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The Regulation of Short-Term Capital Movements:
Western European Techniques in the 1960's

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# The Regulation of Short-Term Capital Movements: Western European Techniques in the 1960's

Most of the regulations which Western European monetary authorities imposed on international short-term capital movements in the 1930's and 1940's were meant to limit capital outflows and thereby conserve official reserves of gold and foreign exchange. During the 1950's, as Western Europe's external financial position strengthened, most countries in the area were able to do away with controls of this type, leaving the United Kingdom as the only major Western European country still restricting capital outflows for balance of payments reasons. Thus, as the present decade began, both banks and nonbanks in the principal countries on the European Continent once more had great freedom to move short-term funds across borders.

Subsequent events have demonstrated, however, that unrestricted short-term capital movements can pose serious problems for the achievement of domestic monetary goals. Conversely, they can also help to realize those goals, if they are consciously directed toward such policy objectives. Recent years have therefore seen the widespread adoption of new kinds of regulations on short-term capital movements, regulations which limit the freedom to move funds internationally or influence the manner in which that freedom is exercised. Strengthening the authorities' control over credit was usually the sole objective of these new measures, but international monetary cooperation was an additional consideration behind some of the measures adopted. In addition to the new regulations instituted in the past 10 years or so, the monetary authorities in some countries have also made use of certain older regulations which could be adapted to the new needs for control over short-term capital flows.

The present paper discusses the techniques used by the major Western European financial powers in the 1960's to regulate short-term capital movements solely or mainly for the purpose of affecting domestic monetary conditions. It also considers certain regulations adopted in Italy which have importantly affected short-term capital movements even though those regulations involved a number of other considerations in addition to that of increasing the effectiveness of the authorities' control over credit.

General remarks

Commercial banks have been the object of most of these regulations, whereas there has been a general disinclination to restrict the foreign borrowing and lending activities of nonbanks. The focus on commercial banks in part merely reflects the importance for credit regulation of control over the reserve base of the commercial banking system. But it was also determined by the fact that the development of the Euro-dollar and other Euro-currency markets since the late 1950's has enormously increased the likelihood of large-scale movements of funds into or out of European banking systems. Such flows, by adding to or subtracting from commercial bank liquidity, might so affect banks' lending potential as to seriously impair the efforts of the authorities to control credit. On the other hand, such flows might be turned to advantage. These new international money markets are markets in bank deposits and short-term bank credits denominated in the principal convertible currencies, and banking statistics readily reveal how significant their development has been for the volume of funds flowing from banks in one country to banks in another. Commercial banks in Britain, France, Germany, Italy, Sweden, the Netherlands and Belgium had $8.8 billion of gross short-term foreign assets at the end of 1960; by the end of 1967, this figure had risen to $27.3 billion.1/ These foreign assets mainly comprise time deposits placed with banks in other countries; banks also keep sight deposits with their foreign correspondents for working balance purposes, and generally invest some funds in foreign money market paper. But loans to customers abroad are a relatively small part of the total.

Regulations on short-term capital movements applied purposely to provide better domestic monetary control have universally had the effect of reinforcing policies of credit restraint, rather than of

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1/ These are the U.S. dollar equivalents of assets denominated in various currencies. In each of these countries, the foreign assets of the banks include not only dollar-denominated assets but assets in other foreign currencies and also in the currency of the country itself. German banks in particular have a high proportion of foreign assets that are denominated in D-marks, while much of the British banks' foreign assets is in sterling.

The figures cited here for the foreign assets of banks in several important European countries exclude Switzerland, which, however, is known to be very important as a supplier of short-term funds to foreign markets. Unfortunately, no statistics have been published on the foreign position of the Swiss banks.

assisting policies of monetary ease. Generally speaking, for Western Europe the period from the end of 1958 to the latter part of 1966 was one of strong and sustained economic expansion that found the monetary authorities constantly preoccupied with actual or threatened inflation. (For Italy, the pattern was somewhat different, a highly inflationary boom in 1962-63 giving way to recession in 1964.) Except in France, there was a general reluctance to use fiscal policy to curb demand pressures, the upshot being that monetary policy shouldered the full burden. In acting on short-term capital flows to buttress policies of monetary restraint, the authorities either sought to prevent funds from entering the country, or encouraged funds to flow out. The general abatement of demand pressures in Western Europe after mid-1966 led to the abolition of most of these regulations. But no positive steps to encourage inflows, or discourage outflows, have been adopted, except for one action by the Italian authorities at the end of 1965 to keep banks from sending additional funds abroad.

Germany and Italy have made more vigorous use than the other principal Western European countries of techniques for reinforcing monetary control by acting on short-term capital movements. The reason seems largely related to the fact that neither of these countries has resorted to quantitative limits--often referred to as "ceilings"--on the expansion of credit by credit-granting institutions. Ceilings on bank credit expansion were introduced successively by the Netherlands, Switzerland, France and Belgium between mid-1961 and the beginning of 1964; they were lifted in

France in mid-1965 but remained in force in the other three countries until 1967. Even though the countries making use of credit ceilings also used other, more traditional weapons of credit restraint, the ceilings were a key part of the arsenal. In those countries, policies of general monetary restraint created much less incentive for banks to borrow funds abroad, or repatriate foreign assets, than would have been the case had the authorities relied more heavily on increases in interest rates or actions that put bank liquidity under pressure. The corollary to this was that the use of credit ceilings diminished the need to regulate international flows of funds.

