Volume Title: The Responsiveness of Demand Policies to Balance of Payments: Postwar Patterns

Volume Author/Editor: Michael Michaely

Volume Publisher: UMI

Volume ISBN: 0-870-14221-6

Volume URL: http://www.nber.org/books/mich71-1

Publication Date: 1971

Chapter Title: AN OVER-ALL VIEW OF POLICY PATTERNS

Chapter Author: Michael Michaely

Chapter URL: http://www.nber.org/chapters/c3436

Chapter pages in book: (p. 30 - 70)

CHAPTER 2

AN OVER-ALL VIEW OF POLICY PATTERNS

1. The Use of Budgetary Policy

In summarizing and evaluating the findings on the policy responses of individual countries to their balance-of-payments disturbances, which are presented in detail in the next part, it may be convenient to start by the examination of budgetary policy, which offers quite clear—though negative—conclusions.

In country after country, it has been repeatedly found that budgetary policy throughout the period under investigation was not responsive to the requirements of the balance of payments. There is no single country out of the nine covered in this study in which a positive, consistent pattern of response is revealed. Even individual episodes in which budgetary policy might be interpreted as having been taken in reaction to the needs of the balance of payments are not very frequent. This may be seen from Table 2-1, which repeats in a summary form the observations brought out in the respective country analyses.

As Table 2-1 indicates, the only instance over any considerable length of time in which budgetary policy behaved in a manner which may be interpreted as a response to the balance-of-payments position is that of the United Kingdom from late 1952 to late 1956. All other episodes seem to be sporadic. The evidence is, it should be mentioned, based very often on deficient data or on data which pertain to only a part of the period under consideration. Likewise, the qualifications which must be attached to the interpretation of *ex post* budgetary data,

TABLE 2-1

BUDGETARY POLICY DURING PERIODS OF IMBALANCES OF PAYMENTS

Country	*Consistent with Balance-of-Payments Requirements* (*1*)	*Inconsistent with Balance-of-Payments Requirements* (*2*)	*Indifferent to Balance-of-Payments Requirements* (*3*)
Belgium	III 1957 – IV 1958	III 1960 – IV 1961	IV 1962 – III 1965
France	I 1952 – IV 1952	I 1951 – I 1952	I 1950 – I 1951
	IV 1952 – III 1953	III 1953 – IV 1955	
		IV 1955 – IV 1958	
		IV 1958 – IV 1965	
Germany	I 1963 – II 1964	IV 1958 – III 1959	II 1964 – II 1966
		II 1961 – I 1962	
Italy		III 1953 – II 1956	I 1952 – III 1953
		I 1963 – II 1966	I 1957 – IV 1959
			I 1961 – I 1962
Japan	II 1951 – III 1952	III 1952 – II 1953	IV 1950 – II 1951
	IV 1961 – II 1963	II 1954 – IV 1955	IV 1953 – II 1954
		IV 1956 – III 1957	II 1961 – IV 1961
		III 1957 – II 1961	IV 1963 – II 1964
Netherlands	II 1953 – II 1954	I 1950 – IV 1950	III 1957 – I 1959
	IV 1959 – IV 1961	IV 1950 – III 1951	IV 1964 – II 1965
		III 1951 – II 1953	
		I 1956 – III 1957	
		I 1963 – IV 1963	
		IV 1963 – II 1964	
Sweden		II 1951 – I 1952	II 1964 – I 1965
		III 1959 – I 1960	
		I 1960 – III 1962	
U.K.	III 1952 – III 1954	II 1951 – III 1952	III 1958 – IV 1958
	III 1954 – IV 1955	III 1956 – IV 1956	III 1965 – IV 1965
	IV 1955 – III 1956	IV 1956 – II 1957	
	IV 1958 – III 1959	II 1957 – III 1957	
	III 1959 – IV 1959	III 1957 – III 1958	
	II 1960 – IV 1960	IV 1960 – III 1961	
		III 1961 – III 1962	
		III 1963 – III 1965	
U.S.	III 1951 – I 1952	I 1953 – IV 1954	
		IV 1956 – III 1957	
		I 1958 –	

should always be borne in mind.[1] Yet the weight of the evidence is substantial: it indicates strongly that budgetary policy was not used in the service of the target of balance-of-payments equilibrium.

While Table 2-1 is based on the indications about budgetary policy provided only by the variable of the budgetary balance, similar inferences would be reached if the government's revenues and expenditures were examined separately. It must be concluded that budgetary policy as an instrument of aggregate demand policy was not generally part of the set of tools used to correct imbalances of payments. This would not exclude the use of *specific* budgetary revenues or expenditures for this purpose; while such use was not, as a rule, examined in this study, there could be little doubt that a few such instruments were often used in response to the needs of the balance of payments.

It was most frequently found that, in the countries under investigation, the failure to use budgetary policy for balance-of-payments purposes *cannot* be explained by the assignment of this policy instrument to the service of other competing targets. Most often, budgetary policy seems to be excluded from the list of instruments available for the correction of domestic as well as of balance-of-payments disequilibria. One country for which this statement would definitely not be true is Sweden, in which budgetary policy is geared, by and large, to the needs of maintaining high employment and high production. To a large extent, this is also true for the United States. But in other countries, no such overriding rule for the use of budgetary policy seems to emerge.

Even more rare is the use of the "policy mix," which came to be heavily advocated in recent years, by which monetary policy is assigned to the service of the balance of payments, while fiscal policy is reserved for the achievement of the domestic targets of employment and production.[2] This policy combination would require a tight monetary policy and an expansionary fiscal policy in periods of a balance-of-payments deficit combined with high unemployment; and the reverse order of policies with payments surpluses and domestic booms.

Table 2-2 presents the instances which qualify for such policy combination (that is, in which opposite policy directions are called for by

[1] See Chapter 1, pp. 19–20.

[2] For theoretical discussions of this "policy mix" see, for instance: Robert A. Mundell, "The Appropriate Use of Monetary and Fiscal Policy for Internal and External Stability," *I.M.F. Staff Papers,* IX (March 1962), pp. 70–79; J. Marcus Fleming, "Domestic Financial Policies under Fixed and under Floating Exchange Rates," *I.M.F. Staff Papers,* IX (November 1962), pp. 369–80; and Anne O. Krueger, "The Impact of Alternative Government Policies under Varying Exchange Systems," *Quarterly Journal of Economics,* LXXIX (May 1965), pp. 195–208.

TABLE 2-2

POLICIES DURING PERIODS OF CONFLICTING REQUIREMENTS OF EXTERNAL AND DOMESTIC POSITIONS

Country and Period	*Monetary Policy*	*Budgetary Policy*
EXTERNAL DEFICITS AND DOMESTIC SLACK		
France, IV 1952 – III 1953	* mixed evidence	– restrictive
Germany, III 1951 – I 1952	* neutral	* neutral
Netherlands, I 1956 – III 1957	+ restrictive	+ expansionary
U.K., II 1951 – III 1952	+ restrictive	+ expansionary
EXTERNAL SURPLUS AND DOMESTIC BOOM		
Belgium, IV 1962 – III 1965	– restrictive	– expansionary
France, I 1950 – I 1951	+ expansionary	* neutral
Germany, I 1963 – II 1964	* neutral	– expansionary
Italy, III 1953 – II 1956	– restrictive	– expansionary
Italy, I 1961 – I 1962	+ expansionary	* neutral
Sweden, I 1960 – III 1962	* mixed evidence	+ restrictive
U.K., I 1950 – II 1951	+ expansionary	* mixed evidence

+ indicates a policy in the direction required by the policy "mix."
– indicates an opposite policy.
* indicates neutrality or conflicting evidence.

the country's domestic and external position). The presentation is rather rough: only subperiods of imbalance of payments are observed, without attempts of some other subdivisions; the indication of monetary or budgetary policy as "restrictive" or "expansionary" involves risks of oversimplification; and the total number of cases presented in the table is rather small. But so far as the evidence of Table 2-2 goes, it is rather clear. In only very few instances (one each in the U.K. and in the Netherlands) does the "mix" under consideration appear to have been undertaken.

2. Instruments of Monetary Policy

Monetary policy may be represented by numerous variables, each of which could conceivably measure the direction of the policy pursued

by the government. The discussion will turn now to the examination of the variety of major monetary instruments which have been used in the countries under consideration.

Chart 2-1 describes the observations concerning the use of monetary instruments in individual countries. It covers, for each country, those instruments which on the basis of prior information and the findings of the present analysis are judged to have been used normally and regularly, during at least a substantial part of the period, as tools of over-all monetary policy. In each country, subperiods are shown according to the balance-of-payments position. Whenever the instrument under consideration is found to have behaved, during a given subperiod, in a manner which conforms with balance-of-payments requirements, this period is colored black in the part of the chart which describes this instrument. When the instrument behaves in the opposite way, the period is colored by diagonal lines; and when the instrument shows no movement during an imbalance of payments, the period is colored grey. Chart 2-2, which is added for reference, summarizes the balance-of-payments positions in the individual countries: periods of downward disturbances are colored by diagonal lines: periods of upward disturbances, in white; and equilibrium periods, in grey.

The pattern described by Chart 2-1 is illuminating. It is immediately apparent that two variables alone may claim recognition as instruments which have been often used in a manner consistent with balance-of-payments requirements: the discount rate and the (rate of expansion of) money supply. In Belgium, France, Japan, Italy, the Netherlands, and the United Kingdom,[3] at least one of these variables—usually both—is seen to have moved in conformity with the balance-of-payments position either through the whole period or during most of it. In the other three countries—and in the former six in other subperiods—these variables seem to be generally "neutral," but not usually to have moved in opposite direction to balance-of-payments requirements.

The variable of (the rate of expansion of) credit supply by commercial banks shows a different pattern. In general, it reveals neither widespread conformity with the balance-of-payments requirements, nor the opposite, and may therefore be judged not to have been usually assigned to balance-of-payments adjustment. In just two countries—Belgium and the United Kingdom—does it seem probable that during

[3] See, however, the discussion in the following section suggesting that in the United Kingdom credit supply, and not money supply, as in other countries, indicates the direction of monetary policy.

