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Current Problems Facing the United States Economy

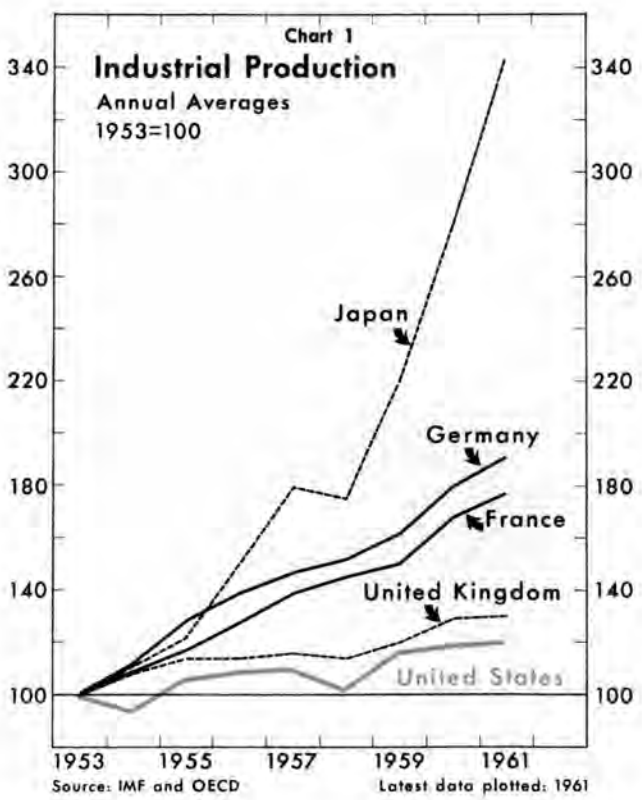
THE UNITED STATES ECONOMY is operating at a high level. Total expenditures on goods and services reached a high of $552 billion during the second quarter of this year. Industrial output has continued to expand in recent months. Despite such favorable indications, many discussions have emphasized three basic problems: (1) the lack of vigor at the present stage of the current recovery; (2) the relatively slow rate of economic growth over the past several years compared with other industrialized nations; (3) the continuing deficit in the United States balance of payments. This article will review these problems and the various proposals which have been put forth as possible solutions.[1]

The Problems

Economic activity improved sharply in the nine months from February 1961, the trough month of the 1960-61 recession, to November 1961. In this period industrial production expanded at an annual rate of about 16 per cent. The unemployment rate declined from 6.9 per cent to 6.1 per cent and most other indicators of business conditions showed similar improvement. But the rapid upsurge of industrial production has moderated since the early months of recovery. While there has been further improvement in the labor market, unemployment has remained relatively high as has unused capacity in many industries (see Table I, page 3).

[1] The proposals for improving the economic well-being of the United States presented in this article represent a broad sample of opinions expressed by financial journalists and academicians. No one proposal or appraisal should be interpreted as representing the official opinion of the Federal Reserve Bank of St. Louis, the Federal Reserve System, or any Governmental agency.

Not only is there a belief by some analysts that the current recovery has faltered but considerable dissatisfaction has been expressed concerning the performance of the economy during the past decade. From the peak of the 1949-53 expansion to the second quarter of 1962, the index of industrial production rose at a 3.0 per cent annual rate. This rate of economic growth has occurred during a period when the economies of most other industrialized nations have been expanding at extremely rapid rates (see Chart 1). The Western European nations and Japan have made tremendous advances. The reported growth of the economies of the Soviet bloc nations has been such as to inject economic growth into cold war politics. How-



ever, comparison of growth rates between the United States and other nations may not be completely appropriate. The expansion of the economies of these nations represents in part a recovery from extremely low levels of activity which resulted from the devastations of war.

Another evidence of shortcomings of the economy which is often cited has been the growth of unused resources over the period. Unemployment as a per cent of the civilian labor force was 2.6 per cent in July 1953, the peak month of the 1950-53 expansion. At the two subsequent peaks, August 1957 and May 1960, the unemployment rate was 4.2 per cent and 5.1 per cent, respectively. There has also been a successive rise of unused facilities in the major materials industries (see Table I, column 5). A favorable aspect of the period as a whole has been the relatively stable prices in the United States compared with rising price levels in most other leading countries.

The third major problem facing the economy has been the successive deficits in the balance of payments. For many years prior to 1950 the United States had been a surplus country. However, from 1950 to the second quarter of 1962 the United States experienced deficits in its balance of payments averaging $2.0 billion per year. During this period $5.6 billion of U. S. gold reserves were transferred to foreign ownership. A portion of the gold and dollars accumulated abroad associated with our payments deficit probably constituted a desirable adjustment. The reserve positions of these countries generally were low following World War II. This condition produced trade and currency restrictions which, in turn, tended to reduce the amount of international trade.

There has been an improvement in the U. S. balance of payments during 1961 and the first half of 1962. In the preceding three years, 1958-1960, the United States experienced deficits in its balance of payments averaging $3.7 billion per year. The deficit amounted to $2.5 billion in 1961 and was at a seasonally adjusted annual rate of $1.5 billion during the first six months of this year.

An important feature of the deficit payments position of the United States since 1950 is that it has prevailed in the face of a substantial balance-of-

Table I

Economic Performance of the United States during the Past Decade

(1)	(2)	(3)	(4)	(5)	(6)	
Peaks	Number of Months from Previous Peak	Average Annual Rate of Change in Industrial Production from Previous Peak (Per Cent)	Unemployment Rate (As a Per Cent of the Labor Force)	Per Cent of Unused Capacity in Major Materials Industries	Average Annual Rate of Change in Prices from Previous Peak (Per Cent) Wholesale	Consumer
July 1953	56	8.0	2.6	9*	1.3	2.3
August 1957	49	2.2	4.2	16*	1.7	1.3
May 1960	33	3.0	5.1	19	0.4	1.6
26 Months after Above Peaks						
September 1955		2.4	4.1	11*	0.3	-0-
October 1959**						
July 1962		3.8	5.3	23	—0.2	1.2

* Quarterly figures for periods prior to 1959.

