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No. 122, June 1977

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THE D-MARK IN THE CONFLICT BETWEEN  
INTERNAL AND EXTERNAL EQUILIBRIUM,  
1948-75

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INTERNATIONAL FINANCE SECTION

DEPARTMENT OF ECONOMICS

PRINCETON UNIVERSITY

Princeton, New Jersey

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*The author, Dr. Otmar Emminger, has been associated since 1950 with the Deutsche Bundesbank, where in 1953 he was appointed a member of the Directorate and in 1970 Deputy Governor. Dr. Emminger has represented his country on the Executive Board of the International Monetary Fund, on the Monetary Committee of the European Economic Community, and on various committees of the Organization for Economic Cooperation and Development. He took part in the negotiations on the European Payments Union (1949-50), the European Monetary Agreement (1955), the General Arrangements to Borrow with the IMF (1961-62), the Special Drawing Rights in the IMF (1966-68), and the various negotiations on the Reform of the Monetary System (1972-76). This essay is an adaptation of Dr. Emminger's contribution to the centenary volume of the Deutsche Bundesbank, WÄHRUNG UND WIRTSCHAFT IN DEUTSCHLAND 1876-1975.*

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PETER B. KENEN, *Director*  
*International Finance Section*

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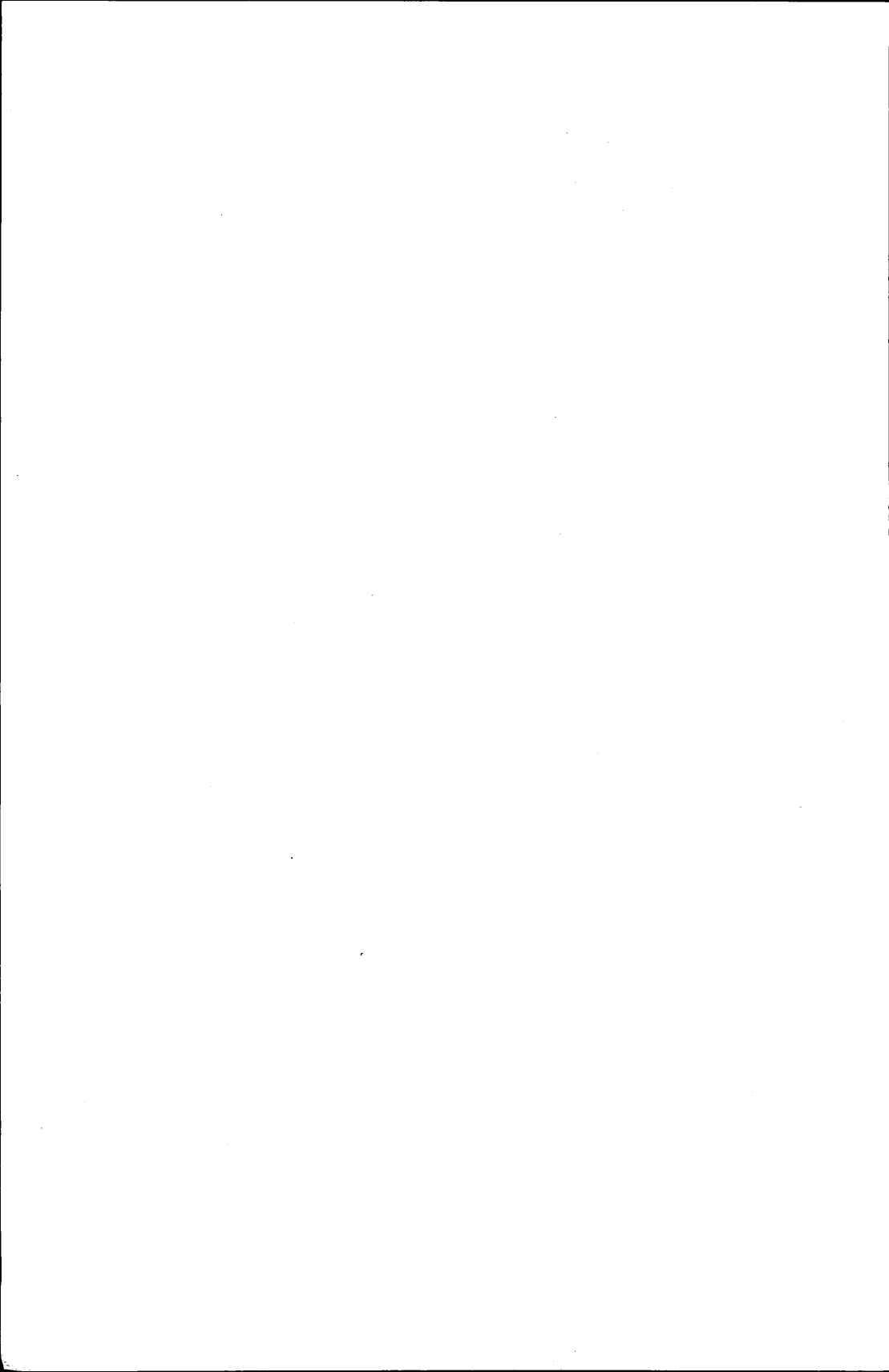
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# The D-Mark in the Conflict between Internal and External Equilibrium, 1948-75

## Introduction

Since the mid-1950s, German stabilization policy has repeatedly been undermined by influences originating abroad. In no other major country has imported inflation played such an important role as in the Federal Republic of Germany. The very term "imported inflation" originated in monetary discussions in Germany in about 1954-55 before finding its way into international usage. Similarly, the "external safeguarding" of stabilization policy has developed into a specific element of German monetary policy. It has, in fact, been embodied in Article 4 of the 1967 German Law on the Promotion of Growth and Stability.

The struggle against imported inflation has dominated German monetary policy, and indeed German stabilization policy generally, over much of the last twenty years. Monetary policy was faced with the impossible task of combining balance-of-payments equilibrium—at fixed exchange rates—with internal stability. This dilemma had first been pointed out by Keynes in the 1920s. At that time, the outstanding example was the situation in the United Kingdom, which from 1925 to 1931 had been obliged to pursue a restrictive policy because of its overvalued exchange rate, whereas its domestic economic situation would have called for an expansionary policy. During the post-World War II period, Germany became the prototype of the opposite dilemma: with a fixed D-Mark exchange rate, recurrent balance-of-payments surpluses developed, undermining internal stability. This dilemma forced the central bank—the Bank deutscher Länder until 1957 and the Deutsche Bundesbank from 1958 on—to compromise time and again in its monetary policy between domestic stability and external considerations. Initially, leading representatives of the central bank believed that it would be possible without payments restrictions to pursue simultaneously internal and external stability, that is, stability of purchasing power and stability of the exchange rate. However, events compelled a revision of this view.

When it was later confronted with such a dilemma, the central bank put internal stability first. As early as 1953, the Annual Report of the Bank deutscher Länder emphasized the priority of internal stability in the event of such a conflict. It explained that it had "deliberately permitted and in part even furthered" the expansionary monetary effect of foreign-

exchange inflows, thus following "the rules of the classical gold standard."<sup>1</sup> However, it was quick to add that "this attitude could of course be taken only because there was no indication at all that it was endangering internal financial stability." When, after several painful experiences, it became clear that in some situations the only choice was between an inflationary policy dictated by external considerations and a change in the exchange rate, revaluation was the only acceptable alternative. The first such instance was the D-Mark revaluation of 1961, unmistakably signaling the priority of internal monetary stability. It established the principle of revaluing the currency to protect internal stability against external inflationary influences.

The conflict between internal and external equilibrium periodically recurred. Its original causes, the inflation differential between Germany and foreign countries as well as certain structural developments favoring the German balance on current account, were increasingly compounded by other factors. As the Federal Republic of Germany became more closely linked to the international money markets and as the worldwide pool of easily shiftable funds grew to very large dimensions, money flows from one currency to another, either for interest-rate reasons or in the expectation of exchange-rate changes, became major disruptive factors. The D-Mark began to assume the role of a currency of refuge and an opposite pole to an overvalued dollar. As a consequence, German monetary policy was repeatedly thwarted by large money inflows from abroad. After a number of crises, the fixed exchange rate had to be abandoned, since destabilizing international money movements could be fended off only by recourse to the weapon of flexible exchange rates.

The release of the Bundesbank in March 1973 from its obligation to purchase dollars marked a fundamental turning point in German as well as international monetary policy. German monetary policy was largely freed from the persistent open or latent threat from abroad and thus, at least in principle, from the earlier dilemma. The abandonment of the fixed dollar parity of the D-Mark was the starting point for the generalized floating of all other major currencies vis-à-vis the dollar (although some currencies had already been floated individually before). In this way, the D-Mark dilemma—which in its final stages merely reflected the worldwide dollar crisis—contributed significantly to the downfall of the Bretton Woods system of fixed parities. In U.S. economic literature, the abolition of the dollar's convertibility into gold in August 1971 is often assumed to have marked the end of the Bretton Woods system. Although

<sup>1</sup> See *Annual Report of the Bank deutscher Länder* (hereafter referred to as "DL"), 1953, p. 16.



the suspension of convertibility was certainly an important step in this direction, the final demise of the fixed parities system came only in March 1973.

This essay reviews the development of the D-Mark dilemma and the way Germany's domestic and external monetary policy reacted to it. It also deals briefly with the question of whether the floating of the D-Mark since March 1973 has adequately protected domestic stabilization policy from disturbances originating abroad.

## **The D-Mark Dilemma between 1950 and 1961**

### *1. Survey*

Before the first attempt to cut the Gordian knot with the D-Mark revaluation of 1961, German external monetary policy passed through widely differing phases. Following the domestic currency reform in June 1948, Germany entered the international monetary scene as a deficit country. Between 1951 and 1961, however, the balance of trade and on current account was almost continuously in large surplus. The current account recorded a cumulative surplus of DM 43 billion, with over DM 32 billion finding its way into the monetary reserves of the central bank. The current surpluses in those years were frequently greater in relation to gross national product than in the extreme surplus period of 1973-74. Until 1954, however, they did not present any problem; in particular, they did not conflict with internal stabilization policies. It was only in the years 1955-57 that their persistence became a problem, both internationally and domestically. It was then that the first public discussion of the conflict between the requirements of internal and external equilibrium took place: this conflict culminated in the summer of 1957 in a wave of international speculation on a D-Mark revaluation.

In the course of the worldwide cooling off in economic activity between the fall of 1957 and the summer of 1959, these difficulties abated. However, by 1960 it had become abundantly clear that the German payments surpluses indicated a "fundamental" disequilibrium, the only choice being between adjustment through inflation or revaluation.

### *2. The Switch from Deficit to Surplus*

When the German currency was rehabilitated in 1948 from its postwar eclipse, the Allied military authorities fixed its external value at DM 3.33 per dollar; this appeared at the time to correspond to the existing purchasing-power parity. In September 1949, when sterling took the lead in a general wave of devaluations, the pound and most other Euro-

pean currencies were devalued by 30.5 per cent against the dollar. For the D-Mark a devaluation of 20.6 per cent was deemed sufficient, resulting in a new parity of DM 4.20 per dollar. This dollar parity was also used as a basis when, a few years later, the gold parity of the D-Mark was established in the International Monetary Fund. It remained unchanged until 1961. In the summer of 1950, the external effects of a job-creation program, combined with speculative stockpiling of goods induced by the Korean boom, led to a sudden deterioration in the German foreign-exchange position. As a result, immediately after the formation of the European Payments Union (EPU), Germany became its first major deficit case, and in December 1950 Germany was granted a special credit of \$120 million over and above its normal EPU debtor quota. For both external and domestic economic reasons, the Bank deutscher Länder introduced a stringent credit squeeze. In October 1950, despite explicit opposition from the Federal Chancellor, Konrad Adenauer, the discount rate was raised from 4 to 6 per cent, an unusually high rate at the time. In February 1951, a direct reduction in the volume of bank credit was imposed. In the same month, as a result of the extreme shortage of foreign exchange, the liberalization of imports from the area of the Organization for European Economic Cooperation (OEEC) had to be temporarily suspended. For some time, the possibility of devaluation was even discussed, with serious talk of the country's balance of payments being in "structural" deficit (DL, 1951, p. 6). The reversal of the balance-of-payments position in 1951, however, quickly put an end to all such discussion.

The Managing Board of the EPU had made the special credit dependent on a stabilization program proposed by the international monetary experts Per Jacobsson and Alec Cairncross, much of which had been prepared in November 1950 by a group of German experts assisted by central bank representatives. (My own participation in the central bank's external monetary policy commenced more than twenty-five years ago when I served as a member of this group of experts on behalf of the central bank.) This program, emphasizing restrictive measures in the fields of monetary, budgetary, and fiscal policy, laid the foundations both for internal stabilization and for the subsequent balance-of-payments surpluses of the Federal Republic. From the second quarter of 1951 onward, the German position in the EPU was reversed, and the special EPU credit was repaid in advance of maturity.

Starting in 1952, the Federal Republic of Germany became an extreme surplus country within the EPU. During the lifetime of the EPU, from the middle of 1950 through the end of 1958, Germany ran up a cumula-

tive surplus position of \$4.6 billion in this institution. However, during this same period Germany was still frequently in deficit vis-à-vis the dollar area comprising countries outside the EPU and without bilateral clearing agreements. In fact, not until 1956 did the degree of trade liberalization achieved vis-à-vis the dollar area match that of the EPU area.

The main counterparts to the cumulative German EPU surplus were the very large deficits of France and the United Kingdom. This polarization of positions led to numerous special consultations in the EPU Managing Board and other OEEC bodies. The recommendations addressed to the Federal Republic of Germany under the heading of "good creditor policy" aimed mainly at abolishing special export promotion, liberalizing imports, avoiding capital inflows, encouraging capital exports by lowering German interest rates and prematurely repaying foreign debts, and conducting a generally more expansionary monetary and fiscal policy (sometimes referred to as a "nice little inflation").

In many respects, Germany was actually already pursuing a policy directed at reducing the balance-of-payments surpluses, chiefly by measures which at the same time helped to promote internal equilibrium and curb price rises. Particularly noteworthy were the unilateral tariff reductions of 1955 and 1956, made mainly for balance-of-payments reasons though also designed to counteract internal price rises. In 1956, capital exports were freed from all restrictions, thus anticipating the formal announcement of D-Mark convertibility at the end of 1958.

