot market. But this source of exchange is strictly limited.

Due to these circumstances, two techniques were devised and developed to generate resources for market operations: swaps and the sale of foreign currency-denominated U.S. securities.

Swaps have been the major tool pioneered by the Treasury and expanded by the Federal Reserve system. Such swap agreements basically constitute mutual credit facilities. (When the Federal Reserve initiates a drawing under a swap, it acquires a convertible currency that can provide temporary resources for exchange market operations, or for the purchase directly from a central bank or other monetary authority of dollars in excess of those that they would ordinarily hold.) In effect, such excess dollars are absorbed or "mopped up" for the period of the swap. An operation of this sort leaves the total dollar holdings of the foreign country unaffected, but it substitutes dollars that have been sold forward to the Federal Reserve under the swap agreement for dollars that had been held "outright," that is, without exchange cover. (Accordingly, Federal Reserve use of swap facilities provides a temporary alternative to an enlargement of outright dollar holdings of foreign central banks beyond a desired point.)

These swap arrangements have grown to constitute a first line of defense for the various convertible currencies traded in the exchange markets. As will be seen later in a discussion of recent events involving them, swaps are highly flexible and their use provides resources precisely where strains develop.

Behind the immediately available but short-term swap resources, largely those of the Federal Reserve and presently totaling close to \$3 billion, are both the Treasury longer-term securities sold abroad for foreign currencies and the three to five year credits from the International Monetary Fund.

(Sales of Treasury issues of special certificates and bonds with maturities up to three years,

denominated in the currencies of the central banks and treasuries) to which they have been issued, have thus far reached a cumulative total of \$1.5 billion, of which \$1.2 billion were still outstanding on December 31, 1965. (Such borrowing provides resources for funding short-term debt under the swaps, or for use in spot dealings in the market, or to meet commitments undertaken at the time when future contracts are initiated.) Whether used in the market or in a direct transaction with a foreign monetary authority, the foreign currency proceeds of borrowings serve to absorb dollars and, hence, to reduce foreign official dollar holdings and the potential current demand on gold.

It is interesting to note that, while the principal surplus countries of recent years have already taken a number of actions to neutralize or offset inflows of dollars, the development by the United States of foreign currency certificates and bonds can be an important aid in the financing of payments imbalances. The issue of these securities also provides the United States with an additional source of international liquidity. The surplus country abroad simultaneously acquires an equivalent source of potential liquidity in case of a shift from surplus to deficit in its own payments accounts.

### IMF Drawings

(It will be recalled also that a major source of supply for foreign exchange lies in the right of the United States, as well as the other 102 member countries, to draw currencies at the IMF.) Each member can, in relationship to its quota in the IMF, buy foreign currencies against payment in its own currency. Such borrowing is generally repayable over a three to five year period. For the United States with a quota of about \$5¼ billion, foreign currencies equivalent in value to over \$1¼ billion can be obtained on a virtually automatic basis: the United States is entitled to request and obtain additional amounts even larger in size in accordance with criteria established by the IMF.) These substantial medium-term resources are of key importance, particularly since they provide

a backstop for the swap funds or other short-term credits which may be used in situations which require a longer time to correct.

Finally, it is appropriate to re-emphasize that operations in the forward market do in fact provide greater availability of resources than cash balances may suggest. The authorities may sell forward exchange without utilizing any cash, taking in the process an open, or uncovered, position. Such operations may serve a number of purposes, including particularly a dampening of incentives for flows of covered arbitrage funds by providing cover at appropriate costs to induce private foreign holders of dollars to retain their dollar investments and hence, curb potential flows into official dollar balances.

A note on profits and losses is in order here. Leaving aside the earnings which may result from the investment of foreign currency balances, as previously discussed, the probable result of official foreign exchange operations is one of over-all profit. Obviously, policy cannot be determined with regard to whether profits or losses are incurred in individual transactions or in individual currencies, or both. The very nature of official activity, which generally tends to lean against the wind, is to proceed quite far toward assuring a favorable end result on profit and loss accounts. For, over time, and given reasonable balance of payments positions, it may be anticipated that the responsible authorities will tend to purchase currencies when they are relatively cheap, and will offer them to the market at times when the rates are strengthening or are at their upper limit.

Moreover, forward contracts entered into may well be undertaken at a time when a currency is selling at a high premium, even well outside the range over which the spot rate is permitted to fluctuate. Such transactions would generally assure an over-all profitable position for forward operations.

In the case of forward contracts under which the authorities sell foreign exchange at a premium, and against the background of confidence that no change in parity is going to take place, gains can be recorded in the form of exchange profits inasmuch as offsetting purchases of the currency can always be made at a rate no worse

than the upper limit governing the spot rate of the currency. Thus, while the matter of profits and losses is quite subordinate in the ranking of those considerations prompting official intervention, it may nevertheless generally be anticipated that profits will be earned.

**But all operations, whether in the form of borrowing abroad or from the IMF, or engaging in swap agreements, or entering into uncovered forward commitments, create an indebtedness that ultimately must be settled. Although there is flexibility in timing, there can be no substitute for a balance of payments that provides the resources for settlement within a reasonable time.**

Over the longer term, therefore, real sources of foreign exchange operations in the most basic sense require international payments positions among countries that are reasonably balanced within appropriate time periods.

### **Conditions Prompting Official Intervention**

To some observers, official intervention by a central bank might desirably be limited strictly to purchases of its currency only when that currency is "at the ceiling," and to sales of its currency only when it is "on the floor."<sup>10</sup> This view suggests that the system of fixed parities which has been adopted and the narrow margins through which spot rates can move provide no occasion for intra-marginal operations; the absence of intra-marginal operations, it is said, would permit maximum visibility of market forces, and give foreign exchange traders the maximum freedom to analyze and conduct their operations. Official action would then be restricted to mechanical acceptance of foreign exchange at one limit, and mechanical disbursing of exchange at the other limit.

However, restricting official intervention to such a purely mechanical technique fails to recognize certain features which play important and interrelated roles in the foreign exchange markets. These "signals" include the absolute level of the spot and forward rates, the rapidity of movements in these rates, the shifts of cur-

<sup>10</sup> See footnote 2.

rency holdings to or from official accounts, and the shifts of official balances into and out of gold. In view of the importance of these signals, which represent what might be called both the exchange rate and exchange reserve effects of market activities, it seems doubtful indeed that official intervention could usefully be restricted to a passive, or mechanical role. For it is possible to discern a need for official intervention to prevent any sharp or erratic movement in a rate which might excite the fervor of speculative activity—an activity that could lead to vast movements of volatile funds, which might, in turn, trigger further pressure on rates and reserves and contribute to a spreading uneasiness among an ever-widening group of currencies.

In substance, official decisions to intervene—or not to intervene—must ultimately be taken in the light of actual developments in the exchange markets against a background of close analysis of the relative importance of the signals which characterize the functioning of the international financial system.

The pattern of market rates which inevitably induces flows of arbitrage funds is the principal *visible* reason underlying official intervention in the market. Where the pattern of interest rates in one country exceeds, often substantially, those in other money markets, there is, of course, the resulting tendency for funds to flow to the relatively high interest center. Money may move on an uncovered basis, that is to say, an investor may purchase the currency in the spot market, invest the foreign exchange in the foreign money market and reconvert the total amount of the investment and earnings at the time the investment matures. During the intervening period, the investor assumes the risk of a change in the value of the currency. On the other hand, the investor may not wish to take the risk of currency changes and thus would be induced to move funds only on a covered basis. In the latter case, the investor purchases the currency in the spot market and simultaneously sells the amount of his investment and expected earnings in the forward market, the maturity coinciding with the date of maturity of the investment being undertaken.