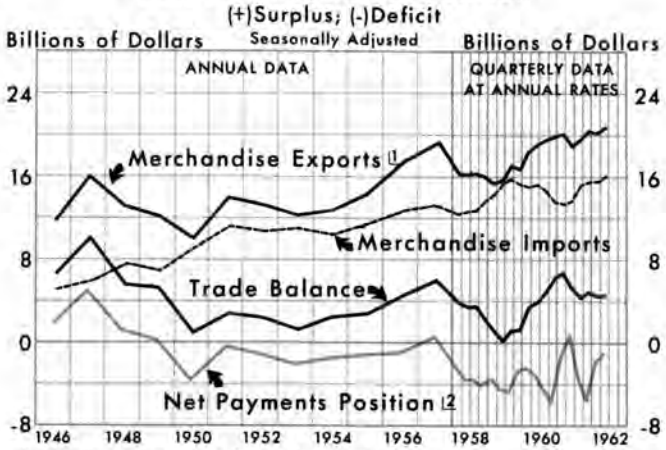
** The comparability of the data is impaired by the July to November 1959 strike in the steel industry.

trade surplus i.e., excess of merchandise exports over imports (see Chart 2). However, this surplus has not been large enough to offset military and foreign assistance expenditures and the outflow of both long-term and short-term capital. As a result of

Chart 2

United States Balance of Trade and Net Payments Position

(+)Surplus; (-)Deficit



[1] Excluding military transfers under grants.
[2] Deficit measured by net decline in U.S. gold and net increases in foreign-held dollar assets. Since 1961 gold sales are net of change in convertible currencies held by Exchange Stabilization Fund.
Source: U.S. Department of Commerce
Latest data plotted: 2nd Quarter 1962 estimated

the deficits during the 1950's and early 1960's, foreigners have accumulated a large amount of short-term dollar assets. A large portion of these dollar assets is held by official institutions. When these institutions consider their dollar holdings excessive relative to their gold holdings, they frequently convert dollars into gold.

Short-term capital movements have contributed to the pressures on United States gold reserves already reduced by the longer run deficit in the balance of payments. With the re-establishment of currency convertibility by most Western European nations in 1958, money balances have become more mobile. Americans may move surplus funds into foreign money markets and add to the already large foreign holdings of dollars. Short-term capital movements instituted by foreign nationals may lead to substantial shifts in the ownership of dollar balances from foreign private to official holders. As mentioned above, when foreign central banks accumulate dollars, they may make demands on U. S. gold reserves. Because of the size and volatility of foreign dollar holdings and the fact that the dollar is the principal reserve currency, the gold reserves of the United States are particularly sensitive to short-term capital movements.

Solutions

Various proposals have been presented with some frequency by economic analysts as possible solutions to the major questions that have been raised: how to increase the pace of the current expansion as well as the longer run rate of economic growth and at the same time improve the balance of payments. This article will concentrate on the proposals for fiscal and monetary actions. Fiscal policy refers to the taxing and spending activities of the Government. Monetary policy pertains to central bank actions which affect changes in the quantity of money or interest rates. Because a country at all times is taking fiscal and monetary actions, there must of necessity be some combination or "mix" of monetary and fiscal policies. It should be recognized that the use of other tools such as debt management and measures to strengthen the international payments system also have their place in solving these complex issues.[2]

The following discussion will outline some policies frequently suggested for stimulating domestic recovery and growth and for correcting a serious international payments deficit. Finally, the proposals designed as a simultaneous attack on both the domestic and international problems will be discussed. It will be apparent that the proposals to improve either the domestic economy or the international payments position have to be modified when the problems which these policies are designed to correct are considered simultaneously.

In general, stimulative fiscal and monetary policies are suggested as means of increasing the current level of economic activity and the rate of economic growth. Stimulative fiscal actions are generally believed to involve lower tax rates or larger Government expenditures and possibly greater budget deficits. Stimulative monetary actions are generally believed to be provided by a more rapid expansion of the money supply accompanied by lower interest rates. On the other hand, fiscal and monetary policy prescriptions for reducing the deficit in the balance of payments call for a reduction in the deficit in the Federal budget, higher interest rates, and a relatively low rate of money supply expansion.

[2] For a discussion of the international payments system and means being undertaken to strengthen this mechanism see "The International Payments System" in the May 1962 issue of this *Review* and "Recent Developments in Government Foreign Exchange Transactions" in this issue.

Proposals to Improve the Domestic Economy

Reducing tax rates or increasing Government expenditures is expected to lead to an increase in the demand for goods and services. If taxes are reduced, but Government expenditures maintained, the increased demand would be expected to come from the private sector of the economy. On the other hand, if taxes are held constant but Government expenditures increased, the initial expansion in total demand is expected to come largely from the public sector.

Reducing both tax receipts and expenditures has been suggested as another approach to increasing the rate of economic growth. Proponents of this approach contend that such a policy would lead to greater business confidence and an increase in private investment. There are some, however, who argue that this policy would actually reduce the rate of economic expansion because total demand would fall. Individuals would save a portion of the increase in their disposable income and thus would not fully offset the decrease in Government spending.

The role of monetary policy to promote recovery and growth as viewed by some is to increase the public's holdings of money at a rate sufficient to generate an appropriate level of total demand. When the public's actual holdings of money and other liquid assets exceed their desired level, total demand tends to rise. If their actual holdings are less, total demand tends to fall. Another way of viewing monetary action, although not inconsistent with the money supply view, is in terms of its effect on interest rates. According to this view an "easy" or stimulative monetary policy is one that promotes low interest rates, particularly long-term rates. It is suggested that such a policy would encourage domestic private investment and thus lead to a period of expansion based on private capital formation.