In its monetary policy, the central bank, too, took account of the extreme surplus position without, however, foregoing its general commitment to domestic stability. During the years 1952 to 1954, no serious conflict arose. The accumulation of monetary reserves was welcomed by the bank, which stated in its Annual Report for 1954: "A country which has started from scratch without any foreign assets at all must, of course, first of all try to accumulate an adequate currency reserve" (p. 7). Nor did the resultant expansion of domestic liquidity raise any problems; in view of the prevailing underemployment, significant expansion appeared feasible without jeopardizing equilibrium. Last but not least, this was the period in which strong real growth was accompanied by complete price stability, indeed by slightly falling prices. This happy combination—a so-called "Mengenkonjunktur" (expansion without inflation)—was attributable to the coincidence of various circumstances. As the Korean boom petered out, world market prices began to drop, while progressive trade liberalization reinforced the reduction of import prices. In this climate of general stability, the trade unions pursued moderate wage policies, so that be-

tween 1951 and 1954 wage increases remained within the limits of improvements in productivity. Lastly, savings soared to an extraordinary degree. However, the initial impulse for this remarkable overall stability was undoubtedly given by the monetary and financial stabilization program put into effect under the pressure of the German EPU deficits of 1950-51.

In this combination of circumstances, the central bank had no difficulty acting in conformity with balance-of-payments requirements, especially as regards interest rates. The discount rate was gradually reduced and by May 1954 was down to 3 per cent, "a level not seen in Germany since the interest-rate slump at the turn of the century," as the Bank deutscher Länder proudly noted in its Annual Report for 1954. Minimum reserve ratios were lowered and other restrictions relaxed. This central bank policy "was not only in accordance with the internal monetary situation but also fully in line with the rules of the old gold standard mechanism as determined by the balance of payments" (DL, 1954, p. 21).

### *3. First Indications of a Dilemma Situation between 1954 and 1957*

The situation changed when, under the influence of an inflationary boom in a number of major partner countries, demand pull from abroad gave a strong boost to economic activity in Germany. From 1954 to 1956, foreign orders placed with German industry soared by an annual average of some 26 per cent, while domestic orders increased more modestly (see Table 1). From the fall of 1954 onward, the price climate likewise began to warm up noticeably. While not taking any immediate action, the central bank nevertheless remained on the alert.

In the summer of 1954, there was for the first time some public discussion about whether the persistent German surplus might not in reality indicate a "fundamental disequilibrium." But the question aroused little interest at the time. Only when the signs of a possible fundamental conflict between internal and external equilibrium increased did spokesmen of the central bank themselves begin to refer to a "genuine dilemma" (see Emminger, 1956, p. 16).

By 1955, the Bank deutscher Länder was obviously beginning to experience difficulties in reconciling the requirements of internal and external equilibrium. Starting in August 1955, the bank raised the discount rate in rapid steps, the highly controversial increase in May 1956 from 4.5 to 5.5 per cent all but bringing it into open conflict again with Chancellor Adenauer. But the central bank availed itself of the first opportunity, provided by a temporary slight cooling off, to revert to 4.5

TABLE I  
THE GERMAN ECONOMY'S DEPENDENCE ON EXPORTS, 1952-75

Period	Percentage Share of Exports in GNP <sup>a</sup>	Volume of Orders Received by Industry: Percentage Change from Previous Year	
		Domestic Orders	Foreign Orders
1952-57 <sup>b</sup>	17.0	+ 9.1	+ 17.1
1958	19.4	- 1.4	- 3.3
1959	20.1	+ 24.2	+ 30.1
1960	20.7	+ 12.3	+ 13.2
1961-66 <sup>b</sup>	19.8	+ 2.6	+ 4.8
1967	22.2	- 1.8	+ 10.7
1968	22.9	+ 22.2	+ 18.2
1969	23.4	+ 19.6	+ 15.9
1970	23.1	- 0.8	- 3.2
1971	22.9	- 2.3	- 0.1
1972:			
1st half	22.7	+ 2.8	+ 1.1
2nd half	22.9	+ 5.2	+ 18.8
1973	24.5	+ 6.2	+ 26.2
1974	30.0	- 8.9	+ 4.0
1975	28.2	- 0.6	- 14.9

<sup>a</sup> Exports (of goods and services) as well as gross national product from 1960 include the Saarland and West Berlin. For earlier years, aggregates have been adjusted to this territorial status.

<sup>b</sup> Annual average.

per cent in two steps. In so doing, it explicitly stated that "this was not intended to stimulate activity," but that its main motive was "to narrow the gap in interest rates between the Federal Republic of Germany and other countries in order to contribute toward reducing the balance-of-payments surpluses" (DL, 1956, p. 19).

In 1956 and 1957, the surpluses on both the current and the overall payments balance were still rising strongly, despite pronounced domestic economic expansion and incipient price rises. Since the inflationary Korean boom of 1951-52, moreover, both France and the United Kingdom had been saddled with an inflation "backlog" (see Table 2); the French franc in particular had been devaluation-prone since 1954. Eventually, in 1957, there developed substantial speculation on a D-Mark revaluation and devaluations of the franc and sterling.

In spite of all efforts to reduce the interest-rate differential vis-à-vis foreign countries, and despite a ban on interest payments on foreign deposits, during the first nine months of 1957 more foreign exchange flowed into Germany than ever before. Thus, 1957 saw the first appearance of a phenomenon that was to recur on a number of occasions, the aggra-

TABLE 2  
INFLATION DIFFERENTIALS:  
MOVEMENTS OF CONSUMER PRICES IN NATIONAL CURRENCIES  
(1950 = 100)

<i>Country</i>	1957	1961	1965	1969	1972
Germany	115	123	138	151	173
United States	117	124	131	152	174
France	136	178	208	243	287
United Kingdom	142	154	177	208	260
Italy	128	136	170	187	217

vation of balance-of-payments disequilibria by speculative money inflows. With each subsequent crisis, these speculative money inflows increased in volume, reaching their all-time peak in February-March 1973, just before the D-Mark was floated.

The effective devaluation of the French franc by 16.6 per cent on August 12, 1957, at first failed to halt foreign-exchange speculation; the same was true of a German government statement on August 20 to the effect that "all rumors regarding an impending revaluation of the D-Mark are unfounded." Not until the last week of September 1957, when at the Annual Meeting of the IMF in Washington German and British spokesmen issued coordinated and reassuring statements on the exchange-rate situation—statements immediately preceded by a British bank-rate increase to 7 per cent and a German discount-rate reduction to 4 per cent—did the currency situation quiet down. Speculative positions were partly unwound. The French external payments position, however, was not finally stabilized until the end of 1958, when under General de Gaulle a second devaluation of the franc by 14.9 per cent took place simultaneously with a drastic domestic adjustment program.

#### *4. The Attitude of the German Authorities toward the External Dilemma in 1956-57*

The attitude of the German authorities during the first D-Mark crisis deserves more detailed description. The government was divided on its assessment of the D-Mark dilemma, and especially on the revaluation question. This division lasted until just before the D-Mark was revalued in March 1961. Ever since 1956, Professor Ludwig Erhard, the Federal Minister of Economics, had been in favor of resolving the dilemma by revaluing the D-Mark. Under the influence of his advisers, Chancellor Adenauer for a long time opposed such a course. In view of this split within the government, the attitude of the central bank was of particular

importance. In 1956-57, a large majority of the Directorate (Board of Governors) and the Central Bank Council of the Bank deutscher Länder opposed the idea of revaluing the D-Mark. My own written proposal in November 1956 that the D-Mark be revalued by up to 6 per cent, possibly with a transitional adjustment period of wider exchange-rate margins, was rejected by a large majority of the Directorate.

In April 1957, Professor Erhard reintroduced a proposal he had made earlier to revalue the D-Mark not in isolation but as part of a coordinated "realignment" of exchange rates on a European scale. He was supported by a confidential report of the Economic Advisory Council of the Federal Ministry of Economics dated April 1957. In the then existing circumstances, however, concerted action by all the countries concerned was a Utopian idea. The process of multilateral exchange-rate adjustment, which would indeed have been appropriate as early as 1957, dragged on over a period of ten years and a number of currency crises.

The main arguments of the proponents of revaluation were based on the inflationary impact of persistent balance-of-payments surpluses, the lopsided structural evolution of the German economy arising from overdependence on exports, the disturbing impact of the balance-of-payments disequilibrium on international trade and payments, and the dislike of the mistaken impression of "wealth" conveyed by Germany's mounting foreign-exchange reserves.

The opponents of revaluation argued that the disequilibrium was not structural or "fundamental." They maintained that several causes of the surpluses were of a temporary nature, such as the extremely favorable terms of trade, the foreign-exchange receipts from expenditures of Allied troops in Germany, and the demand pull from several European inflation-ridden countries. The payments deficits of inflation-prone countries, it was felt, ought to be remedied mainly by their own efforts and without prematurely easing the pressure on them by a D-Mark revaluation. Closely connected with this train of thought were misgivings about the *global* effect of a revaluation, i.e., its effect vis-à-vis the dollar area, with which Germany was alleged to be basically in deficit. Finally, it was considered "normal" for the structure of the German balance of payments that large surpluses on current account should gradually be offset by higher net capital exports.

In the public discussion of these matters, a great role was played by the slogan that a revaluation of the D-Mark would be equivalent to "curing the quick instead of the sick." Even people who in general favored a parity change were time and again impressed by this metaphor. For example, Professor Erhard told the press in Dortmund on August 9,

1957: "It would be absurd to operate on a healthy economy in order to cure sick economies." Only gradually was this notion superseded by its opposite, that the paramount task was to protect a healthy currency against imported inflationary diseases.

##### 5. *Internal and External Harmony in 1958-59*

Those who had looked upon the 1956-57 surplus as a temporary phenomenon appeared at first to have been justified by events. Between November 1957 and February 1958, the reversal of speculative inflows from abroad caused German monetary reserves to diminish for the first time in six years. The basic balance of payments (the current balance plus longer-term capital movements) likewise began to revert to normal. This was mainly due to the worldwide slackening in economic activity between the summer of 1957 and the spring of 1959, in conjunction with the successful fight against inflation in several deficit countries and the devaluation of the French franc. Thus the Bundesbank was able to state: "With the disappearance of the long-persisting pull on exports . . . a situation is arising in which *the previously almost unbridgeable conflict between the requirements of internal monetary stability and those of balance-of-payments equilibrium might be resolved*. The slackening of exports has widened the margin for a noninflationary expansion of the domestic economy."<sup>2</sup>

In the field of prices, too, internal equilibrium, threatened increasingly since mid-1955, seemed to have been restored. From the spring of 1958 until mid-1959, prices and living costs were stable or even fell slightly, with the help of marked price reductions on world markets after the Suez crisis. The easing of the situation allowed the Bundesbank to continue lowering interest rates, until the reduction of the discount rate to 2.75 per cent in January 1959 brought this key rate to its lowest point in German central banking history.

Long-term interest rates declined sharply in this period. In mid-1957 the long-term bond rate for prime borrowers had been over 8 per cent; in April 1959 it was down to 5.2 per cent. As a consequence, not only did short-term money exports by banks expand greatly but, from mid-1958, exports of longer-term capital as well. This opened up "the prospect of solving the German balance-of-payments problem in a way which will be satisfactory both for the Federal Republic and for the world economy" (DB, 1958, p. 2). The German economy experienced a period of complete harmony between internal and external equilibrium. Little wonder

<sup>2</sup> *Annual Report of the Deutsche Bundesbank* (hereafter referred to as "DB"), for the year 1957, p. 55.



that the year 1958 was one of the few upon which the Bundesbank looked back "with a certain satisfaction," attesting specifically that "the economy probably came nearer than in any previous year to the famous 'magic triangle' of monetary and economic objectives—optimum employment, price stability, and equilibrium in the balance of payments" (DB, 1958, p. 1).

The year 1958 culminated in the transition to convertibility by the D-Mark and a number of other European currencies. At the same time, the European Payments Union was dissolved, eliminating the regional differentiation between the dollar area and the EPU area in the field of payments.

#### 6. *The Road to the D-Mark Revaluation of 1961*

The harmony between internal and external equilibrium lasted only about eighteen months. In the spring of 1959 a new upswing started, and, for the first time in postwar history, overfull employment began to appear. The Bundesbank applied the monetary brakes from September 1959 onward. The discount rate was raised in two steps to 4 per cent in October 1959. The main emphasis of restrictive policy, however, centered not on interest rates but on liquidity measures, in order to avoid an undue increase in the interest-rate differential vis-à-vis other countries: minimum reserve requirements, especially those on foreign liabilities, were raised in several steps, while the banks' rediscount quotas were reduced.

From the very outset, the Bundesbank was aware that this switch in credit policy might trigger a conflict between internal and external requirements. The policy change was announced in a programmatic speech by Karl Blessing, then Governor of the Bank (reproduced in the *Monthly Report of the Deutsche Bundesbank* of October 1959). He made it clear that the Bundesbank "can take into account conditions on the capital market and balance-of-payments considerations only to the extent that this does not collide with its primary task of maintaining the purchasing power of the D-Mark." But the seeds of a conflict with external monetary stability were already sown. Despite the marked expansion of the domestic economy in 1959 and upward pressures on prices and wages, the trade surpluses showed no appreciable decline. On the contrary, starting late in the fall of 1959 the balance-of-payments surpluses became larger again. Very soon, behind the scenes discussion was resumed of a possible D-Mark revaluation to protect the external flank of domestic stabilization policy.

At first, nothing positive emerged from this discussion. Therefore, in June 1960 the Bundesbank attempted to counteract the price rises, de-

spite the unprotected external flank, by a monetary "broadside" consisting of a discount-rate increase to 5 per cent, minimum-reserve increases (including a reserve on the growth of domestic liabilities), and a reduction in rediscount quotas. These measures were supplemented by a ban on the payment of interest on nonresidents' bank deposits. The government supported this anti-inflationary policy by a restrictive fiscal policy and by specific measures.

The monetary broadside of June 1960 was launched by its initiators as a last-resort measure in order to test whether monetary policy still stood any chance of curbing the boom and ensuring domestic stability without modifying the exchange rate. There was no doubt in their minds that, in the event of failure, the only way out would be a change of parity. The attempt proved to be a total failure. The monetary measures taken by the Bundesbank were thwarted by money inflows from abroad and borrowing in foreign countries by German enterprises. The internal imbalance was not diminished, while the external disequilibrium was actually aggravated.

One element contributing to this outcome was an unfortunate development in the interest-rate differential between Germany and the United States. Whereas during the second half of 1959 the United States, like Germany, pursued a moderately restrictive monetary policy, from the spring of 1960 onward it allowed interest rates to decline again as an anti-recessionary measure. In June 1960 the Federal Reserve discount rate was reduced to 3.5 per cent, exactly one week after the Bundesbank had stepped up its discount rate to 5 per cent. In retrospect, the Bundesbank described this as a "tragic coincidence" (DB, 1960, p. 4), while an American author referred to it as "one of the most unhappy coincidences of recent monetary history" (Boarman, 1964, p. 297).

