ESSAYS IN INTERNATIONAL FINANCE

No. 37, October 1961

STERLING SPECULATION AND EUROPEAN CONVERTIBILITY: 1955-1958

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IN a major breakthrough towards a freer system of world payments the United Kingdom and 13 other Western European countries agreed at the end of 1958 to establish nonresident convertibility for their currencies. Yet in September 1957, just 15 months before this historic advance, the United Kingdom had experienced severe foreign-exchange difficulties and, between 1955 and 1957, had struggled with a series of four separate exchange crises.

These crises were characterized by substantial speculative capital flows in the form of shifts in foreign-trade financing (known as leads and lags in foreign-trade payments). The speculative shifts in trade financing were carried out by individual merchants in an attempt to reduce the exchange risks inherent in international commodity trading. These speculative disturbances had the short-run effect of keeping European exchange markets unsettled during much of this three-year period; but they had the long-run consequences of forcing European countries to make adjustments in national policies in the direction of greater financial stability within each country and a better balance in external payments among the European countries. Thus, this speculation was at the same time a source of market disturbance and a key factor in the international adjustment mechanism between 1955 and 1957 which made possible the introduction of European currency convertibility.

EXCHANGE SPECULATION AND THE SHIFTING OF TRADING RISKS

Short-term capital flows against the pound between 1955 and 1957, and earlier in the postwar period, differed in three major respects from typical pre-1939 international short-term money flows. Exchange-rate speculation since 1945 (a) has been carried out by merchants in the course of normal trading activity; (b) has been for the speculator risk-reducing and not risk-assuming in character; and (c) has involved little or no out-of-pocket cost to the speculator.

Exchange-rate speculation and merchant trade

Exchange-rate speculation between 1919 and 1939 was purely a financial transaction in which the speculator sought to profit from fluctuations in the foreign-exchange market. In these transactions the speculator did not buy a currency to pay for foreign merchandise or to increase his financial assets, but in order to realize a profit from rate fluctuations. In addition to short-term speculation of this character and to the response of funds to interest-rate differentials, political disturbances induced the international movement of "hot money," especially in the 1930's. In contrast, exchange-rate speculation in the post-1945 period has been directly related to the ordinary flow of commodity trade. Merchants engaging in speculation have done so by altering the timing or by shifting the locale of their trade financing.* Speculation of this character no doubt developed because short-term capital flows not related to commodity trade were blocked by exchange regulations in most countries.

Speculation to reduce exchange-rate risk

After 1945, the foreign trader found that the risk of a change in the exchange rate was an inseparable part of his international dealings in commodities. Therefore he looked for ways to reduce these risks. By contrast, the speculator before 1939 moved into a foreign currency hoping for a profit but recognizing that he was assuming the risk of a loss from the operation.

From the merchant's point of view, the decision to maintain a given par value for a currency was often made by government officials in the face of widespread doubt in the foreign-exchange market about the viability of that par value. The government officials were unwilling either to alter the par value or to take the corrective steps which, in the opinion of the foreign-exchange market, were necessary to maintain the par value. Time after time the merchant watched the pound weaken in the market because of adverse economic developments in Britain's domestic or external situation. Yet he could never be certain whether the British authorities would act decisively to defend the currency or whether they would be forced to devalue. They were forced to devalue in 1949 but in 1951, 1955, 1956, and 1957 they introduced major changes in economic policy to bolster the currency.

Though the British merchant could not anticipate the course of British policy decisions, he had a substantial personal stake in the

* This speculation is reviewed in an article by the author, "Leads and Lags in Sterling Payments," *Review of Economics and Statistics*, February 1, 1953, pages 75-80.

decisions taken. He had little freedom to protect his private interests. Under governmental regulations he was required to surrender foreign-currency earnings within a set period, he could make advance purchases of foreign goods only with an import permit, and he could not transfer funds out of the country without individual authorization. The merchant soon found, however, that he had one area of freedom, the timing of his foreign payments and receipts. He rapidly learned to use this freedom to shift as much as possible of the financial burden of devaluation to central official reserves. The merchant reduced his own risk by changing the timing of his foreign payments or the locale of his foreign financing. To protect himself when the pound began to weaken, the British exporter could delay repatriation of his foreign earnings (within the limit of the regulations) and the British importer could accelerate his payments and, perhaps, buy foreign goods in advance. These shifts in timing reduced the flow of foreign-exchange accruals to the official reserves and accelerated drawings for import payments.

The foreign (non-British) merchant had much more flexibility in these operations than the British resident. His general objective was to reduce his pound holdings and to increase his pound liabilities as much as his credit permitted. The importer of sterling goods sought to delay payments in pounds. He could ask for more generous credit terms; if he could open or renew a sterling credit in London, he could pay the sterling-area exporter and still retain a pound liability.* The non-British seller of goods to a sterling country sought to denominate his sale in another currency or to speed up collection of pounds.

The purposes and consequences of these shifts in trade financing were to reduce the merchant's risks if sterling should be devalued. Because these activities reduced Britain's official gold and dollar reserves, they had the effect of shifting from the merchant to the British Treasury much of the exchange-rate risk associated with a weak sterling position.

Limited out-of-pocket cost of speculation

When the merchant moved out of a weakening pound his "speculation" usually involved little or no out-of-pocket cost to him. Even when he took a short position in sterling his only risk was that the pound would cost slightly more tomorrow than it did today. He knew that, under the Fund's par-value system, the spot rate could not exceed 2 per cent of the par value and that it was limited in the case of the pound to 1.4 per cent by U.K. Treasury decision. Since the currency was weak he could feel certain that the par value would not be raised.

* The use of sterling credits in the bear attack on the pound in 1957 is described in "London's Overseas Credits," *The Banker* (London), February 1958, pages 79-84.

In practice, a short pound position was often actually profitable to the foreign merchant since London borrowing rates were often lower than those at home. In the early postwar period commercial money rates in London were substantially below those in other countries. By 1955 they had risen above the level in New York; but not until the Bank Rate was raised to 7 per cent, in September 1959, did London money rates come close to those in several continental countries and in Japan. As a consequence, it was common for Britain to tighten restrictions on borrowing by foreigners in London during a severe run on the pound.

MEASUREMENT OF STERLING LEADS AND LAGS

Between July 1955 and September 1957, the pound was under almost continuous selling pressure in the foreign-exchange market. During these periods of pressure Britain's reserves (adjusted for special government transactions) were reduced by nearly $2.0 billion. Four separate episodes can be identified on the Chart by (a) the sharp falls in the spot rate, (b) the wider discounts on the forward pound, and (c) the drops in the free-market quotation for the transferable pound. The extent of the declines in sterling rates during these four periods is summarized in Table 1.

TABLE 1

UNITED KINGDOM: SELECTED EXCHANGE RATES

(in U.S. cents per pound sterling)

Period	*Spot*	*3 months forward*	*Transferable*
I. 1955, July to September:			
Recent peak, April 27	280.000	278.813	277.40
Crisis bottom, July 22	278.344	276.063	276.75
II. 1956, May to July:			
Recent peak, May 7	281.063	279.500	278.55
Crisis bottom, August 2	278.250	276.688	275.60
III. 1956, August to November:			
Recent peak, May 7	281.063	279.500	278.55
Crisis bottom, November 30	278.281	275.031	274.45
IV. 1957, July to September:			
Recent peak, May 2	279.469	278.565	277.65
Crisis bottom, September 19	278.281	274.281	275.60

Note: Peaks and crises are measured by the spot pound exchange rate. When the low spot rate was maintained for more than one day, the low point for the forward rate is used.