While appropriate fiscal and monetary measures may not be inflationary, an excessive deficit in the budget or an excessive increase in the money supply accompanied by unduly low interest rates will lead to inflation. It is thought by some that a moderate amount of inflation may be conducive to relatively rapid economic growth. On the other hand, rising prices may be an obstacle to sustainable economic growth. Furthermore, as will be pointed out below, a rising price level could be detrimental to solving the balance of payments deficit.

Proposals to Improve the Payments Deficit

Suggestions for reducing the deficit in the balance of payments differ substantially from the proposals offered as solutions to the present slow rate of recovery and the longer run growth problems. A commonly suggested means of achieving a better international payments position is to pursue restrictive fiscal and monetary policies.

A relatively restrictive Federal budget is expected to improve the possibility of a continuation of the present stable price level. Confidence in the stability of domestic prices, which would tend to maintain export receipts, encourages foreign central banks to hold dollars rather than converting these dollar holdings into gold. Budget deficits are frequently associated with inflationary pressures, loss of exports, and a weakening of the external value of a nation's currency. A tight fiscal policy, it is argued, would indicate to foreign holders of dollar balances that the U. S. authorities were taking the necessary actions to maintain the value of the dollar.

A relatively tight monetary policy is also suggested by some observers as a means of improving the balance-of-payments situation. Higher short-term interest rates would reduce the incentive to exchange short-term dollar assets for higher yielding foreign assets. Movements of short-term funds from this country in response to yield differentials often result in a transfer of dollar balances to foreign central banks. In turn these transfers often lead to an outflow of gold and speculative activity against the dollar. Higher long-term rates in the United States might reduce foreign long-term borrowing in the U. S. capital market. However, it should be noted that interest rate differentials may not be the only factor which makes the U. S. capital market attractive to foreign borrowers. Other capital markets often are not large enough to supply the needed funds and there are still numerous restrictions in the capital markets of many countries.

Since relative price stability in this country is considered almost essential if the balance-of-payments deficit is to be reduced, it is often suggested that the rate of expansion of the money supply remain nominal. A low rate of money supply creation would be consistent with central bank attempts to keep interest rates at a relatively high level. The continuation of

relative price stability, which it is hoped would accompany a tight monetary and fiscal policy, would minimize the possibilities of an increase in imports and a decline in exports. Indeed, if price stability in this country were accompanied by price increases abroad this would probably increase our already favorable trade balance by causing imports to decline and exports to rise.

Proposals to Achieve Balance between Domestic and International Requirements

This brief resumé of the suggestions for fiscal and monetary actions designed to stimulate the present recovery and economic growth and to alleviate the deficit in the balance of payments points out the contradictory nature of the various proposals. It is not surprising, therefore, that most suggestions for improving the overall economic situation of the country incorporate a modification of the fiscal and monetary policy combinations outlined above. Perhaps the most frequent suggestion is for an easy fiscal policy (an increased budget deficit) and a somewhat tighter monetary policy (higher interest rates). Such a policy, it is argued, might serve to reduce the capital outflow and at the same time keep prices stable yet increase total domestic demand for goods and services. Proponents of this view frequently argue that, since interest rates have remained relatively low for the past two years, the current lack of vigor in the economy is not the result of a lack of credit but of a weakness in demand. This situation would be helped by incurring a larger Government deficit which would provide an increase in total demand for goods and services.

A major problem which opponents of this course of action generally point to is that if the increased budget deficit is financed by short-term Government borrowing, the public's liquidity would be increased and the effect would be similar to an expansion in the money supply. On the other hand, if the increased Government debt is financed by issuing longer term securities this would tend to cause long-term interest rates to rise. Private borrowers would find the cost of borrowing higher and at least a part of the benefit of the increased Government deficit might be offset by a decline in private investment.

Another proposal is for a somewhat more rapid expansion of the money supply with fiscal policy remaining about unchanged. The advocates of this policy contend that the economy requires that amount of money and those interest rates which will stimulate a greater utilization of resources and a greater demand for loan funds for investment. If such conditions are fostered, it is believed, interest rates will rise naturally and the outflow of hot money and capital will be stopped. High interest rates which result from a high domestic demand for investment funds reflect an expanding economy and might be sustained. These observers contend that the opposite policy, that of high interest rates and tight money in a time of economic slack, is self-defeating. Such action may limit the demand for goods and services, compound the unemployment problem, and thus make the maintenance of a high level of interest rates even more difficult.

Conclusion

As discussed above, the problem of the simultaneous occurrence of a balance-of-payments deficit and of a less than satisfactory rate of recovery and growth is a difficult one. Adjustments which are likely to improve the payments deficit may tend to depress the domestic economy. The problem is one of the oldest in economics. In fact, one could say that the gold standard was abandoned by many countries in the 1930's because it made the adjustment to payments deficits automatic and thus tied the level of economic activity in a country to its position in international trade. The situation discussed in the article shows that to some degree the western world still has the problem under the present international monetary system.

Despite the complexity of the problems and policy implications, it should not be inferred that the United States will be unable to solve the problems within the framework of existing institutional arrangements. There are other tools of policy available to supplement monetary and fiscal actions. Debt management operations may be used to alter relative interest rates, thus allowing a more stimulative supply of money without a substantial reduction in short-term interest rates. The surplus countries may be willing to accept a larger burden of the foreign aid and military assistance program. Strengthening of the resources of the International Monetary Fund and increased cooperation among central banks have reduced the impact of short-term capital movements on our gold reserves. A further reduction of tariff and quota restrictions against United States exports would be of help both to our payments situation and to the domestic economy. These and other steps which might be taken suggest that the longer run outlook for the United States economy is strong. We need not accept either a continuing low rate of economic growth or a continuing payments deficit in the years ahead.