Besides interest-sensitive inflows, there were also speculative movements. But whereas in 1957 speculation had been chiefly between the D-Mark, on the one hand, and the franc and sterling, on the other, now for the first time the dollar appeared as the opposite pole of the D-Mark. In fact, the monetary situation of the two countries presented an ominous contrast: Germany was recording persistently high balance-of-payments surpluses combined with domestic overheating, while the United States was having to cope with an apparently chronic balance-of-payments deficit at a time of recession and substantial unemployment. The year 1958 had marked a watershed in the international situation of the dollar: the "dollar shortage," until then thought to be incurable, turned abruptly into a chronic "dollar glut" destined to continue until 1973. In October 1960 the first, albeit short-lived, dollar crisis occurred, linked with a

speculative gold boom in London; doubts were beginning to crop up as to whether the gold parity of the dollar could be maintained in the long run. Ambiguous statements made in October and November 1960 by John F. Kennedy, who at that time was engaged in the U.S. Presidential campaign, contributed to the uncertainty prevailing on the foreign-exchange and gold markets.

In any event, the restrictive policy of the Bundesbank was completely unhorsed by increased foreign-exchange inflows immediately after the monetary broadside of June 1960 (see Emminger, 1968, p. 20). The Bundesbank then drew the logical conclusion: after revaluation had once again been solemnly rejected by the government in October, the Bundesbank reversed its course and openly switched in November 1960 to a monetary policy "oriented toward balance-of-payments requirements." While the domestic boom was still in full swing, the discount rate was lowered in two steps to 3.5 per cent in January 1961. In a speech delivered in October 1962, Blessing made the point in retrospect that in 1960 "the Bundesbank had lost control over credit expansion" (DB, 1960, p. 7).

#### *7. The Revaluation Discussion in 1960-61*

The discussion of revaluation started inside the Bundesbank comparatively early in the new phase of imbalance, at the end of 1959, on the basis of my own internal memorandum. In the debates within the Directorate and the Central Bank Council, the minority advocating a parity change was this time considerably stronger.

The arguments for and against external protection of a restrictive monetary policy were in many respects similar to those advanced during the first revaluation debate. New considerations were coming to the fore, however. Thus it was suggested in various quarters that undesirable money inflows from abroad should be warded off by capital controls, equivalent to "negative foreign-exchange control" or a "capital import ban." This suggestion was rejected by the government and the central bank as incompatible with the newly established convertibility of the D-Mark, ineffective in dealing with the imbalance on current account, and raising almost insurmountable practical problems.

During the years 1959 to 1960, an extended discussion also took place on how far the chronic surpluses on the German current account could be offset by deliberately organized capital exports without bringing on a "boomerang effect" by inducing a new rise in merchandise exports. In a confidential memorandum of August 1960, the Central Bank Council urged the government to provide for compensatory capital exports.

Foreign countries, too, were much more critical of the German surplus situation and German stabilization policy than in 1957 and were pressing for greater German capital exports and unilateral transfers. This pressure reached its peak in February 1961 in an aide-mémoire from the U.S. government to the German government on an "equitable distribution of international burdens" (burden sharing) (reproduced in *Auszüge aus Presseartikeln* of the Deutsche Bundesbank, No. 15, Feb. 24, 1961). This document criticized the persistent accumulation of monetary reserves by Germany on the grounds that it had the effect of "splitting up the international community." The fundamental problems of international balance-of-payments disequilibria, it asserted, should be solved on a stable and long-term basis. "To this end exports of long-term capital, especially to developing countries, should equal, or even exceed, the export surplus of the surplus country toward the whole world."<sup>3</sup>

The German government, under the pressure of the payments surplus, began to devise a long-term policy of development aid late in the summer of 1960. In addition, leading members of the German business community decided in November 1960 to raise DM 1.5 billion to finance development projects by taking up a special issue of long-term bonds. All in all, no less than DM 4 billion was made available for development aid in 1961. Thus, the payments-surplus position of 1960 was instrumental in pushing Germany toward a systematic policy of development aid.

Official thinking about a D-Mark revaluation passed through various stages. Initially, when it was still hoped that the domestic situation could be kept under control, revaluation was rejected in a government statement of June 1960. In a confidential memorandum submitted to and approved by the European Economic Community Commission in July 1960, the EEC Monetary Committee proposed an exchange-rate change in no uncertain terms, with my assent as Vice-Chairman of the Monetary Committee. However, a decision was once again postponed, mainly in view of the imminent Annual Meeting of the IMF in September 1960. Contrary to the expectations of the German delegation, no appreciable foreign pressure for a revaluation of the D-Mark was exerted there. In fact, the subject was studiously avoided in most official statements and

<sup>3</sup> The concept that chronic current-account surpluses should be offset by permanent net capital exports remained a favorite theme of responsible U.S. government officials for years. Thus, the then Under-Secretary of the U.S. Treasury, Robert V. Roosa, wrote: "[There must be] assurance that the more developed countries match their export surpluses with an outflow of real capital," and, "Few have looked toward the potential for incorporating into the adjustment process a place for methods of influencing movements of long-term capital" (1964, p. 164).

even in confidential conversations. In large part, this can be ascribed to the Managing Director of the IMF, Per Jacobsson, then at the height of his influence. He was a firm opponent of any D-Mark revaluation, and remained so even after 1961.<sup>4</sup>

The impressions which Governor Blessing gained at the Washington Monetary Conference were in large measure responsible for the fact that in October 1960, at a top-level meeting under the chairmanship of Chancellor Adenauer in Bonn, a parity change was once again rejected. As already mentioned, the Bundesbank then switched to a balance-of-payments-oriented interest-rate policy. This "capitulation" in face of the external disequilibrium—the switch was openly described as such by representatives of the Bundesbank—led to the later parity change. At the end of February 1961, when the Bundesbank lowered minimum reserve ratios in order to make the earlier discount-rate reduction effective in the market, the government raised objections on account of the danger to domestic prices. This was one of the rare instances when a Bundesbank decision involving relaxation encountered open resistance from the government. The increasingly sharp upward trend of prices and the manifest ineffectiveness of monetary policy against domestic overheating finally forced the government to act on the external front.

On March 3, 1961, the federal government, with the concurrence of the Bundesbank, decided to raise the parity of the D-Mark against foreign currencies by 5 per cent. The parity in relation to the dollar was changed from DM 4.20 to DM 4. The Central Bank Council was not consulted beforehand on the extent of the revaluation. This was determined by agreement between the Federal Chancellor, the Federal Minister of Economics, the Federal Minister of Finance, and the Governor of the Bundesbank, and was a compromise between those in favor of the measure and those against it.

There were five main reasons given for the eventual revaluation: (1) The hopes entertained in the fall of 1960 that the domestic boom and

<sup>4</sup> Jacobsson's arguments, made in public and private, ran as follows: postwar inflation had tapered off, as shown particularly by the much more stable price trend in the United States, so that Germany would no longer have any reason to fear imported inflation; the German balance of payments would be substantially burdened by a number of new developments resulting from both German domestic circumstances and external considerations; above all, Germany should employ its current-account surpluses to step up its development aid and other capital payments. These arguments are also found in outline in a letter from Jacobsson to Blessing, dated Sept. 13, 1961. The parallel is obvious between the views of Per Jacobsson on the need for German capital exports and the aforementioned aide-mémoire of the U.S. government of February 1961 on better international "burden sharing."

inflation would slacken off had not materialized; on the contrary, the upward price trend had been aggravated since early 1961 by excessive wage demands. (2) According to the latest statements of the Kennedy administration, there was no prospect of a multilateral parity adjustment including the dollar. (3) Speculation on a D-Mark revaluation had not ceased, greatly disturbing not only central-bank policy but also foreign-exchange markets. (4) The revaluation was intended as a German contribution to the solution of the international balance-of-payments problem. (5) The Bundesbank, which ever since the fall of 1959 had employed its instruments of monetary policy "to the point of exhaustion," had since November 1960 been forced to retreat, and the federal government had "expressed misgivings" about the latest minimum reserve reductions. The Federal Minister of Economics, moreover, emphasized that "from the start the federal government recognized the stability of money and prices as the overriding principle of its policy. If it wanted to fulfill this promise it could not hesitate to adopt a decisive measure of this kind."<sup>5</sup>

Together with the D-Mark, the Dutch guilder was revalued by 5 per cent. The reason given was that the close interrelationship between the German and Dutch economies made the step necessary in the wake of the German revaluation in order to avert the risk of overheating the Dutch economy even more "as a result of German demand pull on the Dutch economy." In any case, without revaluation "it would have been impossible to pursue a policy capable of guaranteeing internal and external equilibrium in the economy."<sup>6</sup>

### 8. *Effects of the D-Mark Revaluation*

Most monetary experts at the time agreed that the revaluation was "too little and too late." At first, this view also influenced developments on the foreign-exchange markets. Money inflows persisted for some time because speculators were expecting either further exchange-rate measures by Germany or a devaluation of other currencies, especially sterling. The central banks represented at the monthly meetings of the Bank for International Settlements (BIS) in Basle thereupon issued a reassuring state-

<sup>5</sup> The various statements on this revaluation are reproduced verbatim in *Auszüge aus Presseartikeln* of the Deutsche Bundesbank, No. 19, Mar. 8, 1961. The statement by the Governor of the Bundesbank is contained, in an expanded version, in the *Monthly Report of the Deutsche Bundesbank* of March 1961.

<sup>6</sup> Statement by the Netherlands Minister of Finance, J. Zijlstra (now Governor of the Netherlands Central Bank), before the Dutch Parliament on Mar. 7, 1961 (see *Auszüge aus Presseartikeln* of the Deutsche Bundesbank, No. 20, Mar. 10, 1961).

ment on March 12, 1961, referring to the close cooperation between central banks on the foreign-exchange markets. The background of this announcement was the establishment of mutual-swap facilities in favor of the Bank of England. This announcement of March 1961 is held to mark the beginning of a new and more active phase of cooperation among central banks in Europe. Their cooperation, at least initially, manifested itself mainly in ad hoc loans of central banks in support of currencies under pressure, and also in mutual credit lines (of which the Federal Reserve swap network was by far the most conspicuous). The monetary support loans, other than those represented by dollar reserve accumulation under the rules of the fixed-rate system, reached their peak during the long-drawn-out sterling crisis; between 1964 and 1968, nearly \$8 billion were made available in short- and medium-term credits to Britain (including IMF credits mainly financed by central banks). This method of prolonging the maintenance of unrealistic exchange rates came in later for a great deal of justified criticism.

From mid-1961 onward, speculative capital inflows into Germany slackened off; the balance of long-term capital movements (not including special official transactions) went into deficit in the second half of the year. Above all, the current account reverted to normal after mid-1961. In 1962 it actually recorded a slight deficit for the first time since 1950. As time went by, it became clear that, despite its small size, the D-Mark revaluation was having quite significant effects. According to the findings of IMF experts<sup>7</sup> it led to a diminution of about 10 per cent in German exports compared with the level that might have been expected from the previous trend and from developments in export markets; this diminution occurred mainly within a period of twelve to eighteen months. As for imports, there was very little impact on quantities, although the anticipated effect of price reductions in D-Mark terms did materialize. (By contrast, following the larger D-Mark revaluations in 1969 and 1971, no major repercussions on German exports were found to have occurred even after several years, whereas the effect on German import volume was quite pronounced.) The normalization of the current account continued throughout the five years from 1962 to 1966; on a cumulative basis there was, in fact, a deficit on current account in this period of almost DM 6 billion as a result of very large deficits between mid-1964 and mid-1966. This normalization was, however, by no means attributable solely to the D-Mark revaluation. Other influences, discussed in the following section, were also at work.

<sup>7</sup> See *IMF Staff Papers*, 17 (March 1970), and 21 (November 1974).

## **1962 through 1967: Intermediate Period without Serious Conflicts**

### *1. External Circumstances*

During the six years from 1962 to 1967, while tensions occasionally cropped up, there was no truly serious conflict between the internal and external objectives of German monetary policy. No "D-Mark crisis" therefore occurred. This is somewhat surprising, as those six years were eventful for the world economy, and especially for international monetary relations. In the world at large, periods of boom and slack alternated, the former prevailing in 1963-64 and the latter between 1965 and 1967, particularly in the second half of 1967, when world trade almost stagnated. Currency relations in 1963-64 were strained by inflationary excesses in Italy, France, the Netherlands, and the United Kingdom. Italy even experienced a full-fledged currency crisis during the first half of 1964. In the fall of 1964, a series of sterling crises began, culminating in a devaluation of sterling by 14.3 per cent in November 1967. Thereafter, the dollar-gold crisis became more acute, reaching a climax in March 1968, when the gold market was split into free and official gold transactions, establishing the so-called "two-tier" gold system.

The comparative calm that reigned on the D-Mark front during these years was due to a number of factors:

1. From 1960 to 1965, the development of U.S. costs and prices, as well as of the U.S. balance of goods and services, exercised a stabilizing influence. Prices rose very little in the United States, and in any event considerably less than in all other major industrial countries, including Germany. Labor costs per unit of output actually declined in the United States (see Table 3 and Figure 4 below). Accordingly, the U.S. current balance improved vigorously from 1961 onward; the fact that this was not reflected in the overall balance of payments was due to a simultaneous steep rise in U. S. capital exports. Thus, over this period the United States did not export any price or demand-pull inflation in the field of goods and services; it did, however, export inflation in the monetary field, because net capital exports were not fully covered by the current-account surplus.

2. In the Federal Republic, the cost inflation that had gathered speed prior to the belated D-Mark revaluation persisted for quite some time. While tapering off somewhat in 1962, it regained momentum between 1963 and 1965 and reached its peak for the 1960s in the spring of 1966. During the first quarter of 1966, average wage earnings were running 8.4 per cent above the previous year's level, and in April 1966 the cost of living was 4.5 per cent higher than a year before. The combined effects



**TABLE 3**  
**INTERNATIONAL COMPARISON OF PRICES AND COSTS, 1952-75**  
*(percentage changes from previous year; national currency basis)*

<i>Country/Group of countries</i>	<i>Annual Average</i>					<i>1975</i>
	<i>1952-60</i>	<i>1961-66</i>	<i>1967-69</i>	<i>1970-72</i>	<i>1973-74</i>	
<b>Consumer prices:</b>						
Germany	1.0	2.9	1.7	4.7	7.0	6.0
U.S.	1.5	1.5	4.1	4.5	8.6	9.1
France, U.K., Italy <sup>a</sup>	3.5	3.8	3.8	6.2	12.3	17.6
<b>Implicit deflator for GNP:</b>						
Germany	2.2	3.6	2.1	7.0	6.3	8.2 <sup>b</sup>
U.S.	2.0	1.9	4.1	4.9	7.8	8.8
France, U.K., Italy <sup>a</sup>	3.9	4.1	4.1	6.5	11.3	19.1
<b>Unit labor costs in manufacturing:</b>						
Germany	1.9	4.7	0.7	8.1	8.7	7.8
U.S.	1.7	-0.6	3.3	3.3	6.0	11.0
France, U.K., Italy <sup>a</sup>		2.4 <sup>c</sup>	2.6	8.4	13.8	27.8

<sup>a</sup>Weighted average.

