PER JACOBSSON FOUNDATION,
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# Inflation and the international monetary system.

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THE PER JACOBSSON FOUNDATION

Per Jacobsson foundation Washington D.C.

# INFLATION AND THE INTERNATIONAL MONETARY SYSTEM


Otmar Emminger

Adolfo Diz          János Fekete


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16 June 1973
Basle, Switzerland

# FOREWORD

The Proceedings of the tenth lecture meeting convened by The Per Jacobsson Foundation are contained in this publication. Included are a background paper on the subject, "Inflation and the International Monetary System," prepared by Dr. Otmar Emminger, and his oral presentation of this paper in the Aula of the University of Basle on 16 June 1973. The commentaries of Dr. Adolfo Diz and Dr. János Fekete are also reproduced, along with the welcoming remarks of the Rector of the University, Dr. G. Bombach, and the introductory remarks of the President of the Foundation, Mr. W. Randolph Burgess.

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This series of lectures and publications is made possible by the generous contributions to the Foundation by friends of Per Jacobsson, late Managing Director of the International Monetary Fund, following his death in 1963. The Foundation was established to promote informed international discussion of important current problems in the field of monetary affairs, in which he had always taken so active a part. Elsewhere in this pamphlet will be found a list of the Proceedings so far issued by the Foundation. These are made available, without charge and upon request, in English, French, and Spanish. In addition, through the kindness of banks and bankers' associations throughout the world, excerpts from the Proceedings have been issued in Chinese, German, Hebrew, Italian, Japanese, and Persian.

Inquiries may be addressed to the Secretary of the The Per Jacobsson Foundation, International Monetary Fund Building, Washington, D.C. 20431, U.S.A.

# TABLE OF CONTENTS

# Welcoming Remarks

*G. Bombach*

MR. CHAIRMAN, LADIES AND GENTLEMEN: It is a privilege and a pleasure to welcome you to Basle University on the occasion of the Per Jacobsson Lecture. This year's eminent speakers, Otmar Emminger, Adolfo Diz, and János Fekete, are, like some of their predecessors, speaking in the Aula where Per Jacobsson, as Managing Director and Chairman of the Executive Directors of the International Monetary Fund, also made speeches to packed audiences. Many of us were here on those occasions.

While Per Jacobsson went to Washington only a few months after I came to Basle, I have heard from my colleagues how closely attached he was both to the University and to Basle. Personally, I have a very vivid memory of his participation in Basle University's five hundredth anniversary. While he was, already in the 1930s, available for speeches and seminars, it was really during the war that he was able to increase his participation in the life not only of the University but also of Basle and of Switzerland. Busy though he became later, he always maintained these contacts. Thus we all profited from his attempts always to see and support constructive forces in an international perspective.

His many friends could also count on his active interest in their welfare and their work. He could discuss constructively with academic people, specialists, and farmers, as well as with businessmen.

But it was perhaps his wit that gave him such easy contact with the people of Basle, themselves famous for their sense of humor. On the many occasions when we joined forces for a drink after a speech, his stories, drawn from the world scene, would enliven the conversation.

But as he could laugh at himself, several of them were not always too friendly to our common field of study, namely, economics.

When, as one of the guests of honor at the Mustermesse, the President of the Regierungsrat of Basle—who is represented here today by Regierungsrat Eugen Keller—asked Per Jacobsson if he agreed that the Swiss worked hard, he answered, "Yes, but I remember from my school days that some of my colleagues had to work harder than others."

This story dates from 1949, when the Faculty of Philosophy of our University gave him a doctorate *honoris causa.*

We can only regret that the active plans Per Jacobsson had made to retire to Basle were never to be fulfilled. The Basle Centre for Economic and Financial Research was then still in existence. I was proud to be his co-director and had looked forward to his presence here in Basle. I also look back with pleasure to the collaboration with his daughter Erin Jucker-Fleetwood, who was his alternate in Basle.

We are also very happy to have present with us Mrs. Per Jacobsson, who we know was a very good companion and of great help to her husband.

Basle University is happy that the friendly and scientific contact with the Bank for International Settlements has continued in spite of intervening changes.

As we were hosts for the inaugural Per Jacobsson Lecture, we are particularly proud to receive again, on this tenth anniversary, the bankers and economists of the world.

## *W. Randolph Burgess*

THE FIRST THING I WISH TO DO is to extend our gratitude to Professor Bombach and to the University for the many things they have done for us: for their being our hosts on this occasion and on two previous ones, and also for their continuing helpfulness with Per Jacobsson's work, and for the establishment and operation of the library of the books, pamphlets, and documents of Per Jacobsson, making them available to students. Truly, we owe a debt of gratitude to this University.

I am delighted that we have here members of the Jacobsson family to share with us in this meeting.

Let me, while I am expressing appreciation, also include the Swiss Bank Corporation for the very festive luncheon they gave us and their great hospitality to us.

Next on my list is, of course, the Bank for International Settlements, which has welcomed us here three times. Many of you will recall their work with us in the establishment of the Jacobsson Foundation. But more broadly, we should be grateful for the existence of the Bank and what it has done for our countries and for our economic system.

Dr. Bombach has given you a little dip into history, and I suggest, for a minute, going back still further—forty-three years—to the launching of the BIS, because I had a part in that launching. It was at the time of the discussions of the Young Plan in the spring of 1929 in Paris, when a complete impasse had been reached in the settlement of postwar arrangements, and everybody was looking around for a solution. Owen D. Young, who was a statesman, as well as a businessman, suggested that the solution was to create a new institution. Then he summoned four people to Paris: Walter Stewart, then Economic Advisor of the Bank of England; Shepard Morgan, Deputy to the Agent General for Reparation Payments; Pierre Quesney of the Bank of France, who later became General Manager at the BIS; and myself. We were asked to draw up a plan for an institution that would solve a number of political and economic questions. The BIS was the result. In a few days we had to come up with a plan for a bank that, curiously enough, was designed to be "an elastic link in the chain of reparation payments."

It did not turn out exactly that way. But it did even better, for it created an institution around which have gathered the financial and economic statesmen of Europe for personal contacts. These monthly meetings, going on year after year, through peace and through war, have done, I am sure, an enormous amount for the economic health of our countries.

Let us draw a conclusion, and hope that the present economic health will be improved by more of the same medicine. I am sure we can look forward to that in time.

Now today we have a challenging program, beginning with a fine paper by Dr. Otmar Emminger, which many of you have received ahead of time due to Dr. Emminger's kindness and the help of the Bundesbank.

We are delighted to hear from Dr. Emminger, who is a leader in this field. You all know his career. It is outlined in the program. I call now on Dr. Emminger.

# Inflation and the International Monetary System

By Otmar Emminger

*This is the written version of Dr. Emminger's paper, which was prepared and distributed in advance. His oral presentation begins on page 33, below.*

## I. The Bretton Woods System Broke Down Because of Its Inflationary Implications

THREE YEARS AGO, M. PIERRE-PAUL SCHWEITZER, the Managing Director of the International Monetary Fund, said in an address given at an International Financial Conference in Geneva, "Looking back at the 1960's, we can say that the international monetary system has been through something of an ordeal by fire. It survived that ordeal and has emerged with improved foundations." The ordeal he was speaking of was a series of crises around the pound sterling from 1964 to 1968 and the gold crisis of 1968. How then should we, in comparison, characterize what has happened since 1970 in the international monetary sphere? In order to keep the right proportion between the two periods, we would have to say that the international monetary system has been through an ordeal by holocaust. And as of now it has not yet emerged with improved foundations—although we fervently hope that crisis will be converted into opportunity, and that an improved system will finally emerge.

It has always astonished me that one of the crucial points behind the breakdown of the old system seems to have been so little understood. Many people—including many monetary experts—seem to believe that the main problem was the unrest in the foreign exchange markets produced by distrust in parities and disorderly capital flows. Some people—economists as well as politicians—have drawn the conclusion that, in order to prevent such disorders in future, very large facilities should be created for financing such capital flows: unlimited financing through the IMF was advocated in the influential *New York Times,* and special automatic credit facilities in the Fund have indeed been proposed for such a purpose during the discussions on international monetary reform; European politicians have been suggesting large automatic financing facilities through the new European Monetary Fund for similar purposes. All this misses the real point. The former regime did not break down merely because of the unrest in exchange markets. It is remarkable that, in spite of the currency disorders, world trade has continued to expand by leaps and bounds; and in spite of a rush of controls against disequilibrating capital flows, international investment—in particular, direct investment—is flourishing. Nor did the system break down because of a lack of financing facilities—European central banks have no lack of their own currency with which to buy up incoming dollars. It broke down because the limit of tolerance for the inflationary effect of such currency inflows had been reached. New financial facilities (or a "recycling" of short-term capital flows) would be no remedy for that, but would only increase the potential for more inflationary capital flows.

*So the former system broke down because of its inflationary implications.* This is worth stressing. One should take note of this fact in the present reform discussions, where so many objectives are being pursued but where sometimes the need for providing better protection against inflation is pushed into the background.[1]

The relationship between the world monetary system and inflation has not always been so unambiguous as during the recent currency crises. True, the system, and particularly its central part, the *de facto* dollar standard, has been criticized by eminent experts as a "perfect inflation machine." But on the other hand, in the first two decades

[1] After last year's Annual Meeting of the IMF Governors in Washington (September 1972), which concerned itself mainly with world monetary reform, the London *Economist* wrote: "But there was a horrible silence on world inflation." In essence this was true, although the problem was mentioned by a few Governors.

after Bretton Woods the prevalent view, at least in the United States and Britain, was that the world monetary system had a "deflationary bias." Two reasons were advanced for that view: a one-sided adjustment process and an inadequate system of liquidity creation. It was assumed that a system of fixed parities exerted pressures for adjustment on deficit countries but hardly on surplus countries. This was the suspicion and fear which had haunted Keynes at the Bretton Woods Conference (he feared a "contractionist pressure on world trade"). As time went on, this fear was transmitted to the United States, and it has lingered on there to this day. It has found its reflection in the American proposals for monetary reform whose main intention is to put more adjustment pressure on surplus countries.

