Treasury and Federal Reserve Foreign Exchange Operations*

By CHARLES A. COOMBS

During the six-month period March through August 1964, international credit facilities, both bilateral and multilateral, were again frequently called upon to cushion the impact upon gold and foreign exchange reserves of payments imbalances among the major trading nations. Official operations in the forward markets helped to smooth temporary swings during the period, while the Gold Pool arrangements continued to operate effectively. Transfers of gold among the central banks also fulfilled their customary role of helping to settle payments imbalances; but the volume of such official gold transfers declined still further. The decline reflected both a tendency toward narrowing of payments imbalances as well as economies in the use of gold made possible by the development of international credit facilities.

At the short-term end of the credit spectrum, the Federal Reserve swap network had been broadened by late 1963 to include twelve foreign official institutions, involving reciprocal credit lines totaling $2,050 million (see Table I). During the period under review the short-term credit needs of the various central banks concerned were readily accommodated under the existing swap lines and other central bank credit facilities. From March through late August, drawings under the System network by the Federal Reserve and by three foreign central banks amounted to $262 million.

From the inception of the swap network in March 1962 through late August 1964, total central bank drawings amounted to $1,870 million. Of this amount $1,753 million (or 94 per cent) was repaid, generally within six months (see Table II for data through June 1964). The Federal Reserve shifted from a peak net debtor position of $342 million on December 13, 1963 to a net creditor position of $44.5 million in late August 1964. Drawings on the Federal Reserve swap network outstanding in late August included $80 million by the Bank of Japan, partially offset by Federal Reserve use of $28 million drawn on the Netherlands Bank and $7.5 million on the National Bank of Belgium.

The Federal Reserve and United States Treasury in cooperation with foreign central banks also conducted short-term forward operations in sterling, German marks, Swiss francs, and Canadian dollars, in order to restrain short-term money flows arising either from speculation or interest arbitrage. Over the period, the Treasury reduced its commitments in the forward markets from $248 million to $82.5 million, all in Swiss francs, on August 31, while the Federal Reserve position on market transactions was

Table I
FEDERAL RESERVE RECIPROCAL CURRENCY ARRANGEMENTS
August 31, 1964

Institution	Amount of total facility (in millions of dollars)	Term of arrangement (in months)
Bank of France	100	3
Bank of England	500	12
Netherlands Bank	100	3
National Bank of Belgium	50	6
Bank of Canada	250	12
Bank for International Settlements	150	6
Swiss National Bank	150	6
German Federal Bank	250	6
Bank of Italy	250	6
Austrian National Bank	50	12
Bank of Sweden	50	12
Bank of Japan	150	12
Total swap facilities	2,050	

* This is the fifth in a series of reports by the Vice President in charge of the Foreign Department of the New York Reserve Bank who also serves as Special Manager, System Open Market Account. The Federal Reserve Bank of New York acts as agent for both the Treasury and the Federal Open Market Committee of the Federal Reserve System in the conduct of foreign exchange operations.

Table II

OPERATIONS UNDER FEDERAL RESERVE RECIPROCAL CURRENCY ARRANGEMENTS, 1962-64

In millions of dollars

Institution	1962 I	1962 II	1962 III	1962 IV	1963 I	1963 II	1963 III	1963 IV	1964 I	1964 II	Total
Bank of France:											
Drawings	50.0						12.5	9.0			71.5
Repayments			50.0					12.5	9.0		71.5
Bank of England:											
Drawings		50.0			25.0	25.0*		10.0		15.0*	125.0
Repayments			50.0			25.0	25.0*	10.0			110.0
Netherlands Bank:											
Drawings		10.0	40.0	10.0		50.0	40.0	60.0			210.0
Repayments			50.0		10.0		50.0	20.0	55.0	25.0	210.0
National Bank of Belgium†											
Drawings			10.5	20.0	30.0	15.0	10.0	15.0			100.5
Repayments			10.5	5.0	32.5	17.5	5.0	15.0	15.0		100.5
Bank of Canada:											
Drawings		250.0*						20.0			270.0
Repayments				250.0*				20.0			270.0
Bank for International Settlements:											
Drawings			60.0	20.0			50.0	100.0			230.0
Repayments			10.0	15.0	9.5	45.5		5.0	15.0	130.0	230.0
Swiss National Bank:											
Drawings			50.0					80.0		25.0	155.0
Repayments						50.0		5.0		100.0	155.0
German Federal Bank:											
Drawings						150.0		136.0	55.0		341.0
Repayments							113.0	113.0	115.0		341.0
Bank of Italy:											
Drawings				50.0				50.0*	100.0*		200.0
Repayments					50.0					150.0*	200.0
Austrian National Bank:											
Drawings				50.0							50.0
Repayments					50.0						50.0
Bank of Japan:											
Drawings										50.0*	50.0
Repayments											
Total:											
Drawings	50.0	310.0	160.5	150.0	55.0	240.0	112.5	480.0	155.0	90.0	1,803.0
Repayments			170.5	270.0	152.0	138.0	193.0	200.5	209.0	405.0	1,738.0

* Drawings and repayments made by foreign central banks.