Recent Developments in
Government Foreign Exchange Transactions

FOREIGN EXCHANGE TRANSACTIONS and exchange rates are of increasing concern to the central bankers of the world. Official interest in foreign exchange markets has developed against the background of continuing payments imbalances magnified by movements of short-term capital. With a view toward lessening the problem of sudden and substantial shifts of short-term funds, central banks have broadened the scope of their foreign exchange transactions.

Exchange rate fluctuations are the price responses to changes in money flows between nations. Changing exchange rates, however, are more than responses to money flows. They may, together with other factors, actually influence the direction and magnitude of speculative capital movements that so frequently impose severe strains on the international payments system.[1] Central bankers are now cooperating to moderate abrupt changes in exchange rates that are considered to reflect temporary destabilizing forces.

The most noteworthy development in the recent growth of official participation has been the re-entry of the United States into foreign exchange transactions for the first time since the 1930's. The Treasury began limited operations in March 1961, and in February of this year the Federal Reserve System announced that it was prepared to enter the exchange markets for its own account.

The governments and central banks of most other countries have long considered it right and proper to be active in foreign exchange markets. Moreover, the Bretton Woods Agreement of 1944, supplemented by the European Monetary Agreement of 1958, requires that central banks or government stabilization funds intervene in foreign exchange markets to limit exchange rate fluctuations above and below currency par values established in agreements with the International Monetary Fund. Until 1961 the United States role in foreign exchange markets was passive except that the United States Treasury maintained the fixed relationship between gold and dollars at the rate of $35 per ounce. The official institutions of other IMF member nations intervened in the markets to establish exchange rate ceilings and floors for their currencies in terms of dollars (Table I).

Table I

EXCHANGE RATES FOR MAJOR FOREIGN CURRENCIES
(In U.S. dollars per Unit)

Currency	Par Value	Central Bank Intervention Limits*	
		Upper	Lower
Pound Sterling	2.80	2.82	2.78
Canadian Dollar	.925	.93425	.91575
Deutsche Mark	.2500	.251890	.248139
Swiss Franc	.228676	.232829	.224719
Netherlands Guilder	.276243	.278358	.274160
Italian Lira	.001600	.001612	.001589
French Franc	.20255	.204082	.201045
Belgian Franc	.02	.020151	.019851

* Established under the European Monetary Agreement at approximately three-quarters of one per cent on either side of the par value (except for Switzerland, which maintains margins of about 1.75 per cent on either side of parity), rounded to the nearest six decimal places. In the case of Canada, which is not a signatory of the EMA, the margins are maintained at one per cent on either side of parity, in accordance with the IMF agreement.

Source: Board of Governors, Federal Reserve System.

Although most foreign central banks have been active participants in foreign exchange markets for many years, they confined most of their transactions to the *spot* market in which delivery of exchange is made within a few days. Within the past two years, however, official institutions have made more extensive use of *forward* exchange transactions.

A forward transaction is a contract which calls for the delivery, at a future date, of a specified amount of one currency (marks, for example) in exchange for some other currency (dollars, for example) at an exchange rate fixed at the time the contract is made. At the time the contract falls due, the spot rate for the currency may be above or below the rate specified for the maturing forward transaction. This has no effect

[1] For an elementary exposition of the international payments system and moves to strengthen it, see "The International Payments System," May 1962, this *Review*.

on the contracted rate. Generally, forward contracts involve time periods of one, three, and six months although arrangements can be made for other maturities. The buying and selling of particular currencies on a forward basis determines the market price (the forward rate) at which the currencies stated in the contract are exchanged. Forward rates, like spot rates, fluctuate in response to varying pressures of supply and demand. In some respects, forward exchange transactions may be considered the foreign exchange counterpart of commodity "futures" transactions.

The primary objective of the increase in official foreign exchange transactions is to defend the system of currency convertibility at stable exchange rates against the pressures of speculative short-term capital movements. The monetary authorities consider such a defense an important part of the world's quest for a better balance in international payments. It should be emphasized, however, that official foreign exchange transactions in both forward and spot markets are not designed to cure a basic imbalance in a nation's payments position; they serve merely to provide time during which basic programs have a chance to become effective.

The purpose of this article is to answer the general question: what are the characteristics of foreign exchange markets that warrant official intervention, in both forward and spot markets? The question calls for an examination of the relationship between spot and forward exchange transactions and the forces influencing the spreads between spot and forward exchange rates. Such spreads, together with interest rate differentials and speculative attitudes, determine the direction and magnitude of short-term capital movements. As important sellers and buyers of spot and forward exchange, central banks and governments are in a position to influence the spread between spot and forward rates, and thus to offset or reinforce the other factors affecting capital movements.

Short-Term Capital Movements: A Threat to Exchange Stability

Before considering forward markets, it may be useful to review briefly the reason for official concern over short-term capital movements and the relationship of these movements to the existing structure of currency par values.

Since 1958 when most nations re-established currency convertibility, short-term funds have been relatively free to move from one nation's money market to another. Some movements have been generated by interest differentials; others by speculative fears or anticipations arising out of the disturbing basic imbalances in the payments position of leading nations.

Such capital movements, if large in volume, may impose a serious strain on the existing structure of exchange rates. A heavy short-term capital flow usually leads to a sharp drop in the official reserves of the country losing funds. The drain on official reserves develops out of the efforts of the monetary authority in that country to support the external value of its currency. To keep the value of its currency from dropping below the prescribed limit, the central bank sells dollars and gold in the purchase of its own currency. If the loss of reserves due to a short-term capital outflow is added to losses incurred by a basic deficit, there is danger of further capital outflows arising out of speculative fears over the ability of the nation to continue business at the established exchange rate.