In the case of uncovered interest arbitrage,

there is little opportunity for official intervention in the exchange markets to affect the flow of funds. Significant restraint on the flows primarily must come, instead, from policies designed to narrow the differential in relative interest rates.

In the case of covered arbitrage, however, official intervention may be undertaken to widen the discount for the currency on a forward basis. Generally, this would mean sales of the currency in the forward market to push the price lower, and perhaps also some activity involving spot purchases of the currency to increase the immediate cost of obtaining the currency.<sup>11</sup>

There is, of course, some minimum rate of return, perhaps  $\frac{1}{2}$  percent per annum, which is probably necessary to induce movements of funds on a covered basis. The actual amount, however, may well vary significantly over time, depending on the particular psychological conditions. Moreover, recognition must be given to the fact that the net return required to induce an initial flow of funds to a market, may be different from that required to induce a return flow. For example, a covered arbitrage incentive of  $\frac{1}{2}$  percent per annum may be required to induce an initial flow, a  $\frac{1}{4}$  percent may serve to retain the investment, while no net incentive might result in a liquidation of the investment and a return flow of the proceeds.

It is, of course, quite clear that there is no unique "interest parity."<sup>12</sup> Comparisons of returns on investments in different markets are only a first approach, inasmuch as few investment outlets are fully similar in different markets, and an evaluation of these outlets varies with the views of the particular investor. The incentive to shift short-term funds between London and New York may serve as an example. At a given moment, the range of investment opportunities in New York may run from, say, 3 percent on U.S. Treasury bills of 90-day maturity to 4 percent on short-term loans to brokers and to 5 percent on investments in

<sup>11</sup> It is interesting to note that circumstances can arise in which there is an incentive to move funds to a particular market on an uncovered basis at the same time there is an incentive to move funds out of the market on a covered basis.

<sup>12</sup> See section on "The Concept of Interest Rate Parity," p. 52 in *The New York Foreign Exchange Market*, Holmes & Schott.

finance company paper. Comparable yields on investments in London might run from 5 per cent on British Treasury bills to 7 per cent on finance company paper or obligations of hire-purchase companies. The relevant comparison can only be determined within the context of the particular circumstances prevailing at the time.

Moreover, there may well be a difference in evaluations by an American holder of dollars, a German holder of dollars, and a British holder of dollars, owing largely to imperfections in market knowledge. An American may be well acquainted with a vast range of investment outlets in New York, but only moderately familiar with the exact nature and legal status of investment in the United Kingdom; he might then compare investment in U.S. finance company paper against British Treasury bills. For the German owner of dollars, a relevant comparison might be between U.S. and British Treasury bills, while the British citizen, fully acquainted with obligations in the London market and less familiar with those in New York, might choose between U.S. Treasury bills and British finance company paper. Thus, no unique interest parity objective is available and official intervention in the exchange markets keyed to comparisons such as those between U.S. and British Treasury bills might be inappropriate; such comparisons can only be considered a rule-of-thumb approach. Operating decisions must then depend upon the results of close contact with the market and reasonably comprehensive knowledge of previous activity and close analysis of the underlying situation.

At any time, of course, purely speculative activity may develop based on rumor, suspicion, or any other of innumerable, intangible criteria. Speculation refers, in this sense, to the assumption of an open position in a currency, a transaction in the market undertaken solely in anticipation of a reasonably quick profit. Such speculation may, of course, accompany or aggravate other sources of pressure in the market. However, the desirability of official intervention designed to offset the rate and reserve effects resulting from pure speculation must depend entirely on the nature and tone of the market. It may prove desirable to permit the rate

for a currency to rise to its maximum limit in order to maximize the speculator's cost. Official intervention may also move the spot rate more rapidly or push the forward premium more sharply upward, with subsequent activity undertaken to reverse the pattern and squeeze the speculator. In terms of the market, however, speculative activity, except in its most extreme form, is invariably a very minor part of total transactions, and, since official intervention is designed to maintain reasonably orderly markets to facilitate international trade and finance at rising levels, the over-all needs of the market might on occasion deter officials from taking action designed specifically to penalize purely speculative activity.

In addition to the operations arising from the changes of pattern in the flows of arbitrage funds are those which can result from the recognition of conditions lying in the outer range of the more extreme possibilities. There may be, for example, the case in which a country is running a sustained balance of payments deficit that promises to lead for some time to offerings of its currency in the market well in excess of the amount demanded. The basic forces at work in the market are thus tending to depress the exchange rate to the floor. Under such conditions official intervention to hold the rate off the floor might ultimately result in enlarged losses of official reserves and even provide the basis for severe speculation against the currency in view of the widely-shared recognition that the rate was being arbitrarily maintained and with market skepticism as to its ultimate success.

Nevertheless, even under such extreme conditions, technical intervention on a limited scale at certain times might prove of substantial benefit. The influence of distinctly seasonal patterns in the exchange rate might occasion official intervention to provide a smoothing effect on the pattern of changes in the rate. In addition, official intervention might serve initially to cushion the decline in the rate and hence, prevent sharp, precipitate drops that would otherwise be disruptive to the market. It may also be technically feasible to effect official transactions in order to dislodge speculative positions being taken in the market in

the misguided belief that a change in the par value of a currency may be in the offing. These latter operations, designed to push the rate for the currency off the floor for at least brief intervals, might accordingly be a useful demonstration of considerable psychological importance. Finally, it should be noted that operations in the forward market might prove worthwhile to prevent discounts on a currency which tend to upset the stability or even to disrupt the market.

If an authority chooses to intervene in the forward market under these conditions, it is quite clear that such open positions, however, generally taken on a short-term basis of 90 days or less, may be "rolled over" so that the schedule of initial maturities need not be an overriding consideration in the official decision.

Forward operations, aggressively pursued, could in fact induce a flow of short-term funds into the country concerned which would help both to take some pressure off the spot rate and to provide some buttressing of reserves during the period of pressure. In the final analysis, the decision by Government authorities to undertake such operations must reflect the desirability of preventing possible speculation-inducing forward discounts on a currency and the need to strengthen reserves with short-term resources, balanced against whatever costs may be involved in rolling over forward commitments and the possibility that such temporary relief might thwart efforts to take the other measures clearly necessary to correct the basic payments imbalance.

Lying somewhat to the other extreme is the case of a currency which, let us say, has been fluctuating unimportantly around its par value. The economic position of the country whose currency is involved is in close equilibrium on its balance of payments, and no significant change in that position is foreseeable. Pressure exerted on its currency may be largely, or even entirely, attributable to some untoward political event which triggers a movement of funds out of that country. At the same time a disturbing rumor may circulate in the market that the par value of its currency may be changed. Thus, a sound underlying payments position can be overwhelmed by purely transitory forces that

provide sharp pressure. The rate for the currency might then move, perhaps slowly but continually toward its floor, and the forward rate for the currency might evidence an enlarging discount. In the process, speculative pressures may enter on an ever-widening scale to compound the pressure on rates and reserves.

Undertaken promptly and effectively, official intervention might, in the circumstances, serve to confound the rumors and prevent the build-up of cumulative pressures and speculative activity. In such circumstances, official intervention could be confidently undertaken in both the spot and forward markets to prevent any threat of disorderliness on the exchanges, and with the expectation that the position will be reversed and balance restored within a reasonably short time.

Various other short-run factors may provide the pressure that makes official intervention desirable. A change in the pattern of "leads and lags" is one such case. Residents of a country having commitments coming due, expressed in U.S. dollars, may advance their movement into U.S. dollars to the maximum extent possible on either a spot or forward basis. An importer in the country, for example, with a payment due to a U.S. exporter three months in the future and who normally waits until the date payment actually comes before purchasing the U.S. dollar requirements, might shift his demand and buy dollars or conclude a forward contract immediately; in either event, he has protected himself against any change in the value of his own currency.