Three pieces of evidence confirm the importance of leads and lags in merchant payments during these four periods of weakness. In the first place, the *Radcliffe Committee Report* has estimated that "leads and lags of all kinds, apart from the running down of sterling balances, may have caused a loss of some £90 million to £100 million in the third quarter of 1957."* The *Report* added that this figure was "in fact nearly half the reduction in reserves that led to the increase in Bank Rate to 7 per cent in September 1957." The most important elements in this total were "delays in payments to residents of the sterling area ('lags') rather than the hastening of payments by residents ('leads')."

Secondly, statistics prepared by the Organization for European Economic Cooperation in Paris covering the sterling area's monthly trade with Western Europe and parallel figures on Britain's monthly payments balance as reported by the European Payments Union show a pattern of monthly fluctuation between 1955 and 1957 which seem to reflect a short-term capital factor. These monthly statistics on payments and trade show up the speculative flows that tend to have sharp monthly peaks and indicate month-to-month reversals; and therefore are particularly useful because British balance-of-payments estimates are not available on a monthly basis.

Based on these trade and payments figures, a series called the "E.P.U. Non-Trade Residual" has been constructed, which represents the difference between the monthly trade and the monthly payments statistics.** The fluctuations in this residual are shown in the lower part of Chart I and in Table 2.

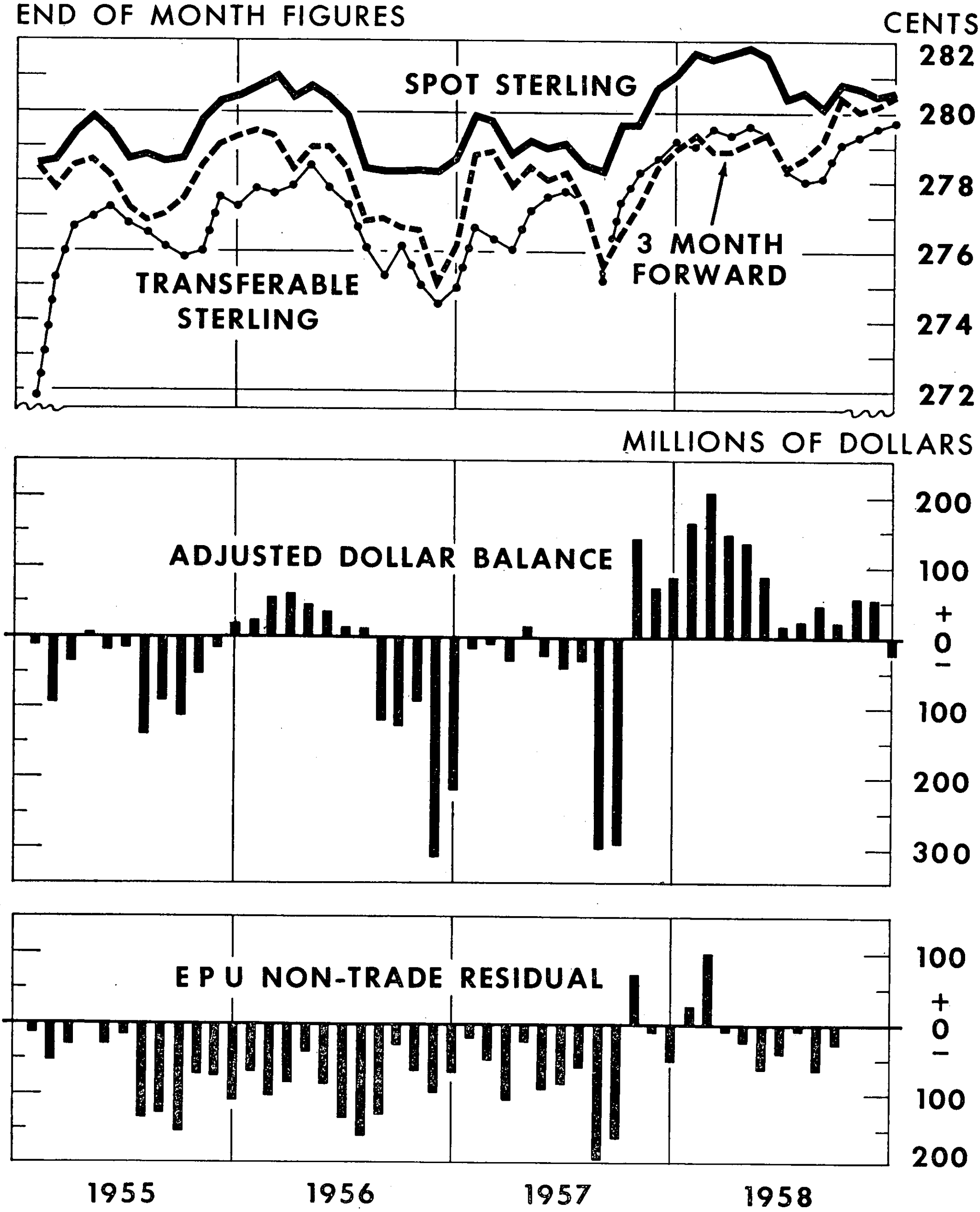
Movements in the residual series are taken to reflect the influence of speculative outflows. The residual figure is negative (that is, suggesting a capital outflow) when Britain's payments deficit for any month is greater than the trade balance. Thus, a negative residual is taken to reflect a capital outflow where the payments deficit cannot be explained by the trade deficit for that month.

Because the figures are merely a rough residual, they cannot be held to measure the volume of leads and lags. The residual must include a wide range of transfers on invisibles and capital accounts as well as short-term capital flows. Further, the residual series relate only to the sterling area's trade and payments with the E.P.U. countries and do not relate to transactions with other countries. Thus, the seasonal payments

* Cmd. 827, page 236.

** The concept of the Non-Trade Residual and the fluctuation of this series between January 1949 and the middle of 1951 are discussed in "Leads and Lags in Sterling Payments." *op.cit.*, pages 77-79.

UNITED KINGDOM EXCHANGE RATES AND CHANGES IN RESERVES



by Britain to continental countries in the third quarter (tourism and seasonal imports) regularly contribute to the third-quarter worsening in the residual series.

Despite the rough character of the statistics, the behavior of the series between 1955 and 1957 seems clearly to indicate the influence of short-term sterling speculation. Inspection of the chart reveals that the peaks in the residual estimates coincide with the market pressures on sterling rates. With the exception of the Suez crisis in late 1956, the low points of the market rates for sterling are identical with the monthly peaks in the E.P.U. Non-Trade Residual. The distinctive monthly pattern of the residual series indicates that the impact of speculation blanketed the more lethargic influence of nonspeculative capital and invisibles factors on the series.