## Classification of techniques

The various techniques that the principal Western European monetary authorities have used in the past 10 years to regulate short-term capital flows show great variety, not only as to the immediate purpose to be accomplished but also with respect to the financial operation involved, the individuals or institutions affected, and the particular incentive, disincentive, or prohibition that is employed. They can, however, be classified into five broad categories.

A. Techniques to limit foreign borrowing by banks. These have been of two basic types. In Germany, the authorities have used financial disincentives, the principal one being the fixing of minimum reserve ratios at higher levels against liabilities to foreigners than against liabilities to German residents. A supplementary regulation was to penalize "excessive" foreign borrowing by reducing the offending bank's rediscount quota. By contrast, the Italian authorities chose to set quantitative limits on the amount of net foreign liabilities that Italian commercial banks might incur. In addition, the amount of net foreign borrowing that Italian banks engaged in was also influenced by the facility accorded them for swapping lire for U.S. dollars with the Bank of Italy at no cost, even though such a result was not always a reason why the swaps were given. The Netherlands and Sweden have also placed limits on banks' net foreign liabilities. In each case the action has had little or no practical effect so far, but the Dutch regulation seems likely to "bite" in the near future.

B. Incentives to encourage foreign lending by banks. Germany has made use of two devices to promote short-term capital exports on the part of German banking institutions. One was to waive reserve requirements against liabilities to foreigners to the extent that such liabilities were offset by certain types of foreign assets. In addition, the Bundesbank has from time to time given banks the privilege of swapping D-marks for U.S. dollars on better terms than the banks could get in the foreign exchange markets. In Italy likewise, the fact that the banks could make lira/dollar swaps with the authorities and pay nothing for forward cover has meant more placements of funds abroad than would otherwise have taken place. The Swiss authorities have at times promoted banks' short-term capital exports by threatening to sterilize inflows of foreign funds not matched by an equivalent volume of outflows. Additionally, the Swiss National Bank has sometimes engaged, on an *ad hoc* basis, in transactions with Swiss commercial banks that in practice were equivalent to swaps of Swiss francs for U.S. dollars.

C. Regulations governing the foreign currency position of banks. To limit potentially disruptive flows of short-term funds, France and Sweden have imposed regulations specifying that, with some exceptions, a bank's spot assets in a given foreign currency and its spot liabilities in that same currency must be in balance. Since external borrowing and lending by banks in those countries principally involves foreign, rather than domestic, currency, these regulations had the practical effect of limiting the extent to which a bank could be a net borrower or lender vis-à-vis residents of foreign countries. In France, the regulation was abolished at the end of 1966.

D. Exchange controls governing the activities of nonbank residents. The Netherlands and Sweden have made use of controls limiting the freedom of individuals, business enterprises, etc. to import or export short-term funds. In France and Italy, some short-term capital flows involving nonbank residents have been formally subject to exchange controls, but the restrictions were liberally applied and do not appear to have been of significance in restricting movements of funds.

E. Defensive measures against capital inflows. Germany, Switzerland, and France have tried to discourage foreign residents from sending funds to those countries by prohibiting banks from paying interest on funds deposited with them by foreigners. The prohibition in Germany is still in force at the time of this writing.

Limitations on foreign borrowing by banks

A. Germany. Changes in the levels of interest rates in Western Europe in the 1960's suggest that, from the early years of the decade to the second half of 1966, monetary conditions tightened more in Germany than in any other of the principal Western European countries. Despite this, and notwithstanding the rejection of credit ceilings as a tool of credit restraint, the German authorities were eminently successful in their efforts to prevent inflows of funds from abroad and to encourage banks to place funds in foreign markets. The build-up of monetary tensions in Germany (and in many of the other European countries as well) was concentrated in the period from mid-1963 to mid-1966. From June 30, 1963 to June 30, 1966 the net short-term foreign liabilities of the German commercial banks rose from $170 million equivalent to $331 million equivalent, an increase of negligible proportions insofar as its effect on the reserve base of the German banking system is concerned.

Efforts in Germany to discourage inflows of short-term funds actually began as early as May 1957, when it was decided to set the minimum reserve ratios on banks' liabilities to foreign residents at higher levels than the ratios against comparable liabilities to domestic residents. Discriminatory reserve requirements against liabilities to foreigners have been in force the majority of the time since then: from May 1957 through March 1959; from January 1960 through January 1962; and again from March 1964 through February 1967. Contrary to the practice in other Western European countries, German banking regulations require that minimum reserves be held against liabilities denominated in foreign currencies as well as liabilities in D-marks; the currency in which the liability is denominated is of no relevance as far as the minimum reserve requirements are concerned. Consequently, when German banks were made to observe discriminatory reserve ratios on their foreign liabilities, the discrimination applied to their foreign borrowings and foreign deposit liabilities in U.S. dollars, pounds sterling, etc., as well as to their D-mark liabilities to foreign residents. Thus, there was no loophole for escape from this effort by the authorities to discourage banks from seeking funds abroad.