† Data represent disbursements and repurchases under the $50 million arrangement which has remained fully drawn since its inception. A total of $45 million in disbursements was initiated by the National Bank of Belgium.

in balance on the latter date. The central banks of Germany, Canada, Switzerland, and Italy also operated from time to time in the forward markets, and in each case achieved the desired effect on the flow of funds.

As noted in the report of the Deputies of the Group of Ten, "these demonstrations of close central bank cooperation are themselves an effective deterrent to speculative movements. Their informality, speed, and flexibility make them especially suitable as a first line—and short-term—defense against sudden balance-of-payments pressures. Over the past several years, they have mobilized massive resources in a short time to combat and limit speculative and crisis situations. Their success has greatly reduced the threat to official reserves from disequilibrating movements of private short-term capital."[1]

In the medium-term segment of the international credit spectrum, the United States Treasury issued an additional $474 million of bonds in the foreign currency series, while redeeming $200 million for a net addition of $274 million equivalent. The total of foreign currency securities now outstanding amounts to $1,035 million, distributed as shown in Table III.

Of the $474 million of foreign currency bonds issued during the period under review, $70 million was employed

[1] *Ministerial Statement of the Group of Ten and Annex Prepared by the Deputies,* August 10, 1964.

to fund indebtedness previously incurred by the Federal Reserve by drawings upon the swap network. Of total Federal Reserve repayments of swap drawings since the inception of the network, $120 million (or roughly 9 per cent) has been so financed.

Also in the medium-term credit area, the United States drew $250 million of foreign currencies during the first eight months of the year under a $500 million stand-by agreement with the International Monetary Fund (renewed for another year in July 1964) in order to facilitate repayments to the Fund by other member countries. In other sizable Fund transactions, the Bank of Italy in March drew $225 million, while that same month Japan was granted stand-by facilities in the amount of $305 million. In August, the United Kingdom renewed its stand-by arrangement of $1,000 million with the Fund.

Liquid resources for cushioning payments imbalances have thus continued to be flexibly provided through the international credit machinery. As noted in the report of the Deputies of the Group of Ten, "a country's liquidity is no longer measured solely by the level of its reserves in the form of gold and reserve currency balances (primary reserves). There is now a variety of ways in which monetary authorities can, at need, replenish their balances of the currencies used for operations. Primary reserves are thus supplemented by a broad spectrum of other resources and facilities. At one end of this range come 'other reserves' of only slightly less liquidity but of unquestioned availability; at the other end of the range are negotiated credits, including those which will only be available when an international institution is satisfied that the borrower will employ effective adjustment processes to correct his deficit."

Table III

UNITED STATES TREASURY BONDS DENOMINATED IN FOREIGN CURRENCIES

August 31, 1964

Issued to	Amount (in millions)	
	Foreign currency	United States dollar equivalent
Austrian National Bank	1,300 Austrian schillings	50.3
National Bank of Belgium	1,500 Belgian francs	30.1
German Federal Bank	2,500 German marks	628.2
Swiss National Bank	1,112 Swiss francs	257.3*
Bank for International Settlements	300 Swiss francs	69.5
Total		1,035.4

* Includes a $30 million equivalent one-year certificate of indebtedness.

STERLING

In early February, sterling came under some speculative selling pressure. The main factors involved seemed to be uncertainties generated by expectations of a general election in the spring, by publication of January trade data showing an unusually large trade deficit, and by market rumors of a revaluation of the German mark. These speculative pressures were resisted by Bank of England intervention in the exchange markets and, in a minor way, by Federal Reserve purchases of sterling in New York.

On February 27 the Bank of England raised its discount rate from 4 per cent to 5 per cent. This decisive action produced an immediate strengthening of market confidence in sterling, and the sterling rate recovered sharply. Following the increase in the discount rate the British Treasury bill rate rose to a level about 0.60 per cent per annum over the United States bill rate, but the forward discount on sterling promptly widened and the covered arbitrage margin on Treasury bills settled at about zero. Almost simultaneously with the British discount rate increase, the Federal Reserve and United States Treasury joined forces with the German Federal Bank in both spot and forward operations in German marks. As detailed elsewhere in this report, these operations seemed to achieve their objective of dispelling market rumors of a possible change in the mark parity, and thereby also helped relieve the pressure on sterling that had been coming from this source.

In early April, sterling strengthened further following the announcement that the British general elections would not be held until October. Immediately thereafter, commercial interests that had previously postponed their purchases bought sterling to cover their near-term requirements, and the spot rate for the pound sterling rose to $2.8002 by the end of the month. Demand from this source, together with the continued strength of the payments positions of the overseas sterling area, bolstered sterling during April and most of May.

In the last few days of May, however, sterling once again came under pressure as the covering of commitments was completed and as very tight conditions in several Continental money markets, as well as in the Euro-dollar market, drew funds from London. Moreover, toward the end of June the usual midyear "window dressing" by Continental banks put additional temporary pressure on sterling. To temper the impact of these movements of funds on official reserves, the Bank of England on June 30 drew $15 million against its $500 million swap line with the Federal Reserve. The drawing was repaid on July 13. Also in June, the Federal Reserve Bank of

New York purchased for United States Treasury account approximately $6 million in sterling.