CHART 2-1

MOVEMENTS OF MONETARY POLICY VARIABLES DURING IMBALANCES OF PAYMENTS, 1950–66

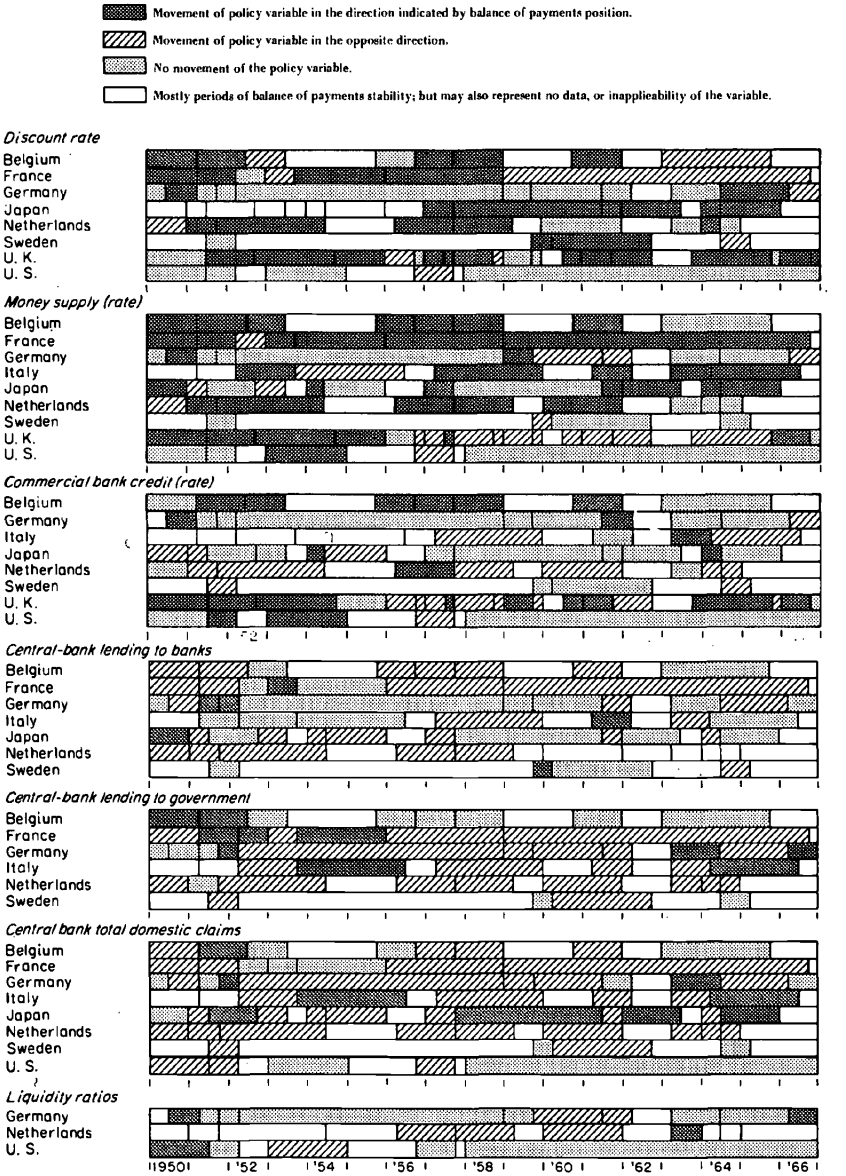
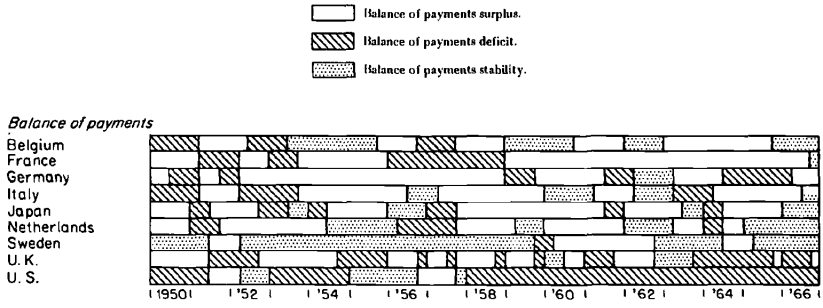


CHART 2-2

THE BALANCE-OF-PAYMENTS POSITION, 1950–66



certain parts of the period under consideration the variable of credit supply was in fact manipulated to serve the needs of the balance of payments.

The next three variables, which represent central-bank lending, also show different patterns. One of these, central-bank lending to the government, seems to indicate "indifference," that is, a mix of episodes of movements which conform with balance-of-payments requirements, opposite movements, and "neutral" reactions, in about equal proportions. This is consistent with, and most probably related to, the findings concerning the budgetary policy. The most common—although not inevitable or universal—expression of a budgetary deficit would be government borrowing from the central bank. A surplus on the other hand would result in a repayment. Movements of the amount of government borrowing from the central bank may thus be expected to reflect, at least partly, movements of budgetary policy. Since the latter have been found to be generally nonresponsive to the balance of payments, it is not surprising to find no pattern of responsiveness of central-bank lending to the government.

The other component of central-bank lending—lending to commercial banks—reveals on the other hand a very obvious pattern of behavior, which is either neutral or (most often) runs *counter* to the direction indicated by the balance-of-payments position. Cases in which this lending declines with payments deficits and rises with payments surpluses are quite rare; whereas the opposite pattern, rising lending at times of deficit and declining lending with surpluses, is a very frequent phenomenon. This is true for countries in which other variables con-

form to balance-of-payments requirements, as well as for those in which no such positive response may be found.

The total domestic claims of a central bank consist overwhelmingly of lending to commercial banks and to the government.[4] Since lending to banks reveals a tendency to move in a direction opposite to balance-of-payments requirements, while lending to the government is by and large "neutral," the combination of the two may also be expected to reveal a disadjusting pattern. This, indeed, it does, with only slightly less consistency than does its component of lending to commercial banks. This is true for practically all countries in which the variable of the central bank's domestic claims is relevant and can be reliably estimated.[5]

The remaining monetary variable shown in Chart 2-1—liquidity, or reserve, ratios—is significant in only a small number of countries. In two out of the three countries in which this variable was of any importance, namely, Germany and the United States, a general indifference of its movements to the balance of payments is apparent, while the third—the Netherlands—even seems to show a pattern of behavior opposite to that which the balance of payments would require.

3. Compliance of Monetary Policy with Balance-of-Payments Requirements

It is thus seen that in a few countries none of the monetary instruments show a pattern of compliance with the needs of the balance of payments. In other countries, a few of the instruments do reveal such a pattern, and the most frequent policy combination is a change of the discount rate coupled with a change in money supply. With a down-

[4] In the United States, this total consists overwhelmingly of Federal Reserve credit created by open-market operations. In other countries open-market operations are either absent or insignificant or, even when substantial, are viewed as subsidary to the operation of one of the other monetary instruments.

[5] From Chart 2-1, Japan seems to be a case in which movements of the variable under consideration are as often in an adjusting direction as in the opposite. As has been pointed out in the chapter on Japan, however, data on Bank-of-Japan lending to the government are biased in the direction of conformity with balance-of-payments requirements (and are therefore not represented directly in Chart 2-1); this tends, naturally, to bias also the data on total Bank-of-Japan domestic claims in the same direction.

ward disturbance (that is, a balance-of-payments deficit) the discount rate is raised, and the rate of expansion of money supply falls. With balance-of-payments surpluses, the opposite movement takes place: the discount rate is lowered, and the rate of expansion of money supply rises.

If these two are considered the crucial variables of monetary policy in the countries in which this pattern is observed, then this pattern implies that the countries concerned manage their monetary policy so that it conforms with the needs of the balance of payments; [6] or, in other words, that these countries follow "the rules of the game" of a fixed-exchange-rate international monetary system. By most prevailing monetary theories, one or the other of these two monetary variables (the discount rate—representing the whole scale of interest rates —and the money supply), or both, would indeed be considered the crucial variable. In a simple Keynesian model, monetary policy could affect aggregate demand only to the extent that it affects the interest rate—which, in turn, has its impact on the demand for investment. The turn monetary policy is taking—that is, the question of whether its direction of movement is restrictive or expansive—would then be judged by the direction of movement of interest rates. The quantity theory of money would, on the other hand, assign crucial importance to the movement of money supply: aggregate demand is reduced by a reduction of the quantity of money, and raised by an increase of this quantity. But interest rates, too, would be expected to move in a manner consistent with movements of money supply: when the latter is lowered, interest rates must rise, hence the discount rate should be raised; and, similarly, the discount rate should be lowered with an increase of money supply.

In addition to its effect on the balance of payments through aggregate domestic demand, a change in the discount rate would be expected to affect the balance of payments through its impact on international short-term (and possibly also longer-term) capital movements. Regardless of what analytical model is employed, the "rules of the game" of balance-of-payments adjustment would thus require the discount rate to be raised in times of balance-of-payments deficits and lowered in times of surplus.

[6] The meaning given to "conformity" in this study, as stated in the preceding chapter, should be reemphasized here. It indicates "conformity" in *direction* alone, and not in size. Thus designating the monetary policy of a country as "conforming" with the need for adjustment does *not* convey the idea that the policy was necessarily sufficient, taken at the appropriate moment, or successful.

Neither of these two conventional monetary models would have required a definite movement in a specified direction of any of the monetary variables other than the money supply and the discount rate. Consider, for instance, the quantity theory (although the same conclusions would follow from the Keynesian model). A reserve-losing country is expected to lower its aggregate demand, and this would be done by a reduction of the money supply. But while the direction of the required movement of money supply is thus indicated, the *size* of this reduction is not. The more money supply changes, the faster the adjustment process will be. But certainly no one would expect this rule to require a rapid approach of the money supply to zero in the reserve-losing country, or to infinity in the reserve-gaining country. If a country were on the gold specie standard, the rate of change of money supply would be specified by the system itself: if money supply consists exclusively of gold, and so do the country's international reserves, the change in reserves and the change in money supply are one and the same thing. It can by no means be argued, however, that, if a country wants its monetary policy to serve the purpose of balance-of-payments adjustment, this indeed is the proper size of the required change in the quantity of money. The "proper" magnitude could be larger than, smaller than, or, by chance, equal to the magnitude of the automatic, direct fall in money supply which the loss of the country's international reserves involves.