A country receiving short-term funds may also experience difficulties, particularly if it has been incurring surpluses in its basic balance of payments. The monetary authority of such a country will usually be required to enter the foreign exchange market to prevent the value of its currency in terms of dollars from rising above the limit prescribed. Its accumulations of dollars in the support operation (selling its own currency for dollars) may lead to such large holdings as to cause concern on several counts. For the United States it poses a threat of further drains on a gold stock that has been declining substantially. For the surplus country, the continued and rapid accumulation of official reserves may not only lead to unwanted domestic liquidity, but also lead to discussion and rumors of the possibility of a revaluation (a rise in the par value of the currency). Additional short-term capital inflows are likely to feed on these possibilities and impose additional pressures on exchange rates and disturbing changes in official reserves.

It is important to note that "leads and lags" in commercial payments may be the most important form of short-term capital movements whenever the par value of a particular currency becomes suspect. Residents of the country with the weak currency will

attempt to settle their commercial obligations in foreign currencies more rapidly in order to avoid the higher costs involved in a devaluation of the weak currency. At the same time the flow of commercial receipts to the weak-currency country tends to lag behind normal payment schedules. Exporting firms in the country threatened with devaluation delay the conversion of foreign currency earnings into their own currency as long as possible. Within a given period of time, the net result of this change in the timing of payments and receipts is a reduction in the country's receipts from abroad and an increase in the net payments outflow.

An example of the above occurred during the first four months of 1962. There were expectations in the exchange markets that the value of the Canadian dollar would decline. This led to a substantial build-up of so-called "leads and lags" in commercial payments which involved an acceleration of Canadian payments abroad and a slowing up in the flow of Canadian receipts from abroad. This payments situation imposed additional strain on Canadian foreign exchange reserves. The monetary authorities were obliged to sell a substantial amount of their reserves to support the exchange value of the Canadian dollar.

Forward Exchange Markets[2]

The Function of Forward Exchange Transactions

The rationale underlying the use of forward contracts in international finance is that they transfer the risks stemming from possible changes in exchange rate relationships from exporters, importers, and investors to persons and institutions that specialize in assuming these risks. Forward contracts also permit speculation involving no immediate cash outlay.

As long as spot exchange rates may fluctuate, even within narrow limits, there is risk involved for those who expect to convert one currency into another. An American exporter who sells goods to Britain for sterling payable in three months is concerned about the rate at which he may convert his sterling claims into dollars. An American investor who has placed short-term funds in the British money market has a similar concern. If, for example, the price of sterling drops from 2.81 to 2.78 between now and the time the American exporter or investor is supposed to receive sterling, the 3 cent difference per pound may amount to a significant reduction in the profits scheduled to accrue from the sale of goods or in the net interest received from the investment in a British money market instrument.

By entering the forward exchange market, an American, who expects future receipts denominated in pounds, can remove the uncertainty of how many dollars his future pound receipts will command. The exporter sells a contract in which he promises to deliver, at a stated future date, pounds in exchange for dollars at the market price existing for forward pounds at the time the contract is initiated. The exporter now knows the exact amount of dollars he will receive for pounds. The expected pound balance arising from the trade or investment transaction can be used to make delivery of pounds under the terms of the forward contract.

At the same time that traders and investors may be conducting forward sales to protect themselves against a fall in the spot rate of the currency they expect to receive, there are others who are concerned about a future rise in the spot rate. The American importer who is to pay pounds in the future faces the prospect of a rise in the cost of his imports if the pound sterling spot rate rises in the meantime. As a defensive measure, he may buy a *forward* sterling contract which obligates the seller to deliver at some specified date in the future a specified amount of sterling in exchange for dollars at a price determined in the forward market when the contract is purchased. The importer is now able to concentrate on the normal problems of his business without the additional problem of exchange rate fluctuations. Similar considerations apply, of course, for foreign exporters, importers, and investors who expect to buy or sell dollars in the future.

The use of forward contracts has been given considerable impetus in recent years by fears of possible changes in the established exchange parities (devaluation or revaluation). The IMF policy of exchange rate stability does not preclude the possibility that a country with a serious and continuing deficit in its balance of payments will seek and receive permission from the IMF to reduce the value of its currency relative to other currencies. Since 1949, substantial devaluations of particular currencies have taken place as countries have sought to improve their payments positions.

[2] For an excellent technical introduction see A. R. Holmes, *The New York Foreign Exchange Market* (Federal Reserve Bank of New York, March 1959). Paul Einzig's *A Dynamic Theory of Forward Exchange* (St. Martin's Press, Inc., N. Y. 1961) is a detailed presentation of the mechanics, history, and policy implications of forward exchange transactions.

Conversely, a chronic surplus country might revalue its currency, i.e. raise the value of its currency relative to the dollar and other currencies. This was done in early 1961 when the "par values" of the German mark and the Dutch guilder were raised 5 per cent.

Forward Exchange Rates: Premiums and Discounts

Rates of forward exchange, determined by the interplay of demand and supply pressures, may be quoted in the same terms as spot rates—so many cents for a unit of foreign currency. Forward rates may also be quoted in terms of a premium or discount against the spot rate. Often such a premium or discount is expressed on a per cent per annum basis. The spread between the forward rate and the spot rate is expressed as a percentage of the spot rate. If the forward rate is higher than the spot rate, the differential is expressed as a per cent per annum *premium*. If the forward rate is below the spot rate, the differential is referred to as a per cent per annum *discount*. For example, the spot rate for sterling may be 279.02 cents while the forward rate for 3-months pounds may be lower (at a discount) at 276.26 cents. The difference between the two rates of 2.76 cents for 3 months becomes approximately 11.04 cents on a yearly basis. Since 11.04 cents is 3.96 per cent of the spot rate of 279.02 cents, the forward rate for pounds in this case would be quoted at a *discount* of 3.96 per cent per annum. For the person selling forward pounds for forward dollars in order to protect himself against a drop in the pound spot rate, this 3.96 per cent represents a cost of covering his spot transaction.

In this discussion of forward premiums and discounts for the pound sterling it is important to note that a *premium* on the forward pound corresponds to a *discount* on the forward dollar (but of a slightly different magnitude). Similarly, a *discount* on the forward pound means that the forward dollar is offered at a *premium*.