When the reserve ratios on foreign liabilities were at discriminatory levels, the differentials between them and the ratios on comparable domestic liabilities were always large. The differential was greatest in the case of sight liabilities, next largest as regards time liabilities, and least as concerns savings deposits. But it was the gap with respect to time liabilities that was crucial to the effectiveness of the regulation as a deterrent to foreign borrowing. As will be noted later, since 1960 German banks have been prohibited from paying interest on foreign deposits, but they have been allowed to seek foreign funds by obtaining short-term credits from banks abroad, and these credits are considered as time liabilities for the purposes of the minimum reserve requirements. Minimum reserve ratios in Germany increase with the size of the banking institution; the most appropriate ratios for comparing the ratios on foreign and domestic liabilities are those applicable to the largest size of banks, since those banks do almost all of the foreign borrowing. When discriminatory reserve ratios were in effect, the ratios on foreign time liabilities of the largest banks were usually 10 or 11 percentage points higher than the ratios on those banks' time liabilities to domestic residents. It was frequently the case that, for the largest banks, the reserve ratios on foreign time liabilities were 20 per cent while those on domestic time liabilities were about 9 or 10 per cent. When the ratios were at those levels, banks could make profitable use of about 90 per cent of the funds raised by attracting domestic time deposits, but only 80 per cent of the funds acquired by foreign borrowing. The net return that could be realized on funds borrowed abroad was thus substantially lower than on similar funds borrowed internally.

In the spring and summer of 1964, the restrictive posture of German monetary policy was accentuated, and a further step was taken to deter banks from going abroad for additional resources. Beginning August 1, 1964, the Bundesbank reduced banks' rediscount quotas by the amount that a bank's gross external liabilities exceeded the average level of those liabilities in the first six months of 1964. Until that time, German banks had made relatively little use of their rediscount quotas. In the next two years, the tightening of bank liquidity in Germany caused rediscounting to increase sharply, and when rediscounts attained their peak in May 1966 the quotas, taken in the aggregate, appear to have been more than 50 per cent utilized. As the unutilized portion of the quotas shrank, external borrowing over and above the average for January-June 1964 was increasingly inhibited by the prospect that the offending bank would incur the penalty of still further reductions in these quotas. However, the effectiveness of this penalty was lessened by the fact that those banks which were most inclined to borrow abroad were the ones which tended to have least recourse to rediscounting.

The economic downturn in Germany after the summer of 1966 caused an easing of monetary conditions which, after the beginning of 1967, was strongly abetted by a dramatic shift in monetary policy. In these changed circumstances there was no further need to restrain imports of funds. Moreover, barriers to capital imports lost all practical significance; from very early in 1967 and continuing through the year, German banks were in fact heavy net lenders in foreign markets because short-term interest rates in Germany fell below those abroad. On March 1, 1967, discriminatory reserve requirements on foreign liabilities were abolished when the minimum ratios against those liabilities were lowered very sharply to the same levels as the ratios on the corresponding domestic liabilities.

B. Italy. The regulation of foreign borrowing by banks in Italy (which has related to net rather than gross liabilities) has had the same purpose as the set of regulations in Germany--to limit net inflows of funds--but the effects have been much more easily visible in the Italian case. This is because the Italian regulations were very forcefully used at times when credit conditions were particularly sensitive to the kind of action taken. Indeed, it may be said that major turning points in Italian monetary developments in the 1960's were closely bound up with the manipulation of controls on short-term capital flows.

Quantitative limits on foreign borrowing by banks in Italy were first used to achieve a relatively modest objective. In the summer of 1960, the Italian authorities moved to limit the expansion of bank liquidity which was then occurring because of a sizable balance of payments surplus. During the late 1950's, Italian banks had built up a rather large amount of net foreign liabilities. In August 1960, the Bank of Italy instructed banks to pay off all net liabilities to foreigners denominated in foreign currencies.[1/] The initial deadline for compliance was later extended from December 31, 1960 to January 31, 1961. Net liabilities could be eliminated either by paying off gross liabilities or by building up gross foreign assets. With the Euro-currency markets in a stage of rapid development, the banks chose the latter course. The amount of funds involved was rather small, and it also appears that this directive

1/ The banks' net foreign liabilities in lire were also of significant amount but were exempted from this directive. These lira liabilities are essentially funds which foreign banks and foreign companies deposit with Italian banks on their own initiative in order to have working balances. In contradistinction, when Italian banks go abroad for additional resources, they seek to attract funds in foreign currencies, since foreign-currency liabilities are not subject to reserve requirements.

did no more than hasten a process that, in any event, was already being brought about by market forces. Not long before, the Bank of Italy had begun to offer preferential outward swaps, and these proved a strong incentive for banks to put funds abroad.

The proscription against net foreign liabilities in foreign currency was maintained for nearly two years, until the objectives of Italian monetary policy had undergone a shift. During 1962, the Bank of Italy took two important actions to ease pressure on bank liquidity in order to forestall an unwanted slowing of credit expansion. Minimum reserve requirements were cut in January 1962; then, in November of the same year, the proscription of net foreign liabilities in foreign currency was removed. In the months that followed, inflationary boom conditions persisted in Italy while at the same time the balance of payments moved rapidly into deficit. To meet soaring loan demand while the external deficit was tending to sap their liquidity, Italian banks borrowed abroad in very heavy volume: in the 10 months from October 31, 1962 to August 31, 1963, their net foreign liabilities rose by the equivalent of $1.2 billion. The importance of this borrowing for the banks' credit-expansion capabilities is evident from the fact that it increased their reserve base by some 30 per cent.[1/]

1/ The increase in bank liquidity which the authorities wished to allow could also have been created by other means, such as a rise in Bank of Italy rediscounts and advances. The reason for choosing to have the added liquidity injected by making banks seek funds abroad was that this method prevented the balance of payments deficit from causing a decline in official reserves which, at that time, the Italian authorities wished to avoid.