Suppose the required change in the money supply is *smaller* than the automatic change. The monetary authority would then have to counteract—partly, not fully—this change by inducing an increase in commercial-bank credit to the public or by increasing central-bank lending to the government. An increase in either of these two magnitudes while the country's balance of payments is in deficit is thus not necessarily an indication of a lack of compliance with balance-of-payments requirements. Taking the opposite case, suppose that the required decline of money supply in the reserve-losing country *exceeds* the direct, automatic effect of the fall of reserves, and that commercial-bank credit would thus have to fall to reinforce the direct impact. The fall of international reserves involves a reduction of commercial banks' reserves and hence of their lending capacity when no excess reserves exist. This in itself would force the banks to reduce credit. If this automatic credit decline exceeds the amount which the monetary authority deems desirable, the lending capacity of banks will have to be *raised,* rather than lowered further. This may be done by

relaxing minimum-reserve requirements, or by increasing the banks' reserves through the central bank's open-market purchases and its lending to commercial banks and the government. This, of course, is the case *a fortiori* when commercial-bank credit has to be raised rather than lowered. The lowering of minimum-reserve ratios and an increase in the central bank's domestic claims could thus well be consistent with a monetary policy which complies with balance-of-payments requirements in a reserve-losing country. It should therefore be emphasized that "compliance" in this sense does *not* necessarily indicate the use of monetary instruments directly controlled by the monetary authority in the "complying" direction: it may be entirely due to the automatic effect of the change in the country's external assets not offset—at least not fully offset—by policy actions.

In fact, as observed in the preceding section, the central bank's domestic assets do show, in most countries, a clear tendency to move in this way, that is, to rise with a fall in the country's external reserves, and vice versa. This has also been noted, by Nurkse and by Bloomfield, to be the case in earlier periods—although the tendencies revealed in these earlier studies do not seem to be as clear-cut as they appear here.[7] As has been pointed out, the direction of movement of the central bank's total domestic claims is governed, by and large, by that part consisting of its claims on commercial banks. As a rule, it appears that commercial banks are guided by a wish to prevent substantial fluctuations (particularly reductions) in their credit to their clients. A fall in the country's external reserves entails a similar loss of reserves by the commercial banking system. Rather than diminish their lending, the banks tend to replenish their reserves by availing themselves of the other source of bank reserves—that is, by borrowing from the central bank.[8] Nurkse has paid much attention to this pattern of behavior, which he termed "automatic neutralization." But the conclusions he drew from his observations were not warranted, due to an unjustifiably strict interpretation of the "rules of the game" of balance-

[7] Ragnar Nurkse, *International Currency Experience* (Montreal, 1944), Chapter IV; and Arthur I. Bloomfield, *Monetary Policy under the Gold Standard: 1880–1914* (Federal Reserve Bank of New York, 1959), Chapter V.

[8] In cases where commercial banks hold government securities which are not considered as reserves or otherwise required to be held, the banks would try to dispose of part of these securities. Normally, however, this would lead the central bank to acquire these assets; that is, the domestic assets of the central bank would rise to that exent that it would not be lending to the commercial banking system but by an increase of claims on the government.

of-payments adjustment. Nurkse's interpretation judges monetary policy to be complying with the "rules" if the central bank's domestic assets move parallel with its external assets, that is, with the country's external reserves. The central bank would thus be required not only to counteract the commercial banks' "automatic neutralization," but to take even stronger measures in that direction (that is, leading to parallel movements of the central bank's domestic and external reserves). As has just been argued, however, there is no need for such parallel movements; changes in the central bank's domestic assets in a direction opposite to the change in the bank's (and the country's) external assets could be perfectly consistent with an over-all pattern of monetary policy geared to the requirements of balance-of-payments adjustment.

In most instances, it may be recalled, a general pattern of responsiveness of monetary policy to the balance of payments is found to involve movements of the discount rate and of money supply in an adjusting direction—as a quantity theory of money would require from such a pattern. There are, however, a few exceptions. Most notable is the case of the United Kingdom. While the discount rate in the United Kingdom rarely failed to respond to the needs of balance-of-payments adjustment, no such consistency is shown by money supply. Until the mid-1950's, changes in money supply did indeed conform to changes in the balance of payments, but from 1956 onward this has been rare. A higher degree of conformity with the country's external situation is shown by commercial bank credit supply. This pattern is consistent with what appears to be the prevailing opinion among monetary analysts and policy makers in the United Kingdom, who would mostly disavow the quantity theory of money while attributing heavy weight to the availability, and perhaps the cost, of credit. In addition, changes of the discount rate have naturally been considered particularly important in the United Kingdom, as a reserve center, due to the direct impact of interest-rate levels on short-term capital movements and the (probably more important) indirect impact on movements of speculative funds of increases in the discount rate, in times of deficit, as a "declaration of faith" in the pound sterling's rate of exchange. For the United Kingdom, therefore, commercial-bank credit (rather than money supply) is taken here, along with the discount rate, as a guide to the intention of the monetary authorities. It should be emphasized that it is the intention, rather than the outcome, which is studied here. Thus, by this yardstick, the United Kingdom is judged to have, as a

rule, responded to the balance-of-payments position, despite the mostly poor showing of the country's position—a performance which may well be partly due to the particular selection of policy variables in the United Kingdom.

Table 2-3, which is based on the findings of the studies of individual countries, shows the pattern of monetary policy in the nine countries covered in this study. Conformity of the pattern with the *direction*—though not necessarily the magnitude—of movement indicated by balance-of-payments requirements is represented by a plus sign, while a minus is assigned when no such conformity appears. The table specifies the monetary variables by which the pattern has been judged and, whenever there is a lack of agreement, gives the inferences for both variables. Since a possible change in the pattern of behavior may be found in a number of countries around the late 1950's or early 1960's, the table distinguishes between two periods, the 1950's and the 1960's.[9]

On the evidence of Table 2-3, countries may be divided into three groups. First come the United Kingdom and Japan, in which monetary policy may be said to have complied consistently with the direction of movement indicated by the balance-of-payments position of the country. This may also be true of Italy, though a judgment about that country has to be based on rather meager evidence. For one thing, Italy does not use changes in the discount rate as part of monetary policy, and the evaluation of its policy is based here on money supply alone. In addition, the small number of observations for Italy further reduces the reliability of this evaluation.

Second, there are several continental countries—France, Belgium, and the Netherlands—in which compliance with balance-of-payments requirements exists, but is less consistent than in the United Kingdom and Japan. Specifically, monetary policy in these countries seems to have become less responsive to the balance of payments during the 1960's. In Belgium and the Netherlands this change is recent, occurring around 1962 or 1963. In France, it came as early as 1959, but is more ambiguous: a change in policy is suggested by the discount rate variable,[10] while the behavior of money supply remains consistent with changes in the balance-of-payments position in the more recent period as well. For the period under study as a whole, but subject to qualifi-

[9] The cut-off point between the two periods varies among the countries for which this distinction is relevant, from about 1959 to 1962.

[10] Even the implication of the movement of interest rates in France becomes less obvious when considered in conjunction with movements in other countries. See the subsequent discussion in Section 5.

TABLE 2-3
RESPONSIVENESS OF MONETARY POLICY TO THE BALANCE OF PAYMENTS

Country	*Indicator*	*1950's*	*1960's*
Belgium	Discount rate	+	−
	Money supply		
	Credit supply		
France	Discount rate	+	−
	Money supply		+
Germany	Discount rate	−	−
	Money supply		
Italy	Money supply	+	+
Japan	Discount rate	+	+
	Money supply		
Netherlands	Discount rate	+	−
	Money supply		
Sweden	Discount rate	−	−
	Money supply		
U.K.	Discount rate	+	+
	Credit supply		
U.S.	Discount rate	−	+
	Money supply		−

+ indicates a policy in the direction required by the policy "mix."
− indicates an opposite policy.

cation for recent years, these three countries appear to conform, in their monetary policy, with the needs of the balance of payments. Lastly, in three other countries—the United States, Germany, and Sweden—monetary policy appears to be consistently nonresponsive to the needs of the balance-of-payments position. Isolated episodes of compliance may, of course, be found, but not for any length of time.

4. Policy Responsiveness to Surpluses and Deficits

In discussions of policy patterns in the postwar world, two conflicting claims have often been made. One argument leads to the conclusion that

responses to balance-of-payments disequilibrium have a deflationary bias. The argument goes as follows: the ability of countries to sustain a balance-of-payments deficit for an appreciable period is limited by the availability of external reserves, whereas no such restriction exists when countries enjoy a balance-of-payments surplus and accumulate external reserves. It is more likely, therefore, that a country incurring balance-of-payments deficits would react by a restrictive policy than that a country experiencing balance-of-payments surpluses would respond by an expansionary policy. To put it differently, the reaction of the same country to surpluses and to deficits is not symmetrical but biased toward restriction.

The counter-argument claims a lack of symmetry in the opposite direction. In the postwar world, it is argued, developed countries are committed to a policy of full employment and, perhaps, of rapid growth. Due to rigidities in the economy, policies restricting demand must lead to unemployment and loss of production; hence, a strong resistance must exist to the adjustment of balance-of-payments deficits by such measures. No such resistance exists, on the other hand, to an expansionary policy when surpluses are realized—and some expansion in such circumstances is, of course, an automatic response. The overall tendency is hence expansionary or inflationary.

Table 2-4 is intended to provide a test of these claims. It describes the responsiveness of monetary policy to instances of surpluses and deficits in a shorthand manner, by singling out the exceptions to each country's general policy pattern. For a country which has been classified in the last section as complying with balance-of-payments requirements, only instances of noncompliance of policy are presented; for a noncomplying country, only instances of compliance are shown. Japan does not appear in Table 2-4, for the simple reason that no episodes of exception to the complying pattern of its monetary policy could be found.