A second reason for fearing a deflationary bias was the view of the Triffin school that a system which relied mainly on the creation of dollar liabilities for its supply of additional reserves would inevitably bump against a ceiling and would over time lead to a shortage of international liquidity; the more extreme school even predicted an international "liquidity collapse."

This dual fear of built-in deflation has been belied by actual developments. These have demonstrated, first, that the mechanism of adjustment to payments imbalances has resulted not in a deflationary, but in an inflationary, bias of the system, and, second, that instead of experiencing a liquidity shortage we have been exposed to a colossal liquidity explosion.

Professor (Lord) Robbins, a participant at the Bretton Woods Conference, has recently narrated the story of how the well-known British Treasury expert, R. G. Hawtrey, had sent a note to the British delegation at Bretton Woods which said in essence, "What's all this talk about deflation after the war? The problem is not going to be deflation; it's going to be inflation." His lonely foresight was not taken seriously at Bretton Woods.

## II. Some Explanations of World-Wide Inflation

Let us first take a glance at the phenomenon of world-wide inflation. The evolution over recent years points to some common cause or causes of world inflation. Indeed, what is particularly striking and ominous in the world economy of today is not only the progressive strengthening but, in particular, the universal character of inflationary forces in the industrial countries. Among the OECD countries, the average weighted price increase—measured in terms of consumer prices—was 2.4 percent per annum in the second half of the 1950s, 2.6 percent per annum in the first half of the 1960s, 4.2 percent per annum in the second half of the 1960s, and 5.3 percent per annum in the three years 1970 to 1972. At present, nearly all industrial countries seem to be marching "in step" at a rate of inflation of 7 percent or more.

Economists have various explanations at hand for the almost universal character of inflation. According to some, there has been a simultaneous *change in the socio-economic environment* in most industrial countries which has nearly everywhere led to excessive claims on the economy, be it from overambitious government (and government-subsidized) spending or excessive wage settlements, or in most cases from both. This has resulted in many countries in an irrepressible combination of demand and cost-push inflation together with a dangerous escalation of inflationary expectations. There can be no doubt that the universal propagation of price inflation has been facilitated by the transmission mechanism of fixed parities. But this contribution, in the view of these observers, has not been a primary, but only a supplementary, source of world-wide inflation. Such an explanation raises several questions: Where is the place of monetary policy in this whole argument? Why has monetary policy become so permissive universally? And what has happened to the balance of payments discipline of fixed parities? Were not fixed parities supposed to put a brake—perhaps the only effective, because exogenous, brake—on spendthrift governments and excessive wage settlements? [2]

Other observers emphasize the monetary side and argue: As we have inflation on a world-wide scale, we must have had excessive money creation on an international scale. So we should perhaps look toward the *excessive expansion of international liquidity* as the really universal scapegoat for the loosening of the monetary reins. But how can we explain the fact that the dangerous acceleration of world-wide price

[2] Even as late as 1971, Professor Harry Johnson said, in a panel discussion on World Inflation, "The major discipline imposed for the control of inflation in individual countries is the fear of balance-of-payments deficits." He thus reiterated an argument put forward very forcefully by Professor Jacob Viner twenty years earlier.

inflation began in the second half of the 1960s, at a time when the creation of international reserves was still very modest—more modest, indeed, than in the first half of the 1960s? [3] The connection between international liquidity, in the sense of the supply of world reserves, and domestic money creation and inflation is not so simple and direct, although there can be no doubt that the liquidity explosion after 1970 has had something to do with the subsequent further acceleration of price inflation.

Other experts explain world-wide inflation by simply pointing to *demand and price developments in the United States.* In their view, developments in the largest economy of the western world will decisively influence, at least in a system of fixed parities and unlimited dollar financing, the development of money supply and prices elsewhere. As one authority on international monetary affairs put it, "Inflation in the United States determines the pace of inflation abroad." [4] Or, as Milton Friedman used to say, "Under a dollar-based system with fixed exchange rates, the monetary policies of the world will be determined by the monetary policy of the Federal Reserve in Washington." But here again doubts arise when we look more closely at the historical facts. It is true that, in the period of Vietnam escalation from 1966 through 1970, the U.S. economy was the pacesetter of inflation in the industrial world. But from 1971 to 1973, money creation as well as price and cost inflation have been at significantly lower rates in the United States than in the rest of the industrial world. Why has this recent lower rate of U.S. inflation not had any dampening effect whatsoever on world price inflation, although its retarding effects in terms of other currencies were strongly reinforced by the devaluation of the dollar? [5] And looking over a longer period, in the twenty years from 1953 to 1973 U.S. prices increased less than those of all other major industrial countries, even

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[3] In the years 1965 through 1969 the average annual increase of gold and foreign exchange reserves was only 2.0 percent, as against 3.6 percent in the period from 1960 through 1964.

[4] Gottfried Haberler and Thomas D. Willett, *A Strategy for U.S. Balance of Payments Policy* (Washington, 1971), p. 20: Haberler gives some reasons for this American price dominance, i.e., for an asymmetrical relationship between prices in the United States and in other countries. Similarly, Professor Harry Johnson: "U.S. prices tend to serve as an anchor to everybody else's."

[5] From the beginning of 1971 through March 1973, U.S. prices in terms of deutsche marks fell by 16 percent (consumer prices) and 12 percent (export unit values).

apart from changes in relative currency values. Why has this not acted as a brake on inflation elsewhere? And have not other countries complained again and again that they were importing inflation from the United States even in periods when inflation there was much lower than elsewhere?

## III. The Contribution of the International Monetary System to World Inflation

It appears that none of these mono-causal explanations is fully convincing, although each of them points to one probable ingredient of the complicated process of world inflation.

What we are interested in here is *what contribution the international monetary system has made to this process.* Has the fault been with deficient national policies in major countries whose inflationary effects were then propagated throughout the world by the transmission mechanism of fixed parities? Or has the system itself contributed to or reinforced the inflationary tendencies by its own institutions? At the IMF Meeting in Vienna in 1961, the Governor of the Dutch central bank, Holtrop, declared, "In my opinion, our present problems are not due to any inherent deficiency in our institutional setup. Therefore, we cannot hope to solve them by changes in our institutions, but only by changes in our policies." There is no doubt that, had all the major countries pursued perfect policies and fully lived up to the rules of the game, the system—or for that matter, any system—would probably have worked well. But the real question is: How did the international monetary system, as it evolved from the Bretton Woods Agreements, face up to the realities of the postwar era, including those arising from far-reaching structural changes in the world economy? And, in particular, has it been a positive or a negative factor in the fight against inflation?

My answer to these questions is that *the international monetary system has not only yielded in too permissive a way to inflationary forces which emanated from domestic inflation in important countries, but has also been generating inflation on its own.* Let me briefly enumerate the main developments that have contributed to this result.

1. The transmission mechanism of fixed parities has worked more and more as a one-way street only, namely, in the direction of inflation.

The much vaunted discipline of the balance of payments did not work. This has been due mainly to the increasing resistance—or sheer inability—on the part of deficit countries to adjust to external deficits by domestic stabilization, let alone even the mildest form of deflation. The most important, but by no means the only, example of this asymmetric adjustment process has been the deficit of the United States, which as the reserve center of the system had practically unlimited external financing available until the system broke down. Thus, while some academic economists were still theorizing about the presumed "deflationary bias" of the adjustment process, in actual practice its bias was in the opposite direction.

2. The mechanism of rigid parities not only transmitted inflation from one country to another, but even converted noninflationary structural deficits, like that of the United States during part of the postwar period, into a source of inflation for the rest of the world. Most industrial countries defended their own parities by intervention against the U.S. dollar, as the dollar had become the intervention and reserve currency of the world. Thus, in the name of supporting the fixed parities system, they allowed a large structural imbalance to build up in the world economy, with the further consequences of imported inflation and excessive liquidity creation.

3. Over the last ten years, volatile capital flows have assumed dimensions never dreamt of before. In a system of fixed, but no longer trusted, parities they have magnified the pressure of imported inflation in the recipient countries and they have undercut anti-inflationary policies in some countries which formerly played a crucial disciplinary role as "islands of stability."

4. There has been an inherent tendency in the system to create too much international liquidity in the form of the excessive accumulation of currency reserves. The main source of this excess liquidity was, of course, the protracted payments deficit of the United States, the reserve center of the system. But there have also been other sources of uncontrolled liquidity creation, such as a trend toward diversification of exchange reserves into currencies other than the dollar as well as money creation in the Euro-money market.

This combination of trends and forces in the world monetary system—namely, a one-sided process of balance of payments adjustment, a rigid parity system based on a structurally weakening dollar, destabilizing capital flows, and uncontrolled expansion of international liquidity—has proved to be about the most inflationary mixture imaginable. It has helped to pervert fixed parities from an instrument disciplining deficit countries to one forcing monetary debauchery on surplus countries.

I think it is worthwhile to analyze some of these processes a little further so as to be able to draw lessons for the future.

## IV. The Degeneration of the Fixed Parities System

A system of fixed parities can only work without too much inflation if there is a certain balance in the adjustment process. Of course, nobody nowadays would dare to expect from a deficit country even the mildest form of deflation. But a deficit country should at least contribute to adjustment by eliminating domestic inflation. During the last ten to fifteen years, there has been no major international disequilibrium where a deficit country achieved real stability of costs and prices over any length of time—with the exception of the United States from 1960 to 1965.