Similarly, foreigners having commitments expressed in the currency would tend to delay purchasing of that currency to the maximum extent possible. As a result, the spot rate for the currency would tend to decline toward its lower limit and the forward rate might drop to a very significant discount. If, in fact, the shift in the leads and lags pattern is the source of pressure in the exchanges, this may be the clear basis for predicting that the pressure will taper off over time and that more normal trading conditions will be established reasonably soon. Under these circumstances, it may then be desirable for the exchange authorities to meet the entire pressure by supplying the market, thus

holding their currency rate unchanged and helping to prevent any tendency for speculative pressures to develop in the wake of sharply declining rates and widening discounts. Aggressive action by the exchange authorities might thus serve to bring about continued orderly market conditions and provide a psychological tone to the market that minimizes the extent of the pressure.

As a final note, perhaps it should be noted that inflows of short-term funds may, on the one side, serve a very useful purpose in sustaining one country's reserve position while at the same time, on the other side, the country or countries losing funds may find outward flows of capital not unwelcome. It is also possible, however, that the bolstering of one country's reserves might be at the expense of a country ill-equipped to sustain the loss. Such potential conflicts of purpose clearly dictate the need for consultation and agreement among the responsible authorities to assure that operations undertaken by either party are consistent and in line with mutually acceptable objectives.

All of the causal factors discussed in this chapter suggest specific indicators, arising from the nature of the pressures involved at different times, which could prompt official operations in the exchange markets. Certainly, the possibility of prompt and effective official action must contribute over the longer run to the establishment of a more favorable psychological climate than would otherwise be evident, by providing assurance that a market will not be permitted to flounder. Clearly, such operations to be effective must be based upon availability of adequate resources, flexibility of operational procedures and reasonably accurate technical assessment of market demands at the time.

### **Reaction, Active or Passive**

Once a decision is made to intervene, there are a number of methods by which the intervention may be carried out. The exact method employed at any given time must depend upon the nature of forces in the market and the particular objectives sought. On occasion, as, for

example, when limited exploratory operations are undertaken to ascertain the depth and nature of market forces, it may well be desirable to intervene as quietly as possible. Subsequent close contacts with the market then can indicate the impact of the transaction and provide a guide as to the intensity of any original pressure and the indicated degree of suitable response.

At other times, it may be desirable that the market as a whole be fully aware that the central bank stands ready to provide currency at a specific rate. If such is the case, the order might well be placed with a number of commercial banks with the understanding that a buyer stands ready to buy or sell at a given rate. The information would be transmitted throughout the market and thus signal that a dependable market is being maintained on either a spot or forward basis, or both. Such a demonstration may indeed prove useful in giving the market an orderly tone and averting any cumulative spiral of anxious buying, or selling.

Additionally, intervention may take an essentially passive form, reflecting official decisions to buy or sell a currency when offers are received voluntarily from the market. These operations may reflect a desire to restrain an unduly disturbing pressure in the market which might result if a transaction, unimportant in absolute size, is being aggressively pursued in a thin and unresponsive market.

Mention should also be made of those purchases of foreign exchange by the New York Federal Reserve on behalf of the U.S. Treasury to cover some current U.S. Government expenditures abroad. To a large extent, such activity has centered on the Canadian dollar market but purchases of other foreign currencies are not unusual. In these cases, there is, of course, no exchange rate objective of the operations as such. As a result, the process simply involves the soliciting of offers of the currency desired by at least three of the major trading banks and the acceptance of the best offer on behalf of the U.S. Treasury. With such purchases channeled through the facilities of the Trading Desk of the New York Fed, it is possible to coordinate the activity with that undertaken specifically for intervention purposes.





## PART IV    Some Results of Participation

In actual practice, how well have our Government's operations in the foreign exchange markets, and the part they have played in the stabilization of other major currencies, worked out over recent years? A brief résumé follows of some of the outstanding ventures engaged in by the United States, both in defense of the dollar, and, in cooperation with other nations, of other major currencies.<sup>13</sup>

To set the stage, however, it must be recalled that the early days of 1961 presented a grim outlook for the gold and foreign exchange markets. The gold crisis of the previous fall had momentarily run its course, but uneasiness was pervasive and sustained—a situation that could only be significantly calmed by President Kennedy himself, with a strong reaffirmation that the \$35 price for gold was an unchangeable quantum. Meanwhile, although the initial thrust of the gold rush had been blunted, the foreign exchange markets reflected uncertainty. The U.S. balance of payments deficit was huge and dollars flowed unstaunching into foreign hands, many of them accumulating in Western

German reserves as the German surplus became larger and larger. Sterling, with inadequate ready reserves, faced a highly skeptical financial community. Action was needed on many fronts—coordinated action—and at a time where the coordinating processes in monetary affairs had only barely begun.

Competent observers of the international financial scene were sharply divided as to the sources of the troubles, and even more so as to the cures. As we have seen in Part I<sup>14</sup> the United States, plagued with totally unacceptable unemployment rolls, lagging economic growth, and heavy commitments for free world defense and economic assistance, could not find a solution to its balance of payments deficit in the classical tools of sharply tightened credit, higher interest rates, deflation, and increased unemployment. Spurred by events in the late 1950's and in 1960, another course was chosen—and, importantly, one which was accepted as promising by financial observers: further action was taken to reduce U.S. official spending abroad, commitments were trimmed, and assistance was more sharply tied to the purchase of U.S. goods and services. Thus in 1961 action on a wide front was initiated by a nation which had been, year after year, the world's largest debtor.

<sup>13</sup> Joint Treasury-Federal Reserve foreign exchange operations have been the subject of excellent periodic reports prepared by Charles A. Coombs, Vice President in charge of the Foreign Department of the Federal Reserve Bank of New York, and Special Manager, System Open Market Account. The several instances cited in this Chapter have been reported in Mr. Coombs' series (which is published in the *Monthly Review* of the Federal Reserve Bank of New York) but are presented here as examples of the practical application of the approaches described earlier in this booklet.

<sup>14</sup> Page 4.

## 1961—The Deutsche Mark Revalued

The spotlight was focused on the world's largest gainer of reserves: West Germany. Observers were sharply split as to its best course of action. One school believed an upward revaluation of the Deutsche Mark to be in order since the huge surplus on trade account, in this view, reflected a state of "basic disequilibrium" but many months passed before this view found sufficient support to trigger the action.

The move finally came, following intense activity in the Bundesbank during the night of Friday and into the early morning hours of Saturday, March 4, 1961. On that day the mark was revalued from a par value of 4.2 per U.S. dollar to 4.0, an appreciation of about 5 percent. At an extraordinary meeting on the same Saturday, the IMF completed the formality of advising the member governments of the move. On Monday, March 6, the Government of the Netherlands followed suit, revaluing the guilder from 3.8 to 3.62 per U.S. dollar.

The always pragmatic foreign exchange markets greeted these moves with further skepticism. There were many who considered the extent of the revaluation inadequate to solve the German surplus problem, thus making further revaluation a certainty, while at the same time believing it inescapable that other countries of Europe would follow suit—except for Britain which could only devalue. Thus the stage was set for the most concentrated and massive movement of funds across the foreign exchange since the chaos in the early 1930s.

The finance ministries and central banks of the industrialized countries faced a major test—and, as the test was met, new techniques were introduced into the international payments system, and the ties of cooperation were tightened.