As the credit squeeze in Continental money market centers continued into July, sterling was subject to recurrent selling pressure and the spot rate on sterling moved downward with a minimum of official support to a low for the month of $2.7874 on July 20. In a market aware of British Government determination to defend the sterling parity with the ready support if needed of the IMF stand-by arrangement, the Federal Reserve swap line, and credit facilities at other central banks, the decline of the spot rate was taken in stride with no speculative reaction developing. Moreover, as the spot rate declined, the technical position of sterling was correspondingly improved by the increasing risk of a rebound of the spot rate and consequent loss to those with short positions in sterling. Again reflecting the underlying strength of market confidence in the sterling parity, the discount on forward sterling also tended to narrow as the spot rate declined.

The strength of the forward sterling rate, while gratifying to all concerned, nevertheless created certain complications. As the discount on forward sterling tightened, the covered interest arbitrage differential favoring London on Treasury bills became correspondingly more attractive and by July 13 had reached the level of 0.44 per cent per annum. To forestall private covered outflows in response to this arbitrage inducement, the Federal Reserve, with the agreement of the British authorities, intervened in the market to widen out the discount on forward sterling and thereby reduce the arbitrage differential. This intervention, amounting to a total of $28 million equivalent during a five-day period, was accomplished by swap transactions in the New York market, with the Federal Reserve Bank of New York for System account buying sterling spot and selling sterling forward against United States dollars. At the same time, on July 20, the United States Treasury announced that it was offering an additional $1 billion of Treasury bills to help strengthen United States bill rates. By July 23, the arbitrage margin on Treasury bills in favor of London had been reduced to 0.32 per cent and intervention was discontinued.

In mid-August, sterling once again came under pressure in the spot market as Continental holders apparently shifted funds from sterling into the Euro-dollar market. Spot sterling reached a low in New York of $2.7839 on August 27, but the forward rate stayed relatively firm as market confidence in the sterling parity remained undisturbed.

On March 31 the Federal Reserve sold to the United States Treasury $10 million equivalent of sterling, which was used by the Treasury, together with $5 million equivalent of its own sterling holdings, to acquire $15 million equivalent of Swiss francs through a sterling-Swiss franc swap with the Bank for International Settlements (BIS). System and Treasury swaps of this nature—involving the exchange of one foreign currency for another—have now included five European currencies and amounted to a total of $115 million equivalent. Of this total, $51 million equivalent remained outstanding at the end of August—$13 million equivalent for System account and $38 million equivalent for Treasury account—all involving the purchase of Swiss francs against sterling.

GERMAN MARKS

During 1963, there was almost continuous upward pressure on the German mark. The pressure mainly reflected a substantial increase in the German foreign trade surplus, large inflows of long-term capital, and occasional inflows of short-term funds in response to tight money market conditions or hedging operations. Although the Federal Reserve frequently drew upon its $250 million swap line with the German Federal Bank in order to cushion these pressures, all drawings effected during 1963 had been repaid by January 9, 1964 through operations summarized in the preceding report in this series.

In late January and February 1964, buying pressure on the mark resumed in even greater force, with indications of speculative overtones developing. To counter these pressures, the German Federal Bank intervened strongly in Frankfurt, buying dollars at rates just below the ceiling on the mark. In addition, the Federal Reserve made sizable new drawings on the swap line to support market intervention in New York and to absorb dollars taken in by the German Federal Bank. During the first half of March, Federal Reserve drawings totaled $55 million equivalent.

These operations in the spot market were reinforced by a resumption—for the first time since 1961—of joint operations by the United States Treasury and the German Federal Bank in the forward market in an effort to dispel rumors of a prospective change in the mark parity. Sales of three-month forward marks amounted to approximately $21 million equivalent between the end of February and the middle of March at rates ranging between 0.96 and 0.75 per cent per annum premium on the mark. All these contracts were liquidated without difficulty at maturity.

On March 23 an important turning point occurred, as the German Government announced its intention to propose to Parliament the imposition of a 25 per cent withholding tax on the interest income of nonresidents. This action not only checked the long-term capital inflow, but actually induced liquidation of a considerable volume of foreign investments in German fixed-interest securities. Earlier, on March 10, the German Federal Bank had already taken steps to encourage an outflow of German funds into dollar investments by providing dollars on a swap basis—selling dollars spot and repurchasing them 90 to 180 days forward—to German commercial banks for purchases of United States Treasury bills at a preferential discount of 0.50 per cent per annum on the forward dollar. This compared with a market discount at the time of more than 0.75 per cent. By April 15 the total of such dollar investment swaps outstanding had risen to $186 million. As a consequence of the outflows on both short- and long-term capital account, the exchange market moved into a much closer balance that continued to prevail during April and May.

In these circumstances, the Federal Reserve Bank of New York was able in late March to acquire for System account $20 million equivalent of marks and thereby to reduce its swap drawings from $55 million to $35 million equivalent. This remaining drawing was liquidated on March 31 by purchase from the Bank of Italy of $35 million of marks, originating in an Italian drawing of marks from the IMF. On the same date, the United States Treasury acquired $45 million equivalent of marks from the same source. The Treasury subsequently employed the bulk of these mark funds to absorb dollars taken in by the German Federal Bank.