The spread between spot and forward rates can change because of changes in either the spot or forward rate or both. The resulting premium or discount reflects the play of the interest rate differential between markets as well as the play of noninterest factors, including changes in market expectations.

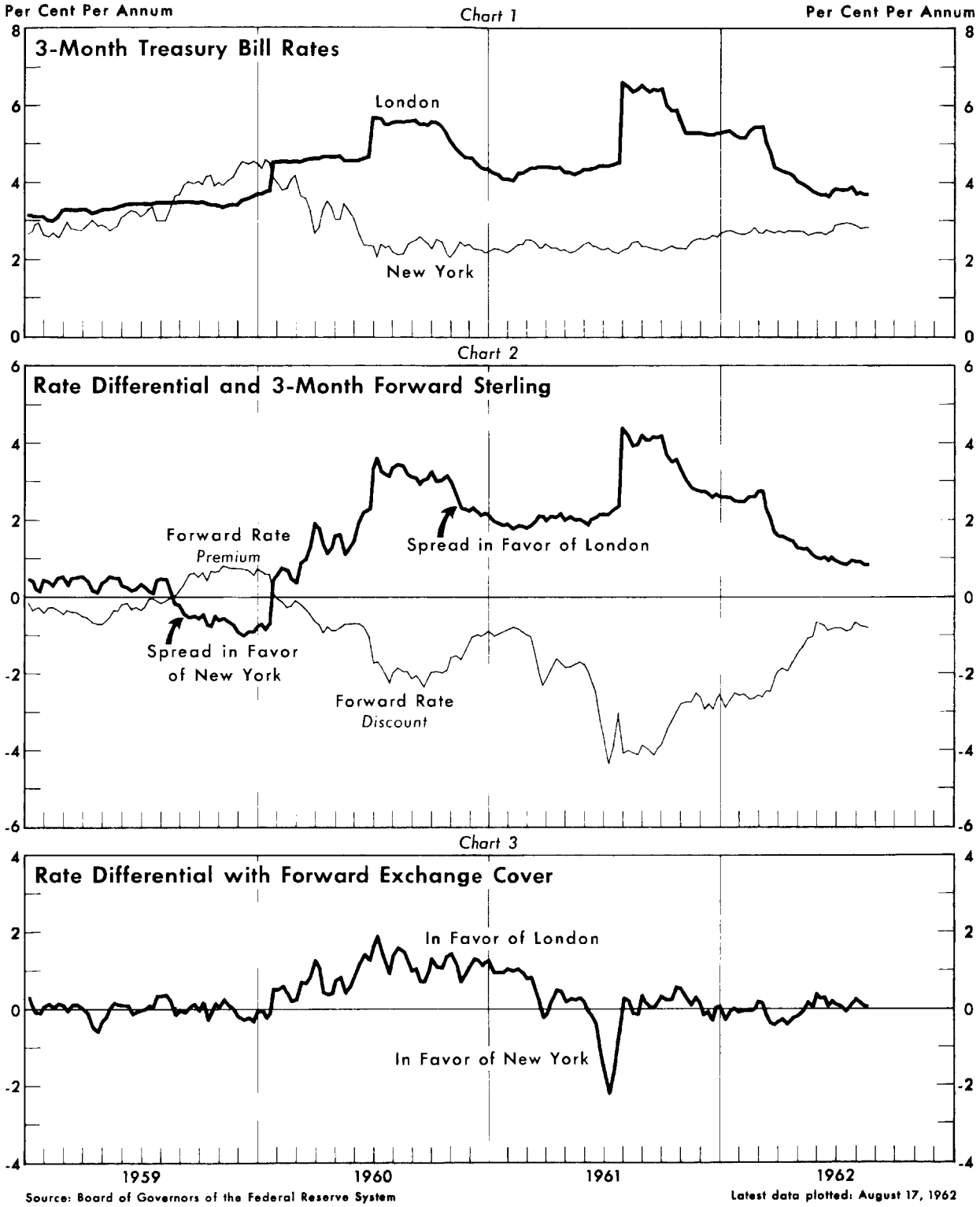
The Relationship between Forward and Spot Rates

Generally the forward exchange rate of a high interest rate country will be quoted at a discount against the spot rate. The forward rate drops below the spot rate under the combined impact of spot *purchases* to exploit the higher interest rate, and the forward *sales* designed to cover the risk of a future fall in the spot rate. For example, since early 1960 short-term interest rates in London have been considerably higher than those in New York (Chart 1). Under these circumstances, investors with liquid funds would tend to move into sterling short-term assets to take advantage of the interest differential (interest arbitrage). If these investors covered their spot sterling investments, by selling forward sterling for forward dollars, the sterling spot rate would tend to rise and the sterling forward rate would tend to fall. The per cent per annum discount on forward sterling represents the interest equivalent of the cost of covering the investment in a sterling asset (Chart 2). This cost increases as *forward sales* and *spot purchases* continue. Eventually, if no other factor intervenes, the percentage discount on forward pounds equals the gain acquired from the interest differential. At this point, the incentive to invest in the high-interest-rate country on a covered basis (if interest arbitrage is the sole objective) disappears. The forward exchange rate is then said to be at *interest parity*.

This relation between the spot and forward exchange rate holds only when forward rates primarily reflect interest rate differences. The spread between forward and spot rates may change when forward rates reflect the influence of other forces such as seasonal or cyclical swings in payment flows or uncertainty about par values. A case in point illustrating the behavior of forward rates under unsettled market conditions occurred in the second half of 1960 and early 1961. Despite a record shift of funds from New York to London in this period, the forward discount on the pound did not increase enough to offset the interest differential between New York and London (Chart 2). The *covered yield differential* in favor of United Kingdom Treasury bills in London amounted to approximately one per cent (Chart 3). This continuing differential indicated that some traders and investors were putting funds into London without

Interest Arbitrage, New York/London

Friday data



Source: Board of Governors of the Federal Reserve System

Latest data plotted: August 17, 1962

THESE CHARTS illustrate interest rate and exchange rate relationships.