The evidence of Table 2-4 lends strong support to the claim that countries tend to respond to deficits more than to surpluses. It is seen, first, that almost all instances of responsiveness to balance-of-payments requirements in countries in which such reaction was not the rule are found in times of deficit—four such instances against a single case of responsiveness at a time of surplus. Turning to the lower half of the table, it is seen that the large majority of instances in which generally complying countries have not responded in this manner occur in times of surplus: only rarely—once in Belgium, and three times, for the

TABLE 2-4

EXCEPTIONS TO POLICY PATTERNS IN INDIVIDUAL COUNTRIES

Country	Period	
	Surplus	*Deficit*
COMPLIANCE WITH BALANCE-OF-PAYMENTS REQUIREMENTS IN NONCOMPLYING COUNTRIES		
Germany		II 1950 – I 1951
		II 1964 – I 1966
Sweden	II 1960 – III 1962	IV 1959 – I 1960
U.S.		I 1953 – IV 1954
NONCOMPLIANCE WITH BALANCE-OF-PAYMENTS REQUIREMENTS IN COMPLYING COUNTRIES		
Belgium	IV 1955 – III 1956	III 1952 – II 1953
	I 1963 – III 1965	
France	II 1952 – IV 1952	
	I 1959 – IV 1956	
Italy	IV 1953 – II 1956	
Netherlands	I 1950 – IV 1950	
	III 1953 – II 1954	
	I 1960 – IV 1961	
	II 1963 – IV 1963	
	III 1964 – IV 1964	
U.K.	I 1950 – II 1951	IV 1956
	I 1956 – III 1956	IV 1958
	I 1959 – III 1959	IV 1959
	IV 1965 –	

shortest duration, in the United Kingdom—did the policy pattern in these countries appear to be unresponsive to balance-of-payments deficits. The existence of a "deflationary," or "deficit-sensitive," bias of monetary policy thus stands out clearly. This bias may be due to either, or both, of two reasons. One, expounded earlier, is the asymmetrical attitude of governments toward losses versus accumulations of reserves. The other is the existence of the target of price stability, which would lead to a reluctance to undertake an expansionary policy during balance-of-payments surpluses, but would condone a restrictive policy at times of deficit. The wish to avoid losses of external reserves and, possibly, to avoid price increases, rather than to maintain full

employment and fast growth, seems thus to be the stronger motivation of monetary policy in the group of countries investigated in this study.

It should be remarked that this is definitely not the case with budgetary policy. It has been demonstrated earlier that budgetary policy was in general unresponsive to the position of the balance of payments. But even in the minority of instances (represented in column 1 of Table 2-1) in which budgetary policy was consistent with balance-of-payments requirements, only very few are periods of deficits. A hypothesis that budgetary policy was used to adjust *deficits* may thus be refuted even more emphatically than the more general hypotheses of the application of budgetary policy for balance-of-payments adjustment.

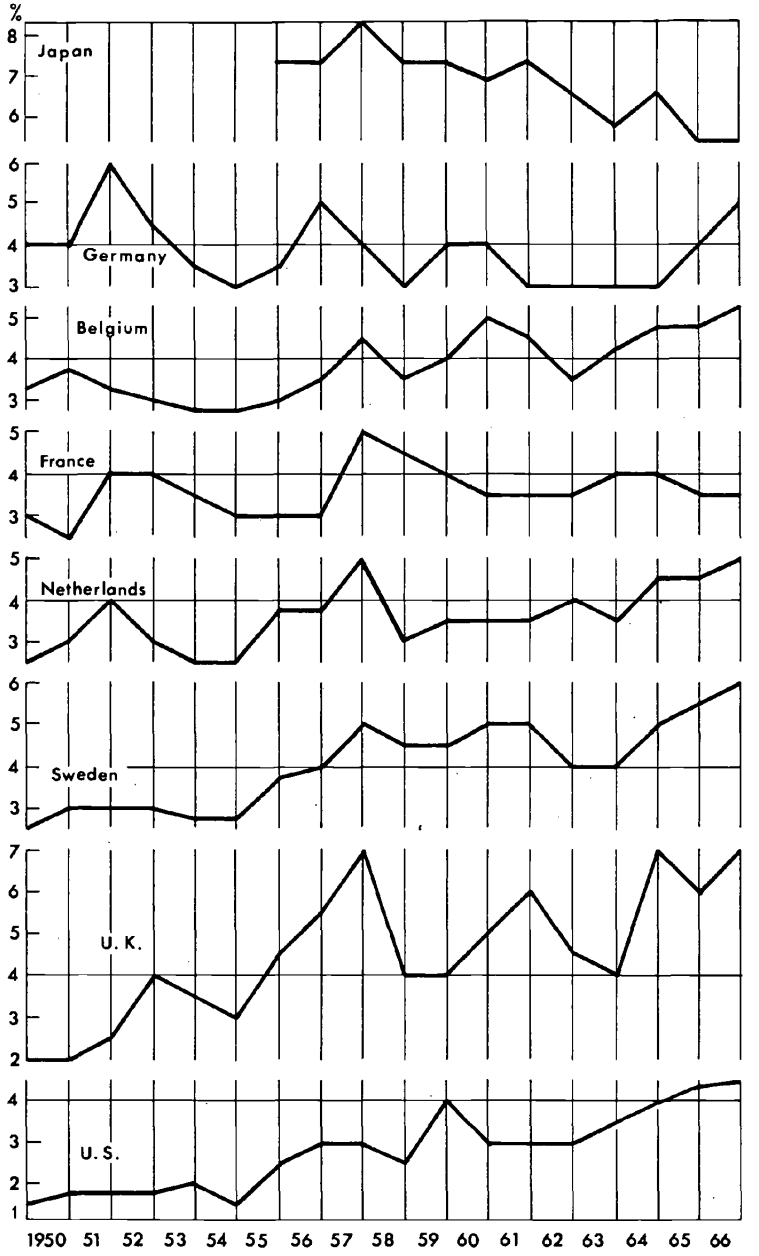
5. Relative Trends of National Monetary Policies: Long-Term Movements

The analysis so far has relied mostly on inferences drawn from observations of policy responses to balance-of-payments fluctuations in each country. It is possible, however, that the monetary authority, while not reacting to the ups and downs of the country's external position, may conduct a more restrictive monetary policy throughout the period —if the general trend of the country shows a deficit—than it would have otherwise. The verification of such a possibility is by no means easy. In the few instances in which longer-term developments are analyzed in the individual country studies in Part II, this has usually not been very fruitful. It is possible, however, that cross-sectional, inter-country comparisons may shed added light. Specifically, it may be interesting to examine whether, in countries whose external reserves tended to fall, monetary policy tended to be more restrictive than in countries with generally favorable balance-of-payments positions.

Chart 2-3 traces discount-rate movements over the period of seventeen years covered by this study for each of the eight countries in which this instrument was used (in Italy, it should be recalled, the discount rate was practically unchanged throughout). In general, an upward trend in discount rates is apparent. The obvious exception is Japan, in which the rate tended to fall. In that country, which experienced during this period a very fast rate of growth, radical structural changes, and a rapid capital accumulation, a substantial decline of real interest rates was to be expected. It is thus impossible to tell whether the down-

CHART 2-3

DISCOUNT RATES, 1950–66



ward movement of the discount rate represents any trend of monetary policy. For his reason, and also owing to the lack of information on relevant discount rates in Japan prior to 1956, Japan will be excluded from the following comparisons.

Given the general upward trend of discount rates, the *relative* movement of each rate—relative, that is, to the movements of rates in other countries—is probably more significant than the individual movements taken separately. Table 2-5 shows changes in each rate, absolutely and in relation to movements in the seven countries together, during the period as a whole and during two equal subperiods: from the beginning of the period to the late 1950's, and from then to the end of the period.

The hypothesis under consideration would require a relative fall of discount rates in countries with generally favorable external balances, and vice versa. By and large, this seems to have happened. From the beginning of the period to the end, the relative discount rate went up considerably in the United Kingdom and in the United States, countries with unfavorable balance-of-payments developments. It went down in Germany and France, reserve-accumulating countries, and was about stable in Belgium and the Netherlands, whose balances were on the whole favorable but less so than those of Germany or France. Sweden, whose discount rate went up, had a favorable balance on the whole, but not a very large one.

Observations of the two subperiods confirm the general impression. But they also conform with the earlier inference of a generally more complying monetary policy in the 1950's than in the 1960's: most of the relative movements which were just described took place during the earlier years. The separate observations of the two subperiods also make the general impression more plausible. Thus, it is seen that the decline of the rate in Germany took place during the 1950's, the period of rapid accumulation of reserves in this country; in France, on the other hand, it took place in the later years—again the period of reserve accumulation. Likewise, the rise of the rate in Sweden appears to have taken place during the 1950's—a period with only little reserve accumulation in this country.

The impression conveyed by these comparisons is that monetary policy may have been guided by the balance-of-payments position in a few important instances in which the former analysis found it to be unresponsive: the United States, Germany, and France since the late 1950's. Such a conclusion would have, however, to be heavily hedged.

TABLE 2-5
DISCOUNT RATES
(END-OF-QUARTER AVERAGES)

Country	*1950–52*	*1957–59*	*1964-66*	*1950–52 to 1964–66*		*1950–52 to 1957–59*		*1957–59 to 1964–66*	
				Change	*Difference from Average Change*	*Change*	*Difference from Average Change*	*Change*	*Difference from Average Change*
	(*1*)	(*2*)	(*3*)	(*4*)	(*5*)	(*6*)	(*7*)	(*8*)	(*9*)
Belgium	3.6	3.8	4.8	+1.2	−.2	+.2	−.5	+1.0	+.3
France	3.2	4.4	3.7	+.5	−.9	+1.2	+.5	−.7	−1.4
Germany	5.1	3.5	3.9	−1.2	−2.6	−1.6	−2.3	+.4	−.3
Netherlands	3.3	3.6	4.6	+1.3	−.1	+.3	−.4	+1.0	+.3
Sweden	2.9	4.5	5.3	+2.4	+1.0	+1.6	+.9	+.8	+.1
U.K.	2.7	5.0	6.1	+3.4	+2.0	+2.3	+1.6	+1.1	+.4
U.S.	1.7	2.9	4.1	+2.4	+1.0	+1.2	+.5	+1.2	+.5
Average of Seven Countries	3.2	3.9	4.6	+1.4	—	+.7	—	+.7	—

NOTE: All figures in per cent.