These exchange transactions illustrate how the United States, because of the reserve currency role of the dollar, now responds to the ebb and flow of the payments balances of foreign countries. During the winter months of 1963-64 the large surplus in the German balance of payments was accompanied by a very large deficit in Italian payments. This imbalance within the Common Market brought about a simultaneous weakening of the lira and a strengthening of the mark against the dollar, the currency in which both the Bank of Italy and the German Federal Bank customarily settle their international accounts. These exchange market pressures were intensified by widespread rumors of a revaluation of the mark and a devaluation of the lira.

As a short-run defensive measure, recourse to central bank credit, in the form of Bank of Italy drawings of dollars from the Federal Reserve and Federal Reserve drawings of marks from the German Federal Bank, served to temper these potentially disturbing market pressures with benefit for all concerned. Consequently, when the Italian Government had recourse to the IMF, it was entirely appropriate for the Federal Reserve and the United States Treasury, which had operated to cushion the immediate impact of both the Italian deficit and the German surplus, to liquidate their mark commitments by acquiring marks drawn by Italy from the IMF.

A second aspect of United States involvement in the German-Italian payments imbalance was the repayment by the United States Treasury of $200 million of lira bonds issued to the Bank of Italy in 1962 and the issuance to the German Federal Bank of $200 million equivalent of mark bonds. In effect, medium-term foreign currency bonds, previously acquired by the Bank of Italy in partial settlement of the surplus in its balance of payments, were transformed —as had been originally understood—into a usable reserve asset as Italy shifted from a creditor to a debtor position. The lira bonds were redeemed and, in practice, transferred to the German Federal Bank, becoming an attractive investment medium denominated in marks in which Germany could hold a part of its balance-of-payments surplus. The rationale of this operation had been foreshadowed in a joint central bank report published in this *Review* in August 1963, which suggested:

> Even after the United States has regained equilibrium in its payments accounts, certain countries will from time to time move into a strong creditor position which will, in turn, expose the United States, as banker for the international financial system, to the risk of net drains upon its gold stock. We have previously suggested that informal understandings should be sought whereby the creditor countries might attempt, either through greater flexibility in their gold policy or through more extensive use of forward exchange and related operations, to avoid causing a net drain upon the United States gold stock. To round out such a system of minimizing net losses of gold by the United States as a result of pronounced surplus and deficit positions in other countries, the United States might also find it useful on occasion to provide the creditor country with an investment outlet for its surplus in the form of special bonds denominated in the creditor's currency.[3]

Still a third aspect of the pivotal role of the United States in the international financial mechanism was a sale of $200 million of gold by the Bank of Italy to the United States Treasury in order to replenish the dollar reserves of the Bank of Italy. The Treasury immediately resold this gold to the German Federal Bank in recognition of the

---

[3] "Conversations on International Finance", by C. A. Coombs, M. Iklé (Banque Nationale Suisse), E. Ranalli (Banca d'Italia), and J. Tüngeler (Deutsche Bundesbank), this *Review*, August 1963, p. 120.

fact that the Italian deficit and German surplus were, to a considerable extent, opposite sides of the same coin.

No further operations in German marks for either Federal Reserve or Treasury account occurred until early June when a brief revival of speculation concerning a mark revaluation was met by sales on the New York market of $5 million of marks for Federal Reserve account and $6 million for United States Treasury account. The German Federal Bank simultaneously supported the dollar with sizable operations in Frankfurt, and on June 3 the Treasury employed $40 million equivalent of mark balances acquired at the time of the Italian drawing on the IMF to absorb dollars taken in by the German Federal Bank. Buying pressure on the mark was further intensified in mid-June by commercial bank window-dressing operations and $150 million of the resultant inflow to the German Federal Bank was absorbed by an additional Treasury issue of mark-denominated bonds. This latest issue raised the total of such mark bonds outstanding to $628 million equivalent.

On July 9, the German Federal Bank announced an increase in commercial bank reserve requirements effective August 1. The mark again was subject to upward pressure, and the United States Treasury sold a total of $4 million equivalent of marks in New York on July 9 and 10. To counter possible repatriation of short-term bank funds, the German Federal Bank on July 13 reduced the investment swap discount on forward dollars from 0.50 to 0.25 per cent per annum. The demand for marks then eased and no further operations were undertaken by the Federal Reserve or the United States Treasury through the end of August.

ITALIAN LIRA

The Italian lira came under increasingly heavy selling pressure during the winter of 1963-64 as a result of a widening payments deficit on current account, capital outflows, and repayments of foreign indebtedness by Italian commercial banks. To deal with the situation, the Italian authorities initiated various corrective policy measures which were expected to take effect over a period of months. Meanwhile, as heavy drains upon the Bank of Italy's reserves continued, the need for short-term credit and other assistance became clear.

Under the $250 million swap line with the Federal Reserve, the Bank of Italy made three successive drawings of $50 million each in October 1963, January 1964, and March 1964. Acquisition of lire by the United States authorities for eventual repayment of $200 million equivalent of lira bonds issued to the Bank of Italy in 1962 also helped the Bank of Italy to replenish its liquid reserves. In anticipation of such repayments, the United States Treasury had purchased $67 million equivalent of lire from the Bank of Italy in the early fall of 1963. Of this total, $17 million was temporarily employed in a swap against Swiss francs with the BIS.