Already in 1964 the IMF deflated the fable of the disproportionate burden of adjustment on deficit countries and the consequent deflationary bias of the world monetary system. It said in its Annual Report for that year (page 28): "In modern societies, actual reductions in wage and salary levels are regarded as acceptable only in the most unusual conditions. . . . On the other hand, few countries can completely resist cost and price increases when the underlying pressures for upward adjustment are strong. The result is that international adjustment through changes in relative costs and prices typically involves more upward adjustment in surplus countries than downward adjustment in deficit countries." The Fund commented on this inflationary asymmetry of the adjustment process with approval (Annual Report for 1964, page 4): "The international monetary system has been able to meet the challenges to which it has been exposed. . . ."

This asymmetric adjustment process was strongly supported by permissiveness in the financing of balance of payments deficits. The British case during the 1960s is a good case in point. During the years 1964 through 1968, the United Kingdom received no less than $8 billion worth of short-term and medium-term currency loans from abroad to finance its deficits, i.e., nearly three times the amount of its own official reserves at the beginning of the deficit period. For the group of industrial countries that provided this financing, either directly or through the IMF (and the General Arrangements to Borrow), this meant corresponding money creation through their central banks. For some countries, their share in this inflationary financing of the $8 billion of currency loans represented a significant amount in terms of their own monetary base. A few years later such amounts were, of course, completely dwarfed by the inflationary central bank financing of huge U.S. deficits through unlimited support of a fixed dollar parity by the other industrial countries.

It was indeed the exacerbation of the dollar problem that finally perverted the regime of fixed parities and turned it into a machinery of inflation. The dollar problem involved much more than merely transmitting U.S. domestic inflation to other industrial countries via the turntable of fixed exchange rates. True, from 1965 to 1970 this process also played its part. During that period the U.S. rate of price and cost inflation was higher than in the other OECD countries and this contributed to the deterioration of the U.S. competitive position in the world as well as to world inflation. But taking the last twenty years together, i.e., from 1953 to 1973, the United States could boast the lowest rate of price inflation—whether measured in terms of consumer or GNP prices—of all the major industrial countries. There was a memorable episode at the Annual Meeting of the IMF in Tokyo in 1964. When some European finance ministers complained about the inflation which their countries were importing from the United States, the then U.S. Secretary of the Treasury, Douglas Dillon, retorted, "There is certainly no inflation in the United States, so we have no inflation to export."

But the United States was in fact exporting inflation even at that time; not as a result of any domestic price inflation, but through external deficits which were mainly due to two structural trends—an enormous structural upswing in its capital exports and a structural deterioration in its trade position (which was not yet clearly discernible in 1964, but which came to the surface near the end of the 1960s). Europe and Japan had rebuilt their economies and were beginning to catch up with U.S. industrial productivity. They had also begun to discover, and develop, the huge American market for their products. These developments contributed to a gradual overvaluation of the dollar in relation to some other currencies. Secondly, American corporations at the end of the 1950s began to discover the vast investment opportunities abroad. Prompted by lower wage costs abroad and assisted by abundant and relatively cheap financing facilities, they began to buy up companies or set up foreign subsidiaries in a grand style. In this way part of the U.S. export base was exported abroad, which helped to accelerate the structural deterioration of U.S. trade. The high capital exports, which by far surpassed the U.S. net export of goods and services (i.e., of "real" capital), were an important vehicle for inducing inflation in the recipient countries. These structural factors, and a reverse structural factor in the foreign trade of Japan, were more important than the much discussed "inflation differentials" in causing the protracted payments disequilibrium of the United States and the consequent imported inflation in Europe and Japan.

In essence, it was a simple problem. At the beginning of the 1950s the per capita income in the United States was about three times the per capita income in Europe and even higher in relation to Japan (at the then existing rates of exchange). With the catching up of European and Japanese industries, such a large discrepancy in relative income levels could not be maintained. This put the regime of fixed parities between the dollar and the relevant other currencies under a great strain. Even with complete cost and price stability in the United States, if Europe and Japan had wanted to maintain their fixed dollar parities they would have had to accept an inflationary upward adjustment in their income and price levels. This catching-up process of income levels was made even more difficult when nominal incomes and costs in the United States began to move up rapidly in the second half of the 1960s. Even between the United States and Germany—which had its currency upvalued relative to the dollar between 1961 and 1973, through its own or through American action, by no less than 49 percent—this process of adjusting relative wage and income levels took a long time. In 1960, the average per capita income in Germany was still only 44 percent of that in America. In 1970 the relationship had risen to 61 percent. In the spring of 1973 it had reached about 85 percent and of late between 90 and 100 percent (calculated at current rates of exchange). This seems now to correspond to the relative levels of national productivity. The structural adjustment between the major economies and currencies of the world to the new realities of the 1970s—a normalization process after the previous period of absolute predominance of American industrial power—has been a once-for-all process of historic dimensions. It has strained the system of fixed parities beyond the breaking point.

These structural tendencies seem to me to give a better clue to the underlying problems of the postwar adjustment process than the widespread American view that European countries and Japan deliberately pursued "mercantilist" policies directed at generating persistent surpluses. Some American critics have persuaded themselves that the Europeans and Japanese have been suffering from a deep-seated "surplus syndrome." The related assumption, that the United States has had a growing payments deficit forced upon it by the unsatisfied need of other countries for reserves, seems also to be a misinterpretation of the facts. It is true that the structural process of postwar normalization would have required either even more inflation in Europe or a near-continuous process of upvaluation of some European currencies on the one hand, or a devaluation of the dollar on the other. In view of the difficulties as well as the uniqueness of such a structural adjustment process, it is not surprising that each partner to this process usually finds most of the fault to be with the partner on the opposite side.

The overvaluation of the dollar which came about in the process of postwar normalization is sometimes ascribed to an innate "devaluation bias" of the former dollar-centered system. Indeed, up to 1971 many dozens of currencies were devalued but only a few were upvalued vis-à-vis the dollar. This has, however, not necessarily led to an overvaluation of the dollar, as most of the devaluations resulted from, and merely compensated, high domestic inflation in the respective countries. It is a different thing that the system may have suffered from an "anti-upvaluation bias," that is to say, that a number of industrial countries resisted for too long the inevitable realignment of their currencies in relation to the dollar—or that, for too long, a devaluation of the dollar was considered to be taboo.

It was fatal for the system that the currency which had to undergo this structural adjustment in relation to other important currencies happened to be the main reserve and intervention currency of the world.

In deference to and in defense of the system of fixed parities, the other countries supported the parity of the U.S. dollar by accumulating enormous amounts of dollars. Thus the structural imbalance was prolonged, a large overhang of liquid dollars was created in foreign hands, and the economic climate in the world became increasingly inflationary. Finally, the impact of this situation on confidence in the leading currency has temporarily made the whole international currency system hostage to disruptive speculative movements of funds and large-scale distortions of the terms of payments in foreign trade—movements which not only have transmitted inflation from one country to the other, but which in a fixed parity system were outright sources of new inflation in the recipient countries.

However, the gradual shift of fixed parities from being a stabilizing to being a destabilizing force has not been limited to the effects of a weakening dollar. It has been a more general process in which some features of the monetary system have played their part. These were, on the one hand, the overly rigid application of the parity system, and, on the other hand, the permissive reserve and financing system aided and abetted by Euro-currency markets and other subsidiary liquidity systems.

As a consequence of these combined factors, all the major payments disequilibria of the last twenty years—whether they were due to inflationary internal policies or to changes in the structural position of deficit countries—were in the end resolved through a further turn in the inflationary spiral in the world economy (or in extreme cases by altering exchange values), and not in one single case by real deflation of prices or incomes in the deficit countries. Thus we have here a close parallel to what has evolved in domestic economic policies: here, too, there is a growing tendency to resolve economic or social conflicts of all kinds by papering them over with inflationary settlements. Inflation as a general instrument for pacification, for resolving conflicts in the domestic as well as in the international field!

## V. What Is Left of the Balance of Payments Discipline

Let me quote a few historic instances which illustrate the decline and fall of fixed parities as a disciplinary force.

In 1969, the famous doctrine of "benign neglect" appeared on the American scene. Although never officially adopted by the American authorities, it reflected fairly well the prevailing American attitude that domestic monetary and fiscal policies should not be constrained to any significant extent by the requirements of external balance and the maintenance of a fixed dollar parity. This doctrine was dropped in August 1971 with the adoption of a policy to rehabilitate the external strength of the dollar; this was not, however, done in favor of adjusting internal demand management to balance of payments requirements, but in favor of casting the dollar parity adrift.

In the spring of 1972, the British Chancellor of the Exchequer made the following statement in the House of Commons: "I am sure that all members will agree that the lesson of the international balance-of-payments upsets of the last few years is that it is neither necessary nor desirable to distort domestic economies to an unacceptable extent in order to maintain unrealistic exchange rates, whether they are too high or too low." The view as to what constitutes an "unacceptable extent" has changed greatly over the last ten years. And British experience in the summer of 1972 showed that whether an exchange rate should be considered unrealistic or defensible was in the last instance not decided by the authorities but by market forces. At any event, this statement represents a further decisive step away from accepting fixed parities as a disciplinary force.

The concluding word on this issue should be left to Professor Arthur Burns, the Chairman of the Federal Reserve Board. In an important statement at an International Bankers' Conference in Montreal in May 1972, he gave the principle of autonomy with regard to external constraints the following general formulation: "The international monetary system will have to respect the need for substantial autonomy of domestic economic policies. . . . No country . . . should have to accept sizable increases in unemployment in order to reduce its deficits. Nor should a surplus country have [to accept] high rates of inflation." This is, of course, only a description of the existing realities, but it illustrates well the downgrading of fixed parities on the scale of priorities, as compared with domestic policy goals.