Thirdly, the monthly peaks of the speculative outflow from Britain can be compared in timing with a series constructed by the Bundesbank to measure speculative inflows into Germany in 1957. For this purpose, the Bundesbank* combined two monthly series: (1) a net error-and-omissions item in the German balance of payments which is held to be mainly "improvement in terms of payment" (leads and lags in foreign-trade payments in favor of Germany), and (2) net changes in the exchange position of credit institutions. Monthly figures for the German series and for the British E.P.U. Non-Trade Residual for the three years, 1955 to 1957, are found in Table 2.

This table does not show a close relationship in timing between speculative outflows from Britain and speculative inflows into Germany during 1955 and 1956; but the correlation during the peak of the sterling crisis in the summer of 1957 is close. Since the movement of funds from London into Germany in substantial volume did not occur until mid-1957, when there was general talk of a German revaluation in the European financial press, a close correlation between the two series for 1955 and 1956 would have required explanation. For 1957 the correspondence in the critical months of August and September is unexpectedly close.

MAJOR SHIFTS IN FINANCIAL POLICY, 1955-1957

In retrospect, there were immense shifts in financial policy in both Britain and Germany between 1955 and 1957. These changes achieved a much better balance between these two countries, given the differences in their basic (current and long-term capital accounts) payments posi-

* Bundesbank *Monthly Report*, May 1958, page 34. The *Report* calls these two series "factors temporarily much affected by speculation."

TABLE 2

MONTHLY COMPARISON OF EUROPEAN PAYMENTS UNION NON-TRADE RESIDUAL FOR BRITAIN AND SPECULATIVE INFLOWS INTO GERMANY, 1955-1957

(*In millions of U.S. dollars*)

	1955		*1956*		*1957*	
	United Kingdom	*Germany*	*United Kingdom*	*Germany*	*United Kingdom*	*Germany*
January	− 15	− 8	− 68	+32	− 21	+ 65
February	− 52	−13	−102	−31	− 51	+ 43
March	− 30	−15	− 86	+16	−108	− 34
April	0	− 1	− 41	+ 2	− 25	+ 80
May	− 30	−11	− 87	+30	− 92	+ 32
June	− 17	+31	−137	+58	− 84	+ 54
July	−134	+47	−160	+65	− 61	+130
August	−127	+38	−129	+70	−197	+212
September	−151	+35	− 31	+50	−164	+190
October	− 72	−31	− 69	+21	+ 68	− 90
November	− 75	+ 5	− 98	+53	− 8	−139
December	−110	−23	− 70	−84	− 52	−160

Source: United Kingdom: Differences between monthly trade balance with Europe (as reported by the OEEC) and the monthly payments balance (as reported by the E.P.U.). Germany: Combination of monthly net errors-and-omissions figure in balance of payments and net monthly change in foreign-exchange position of German banks. (See Bundesbank's *Monthly Report* for May 1958, page 34.)

tion at that time. These policy changes, which came about largely in response to speculative capital flows that unsettled exchange markets, helped to prepare the ground for the general European move to non-resident convertibility at the end of 1958.

In 1955, the United Kingdom was maintaining a level of money rates substantially below those in most continental centers, despite its uncertain balance-of-payments outlook. On the other hand, money rates were much higher and credit availabilities much tighter in Germany than in other European centers despite the fact that continuing trade and current-account surpluses made Germany the principal surplus and creditor nation in Europe. By the end of 1957, however, British interest rates had moved upward to postwar peaks and those in Germany downward, in many cases to postwar lows.

This marked readjustment in credit conditions was in the direction of a better balanced intra-European payments structure. It was a necessary condition of European payments equilibrium that Germany should achieve a net outflow on capital account substantial enough to offset the large trade surplus if persistent German reserve accruals were to be avoided. As it turned out, speculative inflows into Germany appeared as soon as the German authorities began to tighten credit availabilities for domestic stabilization purposes in late 1955. As a result, heavy German reserve accruals took place during 1956 and 1957, despite some easing of German rates after the middle of 1956, and exchange markets were unsettled by rumors of D-mark appreciation and by speculative inflows into Germany. On its side, the United Kingdom was vulnerable to the pull of funds into Germany since foreigners could obtain sterling to shift into D-marks from Britain's import payments, from balances held in London, and from credits obtained in London financial markets.

The changes in relative German and British interest rates between 1955 and the end of 1958 had the effect of bringing the two rate structures close together. In 1955 the British Treasury bill rate was about 0.20 per cent below, but at the end of 1957 it was 3 per cent higher than, the corresponding German rate. (See Table 3.) The British commercial bank prime lending rate was 3¾ per cent below the minimum German loan rate in 1955, but was only one-half per cent below the German loan rate three years later. Only in long-term bonds did German yields continue substantially to exceed British yields in early 1958. Even so, German bond yields were only about 1 per cent above British bond yields at the end of 1957, compared with a difference of 3 to 4 per cent in January 1955.

Two qualifications should be made to this summary of intra-European financial developments between 1955 and 1958. In the first place, it would be erroneous to conclude that international considerations had a decisive impact either on domestic monetary conditions or on the structure of interest rates. The level of interest rates in both countries was influenced primarily by domestic demand conditions. It happened that, in Britain, demand conditions in security markets were pushing interest rates in the same direction as were international considerations. The reluctance of British investors to buy Treasury securities at prevailing yields and the heavy private demands for capital in 1956 and 1957 were factors pointing to the need for a higher level of money rates in Britain.

In Germany different considerations were involved. The international balance-of-payments surplus was adding to aggregate demand pressures and to internal liquidity. For German policy makers there was a choice

TABLE 3

COMPARISON OF BRITISH AND GERMAN CENTRAL AND COMMERCIAL BANK LENDING RATES, 1955-1959

Date	Central Bank discount rate: United Kingdom (in per cent)	Central Bank discount rate: Germany (in per cent)	Commercial bank lending rate: United Kingdom[a] (in per cent)	Commercial bank lending rate: Germany[b] (in per cent)	German bank borrowing from central bank (in billions of DM)
1954: End of year	3	3	4	7¾	1.9
1955: Jan. 27	3½		4½		1.8
Feb. 24	4½		5½		2.2
Aug. 4		3½		8	1.9
1956: Feb. 16	5½		6½		4.3
Mar. 8		4½		9	4.9
May 19		5½		10	4.1
Sept. 6		5		9½	2.9
1957: Jan. 11		4½		9	2.3
Feb. 7	5		6		2.1
Sept. 19	7	4	8	8½	1.6
1958: Jan. 17		3½		8	1.3
Mar. 20	6		7		1.6
May 22	5½		6½		1.3
June 19	5		6		1.5
June 27		3		7¾	1.5
July 21				7½	1.3
Aug. 14	4½		5½		1.0
Nov. 20	4		5		.8
1959: Jan. 10		2¾		7¼	.8

[a] Assumed to be 1 per cent above Bank Rate.
[b] Minimum bank lending rate.
Source: *Monthly Report* of German Bundesbank and *Quarterly Bulletin* of Bank of England.

of alternative policies to cope with these factors; the decision was made in mid-1956 to ease international pressures on the German economy not by appreciating the currency but by lowering credit costs in the country. To the extent that the German authorities deliberately chose to lower German interest rates as an alternative to revaluation of the D-mark, international considerations can be held to have had a key role in fashioning the general line of domestic policy; but it is significant that the German authorities found themselves in a conflict between the desire to lower German interest rates and the need to contain domestic inflation. As a result, credit easing in Germany proceeded only as rapidly as domestic considerations permitted. Typical of German monetary policy was the explanation, in the Bundesbank's *Monthly Report*, of the reduction in Bank Rate from 5 to 4½ per cent on January 10, 1957:

> The main reason for the present reduction was the conviction that under the present circumstances maintenance of the existing discount rate was not absolutely necessary from the angle of internal economy, while external considerations made a narrowing of the difference in interest rates as compared with foreign countries appear definitely desirable (page 3).