<sup>b</sup>The marked increase in the GNP deflator was due to a vigorous rise of German export prices. The price index for "domestic use" of GNP over the same period rose only 6.1%.

<sup>c</sup>Annual average 1962-66.

of the D-Mark revaluation and persistent cost inflation eroded the competitive position of German exports from 1961 onward. Germany's share in the exports of industrial goods of the Group of Ten countries plus Switzerland, which between 1951 and 1961 had doubled from 10 to 20 per cent, thereafter fell off slightly and did not regain the 20 per cent mark until 1970-71.

3. The considerable improvement in Germany's current and overall balance of payments between mid-1963 and mid-1964 proved to be a temporary phenomenon. Most of it was accounted for by trade with other EEC countries suffering from a bout of inflation. These countries, mainly Italy, France, and the Netherlands, regained control over their excessive expansion comparatively rapidly by means of restrictive policies sanctioned and coordinated by the EEC Council of Ministers in April 1964; as a result, the demand pull on German exports ceased abruptly in the course of 1964.

## *2. Reactions of German Internal and External Monetary Policy*

In the process of switching to a balance-of-payments-oriented policy prior to the revaluation of the D-Mark in 1961, the Bundesbank had reduced the discount rate in stages from 5 to 3 per cent between November 1960 and May 1961. This low rate was maintained for almost four years, until January 1965. In spite of relatively low interest rates, there was a growing inflow of capital from abroad, partly from countries with "weak" currencies, partly due to other speculative reasons. In order to discourage disequilibrating inflows of capital, the government imposed in 1964 a 25 per cent tax on income from German fixed-interest securities owned by nonresidents, and a number of measures were adopted against money imports by banks.

In the summer of 1964, a radical change took place in the balance of payments. From then onward, the payments balance on current account was in deficit for two consecutive years. This meant that for a number of years the Bundesbank was free from external constraints. Early in 1965, it declared the period of imported inflation officially ended: "Now that imported inflation has ended, at least for the present, so that the German price and cost level is no longer being threatened from that direction, the maintenance of domestic financial equilibrium and, thereby, of the purchasing power of money, depends entirely on German monetary and economic policy" (DB, 1964, p. 22). This statement held good only until 1968.

The fact that there were no serious external problems from 1964 to

1967 explains why repeated calls from academic economists for the introduction of a flexible exchange rate or a moving peg met with no positive response at the time. The most notable such proposal was submitted by the official Council of Economic Advisors ("Council of Experts for the Assessment of Overall Economic Developments") in its first annual report at the end of 1964. The proposition that in an inflation-prone world Germany could avoid inflationary effects on its own price level only by means of a more flexible exchange-rate policy was a recurrent theme in this report. It was supported by two well-known economists (Lutz and Sohmen, 1964-65). In its comments to the Bundestag on this report, the federal government rejected these suggestions, emphasizing in particular the following arguments: (1) Such action would be at variance with existing international commitments. (2) On the assumption of a permanent inflation differential in favor of Germany, the D-Mark would be bound to appreciate continuously, inevitably leading to speculative capital movements distorting the exchange rate. (3) Germany was not the only major industrial country pursuing a policy of stability: the EEC resolution of April 1964 on stabilization policy, "which was not without success," was quoted as an example. Instead of setting out "on the road toward international isolation," the path of international cooperation in stabilization policy should be tried. (4) It was pointed out that the latter course was particularly important within the EEC, where fixed exchange rates were in fact "a precondition for closer integration."

This line of reasoning by the federal government in opposing greater exchange-rate flexibility makes it easier to understand why, at the re-appearance of a conflict between internal and external stability, the government hesitated for so long before using the exchange rate to protect its stabilization policy. Such a conflict, however, did not arise until 1968. When inflationary tendencies reappeared in Germany in 1964-65, they were accompanied—along "classical" lines—by a mounting current-payments deficit. Internal and external considerations were thus pointing in the same direction for monetary policy. In January 1965, the Bundesbank began to tighten monetary conditions slightly. In its liquidity policy the Bank relied mainly on the drain on liquidity exerted by the high 1965 balance-of-payments deficit. The restrictive stance of monetary policy reached its peak in May 1966, when the discount rate was raised to 5 per cent. Although this restrictive policy is frequently blamed for the 1966-67 recession, the monetary measures adopted at that time were relatively mild. A much greater dampening effect on economic activity was exercised by the combination of balance-of-payments deficits and

persistent cost inflation, resulting in a profits squeeze. Moreover, the Bank began to ease its policy stance as early as mid-1966 and continued to do so into 1967.

Here, again, there was no conflict between internal and external objectives. Both the low level of domestic economic activity and the large current-account surpluses that reappeared after mid-1966 militated in favor of an expansionary credit policy. In the summer of 1967, the traditional dilemma was in fact reversed; increases in international interest rates produced an interest-rate differential in favor of foreign countries, leading to heavy money and capital exports from Germany and making it increasingly difficult to maintain the low interest-rate level appropriate to German domestic business conditions. For some time, the accelerating current-account surplus was fully offset by capital outflows; thus, the overall balance of payments was in equilibrium in 1967 and did not return to surplus until 1968.

## **The 1968-71 D-Mark Crises**

### *1. Survey*

The comparatively slight and brief recession in 1967—the GNP falling by 0.2 per cent between 1966 and 1967—resulted in a temporary return to price stability for the first time in nearly a decade. The stabilizing effect on prices and costs was in fact so strong that, as late as the beginning of 1969, industrial producer prices were still slightly lower than two years before. This stability went by the board in mid-1969 under the impact of the waves of inflation that swept in from abroad and of the internal overheating they induced.

The stabilization of costs and prices in 1967-69 had a profound influence on the economic and monetary position of Germany in the world. Germany in effect detached itself from the international inflation of prices and demand. After 1965, the period of cost and price stability in the United States had come to an end; the war in Vietnam and high federal budget deficits rekindled inflation. In France, the May 1968 riots led to a wage explosion and demand-induced inflation. In the United Kingdom, even after the devaluation of sterling in November 1967, excess demand and balance-of-payments weakness persisted for some time before things improved in 1969.

In mid-1968, external tensions in Germany at first reappeared mainly in relation to the French franc and the recently devalued, but not yet fully stabilized, pound. A number of currency crises resulted. The first led to the

November 1968 monetary conference of the Group of Ten in Bonn and to an "ersatz revaluation" of the D-Mark by means of export levies and import subsidies. This substitute revaluation, however, was not a lasting success. Thus, after protracted controversies that weighed heavily on the domestic political scene, a short period of floating began in September 1969, culminating in a 9.3 per cent revaluation of the D-Mark at the end of October 1969.

After 1969, the character of the German external imbalance underwent a rather fundamental change. The delay in warding off inflationary money inflows between 1968 and 1969 had rekindled demand and price inflation in Germany, which from 1970 through early 1973 approached or even sometimes surpassed that in other countries. The role of price and demand differentials as principal causes of external disequilibria was now taken over by interest-rate differentials and speculative money flows. To a great extent, this development could be attributed to abruptly changing interest-rate and liquidity differentials vis-à-vis the United States.<sup>8</sup>

During 1970-71, the German current account had almost returned to normal (see Table 4). However, waves of foreign capital swept into the country, inflating the monetary base. Starting in March 1971, the inflows assumed an increasingly speculative character, and at the beginning of May 1971 the exchange markets had to be temporarily closed and the Bundesbank's obligation to purchase foreign exchange suspended.

This ushered in the first prolonged period of freely fluctuating exchange rates for the D-Mark. In August 1971, the President of the United States suspended the convertibility of the dollar into gold; thereafter, most other major currencies began to float. At the time, floating was generally considered simply to be a bridge to new parities. These were indeed fixed at the Washington Monetary Conference (Smithsonian Agreement) of December 1971, but this realignment lasted barely more than a year. In March 1973, following severe foreign-exchange crises, the parity system again collapsed, this time for an indefinite period. This—and not the suspension of dollar convertibility—definitively signaled the end of the Bretton Woods system.

For German domestic monetary policy, the successive currency crises in 1968-71 meant a constant alternation between periods of huge and often highly concentrated liquidity inflows from abroad and periods in which heavy exchange outflows drained liquidity from the banking system. Time and again, often abruptly and unexpectedly, the Bundes-

<sup>8</sup> The change in the character of the German external imbalance was recognized and discussed at an early date (see Giersch, ed., 1972, pp. 73-103).

TABLE 4  
GERMAN BALANCE OF PAYMENTS, 1968-75  
(in billions of D-Marks)

<i>Period</i>	<i>Current Account</i>	<i>Capital Account<sup>a</sup></i>	<i>Overall Balance<sup>b</sup></i>
Monetary crises 1968-69:			
Jan. 1968-Sept. 1969	+ 16.9	- 2.1	+ 14.9
Oct.-Dec. 1969	+ 2.4	- 20.5	- 18.1
Jan. 1968-Dec. 1969	+ 19.4	- 22.6	- 3.3
Monetary crisis 1971:			
Jan. 1970-May 1971	+ 5.6	+ 35.3	+ 40.9
June-Dec. 1971	+ 0.7	- 3.3	- 2.6
Jan. 1970-Dec. 1971	+ 6.3	+ 32.0	+ 38.3
Monetary crises 1972-73:			
Jan.-July 1972	- 0.1	+ 19.0	+ 18.9
Aug. 1972-Jan. 1973	+ 2.7	- 6.4	- 3.7
Feb.-March 1973	+ 1.5	+ 18.8	+ 20.3
Jan. 1972-March 1973	+ 4.2	+ 31.4	+ 35.6
Since start of floating:			
Apr. 1973-Dec. 1975	+ 44.3	- 41.9	+ 2.4

<sup>a</sup> Including unrecorded transactions.

<sup>b</sup> Balance of total transactions (= change in net foreign assets of the Bundesbank, excluding valuation adjustments owing to exchange-rate changes and allocations of special drawing rights).

bank was caught up in the conflict between keeping bank liquidity tight for the sake of domestic stability and the inevitable liquidity-enhancing effects of foreign-exchange inflows. Thus, monetary policy in this phase was largely at the mercy of external ups and downs.

## 2. *The Struggle over the D-Mark Revaluation in 1968-69*

By September 1968, the Central Bank Council of the Bundesbank had decided to advocate a D-Mark revaluation to protect the external flank. For obvious reasons, this decision was kept secret at the time. While domestic price stability did not immediately appear threatened, the visible discrepancy between price movements in Germany and those abroad, as well as the explosive growth in foreign orders for industry (see Table 1 above), pointed to an imminent conflict between internal

and external equilibrium. Such a conflict was all the more likely because in 1968 the current-account surplus was tending toward an all-time peak, while the overall balance of payments was kept in precarious equilibrium until mid-1968 only by very low interest rates and huge capital exports.

In September 1968, the Bundesbank suggested to the Federal Minister of Economics, Professor Karl Schiller, that the D-Mark be revalued as a protective measure. The Minister at first rejected the idea of revaluation. From October onward, however, the difficult situation in France, reflecting the events of May 1968, resulted in increasing transfers of funds from there to Germany, triggering speculative movements in other countries as well. Growing speculation on exchange-rate changes in Germany, France, and the United Kingdom swamped Germany with foreign exchange equivalent to more than DM 9 billion during the first three weeks of November. From November 20 to 22, 1968, the exchange markets were closed. At the same time, a Monetary Conference of the Group of Ten took place in Bonn under the chairmanship of the German Minister of Economics. On the previous day, however, the federal government had announced in a communiqué that it would not yield to pressure for a D-Mark revaluation but favored instead a special 4 per cent tax on exports plus tax relief at the same rate on nonagricultural imports.

This unilateral step meant that a real opportunity was missed to achieve a simultaneous and coordinated revaluation of the D-Mark and a devaluation of the French franc, the ground for which had been prepared in technical discussions between the two central banks.<sup>9</sup> From the outset it was virtually certain that the "ersatz revaluation" of the D-Mark was neither sufficient to close the steadily widening price gap between Germany and other countries nor, by its very nature, capable of dampening speculation on a genuine D-Mark revaluation. While the Bonn Conference was still in session, the Central Bank Council of the Bundesbank emphasized these points in a confidential telex addressed to the government, but the warning again went unheeded. Shortly afterward, through an indiscretion in Bonn, the telex was brought to the notice of the public.

Subsequently, minor events sufficed to revive speculation. A large speculative wave built up from the end of April until May 9, 1969; in these ten days more than DM 16 billion worth of foreign exchange flowed

<sup>9</sup> Referring to the discussions with the federal government two days before the monetary conference in Bonn (discussions in which I participated, as in the previous talks with the Banque de France), Bundesbank Governor Blessing stated: "I told the gentlemen [the German government cabinet] that I had an assurance that the French franc would be devalued if we took simultaneous action in the other direction. And I fought for the revaluation. But it was to no avail" (quoted in Brawand, 1971, p. 50).

into the country, or almost twice as much as in November 1968. The Bundesbank's anti-inflationary monetary policy was thrown completely out of gear. Early in May 1969, the Bundesbank made repeated representations to the federal government that the "ersatz revaluation" be replaced by an effective exchange-rate measure. The federal cabinet refused once again on May 9, although by now deeply divided on the subject along party lines. This difference of opinion was aired in public discussions right up till the Bundestag elections on September 29, 1969—a unique case of a debate on a change in the exchange rate of a major currency continuing for many months "in the market place."

A second wave of speculation in September 1969, immediately before the general election, again led to suspension of the exchange markets. A new federal government was formed, and after a brief period of floating the D-Mark was finally revalued on October 24, 1969, by 9.3 per cent (DM 3.66 instead of DM 4.00 per U.S. dollar). Arithmetically, this revaluation rate appeared to compensate fully for price differentials, since it was somewhat larger than the statistical discrepancy that had developed from 1962 to 1968 between the rises in German and foreign prices. Thus, the revaluation rate at first appeared quite credible to the exchange markets. The IMF also stated that the D-Mark revaluation had removed the disparities in the world exchange-rate structure. The extent to which for a time it eased the world monetary situation can be seen from the fact that in December 1969 the free gold price, which had temporarily gone above \$42 per fine ounce, dropped back to the old official price of \$35.

During this worldwide relaxation in monetary tensions between October and December 1969, far more foreign exchange left Germany—the equivalent of DM 18 billion all told—than had on balance entered in the preceding nine months. Over the entire year 1969, the foreign-exchange balance was accordingly in deficit to the tune of over DM 10 billion. The external situation was nevertheless precarious, being vulnerable to a reversal of the interest and liquidity differentials vis-à-vis foreign countries. This soon happened in the course of 1970.