As a reflection of this shift, balance of payments discipline has nowadays assumed a different meaning from what it meant fifteen or twenty years ago. The American proposals for reform of the balance of payments adjustment process (reserve movements as "objective indicators for adjustment") aim at securing a more timely and more symmetrical balance of payments adjustment. This sought-after new symmetry does not exclude adjustment measures in the domestic field, such as monetary or fiscal action, but nevertheless it is aimed primarily at establishing a rule for the timely adjustment of exchange rates to whatever external situation has been created by domestic policies. This discipline of exchange rate adjustment is a far cry from the discipline of internal adjustment under the classical gold standard and the original system of fixed parities.[6]

## VI. Disequilibrating Capital Flows as the "Villain of the Piece"

Over the last few years, balance of payments difficulties have been greatly magnified by capital movements. Let us take some outstanding examples. In the *United States,* official reserve transactions from the beginning of 1970 through March 1973 resulted in a total deficit of about $62 billion.[7] Of this total, about $25 billion was due to the basic deficit (current and long-term capital account) and the remaining, far greater, part to short-term capital flows and unrecorded movements.[8] Or take the example of *Germany:* During the same period, from 1970 through March 1973, total foreign exchange inflows into Germany amounted to DM 78 billion, of which only between DM 5 billion and DM 10 billion, or about one tenth, can be accounted for by a surplus on current account, while nearly all the rest can be qualified as abnormal capital imports.[9] In the five crisis weeks from the end of January to the first of March 1973, nearly $10 billion, or three times the estimated deficit on basic account for the first quarter of 1973, were moved out of the United States into other countries, while the main recipient countries had to take in an estimated $12 billion. About two thirds of the total went into the deutsche mark. A third example

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[6] Cf. Marina Whitman, Member of the U.S. Council of Economic Advisers, in a speech in New York on October 27, 1972: "And, of course, the whole U.S. proposal is predicated on the assumption that no country is going to subordinate its domestic economic goals to balance of payments considerations as Great Britain did, for example, in the mid-1920's and throughout much of the period since World War II. I think that is a closed issue."

[7] Excluding SDR allocations.

[8] Some part of the long-term capital outflows, especially in 1971, should also be counted among the "abnormal" capital flows.

[9] As Germany was normally a net capital exporter up to 1969, the "abnormal" inflow may even have been higher than the *net* capital import.

is the sterling crisis in the summer of 1972: The current account of the *United Kingdom* in 1972 was still in slight surplus, while big speculative capital outflows forced the pound off its fixed parity. In all these cases, if exchange rate measures, including floating, had not been resorted to, the disruptive capital flows would have been far larger still.

Several conclusions can be drawn from these experiences. *First,* even a moderate deterioration in the current or basic balance of payments of a major country can have a big leverage because it can set very large capital flows in motion. *Second,* capital movements sometimes anticipate an expected future deterioration in a massive way and may thus force the hands of the authorities (as was shown in both the British and the Italian case).

Disequilibrating capital flows have become a major factor—the "villain of the piece"—on the international monetary scene. It is obvious that they can have an enormous inflationary impact on the whole world monetary system. The losing country will hardly ever allow these outflows to have a significant contractive influence. In the recipient country the central bank has to finance them by creating additional central bank money. Thus, banking funds of the deficit country which are easily replaceable are converted into high-powered money in the recipient country. The primary effect of such inflows on the domestic money system of the recipient country should be measured not by their relation to the total domestic money supply but to the domestic "monetary base." For several recipient countries, the inflows meant the complete loss of control over their money supply. In view of their inflationary impact, I think we are justified in qualifying all disequilibrating capital flows as destabilizing.

In *Germany,* monetary policy was paralyzed by such inflows—or the permanent threat of them—practically from the autumn of 1968 through March 1973, with the exception of about six months after the upvaluation of October 1969 and a few months of deutsche mark floating in 1971. The inflows in the three years from the spring of 1970 to the spring of 1973 had a tremendous impact on the "monetary base" of the country, despite all efforts at sterilizing them; and they were equivalent to more than the total increase in the domestic money supply during this period. In *Switzerland,* the inflow of a few billion dollars in the summer of 1971 sufficed to paralyze monetary policy for nearly two years. Thus, two key countries were put out of action in their fight against inflation and could no longer play their former role as "islands of stability" in Europe. The OECD has repeatedly pointed out in its reports that the disappearance of such "islands of stability," with their disciplinary effect on partner countries, was an important factor in the general acceleration of inflation in Europe since the end of the 1960s. For the countries directly concerned, the undermining of their fight against inflation through the constant threat of destabilizing inflows has had serious economic and social consequences.

Thus, we have witnessed in recent years two different kinds of imported inflation under the regime of fixed parities. One was connected with genuine disequilibria in the basic balance of payments, particularly in the current account. The other was caused by abnormal movements of funds. Of course, the latter were often—but not always—only a consequence of basic disequilibria. It must be admitted that in such cases speculative movements sometimes had the merit of forcing the right measures of adjustment upon reluctant authorities. But the cost of such reluctant and delayed adjustment was sometimes high.

And the general, and very depressing, conclusion is that *all disequilibrating capital flows among major countries have a tendency to raise the level of inflation in the world.*

## VII. Destabilizing Capital Flows and the International Monetary System

What has made disruptive capital flows swell up into such a monster is the combination of two factors: *first,* the enormous increase in the volume of liquid shiftable funds everywhere, with the possibility of rapid moves from one currency to another through modern communication systems, internationalized banking, and multinational corporations; *second,* the failing confidence in the existing par values of important currencies. The fact that in the recent past the lack of confidence focused so much on the key currency of the system, and that at the same time there have been so many volatile dollar funds roaming around in the world, produced the torrent of inflationary money flows that finally brought the system of par values down.

I think it has become clear from our recent experiences that we will not see a stable international system in future if we do not succeed in gaining a much better control over such disruptive and inflation-generating capital flows. This raises a host of questions. I will touch only briefly on some of them.

1. *Can we hope to eliminate the root causes of such destabilizing flows of funds?*

This would first of all require that in the future system important currencies would no longer be likely to come under a cloud of mistrust. A vastly improved adjustment process would have to guarantee that corrective action would be taken before markets even begin to have doubts about the par value of an important currency. Sanguine people may say that such an improved adjustment process is, after all, what most of the reform is about. But without wanting to appear too pessimistic, I may be permitted a skeptical question: Will warning points for corrective action—which will of course become known to the public—or a cumbersome surveillance procedure in a large committee be the appropriate means to prevent any mistrust in par values from arising and to set the markets, i.e., the international trading and financial community, at rest?

To eliminate the root causes would also require a much better *harmonization of monetary policies* so as to avoid large interest rate differentials. This is highly desirable, but exceedingly difficult to achieve in practice as no major country at present seems willing to let its monetary policy abdicate its role in domestic demand management.[10]

2. *Can at least the vast supply of volatile liquid funds—the potential ammunition for speculative or interest-rate induced flows from one currency to another—be somehow reduced or brought under control?*

Politicians usually inveigh against footloose Euro-dollars and the speculators behind them, who they believe have willfully overrun our

[10] Some lonely voices have suggested to us in Germany that we should adjust our domestic interest rates to whatever level would be required to fend off unwanted inflows from abroad. At the present time, this would mean going down to somewhere between 3 and 5 percent (as foreigners seem to be prepared to hold deutsche marks in the Euro-currency market at even slightly lower rates). This would be tantamount to a complete surrender to inflation in Germany. We would drive out the devil of inflationary money inflows by invoking the demon of even greater domestic inflation.

currencies and brought down the fixed parities system. This is quite certainly a one-sided view, as even without the magnifying effect of the Euro-currency markets there would have been enough volatile funds in existence to unsettle the currency markets. Proposals have been made to deflate the Euro-currency markets by reserve requirements, open market policies, or the withdrawal of central bank placements from the market. Some believe in drying up excess liquidity through consolidation of the dollar overhang in official reserves. Others believe the shift of currency reserves out of the dollar into other currencies—the so-called diversification of currency reserves—should be subject to strict rules. Without going into details, let me nevertheless point out that (*a*) consolidation of the overhang of excess currency reserves, if it is on a purely voluntary basis (as is likely) will not remove those excess funds of central banks that really are volatile and dangerous, nor will it affect nonofficial dollar holdings at all; (*b*) control of the Euro-currency markets is a long way off, in view of the present differences of opinion among the relevant countries, and in view also of the objective difficulties of control; (*c*) a more practicable possibility might be to achieve voluntary agreement among the central banks on their placement of reserves in Euro-currencies or in secondary reserve currencies, and agreed rules on shifts from one currency to another. This might take up to $20 billion out of the potential supply of volatile funds. But I should like to stress that such agreements can be attained only on a voluntary basis.

3. *Should we envisage defensive control measures against disturbing inflows not only as short-term protection in the interim period but—at least on a stand-by basis—also in the future system?*

This raises fundamental questions of economic philosophy as well as questions of practicability and effectiveness.

I presume everybody would agree that in a market economy freedom of capital movements is a high value in itself and should be respected wherever it does not conflict with more important goals.

There may, however, be situations where the defense of monetary stability is more important than the complete freedom of destabilizing capital movements: it is a question of choosing the lesser of two evils.

Furthermore, nobody would probably deny that it is the duty of a central bank to control the money supply. Is it not slightly illogical if, at a time of necessary restraint, banks or the business community are allowed to gain completely free access to central bank money through the back door, i.e., by freely borrowing liquidity in international money markets (which may be distorted by all sorts of foreign action, including inflationary policies abroad) and converting the proceeds into high-powered money at home?

But these considerations are not meant to justify a *carte blanche* for capital controls. In particular, I would strongly object to capital controls for protectionist purposes or for the purpose of maintaining an incorrect rate of exchange. I believe that some of the controversy over the principle of capital controls stems from the fact that the defenders of absolute freedom do not sufficiently distinguish between capital controls which in open or covert form pursue protectionist goals, and those controls which are purely a defense against disruptive inflows of liquidity from abroad, and which are in fact nothing but a logical extension of, or supplement to, the indispensable regulation of the domestic money supply.