Secondly, the working out of these policy shifts was neither orderly nor continuous. On the contrary, both the British and the German authorities proceeded only slowly to make the policy shifts required to bring their economies into better balance. Britain experienced four successive foreign-exchange crises between mid-1955 and mid-1957 before decisive stabilization action was taken. Similarly, the German authorities acted only slowly to ease credit conditions from mid-1956 to mid-1957 in the face of strong domestic aggregate demand.

Thus, it was not until September 1957, after several months of Europe-wide currency disorders, that the British and German authorities moved decisively to adjust domestic financial policies. These actions followed major stabilization efforts by France in August and by the Netherlands in July. At the same time, aggregate demand pressures had begun to ease off as the peak of Europe's extended private investment boom, which commenced in 1954, was passed and declining import prices bolstered European external payments positions. For example, the German authorities noted, when they reduced Bank Rate from 4½ to 4 per cent on September 19, 1957, that "the Bank has made allowance for the relaxations of strain which have appeared of late." This was the environment in late September 1957 when the British authorities sharply pushed up the entire structure of their money rates and the German authorities quickened the easing of domestic credit conditions.

The extent of the rise in British money rates between 1955 and the end of 1957 is summarized in the following selected money rates (in per cent per annum):

	Jan. 1955	*Jan. 1958*
Bank Rate	3	7
Treasury bill yield	2.05	6.27
Commercial bank minimum lending rate	4	8
Long-term bond yield	4.40	5.53

By contrast, the declines in German rates from the mid-1956 peak, when it was decided to reduce interest rates rather than to adjust the exchange rate, are shown in the following tabulation of rates (in per cent per annum):

	May 1956	*Jan. 1958*
Bank Rate	5½	3½
Treasury bills	5¼	3½
3-month loans	5⅝-6¾	3¾-3⅞
Commercial bank prime lending rate	10	8
Long-term public bonds (5½ per cent *tax-free*)	5.9	5.4

BRITAIN'S FOUR FOREIGN-EXCHANGE CRISES, 1955-1957

Since Europe's progress toward better financial balance was uneven, the details of each of the four periods of speculation against the pound experienced between mid-1955 and mid-1957 differed in a number of respects. First, necessary domestic-policy adjustments came only after protracted disturbances had occurred in exchange markets and reserve losses or gains had forced the authorities to take steps to reduce market pressures. Britain experienced four such episodes, two of which coincided with substantial reserve accruals by Germany. Secondly, leads and lags in foreign-trade financing were a major source of pressure in exchange markets: there were four periods of heavy sales of sterling and two periods of substantial purchases of D-marks.

In broad outline, the reserve losses experienced by the United Kingdom during its four crises are summarized in Table 4. Actual reserve losses, as reported by the Treasury, are shown in the first column, reserve losses adjusted for known government capital transactions (such as Fund drawings and repayments, E.P.U. repayments and transactions with the U.S. Government) are shown in the second column and the total E.P.U. Non-Trade Residual is shown, for purposes of comparison, in the final column. A summary of the details of each of these episodes follows.

"Flexible pound" crisis, July-September 1955

This crisis was set off by continental European opposition to a proposal by British officials for a more flexible exchange-rate policy made at talks to renew the E.P.U. Agreement in Paris in June 1955. The British preference for greater flexibility led "overseas observers"

TABLE 4

UNITED KINGDOM: SELECTED OFFICIAL RESERVE CHANGES, 1955-1957
(In millions of U.S. dollars)

Period	Number of months	Reserve losses		E.P.U. Non-Trade Residual[b]
		Actual	Adjusted[a]	
I. 1955: July to Sept.	3	−335	−345	−412
II. 1956: May to July	3	+ 77	+ 63	−384
III. 1956: Aug. to Dec.	5	−272[c]	−690	−397
IV. 1957: July to Sept.	3	−531	−628	−422

[a] Actual reserves adjusted for known government capital transactions.

[b] Calculated as difference between Britain's monthly trade balance with E.P.U. countries and the payments results.

[c] This was the reserve loss despite $177 million received from the sale of Trinidad oil shares to a U.S. company and $561 million from a drawing from the I.M.F.

to conclude that "a widening of the permitted range of rate fluctuations [would mean that] a fall in sterling below its present limit of $2.78 would be inevitable."*

The opposition of continental European countries to the British suggestion was based on distrust both of the value of the pound and of British motives. Their representatives felt that the British wished to have sterling replace the E.P.U. payments system in a reconstructed foreign-exchange market; in addition, they felt that the British wanted to avoid the obligation to maintain narrow fixed rates or even a par value for the pound. Such rate flexibility placed upon the continental countries the risks of fluctuations in the exchange rate on official holdings of pounds.

Even if the continental officials had not in principle opposed greater flexibility for the pound, they could find in domestic British developments reasons for the fear that any widening of the spread between the Bank of England's buying and selling price for the spot pound in terms of foreign currencies could only mean a depreciation of the sterling rate. Strikes had hurt Britain's exports and the domestic business expansion was moving at a rapid pace. Later the Radcliffe Committee formed the judgment that the authorities had in 1954 gone "too far in the direction of stimulating demand, and . . . were too slow to change direction when the signs of inflation were apparent."** According to

* "Sterling Under Strain," *The Banker* (London), August 1955, page 85.

** Radcliffe Committee *Report*, Cmd. 827, August 1959, pages 144-145. An extensive

The Banker, foreign concern about Britain's ability to maintain its competitive capacity in world markets was "the original foundation of the bear view of sterling, more recently so strongly reinforced by the rumors about exchange policy"; further, "the familiar 'leads and lags' . . . (were) the dominant cause of sterling's weakness."*

This foreign-exchange crisis forced the British authorities to make two major changes in policy. On the international side, the Chancellor of the Exchequer brought to an end *any* notion of greater rate flexibility in a statement at the I.M.F. meeting in Istanbul in September. After reaffirming the intention to maintain the $2.80 parity for the pound "either in existing circumstances or when sterling is convertible," he went on to say "we do not contemplate any early move on any—I repeat any—aspects of the exchange front."**

On the domestic front, the Chancellor sought to bring the boom under control. At the end of July he asked the banks to make a "positive and significant reduction in the total of bank advances outstanding." He also slowed down investment spending in the public sector and tightened installment-credit regulations. By October he found it necessary to introduce a special budget to curtail internal demand further, to reduce housing subsidies, to check the volume of Treasury lending to local authorities, and to ease the Treasury's difficulties in raising its capital needs from noninflationary sources. Then in February 1956 several additional measures were introduced. Bank Rate was raised from 4½ to 5½ per cent, installment credit controls were tightened, and steps were taken to reduce public and private investment. These measures were supported by the regular budget, introduced in April, which concentrated on promoting private savings and on encouraging Treasury sales of securities outside the banking system.