This program of advance acquisition of lire to meet prospective maturities of lira bonds was carried further by Federal Reserve purchases of $50 million equivalent of lire in December 1963, another $50 million in January 1964, and a final purchase of $33 million in March. These lire were simultaneously sold forward to the United States Treasury, which redeemed one $50 million lira bond at its first maturity on March 9, and on April 1 prepaid the remaining $150 million of lira bonds outstanding. These Federal Reserve and Treasury operations totaling $350 million cushioned the decline in the Bank of Italy's reserves and thereby helped restrain speculative pressure.

During the week of March 9 to 14, 1964, an Italian delegation—headed by Governor Carli of the Bank of Italy—visited Washington to discuss with the World Bank and the IMF various possible sources of financing for Italy's longer term investment requirements and its expected further balance-of-payments deficits. In the midst of these discussions, the lira was suddenly struck by a burst of speculation, which brought heavy pressure not only on the spot rate but also on the forward rate, which for a three-month maturity moved to a discount of 7 per cent per annum. In this dangerous situation, an immediate and massive reinforcement of the Italian reserve position was clearly called for, and within forty-eight hours the Italian authorities were able to announce that approximately $1 billion of external assistance was at their disposal. This credit package included: (a) a $100 million swap arrangement with the United States Treasury (in addition to the partly drawn swap facility with the Federal Reserve System), (b) a $200 million stand-by credit from the Export-Import Bank, (c) $250 million in credits of up to three years from the United States Commodity Credit Corporation, and (d) short-term credit facilities of $250 million from the Bank of England and the German Federal Bank. Had time permitted, other foreign official sources of short-term credit could readily have been tapped.

Announcement of this credit package immediately broke the speculative wave. As market confidence in the lira revived, the Bank of Italy temporarily withdrew its support from the spot market and allowed the lira to decline to a level close to par, where it settled in relatively orderly and balanced trading. At the same time, the discount on the three-month forward lira narrowed from 7 per cent to 3 per cent per annum, further reflecting the improvement in market confidence.

At the end of March, the Italian Government made a drawing of $225 million on the IMF in various currencies. Of this total, $80 million equivalent of German marks was immediately sold to the Federal Reserve and the United States Treasury, and $20 million equivalent of guilders to the Federal Reserve. These transactions enabled the Federal Reserve to settle outstanding commitments in the respective currencies and provided marks to the Treasury to meet possible future operational needs. In June, against the background of substantial earlier movements of funds from Italy to Switzerland, the Bank of Italy negotiated a $100 million equivalent lira-Swiss franc swap with the Swiss National Bank. In this instance, too, the entire Swiss franc proceeds were sold by the Bank of Italy to the Federal Reserve for dollars. (The System then employed these Swiss francs to liquidate outstanding Swiss franc indebtedness to the Swiss National Bank.) With its dollar reserve position reinforced not only by bilateral credits and the Fund drawing, but also by net accruals of dollars in the exchange market, the Bank of Italy proceeded to repay during the second quarter of the year all its previous drawings of $150 million on the Federal Reserve as well as the short-term credit drawn under the facility provided by the German Federal Bank. In addition, about one third of the $100 million credit from the Swiss National Bank had also been repaid by the end of August. (No drawings had been made under the credit facilities made available by the United States Treasury or the Bank of England. Nor has there as yet been any utilization of the credits made available by the Commodity Credit Corporation or the Export-Import Bank, although use of these credits is expected to begin shortly.)

One of the most satisfactory aspects of this display of international cooperation in beating back a speculative attack on the Italian lira was that the provision of massive credit assistance to Italy more or less coincided with a turning point in the Italian economic and financial scene. During the first quarter of 1964, the Italian balance of payments had registered a deficit of $436 million. This turned into a surplus of $226 million in the second quarter, as the corrective policy measures previously initiated by the Italian authorities began to take effect and as a reversal in the leads and lags brought about the covering of short positions in lire. In early July, a governmental crisis generated a temporary speculative flurry, but forceful operations in the forward market by the Bank of Italy through the agency of the Federal Reserve Bank of New York provided reassurance and speculation quickly subsided. Indeed, Italy gained reserves during the summer, and on September 1 repaid $65 million of its $225 million IMF drawing. This repayment reduced the Fund's holdings of lire to 75 per cent of the Italian quota. Thus, Italy's obligation to the Fund has been completely liquidated.

As reported in previous articles in this series, the United States Treasury in January 1962 had undertaken to share with the Bank of Italy contracts to purchase forward dollars that that institution had entered into with Italian commercial banks in order to encourage a re-export of dollars during the period of heavy balance-of-payments surpluses. The initial value of the contracts taken over by the United States Treasury in January 1962 amounted to $200 million. Total United States commitments to supply forward lire rose to a peak of $500 million in August of that year, and thereafter—with some fluctuations—generally declined as Italian commercial banks reduced their dollar holdings. The last of the contracts were reacquired by the Italian authorities in March of this year, thus fully liquidating the Treasury's forward lira commitments.

SWISS FRANC

Very heavy inflows of short-term funds into Switzerland at the end of 1963 reflected the usual window-dressing operations by Swiss commercial banks. To absorb part of the resultant accummulation of dollars on the books of the Swiss National Bank, the Federal Reserve increased its swap drawings in Swiss francs on the BIS from $95 million to $145 million equivalent and on the Swiss National Bank from $55 million to $75 million, for a combined total of $220 million. Prior to this year-end bulge, outstanding drawings during most of the last quarter ranged around $150 million. During the autumn, the Treasury had also entered into forward transactions in Swiss francs of nearly $150 million equivalent.