The role of defensive capital controls will, however, often be severely restricted by their limited effectiveness. Our experience has been that in normal times it is possible to distinguish between "normal" capital movements and irregular money flows, and that in such times market-oriented defense measures—like cash deposits (*Bardepot*), dual exchange markets, etc.—work reasonably well. But in times of currency unrest and speculation it is very difficult to prevent speculative or interest-rate induced money from coming in through the back door, or, rather, through quite a number of back doors.

Thus, as long as currency speculation is not definitely laid to rest, there will always be situations where inflationary money inflows can only be stopped or limited by greater exchange rate flexibility.

4. *Assuming that, in a parity system, disequilibrating capital flows cannot be prevented or significantly reduced, can—and should—they be financed through special credit facilities or recycled from the recipient country to the country of origin?*

I have already indicated my view on this question at the beginning of this paper. Recycling short-term money flows to the country of origin does not nullify the inflationary effects which have come about with the conversion of the incoming foreign exchange in the recipient country; nor does it undo the expansionary effect on international liquidity. On the other hand, recycling or other semiautomatic financial facilities for offsetting short-term capital flows would recreate *ad infinitum* the faculty of the deficit country to allow the inflationary capital outflows to continue. Thus they would result in real inflationary perpetual motion (*perpetuum mobile*).

Let us not forget that the former dollar standard implied such a continuous recycling of incoming dollars back to the United States. It broke down because of the inflationary implications of this process. It would be strange to revive, and even extend to other currencies, this faulty, inflationary system.

5. *And finally: If we were condemned to accept large disequilibrating flows as a price for the inevitable internationalization of our money system, are there effective possibilities for neutralizing their inflationary effects?*

Here I can offer you firsthand experience, as Germany is the country which has been affected more than any other by destabilizing money inflows. Our experience has been the following: Inflationary money inflows from abroad can be successfully sterilized insofar as they are directly deposited with the domestic banking system. However, the more effective the central bank is in this respect, the more it is likely that a large part of the inflow will be channeled through the nonbank sector, e.g., through changes in the leads and lags of commercial payments, through multinational corporations (foreign-based and domestic), and through all kinds of other borrowing operations. We have seen that, of the $8 billion inflow of last February and March, over half came in via the nonbank sector, and that most of what was originally foreign deposits with German banks has in the meantime been shifted to the nonbank sector. It is very difficult and, at best, a time-consuming process to reduce the inflationary effects on the nonbank sector. Our experience has been that in no case has it been possible to undo the inflationary effects of foreign inflows sufficiently, not even by the strongest compensatory measures.

## Conclusions

Let me draw from this survey of the complex field of destabilizing capital flows the following conclusions:

1. It is unlikely that we will meet with quick success in solving any of the complicated problems connected with destabilizing capital flows. There is no panacea in sight. We will have to content ourselves with slow, patient progress on as many fronts as possible.

2. We will have to find out by trial and error what combination of monetary policy coordination, more elastic exchange rates, and defensive capital controls will yield the best results—and do the least damage—in taming destabilizing capital flows.

3. It is likely as well that we will have to go on living in the future with the "monster" of the Euro-currency market, where at present over $100 billion of more or less liquid funds are traded, of which an estimated $75 billion are denominated in U.S. dollars and a sizable amount also in deutsche marks.

4. The decisive precondition for a more stable system also in the field of capital movements is that the dollar be rehabilitated. As long as the dollar is under a cloud, the potential for disturbing flows will be very great. A flight from the dollar can mobilize incomparably more volatile funds than is the case with any other currency. There are at present between $80 billion and $90 billion in the hands of foreign official authorities (of which about $25 billion are in central banks outside the Group of Ten) and a few dozen billion more in nonofficial foreign hands. And there is, of course, an additional potential for destabilizing flows of untold billions of liquid dollar funds in the hands of Americans themselves.

5. Of the other currencies, only pounds sterling and deutsche marks are in foreign hands in large amounts. That does not mean that there cannot be large disequilibrating outflows also out of other currencies—there was one equivalent to over $4 billion from Italy in 1972—but on the whole, such outflows from other countries appear manageable from the point of view of the world payments system.

6. I can only stress again my view that there will probably be no definite solution to the bedeviling problem of destabilizing capital flows

as long as the dollar is not securely re-established. In the meantime, *it is difficult to see how we can dispense with a more elastic exchange rate system in order to hold such flows in check.*

## VIII. Inflationary Creation of International Liquidity

International liquidity—the supply of world reserves—has increased explosively since 1970. Countries' reserves in the form of gold, special drawing rights (SDRs), reserve positions in the Fund, and foreign exchange reserves were equivalent to $78 billion at the beginning of 1970, and $176 billion in March 1973. The dynamic element was foreign exchange reserves. They more than trebled during this period, from $32 billion to approximately $115 billion. In comparison, the allocation of 9 billion SDR units over this three-year period appears small.

It is true that a considerable part of this increase in reserves has been concentrated in a few countries, such as Japan, Germany, Switzerland, the Benelux countries, France, Australia, and the oil-producing countries. But most countries have been affected to some extent by the outpouring of dollars. Even the developing countries (excluding the oil-producing countries) have as a group experienced a much larger expansion of their reserve holdings since 1970 than had been assumed when it was decided to create SDRs for the period 1970-72.

The major source of the tremendous increase in foreign exchange reserves was, of course, the payments deficit of the United States. Of the total increase of over $80 billion, this deficit accounted for $56 billion. The remaining reserve creation came from other sources, in particular, reserve creation in the Euro-currency market and the diversification of currency reserves.

It is estimated that central banks of countries outside the Group of Ten have invested the equivalent of at least $20 billion in the Euro-currency markets (not all in dollars, but a growing share in other reserve currencies). Central banks that invest their dollar reserves in the Euro-dollar market are in all likelihood participating in a process of inflationary reserve creation, although they are not directly aware of it. The same is true whenever a central bank moves part of its reserves out of the dollar into other, so-called secondary, reserve currencies. As a rule, the secondary reserve currency will have to take the dollars into its own reserves, so that the total amount of dollar reserves in the world is not changed, while reserves held in the new reserve currency are increased. This process of *reserve diversification is apt to increase both international and domestic liquidity in an inflationary way.*

So here we have central banks participating in this game of multiple reserve creation, at a time when many of them are complaining about unwanted money inflows and excessive international liquidity! But those that complain are mostly—but not always—other central banks than those that go after the higher interest rates obtainable in the Euro-dollar market or the supposed greater security of other reserve currencies.

Is the reserve creation in the form of reserve holdings in national currencies an immanent and inevitable feature of the present system? Nothing was laid down in the Articles of Agreement at Bretton Woods about the reserve system and the way in which reserves can or should be held. Nothing has been laid down or agreed upon about the Euro-currency market, apart from the agreement among the central banks of the Group of Ten to limit their reserve holdings in this market. Thus, these developments in the field of reserve creation could be considered an extraneous growth outside the written rules of the system.

But the system does not only consist of the rules laid down in the IMF Agreement. The dollar-based exchange reserve standard, which has grown up over the last twenty-five years under the force of circumstances and central bank practices, has been just as much a part of the international monetary system as have the Euro-currency markets, which have been an outgrowth of the last fifteen years.

Will these various forces continue to contribute to excessive creation of international liquidity? When the Ministers of the Committee of Twenty met last March in Washington they laid down as one of the requirements of the future system that *"there should be better international management of global liquidity."*

In the past, some people believed that a better control over international liquidity could be safeguarded by the mere introduction of the internationally managed SDR system. This proved, however, to be an illusion. The explosive expansion of international liquidity over the last three years shows that the crucial problem lies in the uncurbed use of reserve currencies for reserve accumulation, which can play havoc with the whole system.

Everybody seems now to agree that there should be better control over this part of international liquidity, too. Everybody has subscribed to the proposal that "the role of reserve currencies should be reduced" (Committee of Twenty in March). But it is a long road between agreeing on such a principle and implementing it in practice. This is sure to be one of the most difficult issues pertaining to the incipient reform of the international monetary system.

## IX. International Monetary Reform and World Inflation

What help can we expect from the reform of the international monetary system in the fight against world inflation?

I have tried to show that, in the world in which we live, any major disequilibrium in the basic payments balances, any large disequilibrating capital flows, and any sizable and widespread increase in currency reserves are likely to give the world's inflationary spiral another upward turn. So we should strive for a system which promises to avoid such inflation-generating features as much as possible. What are the prospects for achieving this?

1. A central point of the reform is an improvement in the adjustment process in cases of payments imbalances, including a better-functioning exchange rate mechanism. As the Ministers of the Committee of Twenty said in their Communiqué of last March, the goal should be "to assure timely and effective balance of payments adjustment by both surplus and deficit countries." In other words, large and persistent accumulations of imbalances should be avoided. This is certainly a step in the right direction and takes account of our recent bad experiences. The debate is, however, still wide open on how best to achieve the desired improvement in the adjustment process.

In practice, the crucial point is likely to be the future exchange rate regime. This, according to the Ministerial Meeting of the Committee of Twenty, should be based on "stable but adjustable par values," and it was also "recognized that floating rates could provide a useful technique in particular situations." These formulas cover a very broad spectrum of exchange rate regimes. The real points at issue will, of course, be: how stable? how adjustable? and what are "particular situations"? It is likely that the proclaimed readiness to adjust exchange rates quickly, together with the experience of the exchange markets in recent years, will make it nearly impossible for a country to maintain, for any length of time, a parity which the market believes to be unrealistic; or else large destabilizing flows of funds will be provoked. Thus the pressure for timely adjustment will be provided mainly by the markets. As concerns the "particular situations" where floating is appropriate, I imagine a consensus will emerge that this is applicable "in particular" as long, and whenever, the key currency of the system is not firmly established as the stabilizing anchor of the system.