Long-term movements of the discount rate must reflect, at least in part, developments which have bearing upon the real rate of interest—as in Japan where it is obvious enough that such observations are to be discarded altogether. Likewise, other policy movements which reflect upon interest rates are excluded from consideration in such comparisons. It is very likely, for instance, that the upward trend of the discount rate (and of other interest rates) in the United States during the 1960's is a result of the general trend of budgetary deficits during these years—an effect which theory would lead one to expect; and these budgetary deficits were certainly not meant to respond to the balance-of-payments position. This may also be true (in the opposite direction) in Germany during the early 1950's, where the decline of interest rates accompanied a budgetary surplus. Germany is also another illustration of a case where, like Japan, the real rate of interest might have been expected to fall owing to a rapid accumulation of capital. These and similar considerations would thus make conclusions based on longer-term comparisons of discount rates at best very tentative.

These conclusions seem even more doubtful when contrasted with comparisons of longer-term movements of money supply. The latter are represented in Table 2-6 and in Chart 2-4. It has been noted earlier that, when responsiveness to balance-of-payments fluctuations is found, the variables of the discount rate and of money supply behave mostly as parts of a consistent pattern. It might be expected, therefore, that longer-term movements of these two variables may be similarly consistent. In fact, however, this is not generally the rule. Excluding the exceptional (Korean War) year of 1951, no trend seems to appear, over the period as a whole, in the level of the rate of expansion of money supply in the group of countries under study. In individual countries, on the other hand, trends are sometimes found—and in a way which usually contradicts the indications provided by trends of the discount rates. Most conspicuous is the case of the United Kingdom: the rate of expansion of money supply in that country shows an upward trend, particularly in the 1960's—in clear contrast with the restrictive indication given by the upward movement of the discount rate. This contrast is not surprising, in view of the dissimilarity of short-term responsiveness of these two variables in the United Kingdom. But the contrast is also found in movements of the two variables in France, Belgium and the Netherlands, where consistency is mostly found in reactions to balance-of-payments fluctuations. Thus, an even larger measure of skepticism must be attached to inferences about the direc-

TABLE 2-6

RATES OF INCREASE OF MONEY SUPPLY

(FOUR-QUARTER AVERAGES)

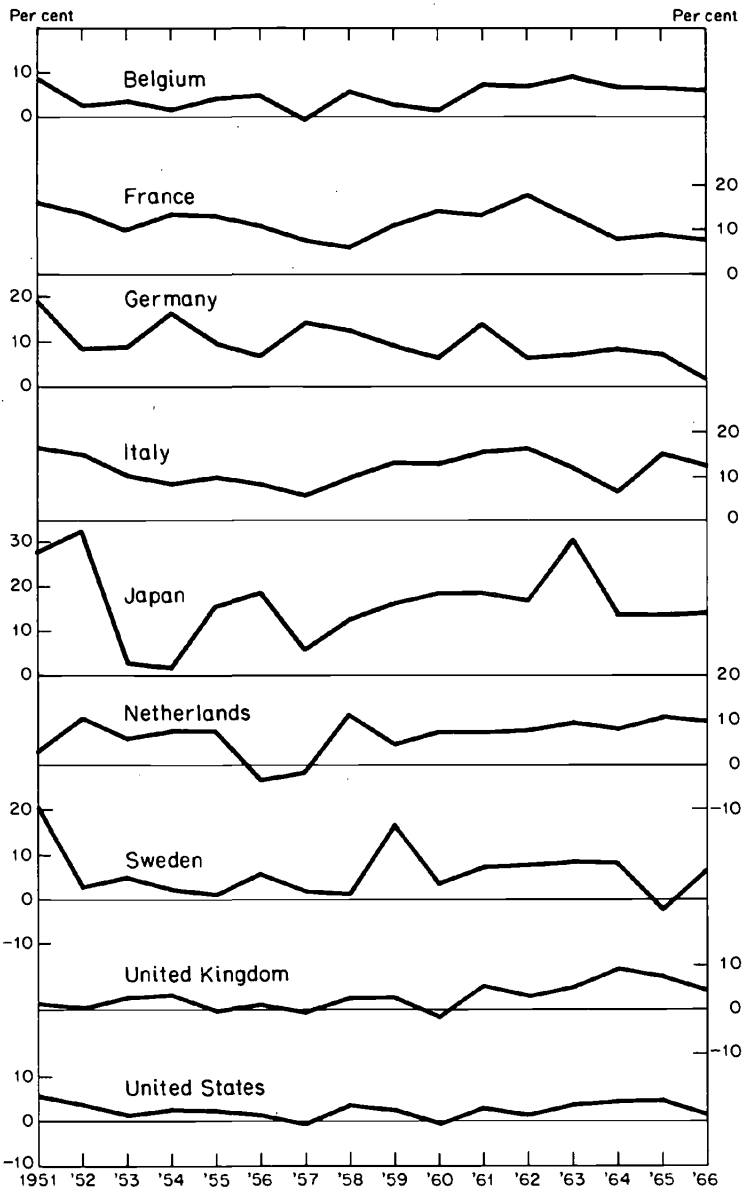
Country	*1951–52*[a]	*1957–59*	*1964–66*	*1951–52 to 1964–66*		*1951–52 to 1957–59*		*1957–59 to 1964–66*	
				Change	*Difference from Average Change*	*Change*	*Difference from Average Change*	*Change*	*Difference from Average Change*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Belgium	5.5	2.6	6.5	+1.0	+4.7	−2.9	+2.1	+3.9	+2.6
France	14.8	8.3	8.2	−6.6	−2.9	−6.5	−1.5	−.1	−1.4
Germany	14.0	12.3	6.0	−8.0	−4.3	−1.7	+3.3	−6.3	−7.6
Italy	15.7	9.6	11.4	−4.3	−.6	−6.1	−1.1	+1.8	+.5
Japan	30.0	11.4	13.8	−16.2	−12.5	−18.6	−13.6	+2.4	+1.1
Netherlands	6.7	4.5	9.3	+2.6	+6.3	−2.2	+2.8	+4.8	+3.5
Sweden	11.4	6.4	4.2	−7.2	−3.5	−5.0	—	−1.8	−3.1
U.K.	.9	1.5	7.0	+6.1	+9.8	+.6	+5.6	+5.5	+4.2
U.S.	4.6	1.8	3.6	−1.0	+2.7	−2.8	+2.2	+1.8	+.5
Average of Nine Countries	11.5	6.5	7.8	−3.7	—	−5.0	—	+1.3	—

NOTE: All figures in per cent.

[a] 1950 is omitted due to the absence of data for the year (or parts of it) in a few countries.

CHART 2-4

RATE OF CHANGE OF MONEY SUPPLY, 1951–66



tion of monetary policy, and the conformity of this direction with the balance-of-payments position, which are drawn from longer-term international comparisons.

6. Interrelationship of National Monetary Policies: Short-Term Movements

While the longer-term international comparisons of monetary policies do not prove to be very fruitful, short-term international observations may add another dimension to the investigation. In the individual country studies, the assumed target variables are all indicators of performance of the national economy—its balance of payments, its employment, and the like. It may be worthwhile to study, in addition, the possibility that policies may also be undertaken in response not to these targets but to policies pursued by other countries. The examination of this possibility will be limited here to one policy variable—the discount rate—and to the group of countries covered in this study—more precisely, to just the seven countries of this group (Belgium, France, Germany, the Netherlands, Sweden, the United Kingdom, and the United States) in which discount-rate variations are relevant for the entire period.

If the discount rate in each country changed in response to fluctuations in its balance of payments, and if balance-of-payments fluctuations in the individual countries were positively correlated with each other, movements of the discount rate would also be correlated. A finding of comovements of discount rates could not be interpreted, in such a case, as responsiveness of policy in each country to other countries' policies. It is logically possible that changes in the balance of payments of the seven countries could be positively correlated, since the group constitutes only a part of the world. The share of this group in total world trade is so large, however, that such a correlation (that is, the group as a whole moving from a positive to a negative balance in trade with the rest of the world, and vice versa) is not very likely. A simple statistical test verifies, indeed, that the assumption of such positive correlation must be rejected.[11]

[11] The test is as follows: Assume, as a null hypothesis, complete randomness in the balance-of-payments position of individual countries. On the average, for the seven countries under consideration during the sixty-eight quarters from the be-

It is thus established that conformity of monetary policy with the direction indicated by the balance-of-payments position would *not* lead to a general similarity in the direction of these policies in the respective countries. Yet such similarity is definitely evident. This may be grasped from a casual observation of Chart 2-3. More convincing evidence is provided by Table 2-7, which compares discount-rate movements in individual countries with trends in the group as a whole. In each country, each movement of the discount rate is contrasted with the trend of discount rates in the other six countries during the quarter in which the rate was changed and the preceding quarter. When there

ginning of 1950 to the end of 1966, the balance-of-payments position was positive in 60 per cent of the quarters, and negative in the other 40 per cent (for the purpose of this test, a period of stability is considered, in an alternating order, as either a period of a positive or of a negative balance). The probability of any given quarter having a positive balance, in any given country, is thus .6. With this probability, and with the assumption of complete randomness (that is, complete lack of dependence of a country's balance-of-payments position on other countries' position), the observations of the sixty-eight quarters would be expected to be distributed as in column 2 in the table below:

Number of Positive Balances in the Quarter (*1*)	*Number of Quarters*	
	Expected (*2*)	*Observed* (*3*)
0	0	0
1	1	0
2	5	3
3	13	12
4	20	34
5	18	18
6	9	1
7	2	0
Total	68	68

The actual observations are recorded in column 3. A chi-square test shows (at the .999 level of confidence) that the nul hypothesis (of complete randomness) must be rejected. A look at the table reveals that the reason for this rejection is the high concentration of actual observations at the point of the four positive (against three negative) balances per quarter. That is, the observations concentrate at a position of an even division into positive and negative balances, *more* than a complete randomness (or lack of dependence) would lead to expect. Thus, with a random distribution the average proportion of countries with the same sign of balance-of-payments positions, as the majority of countries, in each given quarter, would be expected to be 67.5 per cent; whereas the average of this proportion among actual observations is only 62.0 percent. This conforms, of course, with the assumption that the country's positive balance is likely to be at the expense of another country of the group under consideration, which would then tend to have a negative balance.