When it became imperative, in the late summer of 1963, to bring demand expansion in Italy under control, new regulations on foreign borrowing played the key role, with rapid and dramatic results. The speed with which the Italian balance of payments deficit was growing made early action necessary, but the political situation precluded the use of fiscal policy. In choosing to halt credit expansion by acting in the area of banks' external borrowing, the Italian authorities had only to halt the rise in their net liabilities; no actual reduction was necessary, because the large balance of payments deficit would have the effect of rapidly eroding the banks' reserve base. In September 1963, the Bank of Italy directed banks to keep their net foreign liabilities in foreign currency from rising above the levels outstanding on August 31; they also asked the banks to reduce such liabilities if they could. A large rise in Bank of Italy credit to banks in the final four months of 1963 not only helped banks to start paying off these net liabilities but also was required to prevent the external deficit from causing a disastrous fall in credit outstanding.

The years since 1963 have seen a major shift in the Italian banks' net foreign position, and also a desire on the part of the authorities not to see the Italian banks again incur heavy net foreign liabilities. A recession caused Italian monetary policy to shift from severe restraint to ease in 1964, and in the second half of 1964 and throughout 1965 and 1966 large balance of payments surpluses added to bank liquidity. By the end of September 1965, the banks once more had net foreign assets in foreign currency for the first time since October 1962. At the end of 1965, the Bank of Italy directed that any bank which had net foreign assets in foreign currency (either then or on any later date) would not be allowed to shift back into a net liability position. This directive was issued to strengthen the authorities' control over bank liquidity, and began to have an effect in 1967. Because of renewed economic expansion in Italy, in early 1967 banks began to run down some of their net foreign assets, but because of the prohibition on moving into a net liability position this move by the banks could not go very far.

In addition to the quantitative limits which the authorities have set from time to time, the extent to which Italian banks have borrowed abroad on a net basis has also been very much influenced by the facility for preferential outward swaps which the Italian authorities have made available. The swap facility has tended to hold down the amount of the banks' gross foreign borrowing. But it has also worked to increase their gross foreign lending, and since the effect on the banks' net foreign position is the same in each case the swaps can be considered equally well from either standpoint. However, there may be certain advantages to discussing the swap facility at a later stage, in the context of regulations to encourage outflows of funds rather than as a measure that limits foreign borrowing.

C. The Netherlands. As part of the policy of monetary restraint practiced by the Dutch authorities in the period from mid-1963 to late 1966, Dutch banks were prohibited, effective August 1, 1964, from incurring net foreign liabilities in excess of the very small margin of 5 million guilders ($1.4 billion equivalent) for each bank. This regulation applied to the foreign position in all currencies including guilders, and to the combined total of short-term (up to one year) and long-term assets and liabilities.

The regulation has so far been of little effectiveness in preventing banks in the Netherlands from obtaining funds from abroad. At the time when it was introduced, Dutch banks had a large volume of net foreign assets. To increase their liquidity in guilders, banks could run their foreign assets down to the level of their liabilities, or foreign liabilities could be stepped up to the level of foreign assets, and this is what has in fact happened on a sizable scale. Outstanding net foreign assets were reduced to $84 million equivalent at the end of 1967, compared with $515 million at the end of 1963. It is obvious, however, that if the regulation is retained banks will be unable in the future to draw down their net foreign assets on the same scale as before.

D. Sweden. Banks in Sweden have long been prohibited from having net foreign liabilities. The regulation is similar to the comparable one in the Netherlands in that it covers foreign assets and liabilities irrespective of the currency in which expressed, and applies to combined short- and long-term assets and liabilities.

The ban on net foreign liabilities seems to have been largely irrelevant to the practices of Swedish banks in the 1960's. The banks (collectively) have consistently had a substantial excess of foreign assets over liabilities, which moreover has tended to become larger in the last two years. Net foreign assets were $295 million equivalent on December 31, 1967. It is possible, however, that the regulation did prevent some individual banks from incurring net foreign liabilities.

Incentives for banks to place funds abroad

A. Germany. The German authorities have used two techniques to encourage banks to put funds in foreign money markets: the "offset right" and preferential outward swaps. In both cases, a main purpose was to restrain the rise in the banking system's reserve base and thus limit banks' capacity to increase their credits to domestic borrowers. But balance of payments considerations have been an added factor in favor of these devices. In the late 1950's and in the 1960's to date, large surpluses have been common for Germany. Regulations which had the effect of promoting short-term capital exports by German banks also had the effect of limiting the size of German official reserve accruals.

To induce banks to place funds abroad, beginning in May 1961 reserve requirements against foreign liabilities were waived on that portion that was offset by certain foreign assets. Because of this offset right--which sometimes is also referred to as the "compensation privilege"--banks were required to maintain minimum reserves only against that part of their foreign liabilities that exceeded the sum of their sight and time balances with banks abroad and their investments in money-market paper in foreign centers. These particular foreign assets were, in fact, those in which banks were normally disposed to place the bulk of the funds they allocated to external uses, the only important type of foreign asset not eligible for the offset right being loans to foreign customers.

The offset right was in effect not only when the reserve ratios on foreign liabilities were at discriminatory levels but also when they were the same as the ratios against domestic liabilities. But the incentive to shift funds abroad was of course greater at those times when liabilities to foreigners were being penalized.

The foreign assets and liabilities of the German banks were affected by the offset right in two ways. First, funds which it had been profitable to borrow abroad and employ in Germany (despite discriminatory reserve ratios on foreign borrowings) were in part shifted from Germany to foreign markets, since *ceteris paribus* the reserve-reducing quality of the offset right increased the net return obtainable from the funds. Thus, one consequence of the offset right was to increase foreign assets, both gross and net. During the 1960's the German banks, considered as a group, consistently had net foreign liabilities until the beginning of 1967, but these net liabilities would have been larger had the offset right not been available.