Above all, hopes that the 9.3 per cent revaluation of the D-Mark would succeed in curbing domestic price rises were profoundly disappointed. The main reason was that revaluation came too late. When, following wearisome domestic political struggles, revaluation finally took place in October 1969, adjustment through inflation was already in full swing. The overheating had unleashed such powerful inflationary forces within the domestic economy that it was no longer possible to bring them under control through the belated D-Mark revaluation alone. Foremost among



these forces was cost inflation, which had run completely amok after the wage explosion that began in September 1969. Wage costs per unit of output in industry—i.e., wage rises adjusted for improvements in productivity—increased by no less than 13 per cent in 1970, as compared with 6 per cent in the United States and an average of 9 per cent in the major West European countries. This represented the highest labor-cost increase in Germany of any year in the postwar period. The explosion of profits and wages between 1968 and 1970, which could have been forestalled only by a timely revaluation, was the starting signal for a tough struggle over the distribution of national income in Germany in subsequent years. Thus, a very high price had to be paid in terms of stability for delaying the revaluation from 1968 until the late fall of 1969. Not until the early summer of 1973, i.e., not until after the transition to floating, was the D-Mark again able to break away from international inflation and regain its place at the lower end of the inflation scale.

The failure of the D-Mark revaluation to produce any stabilizing effect on prices also owed something to two other developments. First, the marked inflationary trend in the rest of the world continued after 1969; the October 1969 D-Mark revaluation ought to have been larger than it was in order to anticipate this continuing inflation. Second, the monetary policy of the Bundesbank during 1970 and early 1971 was again thwarted by capital inflows caused by interest-rate differentials between Germany and the United States. Since the D-Mark revaluation in October 1969 did not have the expected stabilizing effect, the Bundesbank felt obliged to continue its restrictive policy and raised the discount rate to 7.5 per cent. Starting in mid-1970, however, it was forced gradually to relax this restrictive policy stance—in large part influenced by a headlong fall in interest rates in the United States and on international money markets—until by early April 1971 the discount rate had come down to 5 per cent.

### *3. International Interest-Rate Discrepancies as the Main Cause of External Disequilibrium in 1970-71*

Whereas between 1965 and 1969 German interest rates had for the most part been below those of other major countries, especially the Euro-markets, the situation changed abruptly in 1970. The main reason was a sudden switch in the interest-rate policy of the United States designed to counteract a threatening recession and heavy unemployment. In January 1970 the rate for three-month U.S. Treasury bills was still as high as 8 per cent, but by early March 1971 it was running at no more than 3.3 per cent, far below comparable European rates. In most European coun-

tries a comparatively restrictive monetary and interest-rate policy was still being maintained to combat inflation. This produced a dramatic shift in the interest-rate differential between the United States and Europe. The turnabout in money and foreign-exchange flows was correspondingly tremendous. During the American liquidity squeeze of 1968-69, U.S. banks had attracted \$12.5 billion in short-term foreign funds. During the period of monetary ease in 1970 and 1971, they sent back these funds in full to other countries. This reversal in short-term money movements resulted in a deterioration of the U.S. foreign-exchange balance between 1969 and 1970 alone of no less than \$13.5 billion, and in 1971 these outflows accelerated as the U.S. current account also began to deteriorate alarmingly.

A large proportion of the money outflows from the United States directly or indirectly entered Germany, and when speculative influences became dominant in March 1971, almost the entire outflow of funds from the United States (together with some speculative funds from other countries) moved into Germany. In April and the first few days of May, the total amount was approximately \$6 billion, more than \$2 billion of which, equivalent to about DM 8 billion, came in during the final three days of this period. The temporary closing of the exchange market on May 5 and the floating of the D-Mark on May 10 were an inevitable reaction.

The monetary policy of the Bundesbank was literally swamped by this torrent of foreign money. In 1970, the foreign-exchange balance showed the largest surplus ever recorded up to then in a single year—roughly DM 22 billion—although there had been no monetary crisis involving speculative inflows in that particular year. Further large inflows followed between January and May 1971 (see Table 4 above). Thus the Bundesbank's net external assets expanded from a modest DM 26 billion at the beginning of 1970 to more than DM 68 billion by the end of May 1971. To this the surplus on current account contributed a mere DM 5.6 billion; the remainder resulted from net capital inflows, increasing the external indebtedness of the German economy correspondingly ("borrowed monetary reserves").

As concerns the domestic effects of these liquidity inflows, a total of approximately DM 24 billion was immobilized over the same period through measures taken by the Bundesbank and the federal government (e.g., special deposits with the central bank and a special income tax surcharge). But this did not prevent the banks' free liquid reserves from doubling and the money stock ( $M_2$ ) from being 17 per cent higher in

May 1971 than a year earlier. During this period, the abrupt changes in U.S. credit policy and the speculative inflows and outflows of volatile dollar funds largely determined the money supply of the German economy and thus the success or failure of German stabilization policy. It was then that the international money markets were first termed a "monetary subsidiary government" (monetäre Nebenregierung).<sup>10</sup>

#### 4. *Monetary Policy in the Crisis Year 1971*

This currency crisis was first and foremost a dollar-D-Mark crisis. The D-Mark had been forced into the role of "antipole" of the dollar, without any particular cause for imbalance on the German side. In 1970 and until early May 1971, Germany had in fact shown no fundamental disequilibrium on current external account, nor had it fallen out of step with international price trends; owing to the persistent inflows from abroad, German monetary policy had been forced to accept adjustment through inflation.

It soon became apparent that this dollar-D-Mark crisis was only the prelude to a worldwide dollar crisis that led eventually, via the suspension of dollar convertibility in August 1971, to the devaluation of the dollar and the Smithsonian realignment of December 1971. There is little point in speculating about whether the outbreak of the dollar-D-Mark crisis could have been prevented. A more pertinent question is whether better coordination of American and German (or, more properly, European) monetary policies could have forestalled the emergence of the large interest-rate and liquidity differentials behind the huge destabilizing money flows.

United States monetary policy must be seen in the context of the low level of economic activity and employment prevailing there at the time. The growth rates of the monetary base, as well as the corresponding growth rates of the money stock ( $M_1$ ), were significantly higher in 1970-71 than in the 1960s, but this was explained as a move to counteract the U.S. business recession. On the other hand, the foreign-exchange inflows into other industrial countries, for which U.S. monetary policy was to a considerable extent responsible, led to an inflationary expansion of the money stock ( $M_2$ ) in these countries averaging 10 per cent in 1970 and 17 per cent in 1971. A downward movement in interest rates in Europe so

<sup>10</sup> See my comment in Emminger (1970): "Foreign money markets have not only assumed in part the role of German banks as lenders, but have also become a sort of 'substitute central bank.' . . . The Euromarket has, in fact, turned into an extraterritorial source of primary liquidity, a monetary 'subsidiary government.'"

rapid and so sharp as to have halted the recycling of U.S. bank funds to Europe in 1970-71 was certainly not practicable, nor would it have been compatible with the cyclical situation in Europe. In other words, there was a genuine conflict in monetary aims.

Another subject of lively discussion in Europe at the beginning of 1971 was whether the inflationary inflow of funds could be stemmed by controls on capital imports. The introduction of a two-tier foreign-exchange market along Belgian lines was suggested. But controls on capital imports and, more specifically, a two-tier foreign-exchange market could have been introduced in Germany only after overcoming great practical difficulties and with a considerable time lag. Furthermore, the federal government was opposed to such a course on principle. In the Central Bank Council, profound differences of opinion arose early in May 1971 on the issue of floating exchange rates versus controls on capital imports. Subsequent experience with the devastating worldwide dollar crisis made it clear, however, that it would not have been possible to cope with the situation by instituting hastily improvised capital-import controls in Germany. Nevertheless, preparations in this field progressed so far that later, in 1972 and 1973, defensive controls of this nature were put into operation in several areas with at least temporary success.

From a political point of view, special importance attached to coordinating the floating of the D-Mark with EEC partner countries. The federal government, and in particular the Federal Minister of Economics, was trying as early as May 1971 to arrive at a "common concerted float vis-à-vis the dollar as the best possible course" (statement by Professor Schiller before the Bundestag on May 11, 1971, on the federal government's currency policy). This failed to materialize for several reasons. In particular, France and Italy were reluctant to team up with a strong and revaluation-prone D-Mark. The Netherlands was the only other country that allowed its currency to float freely, while Belgium and France relied on their two-tier exchange markets. However, once the gold convertibility of the dollar had been suspended in August 1971, almost all currencies except the French franc started to float more or less freely.

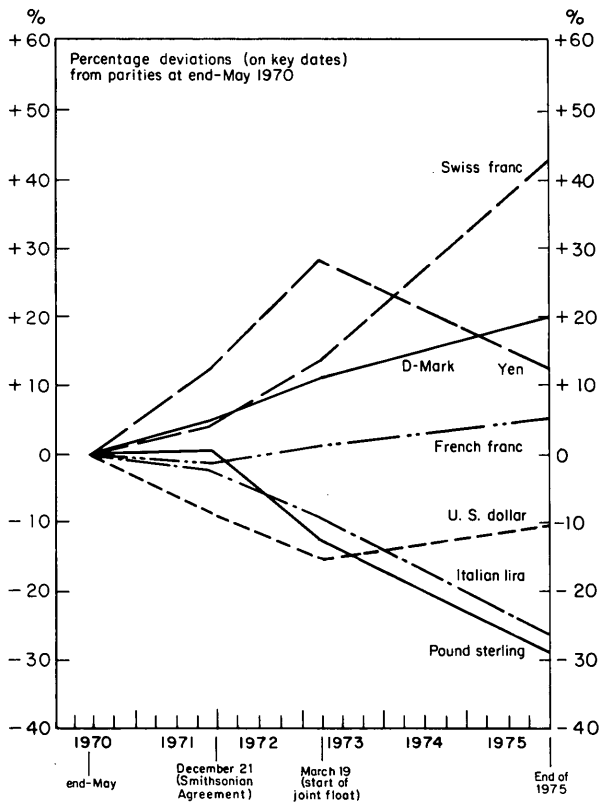
Despite the floating of the D-Mark from May to December 1971, the Bundesbank by no means gained complete freedom in its domestic monetary policy. True, money inflows from abroad ceased; indeed, between June and August 1971 the Bundesbank was able to dispose of several billion dollars on the exchange market. Nevertheless, in its monetary policy it was constantly obliged to take developments abroad into account "with a primary view to the repercussions on the correct level of the

exchange rate" (DB, 1971, p. 15). When the U.S. closed its gold window in August 1971, realignment negotiations began in various bodies, particularly the Group of Ten and the Balance of Payments Committee of the Organization for Economic Cooperation and Development (OECD) (Working Party 3). This led to a general jockeying for the "right" starting position, and it soon became clear that few if any countries were prepared to leave the exchange rate of their currency entirely to the free play of market forces.

At all events, thanks to the early decision to float, Germany moved out of the first line of exposure for the remainder of 1971. During the second half of the year, when even greater quantities of dollars moved out of the United States than during the first six months, they went to countries that had not floated early enough, mainly Switzerland, Japan, the United Kingdom, and France. The overall deficit on the U.S. official reserve balance in 1971, the "year of the dollar crisis," was no less than \$30.5 billion, of which \$26 billion flowed to the countries of the Group of Ten, including Switzerland. On balance over the year, Germany had to take up "only" about \$4.5 billion. Until May 1971, Germany had been the epicenter of the American currency earthquake, but its decision to float freed it at once from this extremely embarrassing position. Domestically, this was reflected in a slower expansion of the money supply, some signs of stabilization, and, not least, a noticeable decline in D-Mark import prices.

A detailed description of international currency developments (and their background) between the cessation of the gold-dollar standard in August 1971 and the Smithsonian realignment of December 1971 would be beyond the scope of this essay. It is sufficient to recall that the cornerstone of the Smithsonian realignment was the devaluation of the dollar vis-à-vis all other major currencies. This signaled the end of the principle upheld by the United States for many years that the dollar as the key currency of the world monetary system must not be devalued in relation to gold. The U.S. dollar was devalued by 7.9 per cent vis-à-vis gold, while several other currencies were revalued, including the D-Mark by 4.6 per cent. The outcome was that the D-Mark was revalued by 13.6 per cent in relation to the dollar, although in relation to the average of all leading currencies the weighted revaluation was no more than about 6 per cent (see Figure 1). During the Smithsonian negotiations, the German delegation was prepared to agree to a higher revaluation; for rather complicated reasons, partially related to the yen, the lower figure came about.

**FIGURE 1**  
**EFFECTIVE EXCHANGE-RATE CHANGES AGAINST THE 16 CURRENCIES**  
**QUOTED IN FRANKFURT, 1970-75**



## From the Exchange-Rate Realignment in 1971 to the Floating of Exchange Rates in 1973

### 1. Fresh Monetary Crises

The Smithsonian realignment turned out to be a futile attempt to stabilize currency rates. The entire new exchange-rate structure, erected with such effort, collapsed like a house of cards in the speculative unrest of the first months of 1973. The realignment afforded no particular relief for German monetary policy. On the contrary, in its Annual Report for 1972 the Bundesbank explicitly stated that in the first months after the realignment it had already become clear "how little German monetary policy was shielded from external influences by the parity changes. . . .

The domestic aims of monetary policy had to take second place for the time being" (DB, 1972, p. 16). The foreign-exchange disorders of February and March 1973 finally upset all endeavors of the central bank to pursue a stabilization policy.

How did this failure and collapse of the painfully realigned exchange-rate system come about? During the fifteen months from December 1971 to March 1973, the various difficulties which could threaten and break down any system of fixed parities succeeded one another in textbook fashion: interest-rate discrepancies between the United States and other major countries; marked inflation differentials and balance-of-payments disequilibria; and, finally, general lack of trust in the parities of leading currencies. The volume of volatile international funds had attained gigantic proportions, and the system of fixed exchange rates was unable to withstand such strains despite the elimination through the Smithsonian Agreement of the more serious distortions between the various currency parities.

From early 1972 to March 1973, the United States was once again the main source of destabilizing foreign-exchange flows. During these fifteen months, the deficit on the U.S. official-reserve-transactions balance of payments came to more than \$21 billion, half of it on current account. Immediately after the Smithsonian realignment, there were large outflows from the United States to Europe. For domestic reasons the U.S. authorities substantially relaxed their monetary policy stance—without regard to the defense of the dollar's new parity—thereby triggering the greatest monetary expansion in the postwar era; in one year the U.S. money stock,  $M_1$ , rose by 9 per cent.

In June 1972, a confidence crisis hit sterling, threatened as it was by inflation and a weak balance of payments. This led to massive withdrawals of funds from the United Kingdom for a few days until the pound was floated. The resultant unrest spread to other currencies, especially the dollar, leading to the temporary closure of the exchange markets and forcing the Bundesbank to take in sterling and dollars from mid-June to mid-July 1972 equivalent to \$4.7 billion, or roughly DM 15 billion. In the latter half of the year, the international monetary situation eased, owing in good part to the introduction of German capital controls, so that the Bundesbank was able to resell the foreign-exchange equivalent of over DM 3.5 billion. At the end of January 1973, a worldwide lack of confidence in the dollar touched off a third wave of destabilizing capital movements. This dollar crisis, which lasted until the beginning of March 1973, proved to be the last currency crisis under the Bretton Woods system.