Some easing of the Swiss franc developed after the year end, but continuing inflows of capital during the first quarter limited the usual seasonal weakening. Moreover, interest rates in Switzerland had risen rapidly from the fall of 1963 through the first quarter of 1964. The rate paid by Swiss banks on three-month time deposits, which had ranged from about 2.65 per cent to 3 per cent during most of 1963, moved up to 3.25 per cent in March, while Euro-Swiss franc deposit rates, which closely reflect credit conditions in Switzerland, advanced ½ of a percentage point to 3.62 per cent during the first quarter. Consequently, opportunities for the Federal Reserve to acquire Swiss francs for settlement of its outstanding Swiss franc indebtedness developed more slowly than expected, and by mid-April only $45 million equivalent of its drawings on the BIS had been paid off.

In April a severe tightening of the Swiss credit market pushed interest rates up further and drove the Swiss franc to the ceiling once more, and the Swiss National Bank was forced to take in a sizable amount of dollars at that level. Part of this inflow was absorbed when the Federal Reserve made a new drawing of $25 million equivalent on its swap line with the Swiss National Bank, thus putting the Federal Reserve debt in Swiss francs back to $200 million.

In order to curb inflationary pressures in the Swiss economy, the Swiss Government in March had placed restrictions on construction activity and had authorized the Swiss National Bank to introduce measures limiting credit expansion by banks and discouraging the inflow of foreign funds. Similar arrangements between the central bank and the commercial banks had been in effect for several years on a voluntary basis. The gentleman's agreements concerning restrictions on domestic credit growth took on legal force in May 1964. In an effort to halt the heavy inflow of foreign capital and the rise in dollar holdings of the Swiss National Bank, restraints on the inflow of funds from abroad were implemented at the end of March. All Swiss banking institutions were forbidden to pay interest on foreign deposits received after January 1, 1964 and were required to invest in foreign currency assets or deposit with the Swiss National Bank any net increase after January 1, 1964 in their Swiss franc liabilities to foreigners.

While these measures were successful in halting further inflows of foreign funds, they did not of course prevent the repatriation by Swiss banks of funds already held abroad. Since the credit squeeze in Switzerland was continuing, there seemed little likelihood of an early reversal of the previous inflow of funds. As a result, following the Federal Reserve swap drawing in April, the Swiss and United States authorities agreed on a combination of special measures to liquidate all the Federal Reserve swap drawings and reduce the Treasury's outstanding forward contracts.

The first step was taken in May, when the United States Treasury issued to the BIS a $70 million Swiss franc bond. To acquire the Swiss francs, the BIS had issued three-month promissory notes to Swiss banks. The Swiss franc proceeds of this bond issue were then sold to the Federal Reserve, which immediately repaid an equivalent amount of its Swiss franc debt to the BIS. The second step came in June when, as previously noted, the Bank of Italy entered into a $100 million lira-Swiss franc swap agreement with the Swiss National Bank. The Bank of Italy sold the Swiss francs it acquired to the Federal Reserve, which retired the remainder of its Swiss franc debt to the Swiss National Bank. At the end of June the Federal Reserve paid off the remaining $30 million of its swap drawings with the BIS with francs obtained in conjunction with a sale of gold to the Swiss National Bank by the Treasury. The Federal Reserve swap arrangements with both the BIS and the Swiss National Bank thus reverted to a stand-by basis.

Meanwhile, interest rates in Switzerland had risen still further as the heavy demands imposed on the Swiss money and capital markets by the continuing high level of economic activity further squeezed the liquidity position of Swiss banks and firms. The interest rate on three-month deposits reached 3½ per cent in June, an increase of about ¾ per cent over the previous year, while the average yield on government bonds moved up to 4.05 per cent, compared with 3.15 per cent a year earlier. To relieve the squeeze on their liquidity positions, and to satisfy midyear window-dressing needs, the Swiss commercial banks made further sizable repatriations of funds during June.

These commercial bank operations caused the Swiss National Bank once again to take in a sizable amount of dollars. In July the unwinding of some window-dressing operations and an easing of the Swiss money market brought about only a partial reversal of the previous inflows. In these circumstances, the United States Treasury issued to the Swiss National Bank on August 4 an additional Swiss franc bond in the amount of $52 million equivalent and used the proceeds to absorb an equivalent amount of dollars on the books of the Swiss National Bank. At the same time, the Swiss National Bank placed with the Swiss commercial banks an equivalent amount of "sterilization rescriptions" (a form of short-term paper issued by the Swiss Confederation) to reduce excess domestic liquidity.

As noted above, the United States Treasury during the latter half of 1963 had sold in the market a total of nearly $150 million equivalent of three-month forward Swiss francs in order to encourage outward investment flows by the Swiss commercial banks. By the end of the year, the Treasury's forward commitments had been reduced to $121 million. Additional sales of $9 million equivalent occurred in January, and the outstanding contracts were rolled over at maturity until May 1964, when $9 million equivalent was paid off. An additional $19 million was liquidated in June, and in August, at United States Treasury initiative, a further $19 million was paid off at maturity. This left a total of $83 million still outstanding. In addition, there was outstanding $38 million equivalent in Treasury Swiss franc liabilities, arising from swaps of sterling for Swiss francs with the BIS. During this period, a $17 million swap of lire for Swiss francs was liquidated and a $15 million sterling-Swiss franc swap was substituted.