The first European crisis, May-July 1956

The intra-European character of this crisis is underlined by the fact that, during this period, Britain actually maintained a surplus in its dollar accounts; its deficit was exclusively in intra-European payments (see Table 4 and the Chart). Unsuccessful attempts to keep the investment boom in the United Kingdom under control formed the background for pressure on the sterling rate which developed in the spring of 1956 after the German authorities took a series of restrictive measures.

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review of British economic developments during this period can be found in Peter B. Kenen, *British Monetary Policy and the Balance of Payments 1951-1957*, Harvard University Press, 1960, pages 98-128.

* "Sterling Under Strain," *op.cit.*, page 87.

** International Monetary Fund, *Annual Meeting, 1955*, page 39.

The Bundesbank's discount rate was raised to 3½ per cent (from 3 per cent) on August 4 (1955), to 4½ per cent on March 8 (1956), and to 5½ per cent on May 19.

The monetary and fiscal restraints during 1955 had the effect of reducing the liquidity of German commercial banks during 1955 and forcing them to borrow substantial sums from the central bank. The rate at which the banks increased their indebtedness to the Bundesbank is a rough measure of the speed with which these restraints became effective: their borrowings amounted to DM 1.3 billion during calendar year 1955 (see Table 5), and rose from DM 2.1 billion in mid-1955 to DM 4.4 billion in December, and to a record level of DM 4.9 billion in March 1956 (see Table 3). The piling up of Treasury balances at the Bundesbank during 1955 (to the sum of about DM 2.0 billion) forced the commercial banks to borrow in their attempts to avoid so severe a drain on their liquidity (see Table 5). These substantial additions to the Treasury's balances at the Bundesbank from current taxes (which were earmarked for defense spending) offset entirely the D-mark

TABLE 5

GERMANY: PRINCIPAL FACTORS AFFECTING COMMERCIAL BANK RESERVES, CALENDAR YEAR, 1954 TO 1958
(in billions of D-marks)

	1954	*1955*	*1956*	*1957*	*1958*
1. Operating factors:					
Changes in public authority deposits	−1.7	−2.0	−1.9	−0.2	−2.1
Net foreign exchange receipts	+3.2	+2.1	+5.6	+7.9	+5.7
Other	−0.7	−0.9	−1.0	−1.8	−1.0
Total	+0.8	−0.8	+2.7	+5.9	+2.6
2. Bundesbank's open-market purchases, net	−0.1	[a]	−0.5	−2.6	−0.4
3. Changes in commercial bank debts to central bank	[a]	+1.3	−1.5	−1.4	−0.7
4. Changes in commercial bank balances at central bank	+0.7	+0.5	+0.7	+1.9	+1.4

[a] Less than DM 50 million.

Note: Plus (+) indicates addition to commercial bank reserves and minus (—) indicates reduction of their reserve balances.

Source: *Monthly Report* of the Deutsche Bundesbank, April 1959.

liquidity created by the Bundesbank's foreign-exchange accruals during 1955.

By the spring of 1956 the effect of these restraints was to induce substantial inflows of foreign funds into Germany. In the June *Monthly Report* the Bundesbank stated that heavy exchange accruals of the foreign trade banks "were influenced by the persistently strained liquidity situation of the German banks and the raising of the German money market's interest rates in May" (p. 29). The accrual of foreign exchange, together with Germany's continued trade surplus, encouraged rumors of a contemplated revaluation of the D-mark. Even though the Federal Government and the Bundesbank declared the rumors "to be entirely without foundation," the Bundesbank reported that speculative considerations contributed to the inflow of funds. In turn, the consequent exchange accruals and continued trade surplus further encouraged rumors of currency appreciation. In this way, tight money within Germany and revaluation rumors reinforced each other in bringing foreign funds into Germany.*

In July the Bundesbank explained its exceptionally large accruals of gold and foreign exchange by two factors: speculation on an upward revaluation of the D-mark despite repeated official denials and shifts in leads and lags in foreign-trade financing. Two important ways in which leads and lags were being carried out were: (a) increased financing abroad of foreign trade by German banks; and (b) changes in the conditions of payments agreed between merchants in foreign trade.

The high point of monetary restriction in Germany came when Bank Rate was raised from 4½ to 5½ per cent on May 19, 1956. In the

* The credibility of the revaluation rumors was enhanced when the German Minister for Economic Affairs, Dr. Erhard, proposed in a letter to the British Chancellor that "a discussion of the problem of exchange rate parities" take place at the mid-July meeting of the O.E.E.C. According to *The Banker*, Dr. Erhard expressed the view that "the current pattern of exchange rates must be 'entirely distorted.'" He apparently proposed, as a first step, that "exchange rates should be made flexible within a total margin of 10 per cent of existing parities." Dr. Erhard's letter is reported to have received a "curt rebuff" from the British Treasury. (See, "Revise Europe's Exchanges?" *The Banker* [London] August 1956, pages 462-463.)

While recognizing that "in its timing Dr. Erhard's letter was truly Teutonic in its tact," *The Banker* maintained that "the arguments put forward in this letter deserve more than the curt rebuff." British officials had taken "a negative and defensive attitude, not only on this exchange front but also on the trade front" at the OEEC meeting in July. *The Banker* added:

> "This defensive role on currency and trade could easily do graver fundamental damage to sterling than the superficial harm that was caused by Mr. Butler's loose talk on flexibility last year."

months of May, June and July, there were sizeable outflows of funds from Britain (see Table 2 and the Chart) and inflows into Germany (see Table 2).

Faced with a continuing external surplus and persistent reserve accruals, the German authorities made a major change in the direction of German monetary policy. Formal reversal of this policy took place on September 6 when Bank Rate was reduced to 5 per cent. Even earlier, however, commercial-bank borrowing from the Bundesbank had been sharply reduced. From the peak of DM 4.9 billion in March, the total declined to DM 4.1 billion in May,* and DM 3.4 billion in July (see Table 3). During 1956 as a whole, commercial bank borrowing declined by DM 1.5 billion largely because of the substantial further increase in the Bundesbank's exchange accruals (see Table 5). In addition, the range of 3-month loan rates in the Frankfurt money market reached a peak of 6¾-7 per cent in July and eased to 6⅝-6⅞ per cent in August. Furthermore, the resumption of new bond and share placings in Germany, after the low was reached in June, suggests that capital market conditions may have begun to ease by the end of July.

The Suez crisis, August-December 1956

Nationalization of the Suez Canal late in July revealed the common vulnerability of all the European countries and temporarily brought to an end these intra-European payment stresses. Stoppage of Canal traffic forced all of them to make heavy dollar outlays. As a result, the balance-of-payments positions of all European countries with the outside world, and particularly with the dollar area, deteriorated.