## 2. Reactions of German Internal and External Monetary Policy

The Federal Republic was again the principal target of the destabilizing money movements in 1972-73; the Bundesbank was compelled to take in approximately \$12 billion, equivalent to DM 36 billion, the bulk of it in February-March 1973. Again, the current-account surplus was responsible for only a minor fraction of the exchange inflows (see Table 4 above). True, in the second half of 1972 an abrupt rise in foreign orders heralded an explosive new imbalance in the current account, so that, but for the advent of floating, a fresh D-Mark crisis originating from increasing current-account surpluses would almost certainly have arisen later in 1973 (see Figure 2). Nevertheless, the chief cause of the collapse of the parity system early in 1973 was not an imbalance on current account but uncontrollable destabilizing money and capital flows.

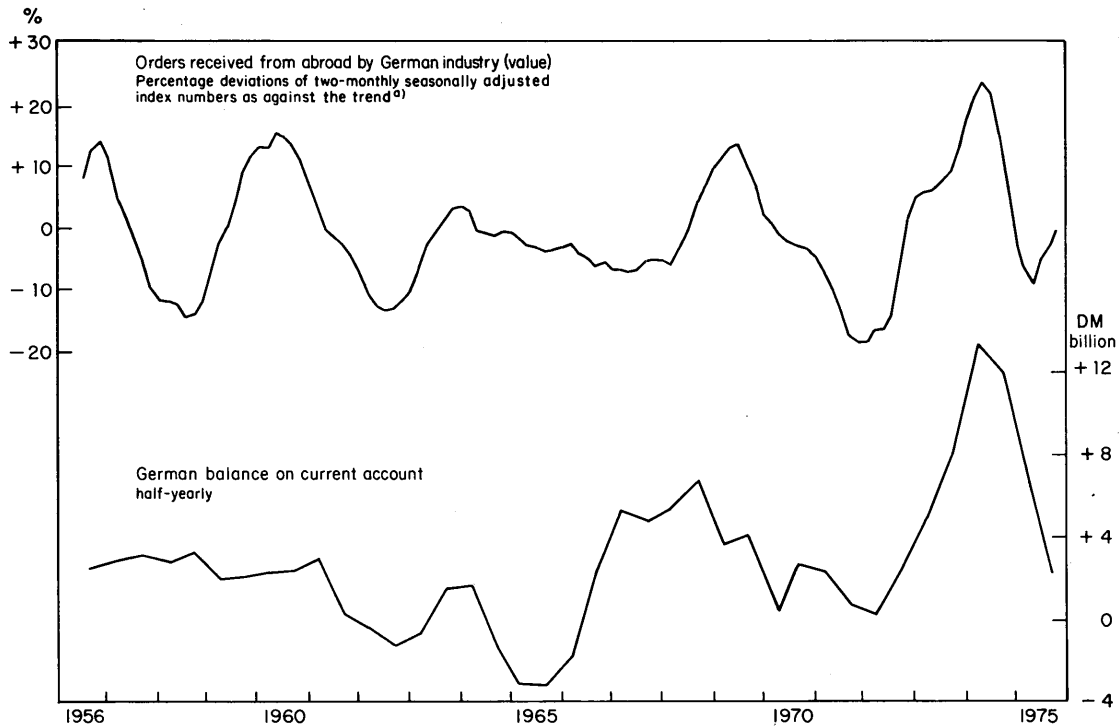
The German monetary authorities, unlike the U.S. authorities, at first tried to support the Smithsonian realignment by pursuing an externally oriented interest-rate policy. The Bundesbank's discount rate was reduced in December 1971 and February 1972 to a very low 3 per cent in order to eliminate as far as possible the interest-rate incentive for exchange inflows. At the same time, the government agreed to the introduction of a 40 per cent cash deposit on external borrowing as of March 1, 1972. These two measures together did, in fact, noticeably curb capital inflows for a time. During the June 1972 sterling crisis the Bundesbank and the government again reacted by a combination of defensive measures. The Bundesbank sought to absorb surplus liquidity through conventional measures, at the same time increasing the cash-deposit requirement on external borrowing to 50 per cent. At the end of June 1972, the government began to require authorization of sales of domestic bonds to nonresidents (the favorite method of obtaining the coveted D-Mark at advantageous interest rates). As a result of this latter measure, a conflict arose between Professor Schiller, the Minister for Economics, and other members of the government; his resignation led to a government shake-up that subsequently proved to be of great significance, not only in the economic field.<sup>11</sup>

The various protective measures against inflows of undesirable funds proved at least temporarily effective and, with the help of rising interest rates on the Euromarkets in the fall of 1972, allowed the Bundesbank to pursue a somewhat more restrictive monetary policy again, so that domestic monetary expansion slowed down toward the end of 1972. Even so, in

<sup>11</sup> Helmut Schmidt, later to become Chancellor, took over the ministries of finance and economic affairs from Professor Schiller. The role of the Bundesbank in these events is described in detail in the *Monthly Report of the Deutsche Bundesbank* of August 1972, pp. 15-17.



**FIGURE 2**  
**GERMAN FOREIGN ORDERS AND CURRENT ACCOUNT, 1957-75**



<sup>1)</sup> Results smoothed by a moving 3-period average.

1972 growth of the money stock (both  $M_1$  and  $M_2$ ) was far too high (on average, 13 to 14 per cent up from the previous year), making it impossible to prevent the upward trend of prices from accelerating again.

### 3. *The Severe Confidence Crisis between January and March 1973*

These defensive control measures were finally swept away by an inrush of foreign funds when a worldwide currency crisis developed at the end of January 1973. This crisis was set off by local currency measures that unexpectedly had a worldwide effect. On January 22, 1973, Italy announced the introduction of a two-tier foreign-exchange market, essentially as a defensive measure against the persistent flight of capital. On the following day, Switzerland stopped intervening in dollars and let its currency float freely. The effects of the Swiss step, particularly, demonstrated the fragility of the confidence in fixed parities, especially the parity of the U.S. dollar, despite the Smithsonian realignment. Confidence was further undermined by press reports of extreme price rises and other unfavorable developments in the United States. A week later, this unrest gripped the German foreign-exchange markets. Between February 1 and 9, 1973 (i.e., from the first stage of the "final" currency crisis until the day the exchange markets were closed), the Bundesbank was forced to take in \$5.9 billion, equivalent to DM 18.6 billion, although the government did everything it could to strengthen administrative controls on exchange inflows.

On the basis of an informal arrangement between the United States, Japan, and the principal EEC countries (mainly Germany and France), a final attempt was made to alleviate the worldwide foreign-exchange unrest by adjusting parities. On February 12, 1973, the dollar was again devalued by 10 per cent, the members of the European "snake" promised a standstill with respect to their own parities, and the exchange rate of the Japanese yen was allowed to float upward. Shortly afterward, the commercial Italian lira was also allowed to float, in this case downward.

After a few weeks of calm, during which the Bundesbank was again able to dispose of roughly \$1 billion on the market, a further brief but violent bout of exchange speculation occurred at the end of February and the beginning of March. It mainly affected the Dutch guilder at first but then also hit the D-Mark with full force: on March 1, 1973, the Bundesbank was compelled to purchase almost \$2.7 billion (equivalent to DM 7.5 billion), the highest amount ever bought or sold by a central bank in a single day. Thereupon, the exchange markets in Germany and many other countries were closed in order to gain time for negotiations, especially between the EEC countries and the United States.

This time, the plan that had failed in May 1971 met with success: by common accord, the members of the European monetary bloc began a joint float vis-à-vis the dollar. In order to facilitate the cohesion of the snake, Germany revalued the parity (central rate) of the D-Mark by 3 per cent before the joint float started in mid-March 1973; while not significant in relation to the dollar, the revaluation did have a bearing on the position of the D-Mark within the snake. The monetary bloc did not include the two weakest EEC currencies, sterling and the Italian lira. As mentioned above, these two currencies had elected to float by themselves at an earlier date—sterling in June 1972, the lira in February 1973—and, in view of their weakness, have continued to do so. The snake was joined in May 1972 by Norway and in March 1973 by Sweden, both nonmembers of the EEC.

The closing of the German exchange markets following the tidal wave of foreign-exchange inflows on March 1, 1973, spelled the end of the Bretton Woods system of fixed exchange rates. For, whatever the results of the ensuing international monetary negotiations might have been, it was clear from the outset that Germany could no longer continue to accept the inflationary risk inherent in obligatory dollar interventions at a fixed exchange rate. The departure of the D-Mark from the fixed dollar parity inevitably entailed the end of mandatory dollar interventions on the part of all other major countries as well. This step was the logical consequence of the experience with fixed parities not only in the currency crisis in February-March 1973 but also during the preceding years. The magnitude of imported inflation and the persistent threat of monetary crises had become unbearable. In retrospect, the conclusion is inescapable that if this joint European float in relation to the U.S. dollar had begun two years earlier the world monetary system would have been spared not a little in the way of currency crises and inflation.

During the five weeks between the end of January and the beginning of March 1973, the Bundesbank had been forced on balance to take in foreign exchange equivalent to no less than DM 24 billion. The effects on the domestic money supply were disastrous. During the first three months of 1973, central-bank money rose by 12 per cent, the money stock  $M_1$  by 16 per cent, and the broadly defined money stock  $M_2$  by as much as 28 per cent (seasonally adjusted annual rates). During the whole period of recurrent monetary crises, from 1968 until March 1973, the Bundesbank was obliged on balance to purchase foreign exchange equivalent to approximately DM 71 billion (see Table 4 above), feeding newly created liquidity into the economy on the same scale. This led to an intolerable inflation of the domestic money supply.

All endeavors to offset the effects through restrictive monetary measures were doomed to failure, for two reasons: (1) While the Bundesbank was able time and again to siphon off the excessive liquidity of the banks, the simultaneous excessive growth of liquidity in the nonbank sector could have been nullified only by an energetic restrictive policy pursued over a long period. (2) Such a credit squeeze without effective protection against capital inflows would have provoked foreign-exchange inflows again; in other words, such a policy would necessarily have been self-defeating.

## **To What Extent Is Stabilization Policy Protected by Floating?**

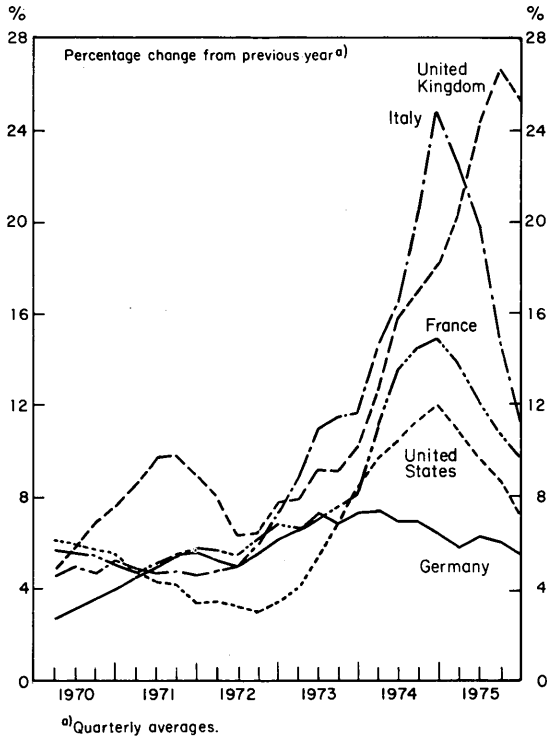
### *1. Control of the Money Supply Regained*

On the very evening of March 1, 1973, when it was known that the German exchange markets would remain closed for the next few days, the Bundesbank set out to "tidy up the liquidity field": the Central Bank Council decided to raise the minimum reserve ratios sharply in order to immobilize DM 5 billion of bank liquidity. In May, the discount rate and the lombard rate were raised twice. In combination with the government's May 1973 stabilization program and the issue of federal stabilization loans, these measures made it possible to regain control of the monetary situation quickly. This involved a considerable tightening of the money market and of bank liquidity, temporarily reflected in very high interest rates, but the impact on the money supply was instantaneous. Between March and December 1973, the broadly defined money stock  $M_3$  increased at a seasonally adjusted annual rate of only 7 per cent; through shifts from demand into time deposits,  $M_1$  actually declined slightly. In the two and a half years from April 1973 to September 1975, the money supply  $M_3$  increased on the average at annual rates of 8 per cent, or barely more than half the rate in 1972, the last full year of the fixed-rate system.

The most spectacular result of the new stabilization policy was that from the spring of 1973 Germany was able to cut itself loose from the international inflation convoy, after having been inexorably tugged along for three years. While from 1970 through 1972 the German inflation rate was no better than that of the other industrial countries, from the middle of 1973 through 1975 it was less than half that of the other OECD countries and about one-third that of other European countries (see also Figure 3). This effectively refuted the assertion that no country can insulate itself against worldwide inflation.

A further positive result of the transition to floating was that numerous measures against unwanted foreign-exchange inflows could be lifted. By

**FIGURE 3**  
**CONSUMER PRICES IN MAJOR COUNTRIES, 1970-75**



the end of 1975, the jungle of these measures had been cut back almost to the roots. Even the long-standing special minimum reserve ratios on foreign deposits and the ban on the payment of interest on nonresidents' bank deposits were eventually abolished.

In brief, the end of mandatory dollar intervention heralded a completely new chapter for German domestic monetary policy. From then on, the external flank of stabilization policy was largely protected, control of the domestic money supply reverted to the Bundesbank, and speculative currency crises lost their sting.