TABLE 2-7

DISCOUNT-RATE CHANGES: RELATIONS TO OTHER COUNTRIES

Country	*Number of Changes Which Agree with General Trend* (*1*)	*Number of Changes Which Oppose General Trend* (*2*)	*Number of Changes Taken in Periods with No Clear Trend* (*3*)	*Proportion of Agreement with Trend*[a] *(per cent)* (*4*)
Belgium	14	2	6	76
France	8	1	4	77
Germany	13	3	7	72
Netherlands	16	3	3	80
Sweden	10	2	2	79
U.K.	18	2	3	85
U.S.	14	7	3	65

NOTE: When the discount rate was changed more than once in a given quarter, this is considered a single change.

[a] For the calculation of this proportion, changes in periods with no trend are taken as changes both in agreement with trend and opposing it, with half weights assigned to each.

was a strong measure of agreement among the movements of rates during these quarters, a "trend" (positive or negative) was determined —with which the change in the country under consideration either agreed or disagreed; when no general agreement appears, or when there were only very few rate changes during this period, the period is judged to be without a trend.

It is immediately evident, from Table 2-7, that in all of the seven countries under consideration movements of the discount rate in each country were not independent of the movements of rates in the rest of the group but, on the contrary, strongly related to it. This is least true of the United States, where the link of rate movements with respective movements in the outside world seems to be weakest (but probably not entirely nonexistent). In all the rest of the countries the link appears to be strong and obvious.

It may be interesting also to examine in particular the relationship of exceptions to the normal patterns of monetary policy in each country to discount-rate changes in the outside world. Table 2-4, it will be recalled, records such exceptions: periods in which the monetary policy in a usually noncomplying country appears to be consistent with the needs of the balance of payments; or the policy in a country which usually conforms moves in the direction opposite to balance-of-payments requirements. Table 2-4 shows twenty-four such episodes. Of these, three are long enough to manifest more than a single trend of development of the discount rates and are therefore excluded from consideration. Of the remaining twenty-one episodes, in fifteen the direction of monetary policy was consistent with the trend of changes of discount rates in the group of countries in which discount rates were relevant. In three, the opposite was true; while in the remaining three no trend was evident. It may be concluded that, in general, movements of monetary policy which were exceptional to the normal pattern of policy in the respective country conformed to the trend of policies in the outside world, and could possibly be explained by the latter—although the speculative nature of such an inference would be obvious.

It thus appears that the direction of policies undertaken in each individual country is generally quite similar to the direction of policies followed in other countries in the group under consideration (and, one may presume, possibly also in other industrial countries which are not covered in the present study), and that this could not be attributed to chronological similarities in balance-of-payments developments. The comovements of policies might conceivably be explained by chronological coincidence of movements of other targets. Specifically, if business cycles happen to have similar chronological patterns in the countries under consideration, comovements of policies should have been expected. And if that were the case, changes in discount rates *relative* to rates in other countries would have been a most meaningful indication of a degree of responsiveness to the balance-of-payments position. The examination of such coincidence is very difficult, partly, at least, due to the lack of recognized business "cycles" in the analyses of the countries involved, and to the conceptual difficulties inherent in any attempt to determine such cycles. A rough comparison of developments as charted by the variables of unemployment and industrial production fails to uncover a chronological coincidence. It thus seems quite unlikely that this could be the explanation of policy similarities—although it must be emphasized that this statement is more

in the nature of an impression than an inference drawn from a thorough investigation.

Two other explanations of the comovements of monetary policies may be offered. One is that policy makers are inclined by convention to follow policies in other countries, and are likely to feel restrained in undertaking opposite policies. The other explanation, which would make such behavior rational, is concerned again with the balance of payments. When discount rates (and interest rates in general) rise elsewhere, a country which keeps its rate stable, and *a fortiori* one which lowers its rate, is likely to experience outflows of short-term capital, and a loss of reserves. Likewise, a country which raises its rate while other rates fall is likely to experience an inflow of short-term capital, which, due to its expansionary impact, the country may find unwelcome.

Insofar as this is the explanation, monetary policy is directed not at the adjustment of actual imbalances of payments but at the prevention of balance-of-payments movements expected to result from other countries' policies. This, of course, is a pattern of policies which does not conform with the directives of balance-of-payments adjustment: the latter would require two countries which undergo opposite experiences in their balance of payments to undertake policies in opposite directions, rather than to coordinate their policies so that they will move parallel with each other.

7. Policy Responsiveness and External Positions

Before bringing this over-all view of policy patterns to a close, it may be worthwhile to inquire whether the existence or absence of policy responsiveness to balance-of-payments disturbances could be explained by structural differences among the external positions of the different countries. A few specific aspects of this possiblity come to mind.

First, it may be assumed that the larger the role of a country's international transactions in relation to its total economic activity, the greater the attention paid to its external position, and the more likely that demand policy will respond to balance-of-payments fluctuations.[12]

[12] It is not entirely certain that this assumption is valid. Compare two countries, one with large and the other with small imports relative to national income, and assume a balance-of-payments deficit of the same proportion of im-

The size of the country's trade may be considered an important factor in determining monetary developments also, insofar as these developments are an automatic response. Specifically, it may be expected that a country with a large trade in relation to its stock of money will realize automatically a large response of the variable of money supply, in an adjusting direction, to balance-of-payments disturbances of any given size (that is, of any given proportion of the country's external transactions).

One other possible determinant of policy patterns, the direction of whose influence seems quite obvious, is the size of a country's external reserves. A country with large reserves may be able to refrain from undertaking an adjusting demand policy in instances where such policy might have been unavoidable without these reserves. This may almost be said to be the *raison d'être* of holding reserves: to make it possible to maintain a fixed exchange rate *without* reacting in an adjusting manner to downward imbalances of payments. If this is so, countries with small reserves should be found to subject their monetary policy to the needs of the balance of payments more than do countries with large reserves.

Table 2-8 provides figures for the ratios under consideration in each of the nine countries. The size of trade in relation to the country's economic activity is represented by the ratio of merchandise imports to Gross National Product; while this is not the only possible (meaningful) indicator, it is probably the best single measurement for the purpose at hand.[13] The size of imports in relation to the stock of money is represented by the ratio of annual imports to the money supply (at year-ends). Had the ratio of money to GNP been similar

ports in the two countries. If income elasticity of demand for imports is the same in the two countries (abstracting, for simplicity, from consideration changes in exports), the same percentage amount of reduction of national income would correct the deficit in each country; on this basis, there seems to be no reason to expect one country to be more reluctant than the other to undertake demand policy in the adjusting direction. Moreover, automatic income effects would be expected, under certain assumptions (such as the existence of positive and equal propensities to save) to be more severe in the country with the larger imports; that country may, therefore, feel less obliged to undertake a restrictive monetary policy. Nevertheless, it is probably a general presumption that a country whose trade is small is likely to attach smaller weight to the target of balance-of-payments stability, and to try to achieve this stability, if it feels compelled to do so, by other means than demand policy.

[13] Taking exports rather than imports or an average of the two, would not have changed the indication significantly. This statement is restricted, of course, to the group of countries and to the period under study.

TABLE 2-8

MEASURES OF EXTERNAL POSITION

Period	*Belgium*	*France*	*Germany*	*Italy*	*Japan*	*Netherlands*	*Sweden*	*U.K.*	*U.S.*
				1. RATIO OF IMPORTS TO GNP					
1950–52	.29	.12	.12	.12	.12	.41	.23	.23	.03
1957–59	.32	.10	.14	.13	.11	.40	.22	.17	.03
1964–66	.39	.11	.15	.14	.10	.40	.22	.16	.03
				2. RATIO OF IMPORTS (ANNUAL) TO MONEY SUPPLY (END OF YEAR)					
1950–52	.70	.38	.78	.46	.56	1.17	1.09	.65	.08
1957–59	.81	.31	.85	.38	.45	1.48	1.26	.70	.10
1964–66	1.04	.31	.96	.35	.32	1.58	1.34	.47	.13
				3. RATIO OF EXTERNAL RESERVES (END OF YEAR) TO IMPORTS (ANNUAL)					
1950–52	.44	.20	.17	.50	.48	.29	.22	.25	2.42
1957–59	.40	.19	.67	.69	.31	.33	.20	.20	1.64
1964–66	.34	.56	.46	.52	.24	.31	.22	.08	.73

everywhere, this measure would have been merely a repetition of the ratio of imports to GNP; but the ratio of money to product is not necessarily similar either in general or among the countries under consideration. Finally, the size of reserve is represented by the ratio of (end-of-year) reserves to (annual) imports. This, again, is only one of the possible measures of size of reserves, and it may be expected to give only a very rough idea. Yet, since the complex matter of indicators of "adequacy" of reserves cannot be explored on this occasion, this is probably the best single measure that could be adopted, and presumably also the one most frequently observed by governments.

Table 2-9 summarizes in a descriptive way the indications provided by Table 2-8. The countries are classified into two groups—"conforming" and "nonconforming." Each respective measure is given a plus sign if, by the indication it provides, the country should be expected to adopt the policy pattern it has actually followed, a minus sign in the opposite case, and an asterisk if the indication is neutral.

It appears, from Table 2-9, that the three relationships under consideration could possibly explain some policy patterns, but not all or even most. No striking difference seems to exist between the two groups of countries in the relationships under study.

In observations of individual countries, the outcome appears again to be, at best, mixed. All the three ratios under consideration could explain the absence of responsiveness to the balance-of-payments position in the United States. Almost as consistently they could explain the high degree of compliance with balance-of-payments requirements in the Low Countries—Belgium and the Netherlands. But Sweden, with attributes similar to the two latter countries, is definitely a country in which monetary policy does not respond to the balance-of-payments position. Similarly, Japan would not be expected, by the evidence of these indicators, to follow the responsive monetary policy which it has devotedly followed; whereas the indication provided for France, the United Kingdom and Germany is unclear. Observations of these indicators, of what might be regarded as the structural position of a country's external transactions in its over-all economy, thus offer little explanation of the differences among countries.