In the week of March 6 more than \$1 billion of funds moved through the exchanges in speculative anticipation of revaluation profits. Most of it came out of Britain and passed to Switzerland and Germany. In such transfers, as we have seen, the U.S. dollar plays the role of a vehicle currency. Sterling, heavily offered in the market, had to be supported by the Bank of England supplying dollars out of its reserves to hold sterling above the lower limit of the

range established by its IMF and EMA obligations. The buyer of the dollars having sold his sterling, then offered dollars to buy marks (or Swiss francs or other currency). In the process, the dollar appeared strong against sterling and weak against continental currencies.

To those without marks in hand, but owing mark-denominated debts, these were worrisome days of seeking to minimize further losses by trying to secure marks at any price currently asked. The simultaneous search for forward cover in marks intensified, driving their cost for forward delivery to higher and higher premiums (that is, the dollar to greater and greater discounts) finally amounting to the equivalent of over 4 percent per annum—and tending to go even higher. Speculation threatened to feed upon speculation. As a result, therefore, Germany continued to take in dollars to keep the mark from going through its ceiling in the spot market.

The method chosen to deal with the sterling crisis was the announcement of the availability of credits by a group of central banks to the Bank of England. In effect, inflows of dollars to Switzerland, Germany, France, the Netherlands, and other countries were loaned back to Britain. The announcement of this broad support, amount unspecified, and substantial use of those credits in the markets, were key elements which stemmed the speculative tide for a period of time. Only about a year later did the Bank of England disclose that it had used nearly \$1 billion of these credits. Those who intended to gamble, had to do so against the success of concerted action by the central banks of a number of countries in amounts that could, if necessary, prove virtually inexhaustible.

But pressure in the forward market was becoming almost as troublesome as the spot market—and perhaps more so, insofar as the dollar was concerned. In the one week following the revaluations, discussion among financial authorities was extensive. Central bankers meeting in Basle quickly fashioned the short-term credit arrangements so vital to the U.K. and sterling. Responsible officials of the U.S. Treasury, the Bundesbank, the Federal Reserve Bank of New York, and the Federal Reserve Board also considered both the needs and the

proper approach. Out of their deliberations came the decision to intervene in the market for forward marks. It was under these circumstances that the Secretary of the Treasury determined to put the Exchange Stabilization Fund back to work.

One week later, beginning on March 13, the U.S. Treasury, through the Federal Reserve Bank of New York, offered forward marks for sale on the New York market. By month-end the sales totaled about \$120 million and the premium on the mark (or conversely, the discount on the dollar) had fallen from a high of 4 percent to less than 1½ percent. In the face of this activity the strain in the market perceptibly diminished, although some pressure continued until mid-June when forward mark contracts outstanding reached a high point equivalent to \$340 million.<sup>15</sup>

Some sales of forward marks continued to be made through August as market conditions dictated a need. However, the amount of contracts outstanding lessened after mid-June when the initial three-month contracts entered into in March began to fall due. At that point, the purchasers of forward marks found it necessary to supply the dollars they had sold earlier—and in a climate characterized by vanishing conviction that further exchange rate moves were in the offing. The situation eased very substantially. For June as a whole, there was a net reduction in U.S. Treasury commitments. By August, U.S. liabilities had dropped to \$126 million, while, without further intervention, the premium declined to less than 1 percent. By the end of 1961, all Treasury contracts had been paid off. An initial foray into foreign ex-

change operations was capped with success. The foundation had been laid for even closer cooperation among the principal financial authorities of the free world nations.

### The Defenses Are Strengthened

From this rudimentary beginning in 1961 was fashioned, as developments called for new techniques or operations, an imposing array of resources and methods which, when accompanied by appropriate action to correct underlying causes of strains, can play an important role in the orderly and effective functioning of the payments system in future years. By 1964, when a serious threat arose to the Italian lira, the major pieces of the defense mechanism had been hammered into place. The response to this threat was a convincing demonstration of official cooperation and support that proved sufficient to handle this emergency largely on the basis of a show of strength—an announcement that larger amounts had been assembled for use—but without actual need for significant use of them.

Out of the experience that began with short-term credit facilities provided the Bank of England at the time of the D-mark revaluation, there emerged what is now the recognized first line of defense for the dollar in the foreign exchange markets: the system of swap agreements, now largely between the Federal Reserve System and foreign central banks. From an initial few million dollars, these facilities can now provide over \$2.8 billion to the United States or, collectively, to its partners abroad. To achieve this, it was necessary for the Treasury's initial arrangements to be augmented and largely supplanted by a very strong ally in the defense of the dollar—the Federal Reserve System. This was done in 1962, when the Fed commenced its own active operations in the market, thus bringing its big guns of credit resources and expertise into partnership with the Treasury—which had begun its efforts some months earlier, acting through the New York Reserve Bank as its agent.

In the meantime, because of general concern over the international payments system, and with an awareness quickened by the initial moves which were being improvised to counter

<sup>15</sup> The agreement underlying most of these operations included provision for the Bundesbank to supply cover in marks for the bulk of the forward exchange transactions of the Exchange Stabilization Fund at the same rate at which the forward contracts were carried out. The profit resulting from the difference between that rate and the spot rate at the time the contracts would be paid off resulted in profit to both institutions. It should also be noted that a further step to bolster the dollar accumulations of the German central bank was taken in the form of an arrangement between the Treasury and the German Government which provided for the prepayment of \$580 million of German debt to the United States in April. Of the amount prepaid, \$100 million was paid in marks, although the amounts actually obtained in marks were not immediately disclosed in order to gain the full benefit of uncertainty in the market over the magnitude of potential support from this source.

the growing threat to currency stability, meetings between financial officials of other countries began to take on added importance. These meetings included the customary and routine gathering of top central bankers in Basle, Switzerland, and a number of regularly scheduled meetings of committees and task forces within the Organization for Economic Cooperation and Development. To these were later added meetings of representatives of the "Group of Ten," the circle of leading industrial countries within the International Monetary Fund. All of these gatherings provided forums for working out the kind of cooperation, coordination and exchange of views among the principal nations that were necessary if the international monetary system were to continue to work smoothly in the new environment of currency convertibility among strong and growing industrialized countries that had emerged in the late 1950's. And to further bind all these forces together, more and more use was made of the stabilizing influences of the International Monetary Fund, which had continued to develop and to function effectively through the years.

One important result, midway in the development of the present defensive system, serves to show how this loosely confederated structure of cooperation grew in usefulness. In 1962, it became apparent that there was a serious gap between the short-term swap credits just being experimentally established and the medium-term credits available for three-to-five-year maturities at the IMF. There was growing recognition that a new form of reserve asset might play a very useful role. The heavy flow of funds into Switzerland in the spring and summer of 1962 increased apprehension over the potential scale of unbalancing flows and correspondingly increased the chances of acceptance of a new instrument by the monetary authorities concerned.

During the summer, the Federal Reserve had drawn substantially on its swap line with the Swiss National Bank, thereby avoiding corresponding demands upon the U.S. gold stock, in the reasonable expectation that the flows would soon be reversed. In the fall, however, it became clear that the pressure was more sustained than originally estimated. The United

States needed Swiss francs to pay off contracts, but wished to avoid the potentially disruptive effects at that time of either substantial gold losses or a first U.S. drawing on the IMF (which does not have Swiss francs in any case because Switzerland is not a member). The situation called for a funding of the debt for a period of, say, 18 or 24 months.

There followed extensive discussions, from which the Secretary of the Treasury determined, with the approval of the President, to make use of his authority to sell U.S. securities denominated in foreign currencies.<sup>16</sup> Other arrangements were worked out by the New York Federal Reserve and the Swiss National Bank, and \$50 million equivalent of U.S. bonds with 18-month maturity and denominated in Swiss francs were sold. The proceeds were used to pay off the short-term contracts.