The second effect of the offset right was to increase both foreign assets *and* foreign liabilities by equal amounts. As noted earlier, a large part of the participation of European banks in the Euro-currency markets amounts, in effect, to obtaining funds in one foreign country and relending them at a higher rate of interest in still another foreign country. Clearly, this kind of off-shore intermediation is placed at a disadvantage if banks must maintain minimum reserves against gross rather than net foreign liabilities, i.e., against a certain amount of liabilities representing funds that effectively do not enter the country. The offset right in effect transformed the reserve requirement on foreign liabilities from a requirement pertaining to gross liabilities to one based on net liabilities, with the exception that loans to foreign customers were not allowed to be offset against foreign liabilities. In this way, it made profitable a certain amount of off-shore intermediation that otherwise would not have been engaged in. But the offset right did not give the German banks any great competitive advantage relative to banks in other countries. It merely put them on a more or less equal footing, since other European countries, unlike Germany, do not require minimum reserves against foreign liabilities denominated in foreign currencies.

The offset right was applied in such manner that the marginal incentive to shift funds from domestic to foreign uses decreased as more and more funds were shifted in that way. All the foreign assets that were eligible for the offset right could, if necessary, be used entirely to offset foreign sight liabilities, the category of liability on which the minimum reserve ratios were always highest. If any assets remained unused after this initial offsetting, they could next be offset against foreign time liabilities. Any subsequent remainder was then offset against foreign savings deposits, on which the reserve ratios were lowest. This method of application had some effect in steadying the banks' net foreign position, because the incentive to shift funds abroad was greatest when a bank's net foreign liabilities were largest and least when the liabilities were smallest.

The offset right was abolished effective January 1, 1967. That action reflected the change that had come over the German economic and financial scene since the previous summer and the consequent disappearance of both the desirability and the need, on domestic grounds, of encouraging German banks to export funds. Doing away with the offset right has meant that German banks must observe minimum reserve ratios against funds borrowed abroad and relent in third markets. However, this obstacle to profitable off-shore intermediation is not so great now as it would have been in earlier years, because of the large reductions in the reserve ratios themselves that were made effective March 1, 1967 (when the discriminatory aspect was eliminated) and on subsequent dates in 1967 as well.

The Bundesbank began offering German commercial banks preferential outward swaps of U.S. dollars for D-marks in October 1958 as an inducement for banks to purchase dollars for placement abroad. "Preferential" here means that, in obtaining forward cover, the banks could buy forward D-marks from the Bundesbank more cheaply than in the foreign exchange markets, and thus obtain a higher net return; "outward" signifies that the commercial banks purchased spot foreign currency with domestic currency, in contradistinction to inward swaps, when the operation is the reverse. Over the years, swaps have been offered for periods ranging from two weeks to six months, the banks usually enjoying a wide choice of maturities. The forward rate applied to the swap operation has always been a preferential one, but the price for forward D-marks charged by the Bundesbank has sometimes been at a premium relative to the spot rate, sometimes at par, and sometimes (though rarely) at a discount. Unlike the Bank of Italy, the Bundesbank has not always made swaps available. There have been lengthy periods when, in the Bundesbank's view, the goals which swaps might help attain could be more effectively reached by other means.

In terms of the volume outstanding, swaps were of greatest importance in the period from October 1958, when they first became available, until the early months of 1962. The volume was at a peak of around $1 billion in the first quarter of 1962. Their effectiveness as a method of promoting short-term capital exports may be seen by comparing them with the volume of the German banks' gross short-term assets. Swaps with the Bundesbank were the way in which the German banks acquired about one-half of their short-term foreign assets in 1960, and about three-fourths of those assets in 1961.

After the early months of 1962, swaps were de-emphasized by the Bundesbank and their outstanding volume fell to zero by early in 1963. From that time until November 1967, they were usually not offered. Although they were offered in the 18 months from March 1964 to September 1965, the forward rate charged by the Bundesbank was not attractive enough to result in a great many dollars being taken off the Bundesbank's hands; the peak volume outstanding was $356 million in January 1965. In this period, the dollars had to be invested in U.S. Treasury bills. At other times, however, the banks were able to place the funds in the Euro-dollar market, or switch into other currencies.

Swaps were again of importance in the closing weeks of 1967 and early in 1968, when the Bundesbank revived this technique to reduce its official reserve gains as a contribution to international monetary cooperation. Speculation against the pound sterling in the weeks just before its devaluation, and speculation against the U.S. dollar following the change in the sterling parity, caused large-scale flows of short-term funds to Germany. On November 27, 1967 the Bundesbank began to offer swaps at a cost slightly less than the cost in the market, and the swaps taken up in the ensuing weeks were in such large amounts that by the end of January 1968, $822 million were outstanding. After a brief hiatus, swaps were again placed on offer in March 1968 when speculation set off by extremely heavy demand in the gold markets resulted in a new influx of short-term funds.