Finally, it might be assumed that a "reserve-currency" country could be more inclined to subject its monetary policy to the needs of the balance of payments than one which does not fulfill this role. Since only two countries qualify for this category—the United States and the United Kingdom—no over-all conclusions about the significance of

TABLE 2-9

SUMMARY DESCRIPTION OF MEASURES OF EXTERNAL POSITION

	"Conforming" Countries						*"Nonconforming" Countries*		
	Belgium	*France*	*Italy*	*Japan*	*Netherlands*	*U.K.*	*Germany*	*Sweden*	*U.S.*
Ratio of imports to GNP	+ high	− low	− low	− low	+ high	− low	+ low	− high	+ low
Ratio of imports to money	+ high	+ high	− low	− low	+ high	− low	− high	− high	+ low
Ratio of reserves to imports	* medium	+ low[a]	− high	* medium	* medium	+ low	+ high	− low	+ high

[a] During the 1950's, when monetary policy in France tended to comply with balance-of-payments requirements.

this factor may be attempted. The two countries involved pursued, of course, almost diametrically opposite policy patterns.

8. Summary and Conclusions

The following summary of policy patterns in the postwar world will outline the main conclusions that have emerged from the present chapter; in addition, it will include a larger amount of speculation than there is in the main body of the analysis.

According to their patterns of responsiveness of monetary policy to the balance-of-payments position, the nine countries investigated in this study may be divided into three groups:

a. In two countries—the United Kingdom and Japan—monetary policy appears to have been played consistently according to the classical "rules of the game"; that is, to have been guided by the fluctuations in the country's external position.

b. In four other countries—France, Belgium, the Netherlands and, probably, Italy—monetary policy seems again to have been directed by balance-of-payments movements much of the time, but not with the same consistency as in the two former countries.

c. In the three remaining countries—the United States, Germany, and Sweden—monetary policy does not appear to have been generally, or even mostly, responsive to the balance of payments, and thus did not comply with the "rules of the game."

In countries of the first two groups in which compliance of monetary policy with the directives of the balance of payments tended to be the rule, the monetary tools which have been used for the purpose appear to be primarily the traditional instruments, namely the discount rate and the supply of money; the most important exception is the United Kingdom, where money supply is largely disregarded and credit supply takes its place as a major instrument of monetary policy.

Budgetary policy, on which attention has been so largely focused in theoretical discussions since the 1930's, appears to have responded to the balance-of-payments position only infrequently, definitely not as a rule, although this conclusion must be more heavily guarded than most others, due to the limitations of observations of this variable. It does not appear, moreover, that the failure to use budgetary policy for balance-of-payments adjustment stems from the use of this instrument

in the service of domestic targets, whose requirements may contradict those of the target of balance-of-payments equilibrium. It seems more probable that, despite the heavy emphasis on it in analytical discussions or even in statements of policy makers, fiscal policy is largely unresponsive to the needs of major policy targets—either because it is too inflexible or because the principle of a balanced budget is still adhered to quite closely by policy makers.

It should be noted, in this connection, that the frequency of conflicts between the requirements of domestic targets—mainly the target of high employment—and the requirements of balance-of-payments equilibrium is not as high as the attention paid to these clashes in recent discussions would suggest. The impression that such a contradiction is of an overriding concern is probably due in large part to the recent experience of the United States, where from the late 1950's to the mid-1960's a high rate of unemployment accompanied a persistent balance-of-payments deficit. But this experience is by no means commonly shared: in most other major countries, the requirements of external and internal balance tended much more often to provide policy indications in the same direction, or at least not to contradict each other, rather than to point in opposite directions. As a result of this, and of the general lack of enthusiasm to employ budgetary policy, the use of the much discussed "policy mix," which would assign monetary policy to balance-of-payments adjustment and fiscal policy to the achievement of high employment (where the two targets call for policies in opposite directions), is a rarity rather than a common phenomenon.

Countries whose monetary policy generally responds to changes in the balance of payments tend to make exceptions to this pattern of behavior mainly when they are in surplus. Similarly, compliance of monetary policy with balance-of-payments requirements in generally noncomplying countries tends to be found at times of deficits. It thus appears that makers of monetary policy tend to gear their conduct to the country's external position more at times of deficits than at times of surpluses. It also appears that this tendency is not necessarily related to the level of external reserves: it is found when reserves are high as well as when they are low. It seems that countries tend to regard as their external target not so much the attainment of balance-of-payments equilibrium as the avoidance of deficits. The external target appears, that is, to be defined in a one-way manner. The loss of reserves is viewed with concern; but their accumulation—which might have been considered to be just as undesirable, due to its interference with the operation of the international system and to the real loss to the

economy of holding reserves—is viewed, in fact, with satisfaction or indifference.

Aside from this disparity in reactions to external surpluses and deficits, differences among countries in their responses to the balance-of-payments position do not seem to be accounted for by any single factor in their structural positions or international experiences. The importance of external trade could explain the greater responsiveness in Belgium and the Netherlands than in the United States. Low external reserves may explain the tendency in the United Kingdom and, during part of the period, in France, to comply with balance-of-payments requirements; whereas high reserves could explain opposite patterns in the United States and in Germany; and a large automatic impact of balance-of-payments developments on money supply could explain, again, responsiveness in the Low Countries and in France, and its absence may account for the lack of responsiveness in the United States. But almost all these assertions must remain within the realm of possibilities, at best partly verified, rather than strongly supported inferences, since statements to the contrary could not, by and large, be entirely rejected on the basis of the evidence on hand.

There could be little doubt, moreover, that these factors do not nearly exhaust the list of possibly significant influences. Policy patterns are determined by general inclinations of policy makers, which eventually reflect the basic attitude of the public. The factors which have been investigated do, it may be presumed, play some role; but a much wider range of structural conditions and historical experiences takes place in shaping general attitudes: histories of depressions or of rapid inflations would, of course, be most obvious examples.

The fact that the majority of the nine countries under investigation appear to have conducted, during most of the time, their monetary policy in a manner which complies with the "rules of the game," should be interpreted with caution when implications for the international monetary system as a whole are drawn. It should be recalled, first, that the noncomplying group includes the United States and Germany—two of the most important countries in the system. Second, it should be noticed that the tendency of monetary policy to be guided by balance-of-payments requirements appears to have weakened during the 1960's: in France, Belgium, and the Netherlands, responsiveness of monetary policy to the balance of payments is absent or less frequent in this period in comparison with the 1950's, while no examples of an opposite shift are found among the other countries studied.

In view of the starting position in the world at that time, it would seem that policy patterns during the 1950's may have been consistent with the requirement of stability in the international monetary system. In the late 1940's and early 1950's, the distribution of international liquidity among the major countries was grossly uneven. Considerations of the *level* of external reserves in different countries could have justified a failure to react to developments which tended to equalize the distribution. Specifically, in view of the very high level of reserves with which the United States started this period, and the rather low level of reserves in Germany, the lack of response in the former to the loss of reserves, and in the latter to their accumulation, must have contributed to the stability of the international system.

From the late 1950's onward, on the other hand, policy patterns appear in a different light. While in earlier years the distribution of reserves had been moving toward greater equality, the tendency during the later period has been toward lesser equality. The failure to respond by adjustment policies to losses of reserves in the United States, and to their accumulation in Germany and, during most of the period, in France, now definitely ran counter to the requirement for a stable international system. Furthermore, the *general* level of reserves (when measured, by the conventional yardstick, as a proportion of the flow of external transactions) was lower in the later period—a fact which would have called for a stronger policy response to balance-of-payments fluctuations. Moreover, the 1960's have been characterized by practically full external convertibility, and considerable freedom of capital movements among the major countries. That is, instruments of control of external transactions, which could be (and most probably were) used in place of adjustments in demand policy in the earlier years, have been mostly foregone in the later period. It thus appears that, in contrast with the 1950's, patterns of demand policy in the 1960's cannot be judged to have been consistent with the target of stability of the international monetary system.

References

American Enterprise Institute for Public Policy Research, *International Payments Problems: Symposium Proceedings,* Washington, D.C., 1966.

Baldwin, Robert E., *et al., Trade, Growth and the Balance of Payments* (Essays in Honor of Gottfried Haberler). Amsterdam, 1965.

Bank for International Settlements, *Annual Report*, Basle, 1930–66.

Bank of England, *Bulletin*, quarterly, London, December 1960–66.

Bank for International Settlements, *Eight European Central Banks*, New York, 1963.

Bloomfield, Arthur I., *Monetary Policy under the Gold Standard: 1880–1914*, New York, 1959.

Brown, Weir Messick, *The External Liquidity of an Advanced Country*, Princeton, 1964.

Corden, W. M., *Recent Developments in the Theory of International Trade*, Princeton, 1965.

Deshmukh, C. D., and Roosa, Robert V., *The Balance Between Monetary Policy and Other Instruments of Economic Policy in a Modern Society*, Washington, D.C., 1965.

European Economic Community, Commission, *The Economic Situation in the Community*, quarterly, Brussels, Publishing Services of the European Communities, 1961–66.

European Economic Community, Monetary Committee, *The Instruments of Monetary Policy in the Countries of the European Economic Community*, Brussels, 1962.

European Economic Community, *Report on the Activities of the Monetary Committee*, annual, Brussels, 1959–66.

European Monetary Agreement, *Report of the Board of Management*, annual, Paris, 1960–66.

Fellner, William, *et al., Maintaining and Restoring Balance in International Payments*, Princeton, 1966.

Fleming, J. Marcus, *Toward Assessing the Need for International Reserves*, Princeton, 1967.

Fousek, Peter G., *Foreign Central Banking: The Instruments of Monetary Policy*, New York, 1957.

Franks, Sir Oliver, *Some Reflections on Monetary Policy in the Light of the Radcliffe Report*, New York, 1960.

Georgiadis, Hourmouzis George, *Balance of Payments Equilibrium: A Theoretical and Empirical Study*, Pittsburgh, 1964.

Haberler, Gottfried, *A Survey of International Trade Theory*, Princeton, 1961.