Subsequently, sales of such U.S. securities—denominated in marks, lire, Austrian schillings, and Belgian francs—have been employed as a backstop to assure the paying off of short-term debt, either under Fed swaps or forward contracts. A new asset in the system of reserves was created in the process—a reserve asset characterized by a value guarantee in terms of the creditor's currency, which could stand along with gold and dollars in the reserve holdings of foreign banks.

Finally as the third perimeter of defense, the resources of the IMF, which had already been increased in 1959 by about \$5 billion (to a total of over \$14 billion), were augmented further in a wholly new way. Ten of the leading member countries<sup>17</sup> agreed in principle by the end of the 1961, and implemented in 1962, the General Arrangements to Borrow, under which up to \$6 billion of their currencies could be loaned to the Fund to meet unusual needs affecting the functioning of the monetary system.

## The Line Holds

The years 1962-64 found these defenses steadily reinforced, and meeting successfully a series

<sup>16</sup> See page 28.

<sup>17</sup> "The Group of Ten" is composed of Belgium, Canada, France, Germany, Italy, Japan, Netherlands, Sweden, United Kingdom, United States. Switzerland is also associated with the Group.

of tests. These included two crises of the first magnitude: Berlin and the Cuban Missile confrontations.

There is a distinction, when viewed from the effects upon the exchange markets, between such events and those which reflect concern—sometimes quite deep concern—over supposed or real economic situations. The immediate reaction on the exchange markets can be profound in either case, but those arising from political or military alarms may be the more temporary in nature, as the emotional shock and the sudden fears generated by the more dramatic occurrences fade when uncertainties are cleared away.

For example, Friday, November 22, 1963, had been a quiet day on the European exchanges—one of the normal days of no more than routine interest. Shattering this calm came the news of the fateful events in Dallas, Texas. In the short period between the appalling shock of the first word of the shooting and the crushing news of the death of President Kennedy, the full array of marked instruments was marshalled.

With the European markets closed, only Canadian and U.S. markets were operating. When the news first broke the New York Federal Reserve Bank, using its swap lines as a backstop, placed sizable orders at the rates prevailing for foreign currencies in the market. Treasury and Federal Reserve officials quickly consulted and determined to continue that course of action: a determined stand in the market, showing the availability of all resources which might be required. There was a second option—that of closing the markets—but this could well have worked the opposite way. An announcement of that sort could have left the markets of Europe, open on Saturday and again on Monday, with doubt as to the future. The Bank of Canada on its own entered the market with orders for U.S. dollars at the existing rate, even before an actual request for such action was made by the United States. Little was left to be done after this decisive and coordinated action. Less than \$25 million in purchases of U.S. dollars was made by either country.

Quick telephonic contact followed promptly with officials responsible for markets overseas, who agreed not to permit substantial changes from Friday rates prior to further consulta-

tion—if pressure in fact developed. By the time the news of the President's death had been confirmed, news that cast deep gloom throughout the world, the lines of defense for the dollar had been firmly emplaced.

Just one year prior, it may be noted, President Kennedy had asked the Secretary of the Treasury for an evaluation of the way our arrangements had met various crises: in Cuba, in Berlin, and elsewhere, and of our defenses if those crises had deepened. The President at that time observed that the closest coordination with other governments was essential if concern were to be limited, and disorder in the markets prevented.

### The Threat to the Lira

By the time the Italian lira faced its greatest threat, in 1964, the structure of cooperative action was well in place. The threat to the lira was somewhat slow in building, but crystallized with remarkable speed over the span of a few days.

In 1961 and 1962, the lira had been strong in the markets, reflecting Italy's large balance-of-payments surpluses. The surplus began to deteriorate, however, in 1963 and—while it was masked during much of that year by Italian commercial bank borrowing abroad—strains had become quite evident by the end of the year. To some, a reversal in Italy's payments position could be considered a normal and wholesome swing from an unsustainably large surplus, although it was increasingly recognized that the reaction might become unduly magnified. The cyclical development was further complicated by political uncertainties related to the formation of a new Government, and some spreading doubts as to whether that Government would take effective steps to curb the mounting deficit. In these circumstances speculation against the lira became more and more pronounced during February and early March of 1964.

Early in 1963, the Federal Reserve swap facility with Italy had been increased from \$50 million to \$250 million. No drawings by either party were outstanding. In the fall, however, in support of the dwindling Italian foreign ex-

change position, the U.S. Exchange Stabilization Fund began purchases of lire. These purchases, amounting to \$67 million, were supplemented by purchases of \$100 million in December and January by the Federal Reserve which in turn sold the lire forward to the Treasury. With these lire, the Treasury was able in March to redeem virtually all the \$200 million in lire bonds which had been issued earlier and were still outstanding.

Finally, as a source of support in the fall and winter of 1963-64 the Bank of Italy drew on the swap line with the Federal Reserve to the extent of \$150 million.

By the time ranking Italian financial officials were scheduled to visit Washington in March 1964 for meetings with the World Bank and IMF, extensive discussions concerning the Italian situation had been held at the central bank meetings in Basle, and by Italy with its associates in European Monetary Agreement meetings in Brussels. The need for action became increasingly clear and appropriate action was in process of development, amidst growing pressure, at the time of the March visit.

U.S. officials had also considered the Italian situation both with Italian officials and within the U.S. Government, and support was being weighed with the two objectives in mind of helping to provide the conditions for continued economic growth in Italy, while at the same time avoiding disruptive financial crises with spreading repercussions upon other countries as well.

By March, however, the outflows of funds—largely in the form of heavy and sustained movements from Italy to Germany and Switzerland were so heavy, and reserve losses to Italy so great, that speculation fed upon speculation. On Thursday, March 12, it became clear that an immediate crisis of the first magnitude threatened the lira in the market.

Within a single day—Friday, March 13—assistance from various sources in three countries totaling approximately \$1 billion was put together and promptly announced over the weekend by Italian authorities. This “package” involved the participation of several U.S. agencies and required speedy consultation and prompt agreement by all. The case for immediate aid to the lira seemed clear in the light

of the willingness, determination, and ability of Italian authorities to act effectively. This had been made clear in earlier meetings with the Italian officials in which the policy actions already intended by Italy were evaluated.

Included in the credits made available on this occasion were a special swap facility of \$100 million to Italy by the Treasury's Stabilization Fund in addition to the remaining balance of the Federal Reserve facility, an additional \$250 million credit from the Commodity Credit Corporation, and \$100 million from the Export-Import Bank. Perhaps even more important was a \$250 million total in swap lines extended by the Bundesbank and the Bank of England.

Judged by any standard, the result of these actions was impressive. Speculation was halted in its tracks by the show of confidence in the lira, buttressed by the resources made available. And the measures taken by the Italians took effect rapidly. The turnaround was dramatic—from a payments deficit of nearly one-half billion dollars in the first quarter of 1964, Italy registered a surplus of almost one-quarter billion dollars in the second quarter. As a result, very little of the assistance was actually ever used.

The flows of Italian funds to Switzerland and Germany previously mentioned gave rise to associated problems. These corollary effects, as always, broadly affected the dollar, because of its role as the reserve and vehicle currency for others. In this case, as Italy sold dollars to support the lira, the central banks of Germany and Switzerland found it necessary to buy additional dollars to prevent the exchange rate for their currencies from breaking through their established ceilings. The dollar was consequently weak against the mark and the Swiss franc for reasons that had little, if anything, to do with the payments position of the United States itself at that time.