The "rate differential" line in Chart 2 is the spread between the London and New York Treasury bill rates as recorded in Chart 1. Since early 1960 the spread has been in favor of London.

The forward sterling rate is plotted in Chart 2 as a per cent per annum discount or premium.

The line in Chart 3 is the net incentive to move funds (+ in favor of London, — in favor of New York). It is the algebraic sum of the interest rate differential and the forward per cent premium or discount. Since the last half of 1961 the forward discount on sterling has virtually offset the interest spread in favor of London.

covering the risk of exchange fluctuations in returning from pounds to dollars. Apparently they were willing to speculate that the external value of the pound would not fall against the dollar. In fact at that time there were some who believed that, if anything would happen, the value of the dollar would decrease relative to the pound. In such an unsettled foreign exchange situation, the discount on forward pounds, amounting to less than the prevailing interest differential, proved to be only a minor obstacle to the continued movement of funds from New York to London.

The fear or anticipation of a revaluation or devaluation of particular currencies may completely submerge interest rate considerations. For example, in March 1961 immediately after the German mark and the Dutch guilder were appreciated there were rumors of further changes in these two currencies as well as new parities for other currencies. These rumors led to a massive flow of funds from London to Zurich and Frankfurt. There was also a net inflow to these centers from New York. As a result, the forward premium on marks rose above 3.5 per cent per annum.

As this recent experience with the German mark shows, a strong speculative belief in the likelihood of a revaluation of a particular currency will usually cause the forward rate of that currency to be quoted at a premium against the spot rate. Speculators will make heavy forward purchases as well as heavy spot purchases of the currency in question. Once the spot rate reaches its support ceiling, however, it can rise no further because of central bank intervention. Unless similar intervention occurs in the forward market, the forward rate is bound to rise above the spot rate.[3]

For the country experiencing a capital inflow the existence of a substantial forward premium on its currency acts as a force that accelerates the inflow and reduces possibilities of an outflow. A covered inflow is made more profitable by the existence of a forward premium.

The forward premium also accelerates the commercial flow of funds into the strong currency. Such a movement of funds is generally described as reflecting "leads and lags" in commercial payments. In March 1961, for example, German exporters with prospective dollar receipts did not follow the usual practice of selling forward dollars for marks to protect themselves against exchange risks. The excessive discount on forward dollars (premium on marks) made this too costly. Instead, the German exporters borrowed dollars from European or American banks and converted these dollars into marks immediately. Subsequently, the dollar receipts from their exports were used to pay off their dollar loans. They found that the interest cost of their loan was less than the cost of covering their trade receipts with a forward sale of dollars.

For Germans considering short-term investment abroad (involving, e.g., a switch of marks into dollars) the forward premium constituted a cost obstacle. If a German commercial bank had bought dollars (spot) with marks to invest abroad at short-term it would have been concerned about the prospect of covering its dollar investment with a forward sale of dollars for marks. The large premium on forward marks (discount on the dollar) would probably have wiped out whatever gains the banker anticipated from such an investment in dollars. Official attempts to encourage an outflow of capital to reduce the degree of domestic liquidity in Germany had to contend with the barrier of a high forward premium on the mark.

In this situation the high forward premium on marks intensified the flow of dollars into marks on a spot basis, with no relief from offsetting outflows. With mounting pressures on the spot price of marks, the German central bank was obliged to purchase dollars in the foreign exchange markets in order to keep the mark from rising above its dollar ceiling. As German official dollar holdings increased, there were additional gold demands on the United States Treasury.

Official Intervention in the Forward Exchange Markets

In the face of forward premiums and discounts that bore no relationship to interest parities, the monetary authorities of various nations in the Spring of 1961 came to the conclusion that official transactions in the forward market within the framework of cooperative agreements were necessary to defend the existing payments system. The purpose of official intervention

[3] Central banks are not required to limit the fluctuations in forward rates.

in the situation that prevailed at that time was to increase the market supply of forward marks, Swiss francs, and Dutch guilders, so as to reduce the high forward premiums on these currencies (viewed alternatively as large discounts on the dollar).

The United States Treasury, through its Stabilization Fund, undertook its first foreign currency operations in March of 1961 to reduce the premium on the forward mark. The U. S. sales of forward marks and arrangements for future covering transactions were worked out in agreement with the German Central Bank. In May 1961 the United States with the aid of borrowed Swiss francs, worked out similar arrangements with Switzerland, selling francs forward against dollars. Later in the year, forward sales were conducted in Dutch guilders. On occasion, Treasury operations also involved spot transactions. Within the framework of their relatively modest scale, the operations have already proven that they can accomplish their objectives.

To increase the scope and flexibility of U. S. official transactions in foreign exchange markets, the Federal Reserve System in early 1962 announced its readiness to undertake foreign exchange operations on its own account. It has since acquired some convertible currencies through reciprocal arrangements with other central banks.[4]

The Treasury-Federal Reserve inventory of convertible currencies provides the basis for covering forward sales of such currencies. Spot transactions to modify temporary speculative exchange rate pressures are also possible. U. S. holdings of convertible currencies may also be exchanged for excess dollar holdings of foreign central banks in order to reduce the potential drain on U. S. gold reserves.

The cooperation among official institutions in the forward exchange markets is but one part of the array of cooperative actions adopted since early 1961. Quite apart from the specific agreements among the monetary authorities, the important point is that the monetary authorities of the western monetary system are acting in unison. This should do much to make the international payments system operate more effectively.

[4] For more complete details see "Foreign Exchange Markets, January-June 1962", *Monthly Review*, Federal Reserve Bank of New York, August 1962, pp. 106-107.