———, *Money in the International Economy; A Study in Balance of Payments Adjustments, International Liquidity and Exchange Rates*, London, 1965.

Hinshaw, Randall (ed.), *Monetary Reform and the Price of Gold*, Baltimore, 1967.

Institute of Bankers, Oxford University, *International Banking and Foreign Trade,* London, 1955.

International Monetary Fund, *Annual Report,* Washington, D.C., 1946–66.

———, *Balance of Payments Manual,* 3rd ed., Washington, D.C., 1961.

———, *Balance of Payments Yearbook,* Washington, D.C., 1949–66.

———, *International Financial News Survey,* weekly, Washington, D.C., July 1948–66.

———, *International Financial Statistics,* monthly, Washington, D.C., Jan. 1948–66.

———, *International Monetary Problems 1957–1963: Selected Speeches of Per Jacobsson,* Washington, D.C., 1964.

———, *The Revival of Monetary Policy,* Washington, D.C., 1953.

Kindleberger, Charles P., *Balance of Payments Deficits and the International Market for Liquidity,* Princeton, 1965.

Kirschen, E. S., *et al., Economic Policy in Our Time,* Vol. I: General Theory; Vol. II: United States, United Kingdom, Norway; Vol. III: Belgium, Germany, the Netherlands, France, Italy; Amsterdam, 1964.

Lary, Hal B., *Problems of the United States as World Trader and Banker,* New York, NBER, 1963.

Lederer, Walther, *The Balance of Foreign Transactions,* Princeton, 1963.

Liesner, L. L., *The Import Dependence of Britain and West Germany: A Comparative Study,* Princeton, 1957.

Machlup, Fritz, *The Need for Monetary Reserves,* Princeton, 1966.

McKinnon, Ronald I., and Oates, Wallace E., *The Implications of International Economic Integration for Monetary, Fiscal, and Exchange-Rate Policy,* Princeton, 1966.

Meade, James Edward, *Theory of International Economic Policy, Vol. I: The Balance of Payments,* London, 1955.

Nurkse, Ragnar, *International Currency Experience,* League of Nations, Montreal, 1944.

Organization for Economic Co-operation and Development, Economic Policy Committee, *The Balance of Payments Adjustment Process;* A Report by Working Party No. 3 of the Economic Policy Committee of the O.E.C.D., Paris, 1966.

Organization for Economic Co-operation and Development, *Economic Outlook,* semi-annual, Paris, 1967–68.

———, *General Statistics,* bimonthly, Paris, 1950–64. Issued 1950–Sept. 1961, by the Organization for European Economic Cooperation.

———, *Main Economic Indicators,* monthly, Paris, Jan. 1965–66.

———, *Statistics of Balance of Payments, 1950–1961,* Paris, 1964.

Rees, Graham L., *Britain and the Postwar European Payments Systems,* Cardiff, 1963.

Sayers, R. S. (ed.), *Banking in Central Europe,* London, 1962.

Scitovsky, Tibor, *Economic Theory and Western European Integration,* Stanford, 1958.

Seldon, Arthur (ed.), *Not Unanimous: A Rival Verdict to Radcliffe's on Money,* London, 1960.

Snider, Delbert A., *Optimum Adjustment Processes and Currency Areas,* Princeton, 1967.

Statistical Office of the European Communities, *General Statistics Bulletin,* monthly, Brussels, 1963–66.

U.S. Congress Joint Economic Committee, *Economic Policies and Practices; Comparative Features of Central Banks in Selected Foreign Countries,* 88th Congress, 1st Session, Washington, D.C., 1963.

———, *Economic Policy in Western Europe,* Report, 85th Congress, 2nd Session, Washington, D.C., 1959.

United Nations, Research and Planning Division, Economic Commission for Europe, *Economic Survey of Europe,* annual, Geneva, 1947–66.

United Nations, Secretariat, Department of Economic Affairs, *Governmental Policies Concerning Unemployment, Inflation and Balance of Payments 1950–51: Analysis of Replies by Governments to a United Nations Questionnaire,* New York, 1951.

———, Secretariat, Department of Economic Affairs, *Governmental Policies Concerning Unemployment, Inflation and Balance of Payments 1951–52: Analysis of Replies by Governments to a United Nations Questionnaire,* New York, 1952.

Van Campen, Ph. C. M., *On the Coordination of Monetary Policy within the E.E.C.,* Document 17, European Parliamentary Reports, 1962–63.

PAPERS

Allen, R. G. D., "Statistics of the Balance of Payments," *Economic Journal,* Vol. 61 (March, 1951), pp. 179–96.

Arndt, H. W., "Balance of Payments Equilibrium and Monetary Policy: A Comment," *The Economic Record,* Vol. 31 (May, 1955), pp. 105–11.

Badger, D. G., "The Balance of Payments: A Tool of Economic Analysis," *International Monetary Fund Staff Papers,* Vol. 2 (September, 1951), pp. 86–197.

Bernstein, E. M., "Strategic Factors in Balance of Payments Adjustment," *International Monetary Fund Staff Papers,* Vol. 5 (August, 1956), pp. 151–69.

Bopp, K. A., "Central Banking Objectives, Guides, and Measures," *Journal of Finance,* Vol. 9 (March, 1954), pp. 12–22.

Cooper, R. N., "The Balance of Payments in Review," *Journal of Political Economy,* Vol. 74 (August, 1966), pp. 379–95.

Dorrance, G. S., and Aubanel, G. R., "Survey of Monetary Analyses," *International Monetary Fund Staff Papers,* Vol. 5 (February, 1957), pp. 358–433.

———, and White, W. H., "Alternative Forms of Monetary Ceilings for Stabilization Purposes," *International Monetary Fund Staff Papers,* Vol. 9 (November, 1962), pp. 317–40.

Duesenberry, J., "Domestic Policy Objectives and the Balance of Payments," *Journal of Finance,* Vol. 21 (June, 1966), pp. 345–54.

Familton, R. J., "Balance of Payments Equilibrium and Monetary Policy," *The Economic Record,* Vol. 30 (November, 1954), pp. 209–24.

Fleming, J. Marcus, "Domestic Financial Policies under Fixed and under Floating Exchange Rates," *International Monetary Fund Staff Papers,* Vol. IX (November, 1962), pp. 369–80.

Gilbert, Milton, "Reconciliation of Domestic and International Objectives of Financial Policy: European Countries," *Journal of Finance,* Vol. 18 (May, 1963), pp. 174–86.

———, and McClam, Warren, "Domestic and External Equilibrium: European Objectives and Policies," *American Economic Review,* Vol. LV (May, 1965), pp. 189–99.

Havrilesky, Thomas, "A Test of Monetary Policy Action," *Journal of Political Economy,* Vol. LXXV (June, 1967), pp. 299–304.

Heller, H. R., "Optimal International Reserves," *Economic Journal,* Vol. 76 (June, 1966), pp. 296–311.

Henderson, H., "Internal Financial Policy and the Problem of External Disequilibrium," *Economia Internazionale,* Vol. 3 (November, 1950), pp. 952–62.

Høst-Madsen, P., "Asymmetries Between Balance of Payments Surpluses and Deficits," *International Monetary Fund Staff Papers,* Vol. 9 (July, 1962), pp. 182–99.

———, "Measurements of Imbalance in World Payments, 1947–58," *International Monetary Fund Staff Papers,* Vol. 9 (November, 1962), pp. 343–65.

Jaramillo, R., "Central Bank Discount Rates," *International Monetary Fund Staff Papers,* Vol. 13 (March, 1966), pp. 103–18.

Kenen, P. B., and Yudin, E. B., "The Demand for International Reserves," *Review of Economics and Statistics,* Vol. 47 (August, 1965), pp. 242–50.

Krueger, Anne O., "The Impact of Alternative Government Policies under Varying Exchange Systems," *Quarterly Journal of Economics,* Vol. LXXIX (May, 1965), pp. 195–208.

Machlup, F., "Adjustment, Compensatory Correction, and Financing of Imbalances in International Payments," in Baldwin, R. E., *et al., Trade,*

Growth, and the Balance of Payments: Essays in Honor of Gottfried Haberler, Amsterdam, 1965, pp. 185–213.

———, "Three Concepts of Balance of Payments and the So-Called Dollar Shortage," *Economic Journal,* Vol. 60 (March, 1950), pp. 46–68.

Mundell, R. A., "The Appropriate Use of Monetary and Fiscal Policy for Internal and External Stability," *International Monetary Fund Staff Papers,* Vol. 9 (March, 1962), pp. 70–77.

Murphy, H., *et al.,* "The Adequacy of Monetary Reserves," *International Monetary Fund Staff Papers,* Vol. 3 (October, 1953), pp. 181–227.

Olakanpo, J. O. W., "Monetary Management in Dependent Economies," *Economica,* Vol. 28 (November, 1961), pp. 395–408.

Patel, I. G., "Monetary Policy in Postwar Years," *International Monetary Fund Staff Papers,* Vol. 3 (April, 1953), pp. 69–131.

Romanis, Anne, "Balance of Payments Adjustment Among Developed Countries," *International Monetary Fund Staff Papers,* Vol. 12 (March, 1965), pp. 17–34.

Ross, C. R., "Monetary Control and Economic Policy," Oxford University, Institute of Statistics, *Bulletin,* Vol. 19 (November, 1957), pp. 293–305.

Sargent, J. R., "Monetary Policy and the Balance of Payments," Oxford University, Institute of Statistics, *Bulletin,* Vol. 19 (November, 1957), pp. 347–51.

Schere, J., "On Measuring Fiscal Policy," *Journal of Finance,* Vol. 20 (December, 1965), pp. 683–90.

Smith, J. S., "Asymmetries and Errors in Reported Balance of Payments Statistics," *International Monetary Fund Staff Papers,* Vol. 14 (July, 1967), pp. 211–34.

Smith, Warren L., "Are There Enough Policy Tools?" *American Economic Review,* Vol. LV (May, 1965), pp. 208–26.

Stein, Herbert, "The Evolving International Monetary System and Domestic Economic Policy," *American Economic Review,* Vol. LV (May, 1965), pp. 200–207.