Taking the Federal Reserve swap drawings and Treasury forward commitments together, temporary financing had reached a maximum of nearly $350 million at the end of 1963. By the end of August 1964, the swap drawings had been entirely paid off and, as indicated above, Treasury forward commitments in the market had been reduced to $83 million. A good part of this reduction in short-term Swiss franc commitments, however, was achieved through the issuance of $122 million equivalent of Swiss franc bonds, the sale of $30 million in gold to the Swiss National Bank, and the purchases of Swiss francs from the Swiss National Bank, thereby increasing that Bank's dollar holdings.

NETHERLANDS GUILDER

The Netherlands guilder declined during the first two months of 1964 as the Dutch trade position began to weaken, and toward the end of March the Federal Reserve Bank of New York was able to purchase for System account $5 million equivalent of guilders from the Netherlands Bank. At about the same time, the System acquired $20.1 million equivalent of guilders from the Bank of Italy, which had taken guilders as part of its drawing on the IMF. With these guilder funds, the Federal Reserve on April 2 paid off at maturity its outstanding $25 million equivalent swap drawing from the Netherlands Bank, thus placing the entire $100 million swap arrangement on a stand-by basis.

During most of the second quarter the guilder continued to decline as the Dutch trade deficit increased. In early June the Netherlands Bank raised its discount rate by ½ per cent to 4½ per cent. The money market then began to tighten, and in July Dutch commercial banks repatriated funds, causing a strengthening of the spot guilder. The Netherlands Bank took in dollars in moderating the rise in the rate, and during the first week in August the Federal Reserve drew $20 million equivalent of guilders under the swap line and immediately used the guilders to absorb some of the Netherlands Bank's dollar accruals.

On August 10, the Federal Reserve drew another $10 million equivalent of guilders in anticipation of possible market operations. Subsequently, the System sold $8 million equivalent to the Netherlands Bank to mop up additional dollars held by that Bank.

JAPANESE YEN

During most of the first half of 1964 the Japanese yen remained at or close to its floor, as a continuing increase in Japan's deficit on current account was covered only in part by long- and short-term capital inflows. The Japanese authorities had initiated a series of restraint measures beginning in October 1963, and in March of this year the Bank of Japan raised its discount rate from 5.84 per cent to 6.57 per cent. In order to avoid further deterioration in their reserve position until the restraint measures should bring about the desired effect, as well as to support confidence in the yen in connection with the acceptance by Japan on April 1 of Article VIII status under the IMF Articles of Agreement, the Bank of Japan on April 30 drew $50 million under the $150 million swap arrangement with the Federal Reserve—the first use of this facility since its inception in October 1963. The pressure on reserves continued over the summer months; on July 30 the Bank of Japan renewed the $50 million drawing for another three months, and on July 31 drew an additional $30 million under the swap arrangement. In August, however, Japanese reserves registered an increase.

CANADIAN DOLLARS

The spot market for Canadian dollars was relatively quiet through the first half of 1964, but there was considerable activity in the forward market as a result of grain sales to the Soviet Union. These sales generated heavy demands on the part of grain dealers for Canadian dollars against United States dollars for future delivery. (The contracts with the USSR called for payment in United States dollars, whereas the grain companies had to purchase the wheat from the Canadian Wheat Board with Canadian dollars.) After meeting the grain dealers' demand—and after covering these forward sales to some extent through spot purchases—commercial banks attempted to balance their positions by engaging in swap transactions, selling Canadian dollars spot against forward purchases timed to meet likely calls on their forward commitments to the grain dealers. Consequently, the forward Canadian dollar advanced to a premium while the spot rate tended to decline.

In order to offset some of these pressures, the Bank of Canada sold United States dollars spot and purchased them forward, thus providing some counterpart to the commercial banks' swap needs. Despite such operations on a substantial scale by the Bank of Canada, the forward Canadian dollar remained at a premium and the incentive to move funds from the United States to Canada on a covered basis as measured by the differential on three-month Treasury bills rose to about 0.34 per cent in the latter part of March. The situation became a source of concern to the United States authorities when it became evident that funds actually had been moving to Canada in some volume and, with the agreement of the Canadian authorities, the Federal

Reserve began in late March to sell Canadian dollars forward against spot purchases. As it turned out, the pressures on the forward Canadian dollar temporarily subsided, and Federal Reserve swaps in the market amounted to only $2 million. The matching of forward exchange commitments with shipment deliveries in connection with the very large grain sales continued to dominate the forward market in Canadian dollars through the end of June. Although the three-month forward Canadian dollar widened to a premium of well over ¼ of 1 per cent per annum, the covered differential in favor of Canada held below 0.40 per cent as Canadian short-term interest rates declined, and no further operations by the United States authorities were necessary.