The United Kingdom underwent five months of exchange crisis. At the outset, speculative capital outflows took the form of heavy withdrawals of sterling balances rather than the usual shifting of merchant payments. India drew down its balances by £150 million (to prepay for capital goods orders placed on the continent), Japan withdrew virtually all its £130 million holdings built up during 1955, and China and Middle East holders (who looked on the blocking of Egyptian balances "as a warning and a precedent") made heavy sales of pounds.**

Where earlier Britain had been running a dollar surplus, after July

* The decline between March and May may have merely reflected technical factors. The Bundesbank has stated that "the culminating point of the Central Banking System's restrictive policy [was] in May 1956." (See *Monthly Report*, September 1957, page 3).

** "Sterling After the Run," *The Banker* (London), February 1957, page 83.

heavy dollar losses were incurred. After August, when balances had been moved out of London, Britain's deficit with Europe (the Non-Trade Residual) declined sharply. At the same time, the German leads and lags inflow was lower after August than it had been in the three preceding months. (See Chart and Table 2.)

Britain's exchange crisis reached its culmination at the end of November when military operations were undertaken. The pound underwent selling pressures from all sides. Finally, in early December, after the military and political situations had been quieted, an international support program rescued sterling. The International Monetary Fund, making a major commitment of its resources, for the first time played a crucial role in a world payments crisis. In addition, the U.S. Export-Import Bank granted a $500 million stand-by credit.

Second European crisis, July-September 1957

As the Suez difficulties disappeared, the imbalance in European payments apparent in early 1956 re-emerged. Both the pound and the D-mark were affected: the pound experienced a particularly severe crisis and there was a massive speculative inflow of funds into Germany. Other European currencies were also affected, particularly the French franc and, to a lesser extent, the Dutch guilder; but our attention will be confined to the experience of the pound and the D-mark.

The consequences of the 1957 exchange crisis were to force the British and German authorities to make major changes in domestic financial policy. The British action was to raise Bank Rate from 5 to 7 per cent and, with other measures, to raise the structure of short-term British rates above the level of German rates, as may be seen in Table 3.

Britain's difficulties during 1957 were not so much a matter of weakness in the foreign trade position as, in the words of the Cohen Council, "a belief that she had lost control over the internal value of her money. Nor was that belief confined to foreigners: we now know that in the first half of 1957 there had been a marked acceleration of the rush by British residents to place their savings in dollar countries (the so-called 'Kuwait gap'); and in the summer there were times when even the British Government found increasing difficulty in marketing its longer-term securities."*

An international crisis was soon superimposed upon the difficult internal position. There was general talk about a possible appreciation of the D-mark in the second quarter. Finally, in August, when the French franc was devalued, a severe exchange drain developed. The run

* Council on Prices, Productivity and Incomes, *First Report*, H.M.S.O., London, 1958, page 34.

on sterling took the form of heavy shifts of funds into D-marks and a widening forward discount on the D-mark. By September it was clear that remedial action would be required.

The British authorities decided not simply to seek to stop the gold and dollar drain but to undertake decisive action with regard to home prices and costs. As a shock action, the Bank of England raised its discount rate from 5 to 7 per cent and additional financial restraints were introduced. This unexpected rise in Bank Rate was an act of courage on the part of the British authorities: Governor Cobbold later admitted his worry that this "rather sensational" rise "might be regarded on the exchanges as some sort of panic action."* This measure had the effect of moving the entire structure of money rates in Britain up to postwar highs and was to have decisive consequences on Britain's foreign and domestic economic situations.

On the German side, credit conditions were relaxed only slowly after the summer of 1956 because of buoyant investment demand. Bank Rate was reduced from 5½ to 5 per cent on September 5, 1956, and to 4½ per cent on January 11, 1957. The domestic boom precluded further credit easing. German reserve accruals slackened off momentarily but the trade surplus remained substantial.

Finally, the mid-1957 European exchange crisis, the most general foreign-exchange disturbance since the 1949 devaluations, produced a massive speculative inflow into Germany. Much of the inflow seems to have been funds shifted from London. At least, the inflows into Germany during the peak months of August and September 1957 were very closely matched by outflows from London. In August the forward D-mark went to a premium of more than 10 per cent per annum against the pound.

On their part, the German authorities reiterated their determination not to revalue the D-mark. They did proceed further materially to ease credit conditions in Germany. On September 19, when Bank Rate rose to 7 per cent in London, it was reduced to 4 per cent in Frankfurt and, on January 17 (1958), to 3½ per cent. As we have seen in Table 3, German short-money rates had moved below London rates by the end of 1957 and commercial bank borrowings from the Bundesbank were reduced.

ACHIEVEMENT OF EUROPEAN CONVERTIBILITY

One year later, at the end of 1958, the United Kingdom announced the merging of American-account and transferable-account sterling.

* See his testimony before the *Bank Rate Tribunal*, H.M.S.O., December 1957, question 8115, page 211.

With this step full convertibility of the pound for current earnings of nonresidents was achieved. Simultaneously, Germany, France, and eleven other European countries also moved to convertibility.

From a longer-run point of view, the attainment of European convertibility can be attributed to a number of underlying factors, including the restoration and extension of Europe's productive capacities and export availabilities, which are outside the scope of this study. But we must consider here developments during 1957 that made it possible for the United Kingdom to undertake to make the pound convertible for nonresidents just 15 months after going through one of the most serious foreign-exchange crises of the postwar period.

The achievement of European convertibility at the end of 1958 and the progressive relaxations in trade and exchange controls which took place during 1958 and 1959 were made possible by what the O.E.E.C. has termed a "fundamental change" in the foreign accounts of Britain and the continental countries from 1957 to 1959.* Perhaps the major factor contributing to the improved payments position of European countries was the sharp decline in the prices of Europe's imports, especially of foodstuffs and raw materials, which occurred during 1957. This decline produced major improvements in Europe's terms of trade with the rest of the world and represented what may well prove to be a structural shift, long-term in character and significance, in the international economic position of Western Europe. European countries were paying higher prices for primary products between 1946 and 1957 than they had paid during the 1930's or than they paid after 1957; these prices had reached exceptional peaks after the Korean episode pushed up primary-product prices in late 1950 and early 1951.

The costs of Europe's imports declined rapidly during 1957 and continued downward during 1958 and early 1959. The export price indices of several groups of primary producers, summarized in Table 6, show declines of about 10 per cent during 1957, and further modest declines in 1958, to a low in the first quarter of 1959. Even though there was some recovery during 1959, these indices had returned to, or were below, the previous low points by December 1960. The major shift in prices of primary products to new levels during 1957 meant that it had taken a little more than a decade after World War II for more normal supply-demand relationships to be restored for primary products and major foods; this shift may be compared with the major declines in primary-product prices after World War I which occurred around 1928 and 1929, about a decade after hostilities had ceased.

* *Europe and the World Economy*, O.E.E.C., Eleventh Annual Review, April 1960, page 91.

With industrial prices holding firm, the declines in prices of primary products immeasurably strengthened the external positions of the European countries. The improvement in Britain's terms of trade (the ratio of import prices to export prices) illustrates how price relationships turned so favorably to the benefit of European industrial exporters. Britain's terms of trade improved from an index of 100 in March 1957 to 91 in December 1957 and to 89 in the first half of 1959, as may be seen in Table 6; by the end of 1960 it had reached 88.