Farm Income in the Eighth District

Cash Receipts

CASH RECEIPTS from farm marketings in the seven district states during the first half of this year were about $2.8 billion or 3 per cent above the first-half total of 1961 (Table 1).

Receipts from livestock and livestock products in the area, estimated at $1.8 billion, were only a fraction of a per cent greater than in the same period last year.

Crop marketings estimated at $964 million were 10 per cent greater the first half of this year than in 1961, reflecting slightly higher prices for most crops and a larger carryover of cotton.

Receipts from the previous year's soybean crop were also higher than in the first half of last year.

Table 1

CASH RECEIPTS FROM FARM MARKETINGS – EIGHTH DISTRICT STATES

First Half 1962 and 1961
(1,000 dollars)

	Livestock and Products			Crops			Total Cash Receipts		
	1962	1961	% Change	1962	1961	% Change	1962	1961	% Change
Indiana	$ 349,246	$ 349,070	+0.1	$ 161,791	$ 164,551	—1. 7	$ 511,037	$ 513,621	— 0.5
Illinois	609,538	594,500	+2.5	452,523	376,396	+20.2	1,062,061	970,896	+ 9.4
Missouri	335,337	338,608	—1.0	78,605	80,030	— 1.8	413,942	418,638	— 1.1
Kentucky	139,599	142,066	—1.7	65,783	72,848	— 9.7	205,382	214,914	— 4.4
Tennessee	126,636	127,091	—0.4	52,631	52,569	+ 0.1	179,267	179,660	— 0.2
Mississippi	128,016	130,576	—2.0	77,555	54,942	+41.2	205,571	185,518	+10.8
Arkansas	121,866	127,107	—4.1	75,180	77,617	— 3.1	197,046	204,724	— 3.8
8th Dist. States	$1,810,238	$1,809,018	+0.1	964,068	878,953	+ 9.7	$ 2,774,306	$ 2,687,971	+ 3.2
United States	$9,439,584	$9,500,839	—0.7	$5,259,227	$5,000,457	+ 5.2	$14,698,811	$14,501,296	+ 1.4

Source: United States Department of Agriculture

Table 2

INDICATED CROP PRODUCTION EIGHTH DISTRICT STATES[1]

(1,000 bushels)

	1962	1961	Average 1951-60	1962 As % Of 1961	1962 As % Of Average 1951-60
Corn	1,302,788	1,272,128	1,126,134	102.4	115.7
Winter Wheat	124,933	164,244	133,973	76.1	93.2
Oats	142,808	151,498	227,931	94.3	62.7
Hay	16,453	18,051	17,457	91.1	94.2
Soybeans	399,543	390,977	245,061	102.2	163.0
		(1,000 bales)			
Cotton	4,410	4,012	3,895	109.9	113.2

[1] Arkansas, Illinois, Indiana, Kentucky, Mississippi, Missouri, and Tennessee. With exception of Arkansas, only a portion of each of these states is in the Eighth Federal Reserve District.

Source: United States Department of Agriculture

Table 3

YIELD PER ACRE OF SELECTED CROPS—EIGHTH DISTRICT STATES

		1962[1]	1961	1951-60 Average
Corn	bu.	69.4	68.4	50.4
Cotton	lbs.	549	499	427
Wheat	bu.	30.8	33.3	26.6
Soybeans	bu.	25.5	25.5	22.2

1 August 1 estimates

Source: United States Department of Agriculture

Crop Production

Generally good crop conditions over most of the area indicate higher farm income for the rest of the year than in the second half of 1961. Output of major cash crops is expected to be greater than last year (Table 2), with soybean and corn output up about 2 per cent and cotton production 10 per cent higher. The winter wheat harvest, however, was below that of a year ago and oats and hay production are expected to be lower.

Yields

Higher than average yields per acre are indicated (Table 3). Cotton yields were estimated as of August 1st to be about 10 per cent greater than last year. Corn and soybean yield estimates are at near record levels. Dry weather in parts of the area has damaged pastures quite severely. Corn, cotton, and soybean yields may be down from August 1st estimates in some parts of the district but not sufficiently to greatly alter overall prospects.

Eighth District Business Loans

CHANGES IN VOLUME OF BUSINESS LOANS at commercial banks are considered an important indicator of national and local business developments. Generally, the volume of business loans expands when business activity rises and contracts or expands at a slow rate with falling business activity. In local areas this pattern may not be followed in all cases, especially if business loans are made for other than local business purposes.

Business loans are composed of industrial and commercial loans, open market paper, and acceptances. A significant part of these loans are short-term loans to manufacturers, wholesalers, and retailers for the purpose of financing inventories of goods in the production and distribution channels.

The accompanying charts present data on business loans at weekly reporting banks in the United States, the Eighth Federal Reserve District, and five of the metropolitan areas in the Eighth District. The data have been adjusted for seasonal variations. The method by which seasonal adjustments are made is discussed in the August 1962 issue of this *Review*.

Business loans at weekly reporting banks throughout the nation were about unchanged during the 1960-61 recession and for several months following the February 1961 trough in business activity. From mid-1961 to July of this year these loans increased at an annual rate of about 5 per cent. An examination of the accompanying charts reveals that business loans at each major metropolitan area moved somewhat differently from the national pattern and also from each other. This diverse movement of business loans at these centers may reflect the differences in these local economies.

Care should be exercised in interpreting the local month-to-month changes in the volume of business loans, since factors other than those normally associated with local economic developments frequently cause changes in the monthly volume of local business loans outstanding. For example, the rise in business loans at St. Louis banks in July 1962 was due primarily to a greater than seasonal increase in bank holdings of commodity loans. An increase in business loans of this nature does not necessarily reflect a strengthening of the local economy. Similarly a change in business loans due to the purchase or sale of open market paper of firms outside the metropolitan area should not be regarded as indicating a change in local business conditions.