Under these circumstances other transactions, counterparts of the Italian crisis, were evolved. The sale of \$200 million in gold by Italy to the United States and its immediate resale to Germany, together with a substantial sale of mark-denominated U.S. securities, corresponding in part to those in lira which were redeemed, enabled the Treasury to “mop up” a significant

proportion of Germany's large dollar holdings. The Swiss National Bank, which had also increased its dollar holdings as a result of the Italian deficit, entered into a swap arrangement with Italy for \$100 million in Swiss francs. The francs so obtained by Italy were sold to the U.S. Federal Reserve, thereby enabling it to pay off a large part of its own Swiss franc obligations undertaken earlier when dollars were flowing from Italy into Switzerland.

As a result of these transactions much of the flow was ultimately financed by arrangements between the surplus and the deficit countries, even if indirectly through U.S. facilities.

### **Sterling, From Short to Long**

A final example of techniques and resources in action may be found in the sterling crisis of late 1964. The international character of the assistance and the move by the United Kingdom from short-term swap credits to the IMF, demonstrated the degree to which the United States and other principal financial powers were now prepared to take action.

The United Kingdom late in 1964, bracing itself for an election, was faced with a deteriorating balance of payments position in a highly uncertain political climate. To the uncertainty of the election outcome itself was added a tendency among a significant part of the financial community to question whether a Labor Government would, in fact, deal with the problem by means other than outright devaluation.

Beginning in early May of 1964, sterling had tended to fluctuate just below par; the forward rate for three-month sterling running at a discount of 50 to 60 points (or in interest arbitrage terms, a per annum cost of about .8 percent). From May into September, however, the spot rate declined from the par of \$2.8000 to about \$2.7825—barely above its floor of \$2.78. This weakening of the spot rate was accompanied in August by a decline of nearly \$100 million in reserves.

A pronounced speculative wave hit in September shortly after August reserve losses were revealed. The Bank of England took immediate recourse to the already existing Federal

Reserve swap line, while the U.S. Treasury and Federal Reserve made modest outright support purchases of sterling in New York. But it was quite clear that additional resources and the open support of the official international financial community was essential.

Intense negotiations led, in late September, to an announcement of such support in the form of a \$1 billion assistance package. An increase in the U.S. swap line from \$250 million to \$750 million constituted one-half the package; and the other half was subscribed by the Bank of Canada and several of the central banks of Europe. A portion of these short-term credits was promptly used as active market operations became necessary.

Pressure continued in October and even accelerated in November. The new Government, with its thin majority in Parliament, announced in late October its determination to bring the situation under control by instituting certain balance of payments measures—most notably a 15 percent surcharge on imports. This action calmed the market only temporarily. The surcharge drew adverse reaction from abroad. The possibility of reprisals by other countries, or withdrawal of the new levy, lessened the hoped-for effect. Similarly the Government's Special Budget Message of early November was received with mixed views, the financial community being uncertain about the emphasis the new Government might place on its social program to the detriment of the U.K. balance of payments. In addition, speculation grew as action was delayed in raising the Bank rate—a move advocated by a substantial number of observers. But on November 23, the rate was jumped sharply from 5 to 7 percent. The immediate reaction was favorable, and the Bank of England was able to acquire a considerable amount of dollars. Even the Bank rate change did not immediately turn the entire position around and shortly the Bank began again to lose reserves. Since the \$1 billion in credits extended in September had already been used, something more had to be done to establish world-wide confidence in the capacity and determination of the British Government to defend the pound.

In the United States and elsewhere, the tempo of consultations was stepped up concerning the



form that further assistance might take in the light of the adequacy of the measures taken by the United Kingdom. As a result of these negotiations, a new and larger program of assistance was evolved. The original \$1 billion in short-term credits could be funded at medium-term through a U.K. drawing on the IMF—a drawing subsequently carried out early in December. Prior to this funding, however, new credits were announced on November 25 in the total amount of \$3 billion—a massive show of support to meet a massive threat.

The U.S. share consisted of the increased swap line between the Federal Reserve and the Bank of England of \$750 million and \$250 million in the form of an Export-Import Bank credit. The assistance of other countries was short-term, extended in the form of swaps or other comparable devices.

The U.S. Treasury and Federal Reserve also provided support in the spot market in late November by buying outright over \$60 million in sterling. This was in addition to the extensive support operations of the Bank of England, financed from its own reserves and from the resources provided in the assistance packages. The spot rate improved moderately as a result of these activities, rising above the \$2.79 level by the end of November. Pressure on the forward rate continued with the discount on 3-month sterling increasing to as much as 210 points (\$0.0210) or about 3 percent on a per annum basis. Forward operations were also undertaken by the Bank of England to moderate the daily fluctuations in this spread.

The tempo of the dollar losses by the United Kingdom were substantially slowed following

the announcement of the new assistance program, although smaller losses continued to be incurred through December and January. The spot rate of sterling continued slightly above the \$2.79 level, however, and then rose without official support to a high of \$2.7960 in mid-February. But pressure again became heavier as concern mounted over the Labor Government's forthcoming budget. On April 6 the budget was announced, with initial good effect. The sterling rate which had declined to \$2.79 rose to \$2.7980, nearly to par, and the Bank of England was able to recoup some of its earlier losses.

The situation following the budget message was considerably more favorable—although dollar gains were not sufficient to permit repayment of drawings under the \$3 billion credit package of November. In these circumstances, as the six-month anniversary of the package approached, the U.K. arranged for use of most of the remainder of its drawing rights in the IMF. On May 25, a drawing of \$1.4 billion was made, the bulk of which, about \$1.1 billion, was used to repay the outstanding short-term credits that had been drawn under the \$3 billion facilities, and the remainder of the proceeds of the IMF drawing was used to bolster the British reserve position.

Sterling was not even then "out of the woods," but a transaction had been completed from immediate defense, relying on swap credits, to a funding of those credits through a drawing on the International Monetary Fund. Britain had surmounted the pressures, and now had time in which to work out the underlying economic program that could fully restore confidence.

## Looking to the Future

The United States Government has made considerable progress in the use of its resources and in the application of techniques in conducting operations in the foreign exchange markets. These are "front line" measures in the continuing defense of the dollar. But they also are a part of a wider program aimed at improving our international balance of payments. Our total effort in this field, moreover, is being

made against a background of continuing cooperation in international monetary affairs.

Nevertheless, any Government's activity affecting its currency is a matter, first, of its own sovereign concern. For, in the eyes of its citizens—and its lawmakers and administrators—the nation's currency is the visible lifeblood of its economy.

No group of individuals more fully realizes

the delicacy of deliberations which may affect the money systems of sovereign states than do the financial authorities of the various countries. Yet the very fact that they have been, and now are, constructively at work to develop further possibilities for joint action, is heartening to all men of good will who desire to maintain a consistently favorable climate for international economic development and growth.

The United States has played a leading role in this process. As this was being written, the Secretary of the Treasury, Henry H. Fowler, after reporting on the continuing, and generally successful, efforts of the United States to bring its own balance of payments toward equilibrium said:<sup>18</sup>

Meanwhile, we are moving forward to improve the international monetary situation, by arranging for new sources of liquidity to finance growing international trade in the absence of dollar deficits.

Last July I suggested that the time had come to move ahead from technical study to the negotiating table. This was becoming increasingly evident as our own balance of payments improved and reduced the supply of dollars which had been augmenting the reserves of foreign countries for a number of years.

Between 1958 and 1964, deficits in the U.S. balance of payments were the source of about three-quarters of the new reserves accumulated by the rest of the world.

If the growth of monetary reserves of the free world were to depend solely on additions to monetary gold, which recently have run no more than \$500 million yearly, then annual reserve increments would not even reach 1 percent. It is clearly time to begin planning the means to supplement gold with the deliberate, careful creation of additional reserves as needed.