## 2. *The Limits of Protection through Floating*

Experience has shown that there are limits to the protection against disturbances from abroad that is afforded by floating. There is no way for a national economy as closely linked as Germany's with the world econ-

omy to insulate itself completely against "real" shocks and turbulence in the rest of the world.

a. It is true that the direct transmission of international price rises could be mitigated, but there was no chance of eliminating it entirely, especially in the commodity sector. From early 1972 until mid-1974, international commodity prices rose in dollar terms by no less than 188 per cent. Even the simultaneous appreciation of the D-Mark by 26 per cent in relation to the dollar and by 17 per cent in relation to the average of all currencies could not prevent the D-Mark cost of Germany's imported raw materials from rising during this period by 116 per cent, while the D-Mark price of imported finished goods went up by an average of 18 per cent.

b. Despite floating, marked fluctuations in foreign demand, too, inevitably affected the highly export-oriented German economy. Current-account surpluses reached their absolute peak in 1973-74, of all years,—after the transition to floating and at a time of strong D-Mark appreciation. Existing demand differentials favoring German exports were thus far more powerful than the exchange-rate differentials, which tended to hamper German exports. The foundation for the 1973-74 export boom had actually been laid under the regime of fixed exchange rates, as shown by the massive foreign orders received during the latter half of 1972 and the early part of 1973. There was, however, an essential difference compared with the former exchange-rate system. Once the D-Mark was allowed to float, the exorbitant surpluses on current account in the years 1973 and 1974 no longer led to a large inflow of unwanted foreign exchange, but were compensated by capital outflows (see Table 4 above); nor did they lead to the speculative crises normally accompanying them. On the other hand, after mid-1974 German exports also felt the full force of the worldwide slowdown in business activity. The volume of German goods exports in 1975 was 10.4 per cent lower than in the preceding year, a sharper fall than in all other major industrial countries. (U.S. exports fell by 2.6 per cent.) Not until the second half of 1975 was this somewhat mitigated by a market-induced decline of the D-Mark vis-à-vis the dollar. It can thus be concluded that the flexible exchange rate affords only limited protection against the effects of ups and downs in international business activity in real terms, although it does considerably lessen the monetary disturbances formerly connected with them.

c. Flexible exchange rates have by no means made interest-rate policy fully autonomous. Contrary to widespread fears that international capital transactions might be considerably curtailed, or even throttled, by flexible exchange rates, the volume of such transactions has, if anything, increased.

Interest-rate differentials have tended to be the prime motive behind capital movements, now that expectations of sudden exchange-rate changes—at least in the relationship between the dollar and the D-Mark—have receded. However, in contrast to former times, interest-sensitive capital movements now affect the exchange rate rather than monetary reserves. The desire to avoid unnecessary distortions of the exchange rate by temporary interest-rate differentials has therefore on occasion become one of the factors determining interest-rate policy. To some extent this applies even to the United States, although only to a marginal degree. This point was acknowledged by Arthur F. Burns, Chairman of the Federal Reserve Board, in a statement before the Subcommittee on International Finance of the House Committee on Banking and Currency on April 4, 1974: “Under the present regime of floating it is more necessary than ever to proceed cautiously in executing an expansionary policy.” Similar ideas have been voiced by Professor Henry C. Wallich, one of the Governors of the Federal Reserve Board (see *Frankfurter Allgemeine Zeitung*, Nov. 29, 1975).

d. Membership in the snake also limits Germany’s protection against external monetary disturbances, because the members of this regional system are still obliged to intervene within fixed margins. The other members of the snake—at present the EEC countries of Belgium, Luxembourg, Denmark, the Netherlands, and the associated countries Norway and Sweden—account for about 25 per cent of Germany’s foreign trade, to which France added another 12 per cent when it was a member of the snake. In the event of serious currency disturbances between major member countries of the snake, considerable destabilizing foreign-exchange movements can occur (see Table 5 below).

Thus in June and July 1973, almost DM 6 billion of reserves accrued to Germany from mandatory interventions in the snake, leading to a revaluation of the D-Mark within the snake at the end of June 1973. In September 1973, uneasiness over the French franc led to a further influx of some DM 4 billion. The movement was stopped by appropriate French measures, including an increase in the discount rate to 11 per cent. In 1974 and 1975, significant foreign-exchange movements were occasionally recorded within the snake, but they balanced out as far as Germany was concerned. In February and March 1976, however, a loss of confidence in the unrealistically high rate at which the French franc had re-entered the snake, along with movements out of the Belgian and Danish currencies, led to large speculative flows into Germany, amounting altogether to over DM 9.5 billion.

It is to be hoped that foreign-exchange movements within this regional

**TABLE 5**  
**CHANGES IN THE NET EXTERNAL POSITION OF THE DEUTSCHE BUNDESBANK,**  
**1973-75<sup>a</sup>**  
*(in billions of D-Marks)*

Period	Changes in Total Net External Position	Caused by	
		Interventions within the Snake <sup>b</sup>	Other Foreign-Ex- change Movements
1973:			
Jan.-Mar.	+ 19.9	- 0.6	+ 20.5
Apr.-May	- 0.9	- 1.5	+ 0.6
June-July	+ 8.5	+ 5.8	+ 2.6
Aug.-Sept.	+ 3.4	+ 4.2	- 0.7
Oct.-Dec.	- 4.5	- 1.2	- 3.3
Entire year	+ 26.4	+ 6.8	+ 19.7
1974:			
Jan.	- 2.5	+ 0.3	- 2.8
Feb.-June	+ 5.4	+ 4.1	+ 1.3
July-Sept.	- 6.4	- 3.5	- 2.9
Oct.-Dec.	+ 1.6	- 0.7	+ 2.4
Entire year	- 1.9	+ 0.2	- 2.1
1975:			
Jan.-Mar.	+ 5.0	-	+ 5.0
Apr.-Sept.	- 6.6	- 1.8	- 4.8
Oct.-Dec.	- 0.6	-	- 0.6
Entire year	- 2.2	- 1.8	- 0.4

<sup>a</sup> Excluding changes due to valuation adjustments.

<sup>b</sup> From Jan. 21, 1974, to July 9, 1975, France did not participate in the European joint float.

NOTE: Details may not add to totals because of rounding.

parity system will in future be kept within reasonable limits. The snake does not represent an absolutely rigid parity system. Ad hoc parity changes have occurred (the D-Mark in June 1973, the Dutch guilder in September 1973, the Norwegian krone in November 1973, a more general realignment in October 1976), and there have been temporary withdrawals into free floating (the French franc from January 1974 until July 1975 and again since March 1976).

## Summary and Concluding Remarks

### 1. Protection against Imported Inflation as a Permanent Task

Looking back over the past twenty-five years, it is striking that there were only rare periods in which German stabilization policy did not have



to wrestle with the repercussions of major external disequilibria or was not impeded and constrained by having to pay attention to external equilibrium and especially to interest-rate and liquidity differentials with respect to foreign countries. From 1968 until the transition to floating in the spring of 1973, monetary policy was, with only minor interruptions, entirely dominated by actual or potential foreign-exchange inflows whenever a stability-oriented policy stance was adopted by the central bank.

Even during periods in which there were no statistical indications of a significant inflation differential or balance-of-payments disequilibrium, German monetary policy was to a large extent under external influences. Somewhat simplified, events ran as follows: From time to time, German monetary policy undertook a special effort toward stabilization in order to ward off potential or actual inflationary pressures, as in 1950-51, 1959-60, 1965-66, and finally—although not until external protection had been improved by floating—in 1973. Each time, this led to a price and demand differential in favor of Germany, often improving Germany's external position fundamentally for a number of years. Before 1973, however, stabilization policy was not protected in time or sufficiently against external influences. In consequence, the current-account surpluses arising out of the differential, and later on to a growing extent also the foreign-exchange inflows induced by purely monetary factors, inevitably resulted in adjustment through domestic inflation. Thus, the hard-won stability went at least partly by the board. To this extent, stabilization policy under the previous fixed-parity system proved to be self-defeating.

The preceding survey makes it clear that as early as 1960-61, and even more so in 1969, the delay in revaluing the D-Mark meant that inflationary adjustment had already progressed so far that it took years to squeeze the resultant cost inflation and inflation mentality out of the system. This process was all the more difficult and took all the longer because the Bundesbank, almost continuously, had to take account of interest-rate differentials vis-à-vis other countries. Thus the price and cost inflation between 1961 and 1966 and the even stronger cost inflation after 1969 were to an appreciable extent the belated consequences of the previous external disequilibria of the German economy.

In retrospect, in the past twenty-five years Germany has been confronted with all forms of imported inflation:

Direct transmission of international price rises (particularly pronounced in the Korean inflation of 1950-51, the Suez crisis of 1956-57, and, in its most extreme form, the commodity and oil-price explosion between 1972 and 1974).

- Inflationary demand pull from abroad, producing surpluses on current account and an inflationary gap in the domestic economy (particularly noticeable in the mid-1950s, 1960, 1968-69, and finally, although alleviated by floating, 1973-74).
- The expansionary impact of external surpluses on domestic liquidity and money supply. At first, the foreign-exchange surpluses appeared mainly as a consequence of surpluses on current account, while from 1970 onward they were preponderantly due to interest-sensitive and confidence-induced inflows.

One might add a further, albeit indirect, form of transmission of inflation from abroad. A monetary policy that is forced by circumstances to be externally oriented may induce a "parallel inflation" to foreign inflation, even in the absence of any foreign-exchange surpluses whatever.

## 2. *Defense against Imported Inflation: The Role of Floating*

German economic and monetary policy has tried every defense against imported inflation:

- Neutralization of excess foreign demand by restraints on domestic demand (self-defeating, as a rule).
- An "ambivalent" monetary policy, i.e., a combination of restrictive liquidity policy and comparatively low interest rates to ward off interest-sensitive inflows (neither fish nor fowl).
- Compensatory capital exports (which, from a monetary point of view, compensated for the impact of imported inflation only if they were genuinely financed from market sources).
- Direct measures against unwanted money inflows, ranging from the ban on the payment of interest on nonresidents' accounts and the cash-deposit scheme on external borrowing to the direct prohibition of most capital imports (with intermittent success).
- Ad hoc parity changes (almost invariably too late and too little to forestall forcible adjustment through inflation, and incapable of coping with the huge destabilizing money flows associated with parity changes).

From 1970 to 1973, German monetary policy was confronted with a new form of "fundamental" external disequilibrium centering on the monetary field and the capital account. The close ties between the principal money and capital markets of the world, the internationalization of banking, the shifts of large funds by multinational corporations, the huge volume of money reacting to every interest-rate differential and currency

rumor, as well as the external sector's greatly increased share in total trade and payments—all these factors together have created conditions under which at fixed exchange rates the monetary system of nearly every country, with the exception of the United States, can at any time be swamped by money inflows from abroad.

The effect of the foreign-exchange surpluses on the German monetary system can be summarized as follows: From 1951 to 1973, Germany was forced on balance to purchase foreign currencies, particularly dollars, equivalent to DM 112 billion (excluding book losses on holdings of foreign assets owing to D-Mark revaluations). During these twenty-three years, the foreign-exchange inflows obliged the authorities to create money at a rate which, despite the huge (partly inflation-induced) increase in money turnover, considerably surpassed domestic demand for central-bank funds. When the inflationary effects of foreign-exchange inflows finally exceeded all tolerable limits and after all other protective measures had failed, there remained only the "last resort" of floating.

The decision to permit the exchange rate to fluctuate freely must be seen primarily as a defensive measure against destabilizing money and capital flows. Thus, it would not be correct to say that the primary goal of floating is to provide a mechanism for adjusting fundamental payments disequilibria; this could also be achieved by an adjustable peg. The effectiveness of floating against destabilizing flows of funds has been demonstrated by the fact that no serious monetary crises involving the dollar, the D-Mark, and other strong currencies have occurred since 1973, despite tremendous upheavals in the world economy. Regaining control over the national money supply has been the primary function of more flexible exchange rates for countries with "strong" currencies. This is, of course, not to deny the fact that more flexible exchange rates can also represent an elastic method of adjusting the relative *level* of individual exchange rates.

### 3. *Floating and International Inflation*

It is sometimes asserted that the gain in national stability afforded by flexibility is largely offset by the fact that floating strengthens international inflationary tendencies. Reference is usually made to the explosive development in commodity prices between 1972 and mid-1974. However, this would seem to be rather a *post hoc, ergo propter hoc* argument. Certainly, for some time speculative exchange-rate movements in 1973 strengthened the prevailing inflationary atmosphere. But the foundation of the 1973-74 price explosion—apart from the monopolistic increase in

oil prices—was largely laid by the earlier inflation of the money supply. During the three years 1970 through 1972, the world money stock grew by 38 per cent, and the increase in the principal industrial countries, excluding the United States, reached 51 per cent. This explosion in the money stock was largely due to the fact that, under the fixed-exchange-rate regime, foreign-exchange inflows necessarily led to the creation of central-bank money (or high-powered money), while in the deficit countries there was at best a temporary slight reduction in bank money and, in most cases, no monetary contraction at all. In the main deficit country, the United States, there was even a record expansion of  $M_2$  in the years of high payments deficits, 1971 and 1972. Similar monetary effects were exerted by the many billions of exchange reserves that were autonomously created in the Euromarkets between 1970 and 1972. Between early 1970 and March 1973, the official reserve deficit of the United States can be held responsible for \$55 billion of the worldwide increase of \$86 billion in official exchange reserves, while the remainder is accounted for by "autonomous" reserve creation in the Euromarkets and by other factors such as reserve diversification.

These events demonstrate clearly that under fixed exchange rates any movement of funds from one currency to another is apt to lead to a corresponding creation of new central-bank money in the recipient country, without a corresponding monetary contraction in the other country. This monetary "asymmetry" of a currency system featuring mandatory foreign-exchange intervention has been a major cause of world inflation. Once obligatory support of the dollar was discontinued, the inflation of the world's money stock decelerated significantly.

As regards the future exchange-rate system, it is significant that more and more countries have in recent years adopted a monetary policy emphasizing the quantitative control of monetary aggregates. Any commitment to intervene in the foreign-exchange markets in order to maintain fixed exchange rates is bound sooner or later to conflict with such control of the money stock. Moreover, steadiness in the evolution of the domestic money stock calls for a more flexible interest-rate policy. But strong swings in interest rates in major countries make it practically impossible to maintain fixed exchange rates. Thus, even the international coordination of money-supply targets—almost unattainable in practice—would not be able to prevent serious interest-rate discrepancies and external imbalances. This is presumably the implication of the passage in the 1975 Annual Report of the IMF, which states that "effective multinational coordination of monetary policy for balance-of-payments purposes cannot be an immediate goal" (p. 20).

#### *4. Structural Causes of the Balance-of-Payments Disequilibria prior to 1973*

Why did the exchange rate of the D-Mark become so inappropriate over time that five revaluations were unable to restore fully external equilibrium? Conversely, how did it happen that the U.S. dollar, originally the prototype of a strong currency, was temporarily reduced to the role of a devaluation-prone currency?

It would be an oversimplification to trace the root of all evil to a misguided original fixing of the dollar value of the D-Mark in 1948 and in the devaluation wave of 1949. While it became clear in the mid-1950s that the D-Mark was undervalued, the extremely favorable course of German foreign trade from 1951 onward could not possibly have been foreseen when the D-Mark's parity was originally fixed in 1949. In fact, the monetary developments between 1949 and 1951 lead to the conclusion that in 1949 the D-Mark was, if anything, slightly overvalued and that only later did it become undervalued. The opposite was true of the dollar.

It is also incorrect to ascribe the fixing of the parity in 1949 to a one-sided export-oriented attitude of the monetary authorities. In its Annual Report for 1948-49, the Bank deutscher Länder explicitly stated that in fixing the new D-Mark rate West Germany had "deliberately refrained from establishing an exchange rate which would have particularly assisted its exports" (p. 34).