By the end of July, Canadian grain shipments to the Soviet Union had been pretty well completed and pressures on the forward market consequently eased. Then during August, a series of developments actually reversed the pressures in the Canadian dollar market. There was some buying of spot Canadian dollars by Continental interests at the time of the Viet Nam crisis, and as the spot rate rose in a thin market, Canadian exporters proceeded to sell out United States dollar balances. Also, there were new grain purchases by several Eastern European countries, the effect of which was felt mainly in the spot market. At about the same time, there was a tightening of the Canadian money market and a flow of funds into Canada from the United States. The incentive for interest arbitrage flows was soon eliminated, however, by a sharp rise in the spot Canadian dollar rate and a decline in the forward rate. At the close of the period, the market was in balance.

OTHER CURRENCIES

Throughout most of the second quarter, the Belgian franc moved narrowly in a market that was essentially in balance, and there was no occasion for either the Federal Reserve or the National Bank of Belgium to employ the swap balances held under the fully drawn swap arrangement. Early in July, however, the Belgian franc strengthened following the announcement of new measures designed to curb the growth of credit in Belgium. On July 3 the National Bank of Belgium raised its discount rate by ½ percentage point to 4¾ per cent and announced that effective August 17 it would impose a cash reserve requirement against commercial bank deposits for the first time. Early in August the Federal Reserve used $7.5 million equivalent of Belgian francs drawn under the swap to absorb dollars on the books of the National Bank of Belgium.

The French franc held firmly at its ceiling throughout most of the period, as the French balance of payments continued in surplus and there were no Federal Reserve or Treasury operations in the market. As indicated in the following section, however, the Treasury did effect certain sales of French francs to various countries for repayment to the IMF. These repayments were spread out over a period of several months. Since the Treasury did not wish to leave sizable franc balances uninvested, a swap arrangement was entered into with the Bank of France, with provision for gradual reductions of the swap as the francs were required.

There were no Federal Reserve or Treasury operations in Swedish kronor or Austrian schillings during the March-August period.

IMF DRAWING

In addition to the exchange operations discussed above, since the beginning of the year the United States Treasury has sold foreign currencies to sixteen different countries—including Canada, India, and a number of Latin American nations—for use in making repurchases from the IMF. (With the Fund's holdings of dollars now in excess of the dollar portion of the United States subscription, the Fund cannot at this time accept further dollars in repayment.) The United States Treasury acquired the foreign currencies sold—predominantly German marks and French francs—through two drawings on the IMF, on February 13 and June 1, in the amount of $125 million equivalent each under the $500 million stand-by agreement with the Fund announced by President Kennedy in July 1963. Of this $250 million equivalent drawn by the United States, the bulk had been utilized by the middle of August.

Pending disbursement of remaining balances from the second drawing, the marks were invested by the Treasury in German Treasury bills, and the French francs were returned to the Bank of France by means of the dollar-French franc swap mentioned above. On July 23, the original stand-by agreement expired, and the Treasury announced that it had made a further stand-by arrangement with the IMF for another year, restoring the amount available to $500 million. The first drawing under the new stand-by arrangement was made on September 1, when the United States drew $50 million in five European currencies. This drawing was occasioned by Italy's repayment to the Fund of $65 million.

GOLD MARKET AND UNITED STATES GOLD TRANSACTIONS

Throughout the first eight months of 1964 the London gold market was generally stable with prices seldom in excess of $35.09. There were brief periods when political uncertainties generated some speculative buying. In Janu-

Table IV

UNITED STATES NET MONETARY GOLD TRANSACTIONS WITH FOREIGN COUNTRIES AND INTERNATIONAL INSTITUTIONS

January-June 1964

In millions of dollars at $35 per fine troy ounce; United States net sales (—), net purchases (+)

Country	First quarter	Second quarter
Austria	− 32.1	− 23.2
Brazil	− 1.0	+ 28.1
France	− 101.3	− 101.3
Germany	− 200.0	—
Italy	+ 200.0	—
Switzerland	—	− 30.0
Turkey	− 1.2	+ 15.0
United Kingdom	+ 109.3	+ 220.9
All other	− 1.2	− 14.5
Net sales or purchases	− 27.5	+ 95.0

ary, for example, private demand for gold picked up in large part because of unsettled conditions in Cyprus and Viet Nam. Early in March, these pressures were reinforced by buying from Italy and gold-fixing prices advanced to a high of $35.0986. The pressures quickly abated, however, and in the latter part of March, when the Soviet Union again appeared in the market as a seller of gold in connection with renewed grain purchases from the West, the price receded to $35.0586. Although the Soviet Union withdrew from the market by the end of April, market supply generally continued to exceed demand. Early in August the military flare-up in Viet Nam and Cyprus again touched off a brief surge of speculative buying, but these tensions also faded quickly.

During the first half of the year, the United States continued to acquire sizable amounts of gold through the operation of the London Gold Pool. Such acquisitions are included in net gold purchases from the United Kingdom, indicated in Table IV, though the Gold Pool component in this figure will vary from one period to the next. Also shown in the table is the triangular gold transaction mentioned earlier, in which $200 million of gold sold to the United States by the Bank of Italy was immediately resold to the German Federal Bank. France, which had a continuing surplus in its balance of payments, remained the largest purchaser of gold from the United States; during the first half of the year French reserves rose some $280 million. On balance, after taking account of sales to domestic users of about $40 million, total United States gold holdings—including Stabilization Fund holdings as well as the Treasury gold stock—increased by $27 million during the first six months of the year.