TABLE 6

SELECTED IMPORT AND EXPORT PRICE INDICES, QUARTERLY, 1957-1959

		U.K. terms of trade[a]			*Selected export price indices*			
		Import prices	*Export prices*	*Terms of trade*	*Primary producers*	*Sterling area*	*Latin America*	*Food exports*
		(1954 equals 100)			(1957 equals 100)			
1957:	I	110	110	100	104.6	103.7	104.5	105.3
	II	109	110	99	102.3	102.6	102.9	102.0
	III	104	112	93	98.9	99.6	98.2	99.6
	IV	101	111	91	94.2	94.1	99.5	95.2
1958:	I	98	110	89	91.9	93.0	90.8	95.7
	II	99	110	90	91.6	93.4	89.5	96.3
	III	98	109	90	91.0	92.2	89.2	95.0
	IV	99	110	90	90.3	91.4	87.3	92.9
1959:	I	98	109	89	88.9	91.4	83.8	90.7
	II	97	109	89	92.6	96.6	85.6	91.6
	III	98	109	90	93.2	97.2	86.9	90.5
	IV	100	111	90	94.6	99.1	86.3	90.4
1960:	Dec.	98	111	88	89.1	93.0	82.1	82.2

[a] End of quarter statistics.
Source: United Kingdom, *Monthly Digest of Statistics*, Central Statistical Office. Selected export price indices, *Economic Review*, National Institute of Economic and Social Research, London, January 1961, Table 24.

Lower import prices strengthened European payments positions in at least two ways. In the first place, reduced foreign-currency outlays contributed to the achievement of large payments surpluses. Thus, Britain's balance of current and long-term capital transactions recorded large surpluses in the second half of 1957 and first half of 1958, as indicated in the following payments results (in millions of pounds):

	1957		1958		1959
	I	II	I	II	I
Current balance	+114	+149	+327	+128	+116
Long-term capital	−178	− 20	−104	−132	−267
Net balance	− 64	+129	+223	− 4	−151

Source: *United Kingdom Balance of Payments*, 1956 to 1958, Cmd. 700, and 1957 to 1960, Cmd. 1188.

The fundamental change in Europe's foreign transactions was also substantial. The current surplus of the O.E.E.C. countries as a group rose from an annual rate of about \$1.5 billion between 1953 and 1957 to \$3.9 billion in 1958, and \$4.2 billion in 1959. The half-yearly current payments balances of all O.E.E.C. countries combined with the world were as follows (in billions of dollars):*

1957:	I	+0.02
	II	+1.5
1958:	I	+1.5
	II	+2.4
1959:	I	+1.8

In the second place, lower-priced imports helped to stabilize domestic prices in European countries. In Britain, for example, a 10-per-cent decline in basic materials prices from 1956 to mid-1958 (reflecting lower import prices) by itself was estimated to have lowered the price index of manufactured goods in Britain by 2½ per cent;** imported materials account for about one-fifth of the cost of finished manufactures at the factory. By helping to slow down the rise in the cost of living, lower food prices also contributed to holding down wage increases.

Several other factors contributed to economic stabilization in Europe after 1957. The private investment boom, which had been underway since 1954, reached its peak and began to slacken during the course of 1957. In Britain, for example, fixed capital formation in manufacturing reached a peak in the first quarter of 1957, as is indicated by the

* The figures for 1957 from *Policies for Sound Economic Growth*, O.E.E.C. 10th Annual Economic Review, Table 9, page 110; those for 1958 and 1959 from *Europe and the World Economy*, Table 7, page 119.

** Council on Prices, Productivity and Incomes, *Second Report*, H.M.S.O., August 1958, page 6.

following estimates of capital spending (seasonally adjusted in terms of millions of pounds at 1954 prices) :*

	1956	*1957*
I	185	205
II	187	203
III	186	193
IV	199	191

Similarly, the German central bank noted the recent lessening of strains in its September 1957 *Monthly Report*:

> This applies particularly to conditions in the building trade. . . . Slackening of activity is also to be seen in equipment investment. In July and August the index of production for the capital goods industries dropped by more than usual at that season, and throughout this summer it has not been above the level of a year ago (page 4).

Diminishing private investment pressures helped to make effective the general efforts made by most European countries during 1957 to bring domestic inflation under control. The successful French stabilization program, the major efforts made by the Netherlands in midsummer and the United Kingdom in September were examples of far-reaching efforts to deal with accumulated inflationary pressures. Specific financial measures were also taken to end one source of current inflation—the financing of central and/or local-government capital spending by the banking system.

Finally, the recession in the United States in 1957-1958 calmed inflationary psychology in many parts of Europe. The appearance of unemployment in this country may have had a chastening impact on the wages front, particularly in the United Kingdom.

In this way, the coincidence of a number of favorable developments during 1957 made effective the measures of financial stabilization taken by European countries during the year. From the point of view of dissipating accumulated inflationary factors, the timing of the stabilization efforts in 1957 could hardly have been more fortunate. If fortuitous developments contributed to the success of these stabilization measures, however, it should nonetheless be recognized that the European countries could have dissipated these windfall advantages. The reward of their restrictive efforts was substantial balance-of-payments surpluses achieved without any significant growth in unemployment. In this situation, these

* *Board of Trade Journal,* March 17, 1961, page 626.

countries proceeded gradually to relax trade and exchange restrictions and at the end of 1958 to achieve full nonresident convertibility.

Yet the importance of the better intra-European payments balance achieved as a result of the measures taken by major countries in 1957 should be recognized. From the intra-European point of view, the principal creditor country, Germany, had undertaken through a deliberate low interest-rate policy to bring down money rates below those in neighboring countries. The result of this policy was eventually in 1959 to provide temporary financing of Germany's persistent trade surplus through German capital exports; earlier it reduced the capital inflows into Germany which were disequilibrating because of the current-account surplus. The capital inflows, which at a time of large current-account surplus produced heavy German reserve accruals in 1956 and 1957, were reduced in 1958, and in 1959 were replaced by sizeable outflows for a temporary period just after European convertibility had been achieved.

The importance of the better balance in British and German credit conditions achieved in 1957 was by no means obvious at the time. Just two years later, in the summer and fall of 1960, the western countries again experienced widespread currency difficulties. In 1960, several specific factors which had contributed so much to European stabilization in 1957 and 1958 were still in evidence—especially lower import prices and the continuance of financial restraints.* One big difference between 1958 and 1960 was that the German authorities had found it necessary to abandon their low interest-rate policy and returned once again to a situation where credit was dearer and tighter in Germany (despite its continued trade surplus) than in neighboring countries. This German policy shift, which upset the intra-European financial balance achieved in 1958 and 1959, was unquestionably an important element in the widespread currency disturbances in the summer and fall of 1960.