Nor is the standard explanation for the German external imbalance, namely a continuing inflation differential between Germany and other countries, entirely adequate. It is true that Germany's stability record was considerably better than that of the other major countries of Europe over the entire period from 1952 to 1972 (see Table 2 above). These inflation differences have, in fact, made themselves felt time and again in European balance-of-payments tensions and currency crises and have led to considerable adjustments in relative exchange rates. But what is the situation with regard to the United States?

The conventional view that the United States was the main source of worldwide inflation up to 1973 is largely correct as concerns the origin of destabilizing foreign-exchange flows. The deficit on U.S. official-reserve transactions during the decade 1960-69 amounted to \$11 billion; between early 1970 and the collapse of the parity system in March 1973, it reached the gigantic sum of \$63 billion. This vast outflow of dollars caused a corresponding creation of central-bank money in the recipient countries (via intervention), with a multiplier effect on the money supply.

Measured by the usual price and cost indices, however, an inflation

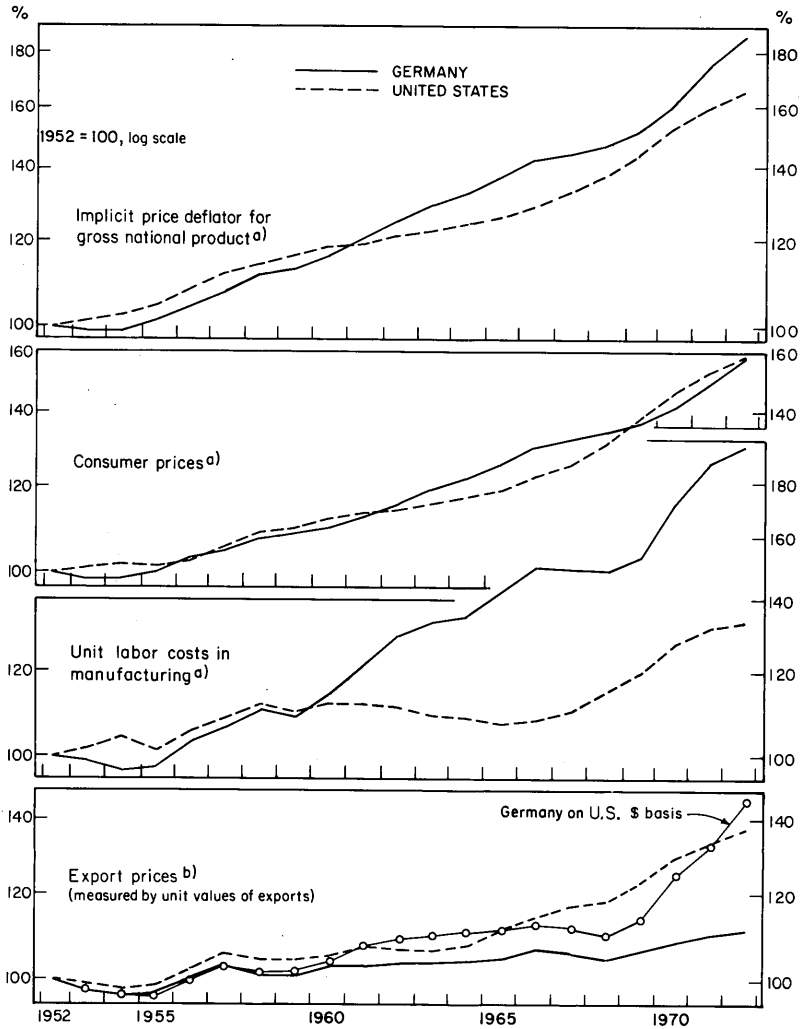
differential to the disadvantage of the United States is impossible to detect throughout the twenty years preceding the collapse of the fixed parity system. As is apparent from Figure 4, on a longer-term view Germany had no appreciable edge over the United States in comparative price movements, and in a comparison of unit wage costs it was at a distinct disadvantage. Actually, there were periods, such as between 1960 and 1965 (i.e., up to the escalation of the Vietnam War and the resultant acceleration of inflation), in which the United States qualified as the anchor of stability in the world economy.

A different picture is presented, however, when U.S. export prices (measured by "unit values") are compared with those of Germany and a number of other European countries. Leaving aside the doubts often expressed about the comparability of export price indices, the unusual movement of U.S. export prices may be due to a special characteristic of American foreign trade: whereas smaller countries with a large proportion of foreign trade are forced to meet foreign competition in the price field, U.S. industry has generally reacted differently. It invested in European industrial countries with lower labor costs and from them supplied not only its export markets but partly its own domestic market as well. Instead of exporting goods, to some extent it exported its export bases to other countries. This investment strategy was also encouraged by a structural liquidity and interest-rate advantage of the U.S. economy. The United States emerged from World War II with extremely high liquidity and a structurally low interest-rate level. In a number of European countries, the opposite applied; the shortage of liquidity was most severe in Germany as a result of the stringent 1948 monetary reform.

These wage and monetary differentials, together with the investment opportunities presented by the recovery of Europe and the establishment of the Common Market, were the driving forces behind high structural capital exports of the United States starting in the late 1950s. These capital exports were not based on, or offset by, a corresponding U.S. surplus on current account.

Domestic economic considerations prevented American interest rates from being raised to the level necessary to achieve equilibrium in the balance of payments. From 1963 onward, U.S. balance-of-payments policy attempted to offset artificially the interest-rate differential through an interest-equalization tax and limitations on capital exports by corporations and banks. In addition, Americans continually called upon the Europeans to strengthen their capital markets and to reduce their interest-rate levels for balance-of-payments reasons. Not until the beginning of 1974, following the transition to floating and after interest-

**FIGURE 4**  
**MOVEMENTS OF PRICES AND COSTS IN GERMANY**  
**AND THE UNITED STATES, 1952-72**



<sup>a)</sup> National-currency basis.

<sup>b)</sup> For Germany on DM and U.S. \$ basis.

rate and liquidity levels in the United States and Europe had gradually moved closer to each other, did the United States abolish these controls of capital exports.

In some respects, the tremendous income differential between the United States and the European industrial countries was even more important than the differences in monetary conditions. The average wage in German industry, converted at the current rate of exchange, amounted in 1950 to little more than 20 per cent and in 1965 to no more than about 40 per cent of the average wage in U.S. industry. As German productivity began to approach the American level, and especially after Germany had established a strong position in world trade, such a large income differential became less and less tenable, in terms not only of cost developments but more particularly of demand levels and effects on imports. Since the appreciation of the D-Mark, German wages, including all fringe costs, have in a number of industries reached the U.S. level, and at a dollar rate of approximately DM 2.50 have indeed occasionally exceeded it. Even in real terms (i.e., after allowing for the differences in absolute prices in the two countries), the jump is enormous: on a rough calculation, real income per capita in Germany in the early 1950s was no more than about a third of that in the United States, and in 1960 it was just under 45 per cent. Now it has come fairly close to average U.S. income.

Inevitably, a catching-up process of such truly historical dimensions was bound to affect monetary relations as well. Attempting to bring German and U.S. income levels into line without adjusting the dollar-D-Mark exchange rate would have meant pushing up the income and price level in Germany in inflationary leaps and bounds. An appreciation of the D-Mark against the dollar of almost 70 per cent over the period 1961-75 was apparently necessary to bring about this adjustment without undue inflation in Germany.

Mere reference to an inflation differential between Germany and other countries does not take full account of the profound structural changes and adjustments of the past twenty-five years, in the liquidity and interest-rate differentials or in the income gap vis-à-vis the United States. Nor does this formula take account of some important structural developments in Germany's foreign trade (e.g., structural shifts of international demand in favor of German exports) or the structurally higher capital formation in Germany (as the financial counterpart to the German surpluses on current account). In the past, these structural factors have helped to strengthen the German external position, thus aggravating the dilemma between internal and external equilibrium under a system of fixed exchange rates. As things stand, however, there is reason to believe that



structural (or secular) shifts in favor of the German external position are now a thing of the past.

##### 5. *Concluding Remarks on the German Attitude toward the External Dilemma*

The description of the various stages of the external dilemma in the first part of this essay should make it easier to understand the German reactions to it. In this context, attention must be called to the following points:

a. It was impossible to foresee at the outset the very deep-seated and persistent nature of Germany's external disequilibrium. Interim periods of external equilibrium, which with hindsight we can qualify as mere breathing spaces, were at the time often thought to represent the ultimate solution to the dilemma. Thus, the price stabilization in the United States that began in 1958-59 and lasted for more than five years was widely regarded as marking a new era in which imported inflation would disappear. This notion first emerged in an address by the Governor of the Bundesbank, Karl Blessing, when he took office in January 1958. A few months later, he said: "It has been suggested that we should give up either exchange-rate stability or price stability. As the world presents itself today, there can be no question of either the one or the other; in our view, the conflict between internal monetary stability and balance-of-payments equilibrium is *not a lasting phenomenon*."<sup>12</sup>

b. Moreover, it took quite some time for the novel idea of a currency revaluation, voluntarily used by a surplus country as a stabilization measure, to be really accepted. The notion of devaluation as a measure enforced by a fundamental balance-of-payments deficit was of course familiar from prewar days. For a long time, the German government, as well as the central bank, persisted in the view that a balance-of-payments disequilibrium caused by inflation abroad should primarily be corrected by an anti-inflationary policy in the deficit country concerned (or, in the last resort, by devaluation of its currency). The authorities were anxious not to move too hastily in revaluing the D-Mark and thereby easing the pressure on the inflation-ridden country to set its house in order. In principle, this view was correct and in the interest of a stable world economy. In practice, however, more often the consequences for Germany were that it exported stability and had to import inflation in exchange.

c. Consideration of exporters' interests certainly played a role in some influential people's views on the exchange rate. It can be stated un-

<sup>12</sup> Karl Blessing: "Geldwert und Sparen," address before the Deutscher Sparkassentag in Cologne on June 20, 1958, in Blessing (1960).

equivocally, however, that the attitude of the government and the central bank was not determined by a mercantilist commitment to an undervalued currency (as has occasionally been maintained by critics abroad). The Bundesbank repeatedly welcomed the slowing down of excessive foreign demand for German export goods (see, for instance, the quotation on page 10 above).

d. During the first two decades of the Bretton Woods system, fixed exchange rates were considered to be almost sacrosanct, partly because of the belief that defending fixed parities encouraged monetary discipline (although this applied only to deficit countries and only for as long as defense of the parity was given priority over other objectives).

e. Finally, the Bundesbank, which held by far the highest dollar reserves of any central bank, felt a special responsibility for the support of the monetary system. For this reason, it was reluctant to convert the dollars accruing to it into gold on a major scale (until 1964, there were occasional small purchases from the U.S. Treasury). In all probability, large conversions of dollars into gold by the Bundesbank would have provoked the end of dollar convertibility as well as the Bretton Woods system long before August 1971 or March 1973; that was something for which the German monetary authorities were not prepared to accept sole responsibility.<sup>13</sup>

On the other hand, it should be emphasized that the Bundesbank, whose governor, Karl Blessing, had not been willing to accept the revaluation of the D-Mark in 1960-61 except as a last resort, determinedly changed course in the summer of 1968 under the same governor and from September 1968 onward energetically advocated the protection of domestic stabilization policy against disturbances from abroad. It is possible to distinguish a number of evolutionary stages in this change of attitude of the Bundesbank.

Originally, Wilhelm Vocke, the first governor of the Bundesbank, and for some time Karl Blessing also, were firmly convinced that internal and external monetary stability could be achieved simultaneously. Even in the revaluation crisis of 1960-61, the revaluation was officially accepted only as the last resort of stabilization policy. On that occasion, Blessing said: "The Bundesbank has for a long time resisted the idea of an adjust-

<sup>13</sup> An interview given in the spring of 1971 by Karl Blessing after his retirement as central-bank governor is quite revealing on this subject. He regretted that he did not "systematically convert into gold" the accruing dollars, and that as late as 1967 he promised the American negotiator, John McCloy, under the pressure of discussions on an offset agreement for the foreign-exchange costs of U.S. forces in Germany, that for a certain period of time the Bundesbank would refrain from converting these dollars (the so-called "Blessing Letter," addressed to the Chairman of the Federal Reserve Board, William McChesney Martin, Jr.). See Brawand (1971, p. 61).

ment of the exchange rate. For a central bank the parity is after all something sacrosanct which must not be tampered with except when all other means have been exhausted.”

During the 1960s, the attitude toward the Bretton Woods parity system became more critical. By way of illustration, reference may be made to a keynote address I gave at the Annual Meeting of the Verein für Socialpolitik (1964, p. 24). I explained that a system of fixed, but in case of need adjustable, exchange rates could only function

- so long as the key-currency country by its domestic stability—i.e., monetary stability and economic stability in general—enables the other member countries to maintain fixed exchange rates without imposing undue strains on their own domestic stability;
- so long as possible tensions between fixed exchange rates and domestic economic objectives are reduced by close cooperation and by common rules for balance-of-payments adjustment;
- so long as sufficient (but not excessive) flexibility in the financing of temporary disequilibria is ensured, with all due safeguards against abuses.

A few years later, it became evident that the first two conditions for the satisfactory functioning of a system of fixed exchange rates no longer applied. The Bundesbank drew the necessary conclusions in 1968 when the external dilemma once again became acute. Governor Blessing, who in 1960-61 could be brought to agree to a 5 per cent change in the D-Mark parity only after much hesitation, went so far in 1971, when he had already retired, as to envisage continual adjustments of the D-Mark rate should greater stability persist in the Federal Republic than abroad: “Should a fundamental imbalance emerge every two or three years, it will be necessary to modify the exchange rate of the D-Mark accordingly” (Brawand, 1971, p. 59). In practice, of course, this would inevitably lead to a flexible exchange rate.

In actual fact, the next step was indeed the movement to exchange-rate flexibility. While flexibility had been introduced in May 1971 purely as a transitional measure, subsequent experience and especially the currency crisis of early 1973 made it obvious that floating was the only way out. During the monetary crisis of February and March 1973, the Bundesbank advocated the suspension of dollar support, i.e., the floating of the D-Mark, from the very beginning. In its 1974 Annual Report (p. 55), it assessed its experience with floating:

In retrospect, it can be seen that the suspension of mandatory support of the U.S. dollar and the floating of the Deutsche Mark in March 1973 were not only inevitable under the prevailing circumstances, but subsequently proved effective as a flanking measure and as a shield for domestic stabilization policy.

It is highly significant that in the meantime the IMF has arrived at similar conclusions. In its 1975 Annual Report (p. 33), it expresses itself in the following terms on the exchange-rate system introduced in March 1973:

On the whole, exchange rate flexibility appears to have enabled the world economy to surmount a succession of disturbing events, and to accommodate divergent trends in costs and prices in national economies with less disruption of trade and payments than a system of par values would have been able to do.

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