Since last July, we have been moving ahead. In September, following a series of

bilateral talks I had with financial officials of a number of other countries, the new negotiating machinery was established in Washington at the time of the Annual Meeting of the IMF. The Finance Ministers of the Group of Ten leading industrial countries who have been working together on monetary problems since 1962 met in Washington at that time.

As the first phase of contingency planning, they instructed their Deputies to seek a basis of agreement on the improvements needed in the international monetary system, including arrangements for the future creation of reserve assets. It was further provided that once a basis for agreement on essential points was reached, it would be necessary to proceed from this first phase to a second phase, involving a much larger group of countries. This was to permit broad consideration of the questions that affect the world economy as a whole.

At the same time, the Managing Director of the IMF, who participates in the ministerial meetings of the Group of Ten, indicated that the Fund would pursue its own investigation of the ways and means of creating international reserves.

Since then, negotiations have been pursued actively. The Deputies are proceeding to draft their report to the Ministers, which we hope and expect will show considerable progress towards a consensus on the essential features of an international system for creating reserves.

It has been within this atmosphere of consultation and joint responsibility, but with due regard to the vigorous defense of the dollar whenever required, that the official foreign exchange operations of the United States Government have been developed over the past several years. It is to be expected that such activities will continue adapting to the changing environment of world trade and finance to help assure the monetary facilities needed for an expanding flow of goods and capital throughout the world.

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<sup>18</sup> Remarks by the Hon. Henry H. Fowler, Secretary of the Treasury, before the annual meeting of the Association of Reserve City Bankers at Phoenix, Ariz., April 5, 1966.



## Article VIII, Articles of Agreement of the International Monetary Fund

### Article VIII. General Obligations of Members

**SECTION 1. *Introduction.***—In addition to the obligations assumed under other articles of this Agreement, each member undertakes the obligations set out in this Article.

**SEC. 2. *Avoidance of restrictions on current payments.***—(a) Subject to the provisions of Article VII, Section 3(b), and Article XIV, Section 2, no member, shall, without the approval of the Fund, impose restrictions on the making of payments and transfers for current international transactions.

(b) Exchange contracts which involve the currency of any member and which are contrary to the exchange control regulations of that member maintained or imposed consistently with this Agreement shall be unenforceable in the territories of any member. In addition, members may, by mutual accord, co-operate in measures for the purpose of making the exchange control regulations of either member more effective, provided that such measures and regulations are consistent with this Agreement.

**SEC. 3. *Avoidance of discriminatory currency practices.***—No member shall engage in, or permit any of its fiscal agencies referred to in Article V, Section 1, to engage in, any discriminatory currency arrangements or multiple currency practices except as authorized under this Agreement or approved by the Fund. If such arrangements and practices are engaged in at the date when this Agreement enters into force the member concerned shall consult with the Fund as to their progressive removal unless they are maintained or imposed under Article XIV, Section 2, in which case the provisions of Section 4 of that Article shall apply.

**SEC. 4. *Convertibility of foreign-held balances.***—(a) Each member shall buy balances of its currency held by another member if the latter, in requesting the purchase, represents

(i) that the balances to be bought have been recently acquired as a result of current transactions; or

(ii) that their conversion is needed for making payments for current transactions.

The buying member shall have the option to pay either in the currency of the member making the request or in gold.

(b) The obligation in (a) above shall not apply

(i) when the convertibility of the balances has been restricted consistently with Section 2 of this Article, or Article VI, Section 3; or

(ii) when the balances have accumulated as a result of transactions effected before the removal by a member of restrictions maintained or imposed under Article XIV, Section 2; or

(iii) when the balances have been acquired contrary to the exchange regulations of the member which is asked to buy them; or

(iv) when the currency of the member requesting the purchase has been declared scarce under Article VII, Section 3(a); or

(v) when the member requested to make the purchase is for any reason not entitled to buy currencies of other members from the Fund for its own currency.

**SEC. 5. *Furnishing of information.***—(a) The Fund may require members to furnish it with such information as it deems necessary for its operations, including, as the minimum necessary for the effective discharge of the Fund's duties, national data on the following matters:

(i) Official holdings at home and abroad, of (1) gold, (2) foreign exchange.

(ii) Holdings at home and abroad by banking and financial agencies, other than official agencies, of (1) gold, (2) foreign exchange.

(iii) Production of gold.

(iv) Gold exports and imports according to countries of destination and origin.

(v) Total exports and imports of merchandise, in terms of local currency values, according to countries of destination and origin.

(vi) International balance of payments, including (1) trade in goods and services, (2) gold transactions, (3) known capital transactions, and (4) other items.

(vii) International investment position, i.e., investments within the territories of the member owned abroad and investments abroad owned by persons in its territories so far as it is possible to furnish this information.

(viii) National income.

(ix) Price indices, i.e., indices of commodity prices in wholesale and retail markets and of export and import prices.

(x) Buying and selling rates for foreign currencies.

(xi) Exchange controls, i.e., a comprehensive statement of exchange controls in effect at the time of assuming membership in the Fund and details of subsequent changes as they occur.

(xi) Where official clearing arrangements exist, details of amounts awaiting clearance in respect of commercial and financial transactions, and of the length of time during which such arrears have been outstanding.

(b) In requesting information the Fund shall take into consideration the varying ability of members to furnish the data requested. Members shall be under no obligation to furnish information in such detail that the affairs of individuals or corporations are disclosed. Members undertake, however, to furnish the desired information in as detailed and accurate a manner as is practicable, and, so far as possible, to avoid mere estimates.

(c) The Fund may arrange to obtain further information by agreement with members. It shall act as a centre for the collection and exchange of information

on monetary and financial problems, thus facilitating the preparation of studies designed to assist members in developing policies which further the purposes of the Fund.

*SEC. 6. Consultation between members regarding existing international agreements.*—Where under this Agreement a member is authorized in the special or temporary circumstances specified in the Agreement to maintain or establish restrictions on exchange transactions, and there are other engagements between members entered into prior to this Agreement which conflict with the application of such restrictions, the parties to such engagements will consult with one another with a view to making such mutually acceptable adjustments as may be necessary. The provisions of this Article shall be without prejudice to the operation of Article VII, Section 5.

## Gold Reserve Act of 1934, Sec. 10 as Amended

(Public, No. 87, 73d Congress)

(a) For the purpose of stabilizing the exchange value of the dollar, the Secretary of the Treasury, with the approval of the President, directly or through such agencies as he may designate, is authorized, for the account of the fund established in this section, to deal in gold and foreign exchange and such other instruments of credit and securities as he may deem necessary to carry out the purpose of this section. An annual audit of such fund shall be made and a report thereof submitted to the President and to the Congress.

(b) To enable the Secretary of the Treasury to carry out the provisions of this section there is appropriated, out of the receipts which are directed to be covered into the Treasury under section 408b of this title, the sum of \$2,000,000,000, which sum when available shall be deposited with the Treasurer of the United States in a stabilization fund (hereinafter called the "fund") under the exclusive control of the Secretary of the Treasury, with the approval of the President, whose decisions shall be final and not be subject to review by any other officer of the United States. The fund shall be available for expenditure,

under the direction of the Secretary of the Treasury and in his discretion, for any purpose in connection with carrying out the provisions of this section, including the investment and reinvestment in direct obligations of the United States of any portions of the fund which the Secretary of the Treasury, with the approval of the President, may from time to time determine are not currently required for stabilizing the exchange value of the dollar. Such fund shall not be used in any manner whereby direct control and custody thereof pass from the President and the Secretary of the Treasury. The proceeds of all sales and investments and all earnings and interest accruing under the operations of this section shall be paid into the fund and shall be available for the purposes of the fund.