B. Italy. Preferential outward swaps have been used most extensively in Italy where, in November 1959, facilities were established by which Italian commercial banks could use lire to purchase U.S. dollars spot, at the market rate of exchange, from the UIC (Italian Exchange Office, managed by the Bank of Italy), and simultaneously resell the same dollars forward to the UIC at the same exchange rate. Since that time, swaps have been continuously available on the same terms as initially fixed; however, at the end of 1965 their availability on preferential terms was restricted to a limited number of banks. The Bank of Italy has kept the maturity of the swaps at two or three months, but has given the banks the privilege of paying them off in advance of maturity. The privilege of obtaining swaps "flat," i.e., without paying any premium for forward lire, has been a very decided advantage for Italian banks. Had the banks sought to obtain in the foreign exchange market as large a volume of swaps as they have contracted with the UIC, almost certainly a premium on the forward lira would have emerged that would have been high enough to reduce considerably the net return on the funds so employed. The U.S. dollar is the only foreign currency directly obtainable by swaps with the UIC, but the banks can and do switch part of their "swap dollars" into other currencies, covering themselves by repurchasing the dollars forward from their correspondents abroad.

Swaps with the UIC have been "big business" for Italian banks. The outstanding amount at the end of December 1967 was approximately $1.9 billion, equal to more than 3 per cent of the total assets of the Italian banking system. The UIC has set limits to the amount of swaps it was willing to make with any individual bank. These limits have been increased several times over since 1959, and it would appear that until the end of 1965 banks were able to obtain all, or nearly all, the swaps they desired.

A number of considerations seem to be involved in the willingness of the Italian authorities to make swaps available over such a lengthy period of time. One such consideration does not, in fact, relate directly to the question of international capital movements at all. Banks in Italy make a large volume of loans to domestic customers in dollars or other foreign currency, and they charge lower interest rates on such loans than on loans in lire. The Bank of Italy has wanted to encourage the business of lending in foreign currency as a way of reducing the structure of Italian interest rates, and therefore has been anxious that the banks get all the foreign currency they wish. Over and above what is deposited with the banks by their domestic customers (e.g., importers and exporters), the necessary foreign currency could theoretically all be obtained by borrowing abroad. But the Bank of Italy has not wanted the banks to become overly dependent on external sources for this foreign exchange. Moreover, sometimes it may be cheaper for banks to acquire foreign currency by swapping lire, and foregoing the rate of return that could have been earned on lira assets, than by borrowing it abroad. This would be especially the case if the banks did not have to pay for forward cover. For both these reasons, preferential swaps were chosen as a way of providing banks with foreign exchange for internal lending. Domestic loans in foreign currency totaled $2.4 billion equivalent at the end of 1967 and were 8 per cent of total outstanding bank loans.

The foreign currency obtained by the banks through swaps with the UIC can also be employed abroad, and because of the preferential terms involved the swap facility has been an encouragement for short-term capital exports. The authorities in Italy have encouraged these exports for several reasons. First of all, the participation of Italian banks as lenders in the Euro-currency markets is fostered if lire can be converted into dollars without cost. Second, the swaps are a vehicle for transferring dollars from the official reserves to the commercial banks. This transfer reduces the pressures for converting official dollars into gold, thus lessening the gold drain from the United States. Third, outflows of bank funds can supplement a policy of monetary restraint. This was most evident in the first year following the initial establishment of the swap facility, when banks made use of the new facility to place a large volume of funds abroad and thereby aided the Bank of Italy in controlling the build-up of bank liquidity.

The Bank of Italy changed its policy on swaps at the end of 1965 in order to encourage recovery from the 1964 recession. The banks had been exporting funds on a massive scale in the preceding 18 months because of the balance of payments surplus, a depressed demand for loans within Italy, and the increasing tightness of nearly all money markets outside the country. It was thought that monetary conditions in Italy would be easier if this outflow were slowed down. Consequently, since the end of 1965 those banks having net foreign assets in foreign currency have been unable to obtain additional swaps on preferential terms from the UIC, although existing swaps can be renewed. The UIC will grant those banks new swaps only if they pay a premium for forward lire aligned with the forward lira rate in the exchange market. Some banks could get additional preferential swaps in 1966 because they still had net foreign liabilities in foreign currency, but the volume of swaps outstanding has been nearly stable since the end of 1966.

C. Switzerland. Efforts to combat inflationary pressures in Switzerland were intensified in March 1964. One of several measures adopted at that time required Swiss banks to choose between two alternative courses of action with respect to any increases, after January 1, 1964, in their liabilities in Swiss francs to foreigners. Banks could either convert these francs into foreign currencies and place them abroad, or else see them sterilized by having to deposit them in a non-interest-bearing account at the Swiss National Bank. Either disposition would preclude their use as a base for credit expansion. The banks of course chose the first-named of these courses of action. The "sterilization threat" was lifted in October 1966.

The importance of this step as a deterrent to capital imports was not as great as it might have been. Since 1960, Swiss banks had been prohibited from paying interest on foreign-owned Swiss franc deposits, and therefore they were not in a position to bid for such funds anyway. The flows of funds to Switzerland which the "sterlization threat" kept out of the banks' reserve base were those that took place on the initiative of the foreign depositors, who wanted to deposit funds with Swiss banks even though no interest could be earned on them.

Switzerland has been a magnet for foreign funds seeking safety, while at the same time, because of its continually strong external position, the Swiss franc has, on many occasions during the 1960's, been considered a currency that might be revalued upward. In consequence, political and financial disturbances elsewhere in the world have typically sent waves of funds to Switzerland in recent years. With great frequency, therefore, the Swiss National Bank has employed techniques to "mop up" excess bank liquidity. One of these techniques was tantamount to preferential outward swaps, but it could be employed only sporadically.