2. Prompt and early adjustment of payments imbalances and a more elastic exchange rate regime would certainly go some way toward reducing both speculative capital flows and a further building up of excessive currency reserves. But as long as conversion of currency inflows beyond a certain point, e.g., agreed working balances, is not made mandatory, a further uncontrolled expansion of international liquidity cannot be excluded. Some agreed limitation on the accumulation of currency reserves is required if one really wants to gain better control over global reserve creation. This is not the occasion for discussing the various proposals on this issue that are on the table. But I would like to emphasize that, without some stricter rules in this field, the twin inflationary dangers of too permissive financing of disequilibria and excessive liquidity creation will persist. Better control over global reserves, which after all is an accepted goal of the reform, would also require some agreed norms of conduct on the form in which currency reserves are going to be held, and also on the way in which the reserve-creating power of the Euro-currency markets can be held in check. I fully recognize that in all these fields the distance between general principles and practical implementation is particularly great. Napoleon is reported to have said that political economy is simple; it's all a matter of execution. This applies in particular to the control of international liquidity.

In this context, SDRs and gold have also to be mentioned. The expressed intention of the international community, as represented by the Committee of Twenty, is that the SDR should become the principal reserve asset of the reformed system. Let me repeat again that this is impossible if one does not first gain better control over reserves in the form of currency holdings. After all, the concept of SDRs was developed on the assumption that the supply of other international reserves would be in chronic short supply. In 1969, when the decision on SDR creation for the three-year period 1970 to 1972 was taken, the official assumption in the IMF was that foreign exchange reserves would increase during that period by about $0.5-1 billion a year. In fact, the increase reached an annual average of no less than $22.5 billion! As long as there is such uncertainty about reserve creation in other forms, it will be difficult to find a rational basis for the creation of SDRs. Finally, I do not think I need to stress that once the SDRs come into their own as the principal reserve asset, it will be particularly important that decisions on SDR creation conform strictly to the principle of global reserve need, and that this need be measured primarily against the criterion of whether the world economy is suffering from deflation or inflation.

As concerns gold, I should like to mention only two things. *First,* the recent extreme instability of the free market price of gold makes it even less likely than before that the unfreezing of gold reserves will be brought about through an increase in the official price of gold: as a measure of value (numeraire), gold has, so to speak, catapulted itself out of the system. *Second,* gold will continue to remain an important part of the central banks' reserves. It is true that at present gold reserves are to some extent frozen, owing to the discrepancy between the official gold price and the free gold price. It would, however, be incorrect to discontinue counting them as reserves until they are unfrozen. For in case of need, a central bank can always obtain a balance of payments credit against gold as collateral, at least up to the present official price. This is being demonstrated by the fact that gold can be used in a similar way for settlements in the intra-European payments scheme (the "snake scheme").

3. There remains the critical field of disequilibrating capital movements. This has been the object of much soul-searching, both in the Committee of Twenty and in other international bodies. In this field we now know all the questions, but I doubt whether we know much about the really practicable answers. I have touched on most of the relevant problems earlier in this paper. No panacea has as yet been found for dealing with this crucial problem in a future monetary system. So we may have to continue in the pragmatic manner which has evolved under the pressure of crises until world-wide payments equilibrium and restored confidence in all the major currencies have removed the problem from the critical list. In the period of transition to this better

world, floating between the major currency blocks may again be the best—or rather, the least bad—answer to the problem.

## X. The International Monetary System Should Not Be Misused as a Scapegoat

In this paper, I have set myself the task of elucidating the contribution of the international monetary system to world-wide inflation. Probably to nobody's surprise, the resulting list of sins has proved to be long. But before concluding my remarks, I have to put the matter into the right perspective.

It would be an exaggeration to put all or even the main responsibility for world inflation on the now defunct international monetary system. It has certainly very much facilitated the spreading of inflation from one country to another; it has also facilitated national inflations by its permissive system of balance of payments financing. And some of its features, such as autonomous reserve creation and destabilizing capital flows, have directly generated inflation by themselves.

But it is still true that in most cases the larger part of inflation has been homemade. And it is only fair to add that better domestic stability in all the major countries would have prevented the international system from unfolding all its negative features. I find it important to make this reservation because the international monetary system is too often used as a scapegoat or alibi by national governments. In Europe, at least, there is hardly a government today that would not blame a large part of its domestic inflationary troubles on the inflationary international environment and the system's mechanism, which seemingly make it impossible for a country to achieve stability individually (or to live as an "island of stability in an ocean of inflation"). But that does not, of course, mean that countries could not achieve more stability if they showed collectively, or at least among a group of them, more strength of purpose and more resistance against inflation at home. Moreover, a country could at least partially shield itself against imported inflation by making appropriate use of the exchange rate mechanism.

## XI. The Effects of Chronic Inflation on the World Monetary System

My final question is not concerned with the contribution of the international system to inflation, but with the reverse question: What impact is chronic inflation in the major countries likely to have on the international monetary system?

A system of fixed parities is based on the assumption that governments, although they may not be able to avoid inflation entirely, retain at least some control so as to keep it within limits. Of course, there will always be "dropouts," but in such a system they should be the exception and not the rule. Should governments no longer have sufficient control over the rate of inflation, however, then it is difficult to see how they will be able, over the medium term, to keep the development of domestic demand, prices, and costs in line with that in other countries. In such a system of intractable inflation, a regime of fixed parities will be put under severe strain. As Mr. E. M. Bernstein, one of the founding fathers of Bretton Woods, bluntly put it: "It is virtually impossible to operate a system of fixed parities in a world of chronic inflation." Both the willingness to tolerate high inflation and the capacity to fight effectively against inflation differ from country to country. Therefore divergent developments would be inevitable.

All this makes it likely that the future international monetary system, especially its exchange rate regime, will be less determined by any new written rules than by two other factors: *first,* the development of the U.S. balance of payments and the rehabilitation of the dollar, and *second,* the outcome of the fight against inflation in the major countries. Both factors point at present in the direction of a continuation of floating between the dollar and the major other industrial countries during an interim period of uncertain duration.

But this is not the end of the story. What will the system look like once the dollar has been restored as a strong currency and the United States has become again, as it was in former times, an anchor of stability for the rest of the world? A system of stable parities, duly reformed, might then be given a new lease on life. And the stable parity system might then serve as a mechanism transmitting not inflation, but stability.

# Inflation and the International Monetary System

By Otmar Emminger

*The oral presentation by Dr. Emminger follows. The text of his written paper begins on page 5, above.*

## I. The Bretton Woods System Broke Down Because of Its Inflationary Implications

WHEN, NEARLY A YEAR AGO, I selected for this year's Per Jacobsson Lecture the subject of "Inflation and the International Monetary System," it seemed to me quite a topical theme at that time. In the meantime, it has from month to month become even more topical and acute.

World-wide inflation has become one of the burning issues of our time. Most industrial countries are now marching in step at an inflation rate of 7 percent per annum or more. Many governments blame a large part of their domestic inflationary troubles on the international inflationary environment and on the international monetary system, which seemingly make it impossible for an individual country to live as an "island of stability in an ocean of inflation."

The subject has assumed particular acuteness owing to the fact that a few months ago our former system of fixed parities broke down *because of its inflationary implications*. This is not always well understood. Many people believe that the main problem was the unrest in foreign exchange markets produced by distrust in parities and disorderly capital flows. Some people, economists as well as politicians, have drawn the conclusion that, in order to prevent such disorders in future, very large facilities should be created for financing such capital flows: special automatic credit facilities in the IMF—large, or even unlimited!—have been suggested as part of the international monetary reform; and European politicians have been proposing extensive automatic financing facilities through the new European Monetary Fund for similar purposes. All this misses the real point. The former regime did not break down merely because of the unrest in exchange markets. It is remarkable that, in spite of the currency disorders, world trade has continued to expand by leaps and bounds. Nor did the system break down because of a lack of financing facilities: clearly, European central banks have no lack of their own currency with which to buy up incoming dollars. The system broke down because the *limit of tolerance for the inflationary effects* of such currency inflows had been reached. Countries which were the target of large undesired currency inflows were no longer prepared to accept the ensuing undercutting of their domestic monetary policies. I submit that such inflationary damage could not be remedied by new financing facilities (or a "recycling" of short-term capital flows); on the contrary, such measures would only increase the potential for more inflationary capital flows.

Now the question is: What has the international monetary system contributed to world-wide inflation and to inflation-generating capital flows? Was the system simply at the mercy of overpowering forces of inflation emanating from the major countries? Or has it, by its own institutions, contributed to, or reinforced, inflationary trends?

Twelve years ago, at the IMF Meeting in Vienna in 1961, the Governor of the Dutch central bank, Holtrop, raised this question and gave the following answer: "In my opinion, our present problems are not due to any inherent deficiency of our institutional setup. Therefore, we cannot hope to solve them by changes in our institutions, but only by changes in our policies." There can be no doubt that, had all the major countries pursued appropriate policies and fully lived up to the rules of the game, the system—or, for that matter, any system—would probably have functioned well. But the real question is: How did the international monetary system, as it evolved from the Bretton Woods Agreements, face up to the realities of the postwar era, especially the far-reaching structural changes in the world economy? And, in particular, has it been a positive or a negative factor in the fight against inflation? I think that, in the light of our experience over the last decade, we have to look into the matter afresh.

In the past there were two opposing views on the matter. On the one hand, the system, and particularly the *de facto* dollar standard as its central part, has always been criticized by some, such as Professor Rueff and others, as a "perfect inflation machine." On the other hand, in the first two decades after Bretton Woods the prevalent view, at least in the United States and Britain, was that the world monetary system had a "deflationary bias," and this for two reasons: a one-sided adjustment process and an inadequate system of liquidity creation. It was assumed that a system of fixed parities exerted pressures for adjustment on deficit countries, but hardly on surplus countries. This was the suspicion and fear which haunted Keynes at the Bretton Woods Conference (he feared a "contractionist pressure on world trade"). A second reason was the view of the Triffin school that a system which relied mainly on the creation of dollar liabilities for its supply of additional reserves would inevitably bump against a ceiling and would lead over time to a shortage of international liquidity; the more extreme school even predicted an international liquidity collapse.