EXCHANGE SPECULATION AND THE BRETTON WOODS SYSTEM

Merchant speculation in the form of shifts in foreign-trade financing developed in the postwar period as foreign traders sought to reduce their risk of losses from exchange-rate uncertainty. In the face of market opinion to the contrary, government authorities were often not prepared either to alter the par value or to make changes in policies which, in

* Britain's index of import prices averaged 99 (1954 = 100) in 1960, compared with 107 for 1957 and 99 for 1958. Import prices for the O.E.E.C. countries as a group averaged 95 (1953 = 100) in 1960, compared with 105 in 1957 and 98 in 1958.

market opinion, were needed to maintain and secure that par value. When the exchange market began to question the viability of a par value, the merchant began to look for ways to reduce the risks of rate adjustment inherent in his international commercial transactions.

During the postwar period, member governments have been conspicuously reluctant to alter par values. Because government officials have been conscious of the political consequences of exchange-rate actions, exchange-rate policy has often been dominated by domestic political, rather than by economic or financial, considerations. Devaluation has usually been resisted because it was a public admission of mismanagement, or at least it provided political opponents with the grounds for making such a charge. On the other hand, appreciation has been resisted because the voices of those hurt by appreciation have been loud. As the Canadian Finance Minister emphasized about this aspect of exchange-rate policy, "A change in the external value of the Canadian dollar brings gains to some Canadians and losses for others."* With conflicting interests involved, government officials have been tempted to avoid any change in exchange rates and thereby avoid the crosscurrents of criticism which any change in par value would entail.

The reluctance of officials to act on exchange rates was reinforced by the difficulty under the Bretton Woods arrangements of determining what the new par value should be. Government officials found that there was no certain technical basis for setting a new par value. Nor was it easy for the monetary authorities to arrange for market sentiment to help guide them to a new par value, perhaps by a temporary "freeing" of the exchange rate as a transitional device prior to the establishment of a new par value or some other means of allowing market opinion to influence the decision. As a result of these difficulties, the move from one par value to another became too much of a leap in the dark and involved substantial risk of human error. Furthermore, the fixed par value and narrow fluctuation for the spot rate meant that errors of judgment could not easily be reversed.

This was the context within which merchant speculation developed in the postwar period. From the merchant's point of view, his speculation was in self-protection, a means by which he shifted the uncertainty about exchange rates and about government policy actions from his shoulders to the country's central reserves. Because he saw that government authorities were in general slow to act and often seemed to prefer to try to live with maladjustments rather than make needed changes in policies, he worked out ways to protect his private interests against the uncertainties of official policy-making.

* *House of Commons Debates*, Ottawa, June 17, 1958, page 1234.

The limited range of fluctuation for the spot exchange rate under the Fund's Article IV, Section 3(i), made it easier for the merchant to take the exchange risk involved in his shifts in trade financing. Because currencies under pressure are not likely to be appreciated, the merchant has been able to calculate that the *maximum* risk involved in an open short position was no more than 1.4 to 2.0 per cent. Furthermore, he did not have to wait until the spot rate reached the upper limit before covering. In any case, any loss could be written off against income as a form of insurance.

Yet proposals to introduce greater rate flexibility in an attempt to increase the risks to the merchant of such shifts in trade financing can be hazardous, as the United Kingdom discovered in 1955. Britain's experience reveals that there are at least three substantial objections to a policy of widening the fluctuation about the par value. Each of these objections would have even greater force if a system of freely fluctuating rates without any par value were to be considered.* In the first place, the view seems to be widely held among the continental European banking community that greater rate flexibility is merely a certain road to steady depreciation. The National Bank of Belgium has stated this viewpoint in the following words:

> Experience moreover shows that frequently in practice the exchange rate will not fluctuate about parity but will progressively depreciate because it is difficult, once the discipline imposed by a stable exchange has been given up, to gain acceptance for the economic, monetary and financial measures that are needed for maintaining the economy's equilibrium.**

Secondly, the European financial community has a vested interest in a narrow spread in the pound-dollar rate. Governor Brofoss of the Bank of Norway has pointed out, even with the present small margin of fluctuation "there will be some manoeuvrability as regards choice between 'following the pound' and 'following the dollar.'"*** The wider the dollar-pound variation, the greater the problem of choice European bankers face. Since this is an insoluble difficulty for them, the Europeans must look with favor upon an arrangement which eliminates the need to choose.

Finally, because the British authorities are undoubtedly the most

* For a comparison of postwar experience with fixed and flexible exchange rates, see the author's study, "Two Approaches to the Exchange-Rate Problem: The United Kingdom and Canada," *Essays in International Finance*, No. 26, Princeton, August 1956.

** National Bank of Belgium, *Report* for 1957, Brussels: 1958, page 11.

*** Norges Bank *Bulletin*, December 15, 1959, page 92.

active official traders in world exchange markets, it has been noted that any system of substantial rate flexibility would give them a disproportionate influence on the structure of exchange rates established in these markets. Neither the United States nor continental European central banks are presently equipped in terms of tradition, technical resources or geography* to trade in comparable volume or to have a comparable influence on the world's exchange-rate structure. Yet the matter of any disproportionate influence on the structure of exchange rates is much less a problem where par values are established by international agreement through the I.M.F. than it would be where rates were free to fluctuate without any par value.

CONCLUDING OBSERVATIONS

One result of Britain's "flexible pound" crisis in 1955 was to ensure that the introduction of greater flexibility was not thereafter proposed as a policy by any European country. Britain's proposal for more flexibility for sterling served to crystallize continental distrust of rate flexibility just at the time when major structural changes of a long-term character were taking place in world trading relationships. As this review has attempted to indicate, even year-to-year shifts of substantial significance did occur between 1955 and 1957.

The essential condition of international payments balance in a rapidly changing world, with a system of fixed exchange rates, must be a continuous willingness to make policy adjustments on the part of both debtor and creditor countries. The leads and lags used by merchants in trying to meet the changing conditions of international money markets between 1955 and 1957 appears to have been due to the reluctance of European countries to proceed with necessary changes in policy in the direction of greater intra-European payments balance.

The achievement of convertibility did not entirely end these adjustment difficulties. The policy shifts which took place in the second half of 1957 were soon out of date, and further international payments difficulties soon arose. By mid-1960, only 18 months after European

* The London foreign-exchange market is at the center of world exchange trading today and the pound remains the principal international currency for European exchange markets. For example, Mr. Strohmeier, a leading Swiss foreign-exchange banker, told the Forex Club in London in a speech on March 25, 1957:

> "I really do not know what other currency could replace sterling if ever your currency should unexpectedly . . . fail to perform its valuable function as an international currency. The dollar certainly could not replace sterling. Switzerland . . . could not provide . . . enough francs. The only solution . . . would be the creation of a united European currency."

convertibility had been achieved, the western countries once again experienced widespread foreign-exchange disturbances; nine months later, in the spring of 1961, foreign-exchange markets continued to be unsettled.

The re-emergence of exchange difficulties in 1960 and their continuation into 1961 reaffirms the need for continuous adjustments in national policies for the maintenance of convertible currencies. The liberal payments arrangements which have now been achieved require an adjustment mechanism to ensure continuous shifts in national policies in the direction of maintaining a tolerable balance in the pattern of world payments. In my view, speculative leads and lags made a significant contribution to the process of international adjustment prior to 1959, when they played a key role in forcing needed changes in national policies. There is every reason to believe that merchants will continue these shifts in their financing of trade, so long as national authorities are reluctant to make needed adjustments in national policies in the interest of a better international payments balance.

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