The BNS (Swiss National Bank) was precluded by its statutes from making use of swaps on a continuing basis, as it might well have done had it been able. Its statutes do not allow it to make forward purchases of foreign currencies. For this reason, when the BNS wished to induce Swiss commercial banks to employ excess liquidity by acquiring foreign currency for placement abroad, it was unable to make swaps in the customary way. Instead, the BNS could only offer foreign currency that already bore an exchange rate guarantee, i.e., which had already been purchased forward by some third party. Foreign exchange of this type was acquired periodically by the BNS when swap lines between it and central banks in other countries were drawn upon. To induce Swiss commercial banks to enter into swap transactions with it, the BNS offered them foreign currency at an exchange rate that was attractive in relation to the rate at which the foreign central bank had repurchased the exchange forward. But because the availability of the foreign currency needed for such operations was dependent upon the use which other central banks made of their swap agreements with the BNS, the scope for swaps between the BNS and Swiss commercial banks was determined by fortuitous developments in international finance.

The BNS has swapped pounds sterling, U.S. dollars, and Italian lire to Swiss commercial banks. Speculative attacks against the pound led to very heavy inflows of funds to Switzerland in March 1961 and in November 1964. In March 1961 the BNS acquired $112 million equivalent of sterling, under a gold/sterling swap with the Bank of England in aid of the latter, and swapped this sterling partly to the Swiss Federal government and partly to Swiss commercial banks. In November 1964 the BNS acquired $80 million of sterling when the Bank of England drew on a Swiss franc/sterling swap line. All or most of this was swapped out to Swiss commercial banks when, in January 1965, the BNS swapped out a total of $116 million equivalent of sterling and U.S. dollars, the dollars having been acquired in that month by a swap with the Federal Reserve System.

The first BNS swaps with the Federal Reserve were in July and August of 1962 following a speculative attack on the dollar; $50 million of covered dollars acquired by the BNS that summer were swapped out to Swiss commercial banks. In later years, covered dollars acquired by the BNS in this way were also frequently placed with Swiss commercial banks by the BNS which, until 1967, availed itself of every opportunity to put pressure on bank liquidity. The swaps between the BNS and Swiss commercial banks involving lire took place in 1964, after the Bank of Italy drew $100 million equivalent on its swap line with the BNS.

Other operations undertaken by central banks in the framework of international monetary cooperation have also been utilized by the Swiss authorities to drain excess liquidity from the banking system. Swaps of dollars for Swiss francs between the Federal Reserve System and the Bank for International Settlements have been made frequently since 1962 at the initiative of the Swiss National Bank. To furnish the BIS with the Swiss francs it required for operations of this type, arrangements were made whereby Swiss commercial banks deposited $60 million equivalent with the BIS in the summer of 1962, and whereby Swiss banks also supplied much of the $100 million equivalent of francs needed by the BIS for swaps with the Federal Reserve in September-October 1963. Such operations subtracted funds from the reserve base of the Swiss banking system.

Operations of the U.S. authorities in the forward exchange market in Switzerland have likewise been of relevance to Swiss liquidity control. The U.S. authorities have supplied substantial amounts of relatively low-cost forward cover to Swiss commercial banks desirous of holding dollar assets, as an inducement to keep those assets from being liquidated and having the proceeds accrue to the Swiss National Bank with consequences for the U.S. gold stock. Operations of this type also kept funds out of the reserve base of the Swiss banking system, and were supported by the Swiss authorities as an aid to credit control.

Regulations on the foreign-currency position of banks

The preceding pages have dealt with regulations pertaining to the foreign position of banks, a concept based on the residence of a bank's debtors and creditors. Other regulations have been promulgated that pertain to the relationship between a bank's assets and liabilities in foreign currencies. Formally, and often in practice as well, the assets and liabilities that comprise the foreign position are quite different from those that go to make up the foreign-currency position. This is especially so in Britain and Germany, where a high proportion of banks' assets and liabilities *vis-à-vis* foreign residents is dehominated in domestic currency and is thus excluded from the foreign-currency position; and also in Italy, where, conversely, a large part of banks' assets in foreign currency is in the form of loans to domestic residents and is therefore not in the foreign position.

It is nevertheless true that the foreign position and the foreign-currency position do overlap, and that regulations affecting a bank's foreign-currency position can and do affect how much it may be able to borrow or lend, on a net basis, in foreign markets. This is particularly the case when, as in France for example, banks have relatively few foreign-currency assets and liabilities *vis-à-vis* domestic residents.

Until the end of 1966, French banks were required to keep a balanced over-all position in each foreign currency, the over-all position being defined to include the positions with domestic as well as foreign residents and to include both the spot and the forward positions. That regulation reflected a strong desire to insulate the French banking system from flows of short-term funds, either inward or outward. The requirement of over-all balance in the combined spot and forward positions was not by itself sufficient to prevent a bank from being a net borrower or lender of a given foreign currency with respect to foreign markets; a bank could, let us say, borrow dollars (on a net basis) abroad, sell them on the exchange market in Paris for francs to lend internally, and still keep to the requirement of a balanced over-all position in dollars by buying dollars forward, perhaps from a foreign correspondent. In fact, a bank would cover in this way in the normal course of events. To minimize the possibilities for such operations, the French authorities instructed banks that they could not, on their own initiative, take an open position in a given foreign currency, either spot or forward. They could do so only on the initiative of a foreign bank wishing to borrow or lend in France.