This dual fear of built-in deflation has been belied by actual developments. These have demonstrated, first, that the mechanism of adjustment to payments imbalances has not resulted in a deflationary, but in an inflationary, bias of the system, and, second, that instead of experiencing a liquidity shortage we have been exposed to a colossal liquidity explosion.

## II. The Degeneration of Fixed Parities into a Mechanism for Transmitting Inflation

For a long time fixed parities were held to be a disciplinary force, contributing to stability not only of exchange rates but also of prices in the world. There are four main reasons why they degenerated over time into a one-way street transmitting and generating inflation. I have described the decline and fall of the fixed parities system at greater length in my written paper.

*First,* there has been increasing resistance, or even sheer inability, on the part of deficit countries to adjust to external deficits by stabilizing their domestic economy, let alone by even the mildest form of deflation.

A system of fixed parities only works without creating too much inflation if there is a certain balance in the adjustment process, that is to say, if deficit countries contribute to adjustment at least by eliminating domestic inflation. As long ago as 1964 the IMF deflated the fable of a disproportionate burden of adjustment on deficit countries by stating in its Annual Report that "international adjustment through changes in relative costs and prices typically involves more upward adjustment in surplus countries than downward adjustment in deficit countries." This has proved to be an understatement, as such a downward adjustment never actually occurred. During the last ten to fifteen years, there has been no major international disequilibrium where a deficit country achieved real stability of costs and prices over any length of time, with the exception of the United States from 1960 to 1965. A number of deficit countries were not even able to moderate significantly their rate of inflation. Under such circumstances, prompt adjustment of exchange rates would have been the only means of avoiding inflation in the whole system. Instead, in a number of cases unrealistic exchange rates were defended too long, with corresponding inflationary effects on the system.

*Second,* this tendency was supported by the permissive system of financing balance of payments deficits. The British case is a good example. From 1964 to 1968 the United Kingdom received no less than $8 billion worth of short-term and medium-term currency loans from abroad, that is, nearly three times the amount of its own official reserves at the beginning of the deficit period, to defend an increasingly overvalued parity. A few years later such amounts were, of course, completely dwarfed by the inflationary central bank financing of huge U.S. deficits through the unlimited support of a fixed dollar parity by the other industrial countries.

*Third,* the mechanism of rigid parities not only transmitted inflation from one country to another, but converted even noninflationary structural deficits, like that of the United States during part of the postwar period, into a source of inflation for the rest of the world. The United States has had a better record of price stability than most other industrial countries, except for the period of the Vietnam escalation from 1965 through 1970. But even during the other periods, it was exporting inflation to the other countries through external deficits which were mainly due to two structural factors, namely, an enormous structural expansion of its capital exports and a structural deterioration in its trade position vis-à-vis Western Europe and Japan. This latter process signifies only the inevitable postwar adjustment to a more normal economic relationship between the United States and the other industrial countries. This postwar readjustment implied, inter alia, that over time the large discrepancy between the income levels of the United States and those other industrial countries had to be progressively reduced. To give an illustrative example: The per capita income in Germany at the beginning of the 1950s was only about one third of that of the United States, and in 1960 was still only 44 percent. In 1973 it has risen to 85 percent, and to over 90 percent if the most recent exchange rates were to be applied for converting deutsche marks into dollars. In the case of Germany, this catching-up process seems now to be completed. It was achieved to a large extent by a relative upvaluation of the deutsche mark in relation to the dollar—by over 50 percent between 1960 and 1973, partly through German action, partly through American—and to some extent by a steeper rise in wages and domestic prices in Germany. Even with complete cost and price stability in the United States, if Europe and Japan had wanted to maintain their fixed dollar parities they would have had to accept an inflationary upward adjustment in their incomes and prices. This catching-up process was made even more difficult when nominal incomes and costs in the United States began to move up rapidly in the second half of the 1960s.

This structural adjustment, or normalization, process presented much greater problems to the system of fixed parities than the conventional problem of inflation differentials. I need only recall the futile debate at the beginning of the 1960s on whether a country like the United States, with a better price record than other countries, could export inflation; or the frustrating controversy about which side should bear the burden of adjustment. In the end, *the system of fixed parities was strained beyond the breaking point.*

In my view, the necessity for a major structural adjustment between the United States and the other industrial countries provides a better explanation for this strain than some other explanations, for example, the widespread American view that Europe and Japan have been suffering from a deep-seated surplus syndrome, or that the protracted deficit was forced upon the United States by an unsatisfied need for reserves on the part of the other countries, or that the world monetary system was suffering from an innate "devaluation bias" which supposedly left the dollar high and dry at an overvalued level. The dollar became overvalued, but this was largely because of the structural deterioration of the American basic balance for the two reasons mentioned above and, additionally, because of the Vietnam-caused inflation of 1965 to 1970.

The *fourth* reason why the adjustment process assumed a highly inflationary character was the fact that, in a system of fixed but no longer trusted parities, disequilibrating capital flows assumed unparalleled proportions. It is obvious that such capital flows can have an enormous inflationary impact on the whole world monetary system. The country suffering capital losses will hardly ever allow such short-term outflows to have a significant contractive influence on its domestic economy. In the recipient country the central bank has to finance the inflows by creating additional central bank money. Thus *all disequilibrating capital flows among major countries have a tendency to raise the level of inflation in the world.* In particular, in countries like Germany and Switzerland, anti-inflationary monetary policies were completely undermined by such inflows. These countries, which formerly had played a crucial disciplinary role as "islands of stability" in Europe, were for years put out of action in their former role as stabilizers in the European economy.

It was fatal for the system that the currency which had to undergo this structural adjustment in relation to other major currencies, and the former parity of which lost its credibility to an increasing degree, happened to be the dollar, the main reserve and intervention currency of the world. Most industrial countries defended their own parities by intervening against the dollar. Thus, it was not so much in defense of the dollar as in deference to, and defense of, the fixed parities system that they purchased ever larger amounts of dollars in the exchange markets and allowed the structural imbalance in the world economy to be prolonged beyond reasonable limits, with the consequence of allowing their own domestic monetary policies to be undercut through imported inflation and letting excessive international liquidity pile up in the form of a large dollar overhang. Even after the Smithsonian Agreement of December 1971, the other countries, in order to defend the agreed fixed parities (or central rates), had taken in over $20 billion by March 1973—and inconvertible dollars at that! This was more than the total amount of dollar reserves held in the world up to the beginning of 1970. It was a costly sacrifice in defense of a system that had more and more degenerated into an inflation machine.

## III. Unhealthy Expansion of International Liquidity—Mainly in Defense of Fixed But No Longer Trusted Parities

The defense of a fixed parities system based on a weakening and overvalued dollar was one of the chief reasons why the former world monetary system showed an unhealthy tendency to create too much international liquidity. From the beginning of 1970 through March 1973, more new reserves were created than in all the previous monetary history of the world. The dynamic element in this process was foreign exchange reserves. They more than trebled during this period, from $32 billion to approximately $115 billion. In comparison, the allocation of 9 billion SDR units over this three-year period appears quite modest. It is true that the increase in currency reserves was highly concentrated in only a handful of countries. But it is worth noting that the flood of liquidity has spilled over to the less favored nations. Even the developing countries (excluding the oil-producing countries) experienced, as a group, an expansion of their reserve holdings by no less than 76 percent in the three years 1970 to 1972; this was much more than had been assumed when it was decided to create SDRs for that period.

The major source of the tremendous increase in foreign exchange reserves was, of course, the payments deficit of the United States. This deficit accounted for nearly three fourths of the total increase in currency reserves of over $80 billion; and the larger part of it was due to abnormal capital flows. The remaining reserve creation came from other sources, in particular through reserve creation in the Euro-currency market and by the diversification of currency reserves.

Has this uncontrolled and clearly inflationary expansion of international liquidity been an immanent and inevitable feature of the international system? Nothing was laid down in the Articles of Agreement at Bretton Woods about the reserve system and the way in which reserves can or should be held. Nothing has been laid down or agreed upon about the Euro-currency market, apart from the agreement among the central banks of the Group of Ten to limit their reserve holdings in this market. But the system does not only consist of the rules laid down in the IMF Agreement. The dollar-based exchange reserve standard, which grew up over the last twenty-five years under the force of circumstances and central bank practices, has been just as much a part of the international monetary system as has the Euro-currency market, which has been an outgrowth of the last fifteen years.

## IV. Preliminary Conclusion

Thus, the following conclusion emerges: *The international monetary system, as it has evolved in practice, has not only yielded in too permissive a way to inflationary forces which emanated from domestic inflation in major countries, but has also been generating inflation on its own.* Until its breakdown in the spring of this year, it was dominated by a dangerous combination of trends and forces, namely, a one-sided process of balance of payments adjustment; a rigid parity system based on a structurally weakening and increasingly overvalued dollar; destabilizing capital flows; and uncontrolled expansion of international liquidity. This has proved to be a potent inflationary mixture. It has helped to pervert fixed parities from an instrument of discipline on deficit countries to one forcing monetary debauchery on surplus countries.

## V. What Can We Expect from a Reformed System

What help can we expect from a reform of the international monetary system in the fight against world inflation?

If it is true that, in the world in which we live, any major disequilibrium in the basic payments balances, any large disequilibrating capital flows, and any sizable and widespread increase in currency reserves are likely to give the world's inflationary spiral another upward turn, how can we avoid such inflation-generating features in a future system and what are the prospects for achieving this through reform?