(c) The Secretary of the Treasury is directed to use \$1,800,000,000 of the fund established in this section to pay part of the subscription of the United States to the International Monetary Fund; and any repayment thereof shall be covered into the Treasury as a miscellaneous receipt.

Statutory authority for the issuance of Foreign Currency Series obligations is contained in section 16 of the Second Liberty Bond Act, as amended, 31 U.S.C. 766. This section reads as follows:

"Sec. 16. That any of the bonds or certificates of indebtedness authorized by this Act may be issued by the Secretary of the Treasury payable, principal and interest, in any foreign money or foreign moneys, as expressed in such bonds or certificates, but not also in United States gold coin, and he may dispose of such bonds or certificates in such manner and at such prices, not less than par, as he may determine, without compliance with the provisions of the third paragraph of section one. In determining the amount of bonds and certificates issuable under this Act the dollar equivalent of the amount of any bonds or certificates payable in foreign money or foreign moneys shall be determined

by the par of exchange at the date of issue thereof, as estimated by the Director of the Mint, and proclaimed by the Secretary of the Treasury, in pursuance of the provisions of section twenty-five of the Act approved August twenty-seventh, eighteen hundred and ninety-four, entitled 'An Act to reduce taxation, to provide revenue for the Government, and for other purposes.' The Secretary of the Treasury may designate depositaries in foreign countries, with which may be deposited as he may determine all or any part of the proceeds of any bonds or certificates authorized by this Act, payable in foreign money or foreign moneys."



## Coordinating at the Operational Level—an Example

The process of coordinating activity at the policy level has been reviewed in some detail in the foregoing text, from the opening of the business day through the Federal Open Market Committee meetings and the discussion of Treasury procedures. To illustrate the process by which actual market operations are coordinated at the operational level, let us follow through a hypothetical example in some detail.

It will be recalled that the Federal Reserve Bank of New York may enter into transactions either for the Treasury's Exchange Stabilization Fund, or on behalf of the Federal Reserve System, or on behalf of a foreign central bank correspondent for which the Fed acts as agent. The operational procedures involved are closely similar in all cases so let us suppose the operation is being conducted by the Fed on behalf of a foreign central bank correspondent.

As previously noted, most countries have committed themselves to maintain the rate for their currency within margins varying by one percent on either side of a declared par value. Although the commitment in a strict sense refers to the rate for the currency in a central bank's own foreign exchange market, central banks almost invariably do, in fact, seek also to observe the commitment in the New York market. Indeed, some central banks have placed standing orders with the New York Fed under which the Fed intervenes at any time the quotation reaches the margin. Other central banks authorized transactions for their account on a daily basis, or as may be justified by market conditions, and at varying rates within the range of permitted quotations.

Suppose a certain central bank abroad has been experiencing some pressure on its currency during the day. It might well wish to restrain any weakening tendency in the New York market, once the European market is closed. The central bank—in all likelihood having earlier indicated its intention by telephone—would dispatch a cable to the New York Fed at about the time that the European exchanges were closing, generally setting upper and lower points at which the foreign central bank wished to intervene and specifying the amount which could be bought or sold for the Bank's account. Additionally, provision may be made for further intervention in specified amounts at other points somewhat higher and lower than were applicable to the first order. Suppose then the rate for that currency declines in the New York market, finally reaching the intervention point. One of the foreign exchange Traders at the New York Fed, after receiving

the approval of the officer directly in charge, would sell U.S. dollars, or conversely, buy the foreign currency over his direct wires connecting him with the major banks. The transaction would be made on, say, Tuesday for regular delivery on Thursday and would be confirmed before the end of the day in written form.

At the close of business, normally 5:00 p.m., such dollar sales would be totaled and an advice passed to the Bookkeeping Unit, which would log the dollar amount as a forthcoming charge on the account maintained for the particular central bank concerned. At the same time, a cable would be dispatched to that foreign central bank, advising the details of all transactions undertaken and the names of the parties from whom they could expect to receive the amounts involved. In the Bookkeeping Unit at the New York Fed, that account would then be analyzed, taking into consideration all the transactions upon which information had been received.

At this point, suppose that the balance in the dollar account of the institution involved is inadequate to cover all anticipated payments. An advice would go directly to the Investment Unit, which would immediately check on the availability of U.S. Government securities held for the account. To meet operational needs, most central bank correspondents have established so-called automatic investment programs so that purchases of securities are made for the accounts when the dollar balance exceeds a certain limit and securities are sold when the balance in the account drops below an established minimum level. No further authorization from the central bank is therefore required in order for the Foreign Department to undertake the required adjustment in the central bank's portfolio.

The following morning, an analysis of the account can be made to include the results of transactions advised by the latest cables which have arrived; the statement of the account then reflects all known forthcoming debits and credits. With this data in hand, the Investment Unit can forward to the Securities Department of the New York Fed an order to sell U.S. Government securities for that central bank. This order would then be executed through the Trading Desk of the Securities Department that day for normal delivery, i.e., for delivery the next business day and hence, for payment on Thursday. However, in special circumstances and when required, securities may be sold for cash, thus providing funds on the same day.

Having sold the securities, the Securities Department advises the Investment Unit of the Foreign Depart-



ment which, in turn, authorizes the Safekeeping Division to make delivery of the particular securities to the purchasing dealer the following day against payment. On Thursday then, the foreign central bank's account is credited with the proceeds of the sale of securities and that account is charged immediately in order to provide means to credit the reserve account of the commercial bank from whom the foreign exchange was purchased.

In the event the central bank account involved does not have a portfolio of securities from which sales can be made to replenish the account, the Bookkeeping Unit of the Foreign Department will check with the Gold Unit. If gold is available and a sale is contemplated, an authorization will be requested by cable from the central bank, while, at the same time, a check is made on the status of the Treasury's Exchange Stabilization Fund Account. Treasury would then be advised directly by telephone of this contemplated gold sale by the foreign central bank, and authority would be received to make the purchase on the Treasury's behalf—a verbal authorization immediately confirmed in writing.

Ordinarily, the Exchange Stabilization Fund's cash position would be such as to readily absorb a purchase of gold, but in the event its balance were low, the ESF might in turn find it necessary to sell some gold already held for its account to the Treasurer of the United States, the account in which the monetary gold stock of the United States is lodged. In this respect, the ESF serves as a buffer, permitting dealings in limited

amounts to be netted over time without affecting the gold stock of the United States. Alternatively, the fund might sell some of the U.S. Government securities held in its account as income-earning assets or make other appropriate adjustments. In any event, the purchase of the gold by the ESF would be coordinated so as to meet the dollar needs of the account, and hence provide the means of payment to cover the commitments entered into with the foreign exchange market.

The above example reflects the fact that foreign central banks seek to earn a return on dollar balances they hold by investing in U.S. Government securities or, in some cases, other short-term paper such as bankers acceptances. Such investments are highly liquid and hence, may be closely attuned to the needs of the central banks. In similar fashion, the balances held by the New York Federal Reserve both for the U.S. Treasury and the Federal Reserve System are also "put to work." Although money markets abroad cannot compare in depth and size with the New York money market, nevertheless temporarily idle balances can generally be employed. Treasury balances, for example, may be invested in any of a number of ways, including investments in securities of foreign governments or commercial paper of time deposits. The Federal Reserve System, however, is not permitted to invest in foreign treasury bills and employment of its balances normally involves commercial paper or so-called "money employed" accounts at foreign central banks. (A bill, S. 1557, has been introduced in the 89th Congress to enable such investments.)











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