But this regulation was far from a perfect barrier to flows of funds between the French banking system and foreign money markets. For one thing, since French banks were allowed to accommodate their foreign correspondents, they could respond to the pull of tightening credit conditions abroad by increasing their net spot assets abroad in dollars, sterling, etc., or running down their net spot liabilities, as the case might be. Furthermore, the distinction between actions taken at the initiative of a foreign bank and actions taken at the initiative of a French bank was sometimes so fine as to make the regulation unenforceable. The best-known example of this unenforceability occurred in May of 1964, when the French authorities were putting a squeeze on bank liquidity in the context of a general stabilization program. In that month, banks in France turned a very large volume of dollar assets into badly-needed francs by making swap operations with correspondent banks abroad. French banks sold spot dollars to their foreign correspondents in return for francs, and repurchased these dollars forward. The correspondents sold the spot dollars on the Paris exchange market, where they were picked up by the Bank of France because the heavy sales drove the rate for the dollar down to the lower intervention point. The franc proceeds of these dollar sales were used by the foreign correspondents to replenish their franc balances. To induce their foreign correspondents to participate in these swap operations, French banks offered to repurchase the dollars forward at high premia in relation to the spot rates of exchange at which they sold them.

In Sweden, banks have not been allowed to let their spot assets in a given foreign currency fall below their spot liabilities in that currency, except to a small extent in cases where a spot liability is covered by a forward purchase.

Exchange controls on operations of nonbanks

Contrary to the majority of countries, the Netherlands and Sweden have continued in recent years to impose effective restrictions on the movements of short-term funds by resident individuals, business enterprises, and nonbanking institutions. Such flows are considered in those countries to be potentially disruptive and capable of jeopardizing the success of monetary actions undertaken by the authorities.

In the Netherlands, nonbank residents have not been allowed to obtain loans from foreign banks. Loans from other foreign sources, except suppliers' credits received from foreign exporters, are not automatically approved except for very small amounts. The limit was raised from 10,000 guilders to 50,000 guilders in June 1967. In Sweden, short-term borrowing abroad has generally been prohibited, except for commercial credits received by Swedish importers.

The Dutch and Swedish authorities have also curbed outflows of short-term nonbank funds for monetary reasons, again with the exception of commercial credits granted by domestic exporters. This position may well reflect concern over the monetary consequences of a return flow of funds that had previously left the country, rather than of the initial outflow itself. Dutch nonbank residents have not been permitted to purchase foreign Treasury bills or other short-term debt instruments, and prior to October 1967 were also not permitted to maintain accounts with foreign banks except in connection with normal business operations. These restrictions have prevented outward movements and return flows of nonbank Dutch funds in response to differentials in short-term interest rates. Sweden has generally disallowed all outflows of nonbank resident funds other than commercial credits and banking transactions necessary for business purposes.

Defensive measures against capital inflows

Regulations that discourage or prohibit banks from borrowing abroad skirt the problem that is posed when foreign residents take the initiative and deposit funds with domestic banks. No country has gone so far as to prohibit such capital movements entirely, but some have tried to discourage them. In the 1960's, the usually strong external positions of the D-mark, the Swiss franc, and the French franc have periodically given rise to speculation that these currencies might be revalued upward; in addition, Switzerland has been a recipient of foreign funds seeking a safe haven. As part of their anti-inflationary monetary efforts, all three countries have tried to reduce these inflows by not allowing banks to pay interest on at least some types of foreign-owned deposits.

In June 1960, the Bundesbank prohibited German banks from paying interest on sight or time deposits belonging to nonresident depositors, except in the case of savings deposits of individuals. The prohibition included deposits denominated in foreign currency as well as in D-marks. To reinforce this regulation, banks were also prohibited from selling securities to foreign residents under repurchase agreements. The interest ban was partially revoked between May 1962 and March 1964, when the Bundesbank gave permission in individual cases for payment of interest on time deposits of at least 30 days maturity, but it was resumed with its former intensity in March 1964 when German monetary policy was tightened generally. It remains in effect at this writing.

Since the ban extended to foreign-currency deposits, German banks could not attract Euro-dollar and other Euro-currency deposits, with the result that their takings from those markets had to be in the form of short-term credits.

In August 1960, after the Congo crisis caused a heavy flow of funds to Switzerland, the Swiss National Bank entered into a gentlemen's agreement with Swiss commercial banks, the main provision of which was an undertaking by the banks party to the agreement not to pay interest on Swiss francs deposited by foreigners since the previous June 30. In addition, banks agreed not to accept foreign Swiss franc deposits with a maturity of less than 30 days, agreed to apply a service charge each quarter, at an annual rate of 1 per cent, on deposits with a maturity of under 60 days, and pledged themselves to do what they could to keep foreign funds from being invested in Swiss securities or real estate. The interest ban did not apply to foreign-currency deposits, which Swiss banks could thus continue to attract.

This agreement, made initially for one year only, was renewed each year until 1964 except for the elimination of the service charge feature in 1963. A new agreement was made, effective May 1, 1964, that was more efficacious than the old one because it was binding on all banks. The new agreement prevented banks from paying interest on foreign-owned Swiss francs deposited with them after December 31, 1963. It did allow interest to be paid on funds that had come in up to that time; but this relaxation could not have much effect in keeping funds in Switzerland since their presence there showed them to be interest-insensitive to begin with.

The 1964 agreement remained in force until March 1967, when it was allowed to lapse because Swiss economic conditions no longer called for credit restraint.

In France, finally, in order to reinforce the stabilization program that had been launched a few weeks before, the authorities prohibited banks from paying interest on foreign-owned franc deposits beginning in April 1963. Although the need for monetary restraint in France lessened greatly the following year, the interest ban was continued until November 1966.