The least we can say is that the reformers are guided by the most laudable intentions. Let me briefly cite the main goals of reform which the Ministers of the Committee of Twenty proclaimed after their Washington meeting of last March, namely, (1) there should be "adequate methods to assure timely and effective balance of payments adjustment by both surplus and deficit countries"; (2) the system should be based on "stable but adjustable par values," but "floating rates could provide a useful technique in particular situations"; (3) there should be "better international management of global liquidity."

Nobody, I think, would quarrel with these goals. The main problem is how to make them operational, that is to say, how to translate them into a workable system.

(1) An improved process of balance of payments adjustment would eliminate those large and protracted imbalances which, however they are financed, always tend to exacerbate world inflation. However, the debate is still wide open on how best to achieve this in practice. Should there be more pressure than in the past on prompt adjustment of exchange rates, or should it be left open to the country concerned to choose, as in the former system, whether adjustment is to be brought about by internal or external measures? And how should the pressure for prompter adjustment be triggered and enforced? Some swear by convertibility, others by reserve indicators, still others by an improved consultation procedure in the Fund. Many expect that convertibility will be the magic formula that will restore balance of payments discipline (or, as Professor Rueff recently proclaimed, will even "ensure" U.S. balance of payments equilibrium). Others believe that the disciplinary force of convertibility on domestic policies is very much overrated and, moreover, that convertibility can only be introduced after a reasonable payments equilibrium has been restored by other means.

Many people who envisage an early restoration of convertibility—be it bilateral or multilateral, voluntary or mandatory—propose at the same time that special credit facilities be created to support it. In particular, it is widely held that in a system of convertibility there should be large semiautomatic financing available for volatile capital movements. Otherwise, it is maintained, the system would be too rigid. But let us not forget that this could easily lead to the restoration of the semiautomatic financing of reserve deficits inherent in the former dollar standard. Whether such financing is effected by accumulating dollar reserves, thus recycling the incoming foreign exchange back to the country of origin, or whether it is done through special credit arrangements or through an international agency, the inflationary effect on the country receiving the capital inflows, and on international liquidity as a whole, is the same. The dollar standard foundered because of the inflationary implications of this process. We should beware of uncritically reviving, and extending to other currencies, such a dangerous inflationary system.

Permit me to insert here a few words on the inflationary effect of intervention in exchange markets. Everybody is, of course, well aware of the fact that supporting a particular exchange rate, say of the dollar, by purchasing dollars in the market inevitably has an inflationary effect on the intervening country under present conditions. Few people, however, seem to realize that the inflationary effect is the same if the dollar is supported on the other side of the Atlantic via swap credits provided by the central banks of surplus countries (and even the apportionment of the exchange rate risks may not be much different).

(2) The crucial point as to whether the future system of balance of payments adjustment will be more inflationary or less inflationary is likely to be the exchange rate regime. The accepted formula of "stable but adjustable par values," supplemented by floating in "particular situations" is very elastic and can cover a broad range of different regimes. Everything will therefore depend on how the principles are applied in practice.

In a world of stable but adjustable parities, balance of payments discipline has assumed a different meaning from what it implied fifteen or twenty years ago. In American eyes it is now mainly, although not exclusively, directed toward timely adjustment of exchange rates. This discipline of exchange rate adjustment is a far cry from the discipline of internal adjustment of demand and prices under the classical gold standard and the former system of fixed parities.

More elasticity and prompter adjustment of exchange rates are certainly useful, as they can prevent the perpetuation of unrealistic exchange rates with their inflationary implications. But they also have their drawbacks, as they may make the exchange rate system very sensitive to rumors and anticipations of future difficulties. We should also not expect too much. Exchange rate adjustment is not a *deus ex machina* which automatically and promptly brings about the desired payments equilibrium; if it is not supported by appropriate domestic policies the results will take a long time to materialize, as the recent experience with successive dollar devaluations has shown. We should therefore not write off domestic policies as an important means of adjusting to payments imbalances.

(3) What are the prospects for a better control over international liquidity? It seems to be generally agreed that reserve currencies and gold should play a much lesser, and SDRs a much greater, role in the future system. The introduction of the internationally managed SDR system has not in itself assured better control over international liquidity, as has been shown by the flooding of the world reserve pool through the unbridled accumulation of currency reserves. This has not only played havoc with the whole payments system, but has also posed a threat to the SDR system. In 1969, when the decision on SDR creation for the three-year period 1970 to 1972 was taken, the official assumption in the IMF was that foreign exchange reserves would increase during that period by about $0.5-1 billion a year. In fact, the increase reached an annual average of no less than $22.5 billion! It will be difficult to find a rational basis for the creation of SDRs as long as there is such uncertainty about reserve creation in other forms.

So the crux of the matter is, how can we gain better control over reserve creation in the form of currency reserves? This would require strict rules limiting the accumulation of currency reserves beyond working balances. It would, moreover, require the adoption of a code of conduct with respect to switching from one reserve currency to another and to investing reserves in the Euro-currency markets. It is easy to list these requirements. It is more difficult to implement them in practice. It remains to be seen whether the participants in the international monetary system are able and willing to submit to sufficient self-discipline in the accumulation and management of currency reserves in order to ensure the stable functioning of the system.

Should the SDRs, in the end, come into their own as the principal reserve asset, it will be all the more important that decisions on SDR creation conform strictly to the principle of global reserve needs, and that these needs be measured against the criterion of whether the world economy is suffering from deflation or inflation. I need hardly mention, with regard to the future contribution of gold to international liquidity, that everything is open as long as the role and use of gold in the future monetary system is undecided.

## VI. How to Deal with Destabilizing Capital Movements

There remains the critical field of disequilibrating capital movements, which have entailed so much inflationary creation of central bank money. This problem has been the object of much soul-searching both in the Committee of Twenty and in other international bodies. We now know all the questions involved, but I doubt whether we know much about really practicable answers.

(*a*) Can we hope to eliminate the root causes of such disequilibrating capital flows? I personally doubt whether even a vastly improved adjustment process could be relied upon to eliminate occasional distrust of major currencies. Nor will it be possible always to avoid occasional interest rate differentials, another cause of disturbing capital flows. It is fashionable to call for harmonization of credit policies among the major countries. To this question, Per Jacobsson gave an answer twelve years ago that is still valid today. He said, "In my opinion it would be a mistake to try to find a solution along such lines. The business trend and the financial situation in different countries are often not the same, and each country has, as a necessary objective, to maintain balance in its own economy. Therefore, its credit policies have to be based predominantly on domestic considerations. But 'predominantly' means that some attention can and should be paid to the effect on other countries."

(*b*) Can we at least hope to reduce, or somehow control, the vast supply of volatile liquid funds for speculative or interest-rate induced flows of capital? I may again quote Per Jacobsson, who once said, "It is important that we should not allow our thinking to be dominated by the movements of short-term capital, overwhelming as they may seem to be over a short period." But at the time when he made that remark the Euro-currency market was still in its infancy, while today it is estimated at the equivalent of over $100 billion, of which approximately $75 billion is denominated in U.S. dollars. And in Per Jacobsson's time, the disequilibrating short-term movements over national borders amounted to some hundreds of millions, where today they run into many billions of dollars.

In Europe it has become a customary plea, especially by politicians, that the roving Euro-dollars should somehow be absorbed or controlled and that the dollar overhang, that is, excessive official holdings of currency reserves, should be consolidated or funded to prevent their being shifted around and causing disruption.

These are understandable preoccupations. And in my opinion something should be done in these fields. But after having participated for two years in various committees on these problems, I have become skeptical about the possibility of any far-reaching results. The difficulties of an efficacious control of the Euro-currency market are great, and the interests of the relevant countries conflict with each other. Similarly, as concerns consolidation of the dollar overhang, the difficulties are usually underrated and the probable usefulness overrated.

(*c*) Nothing much can be gained by relying merely on generous schemes for financing (or "recycling") disruptive short-term capital flows, as this would not prevent or undo the inflationary effects on the recipient country or the expansionary effects on international liquidity. Finally, a policy of offsetting these inflationary effects by domestic measures promises, according to our disappointing experience in Germany, at best only very limited success.

(*d*) So we are driven to the conclusion that defense against such inflationary and disruptive inflows must rely in more severe cases either on controls or on floating, or a combination of both. The role of defensive capital controls will, however, often be restricted by their limited effectiveness, particularly in times of hectic speculation. A few weeks ago Pierre-Paul Schweitzer, the Managing Director of the Fund, said, "The events of the past few months have demonstrated that under certain circumstances it is very difficult to contain destabilizing capital flows except by allowing currencies to float." I agree with this view.

Most people will probably also agree that this is applicable in particular to a situation where the dollar is at stake. There is a simple reason for this, namely, that there are much greater amounts of volatile dollars around the world than of any other currency, or than of all the other major currencies combined, for that matter. Of the other currencies, only pounds sterling and deutsche marks are in foreign hands in sizable amounts.

Thus, the problem of destabilizing capital flows is primarily, though not exclusively, a dollar problem. This is in some way also a consolation. It may well be that its severity will very much diminish once the dollar is firmly re-established.

In the meantime, we have to make the best of the situation—in particular, finding out what combination of controls and floating is most suitable, or does the least damage. The floating of the dollar has recently been severely criticized as an "unstable" system. But it is less the system as such than the unsettling conditions under which it has to operate at present which are the source of instability. The present instability of the floating dollar has to be compared with the risk of violent and destabilizing foreign exchange crises, which the defense of a rigid dollar parity would quite certainly have entailed under present conditions.

## VII. Concluding Considerations

Let me finish with some general observations.

1. The international monetary system should not be misused as a scapegoat or alibi for the inadequacies of domestic policies.

The former system of fixed parities has certainly very much facilitated the spreading of inflation from one country to another. The permissive financing that supported it has given too much leeway to inflationary policies in a number of countries. Uncontrolled reserve creation and destabilizing capital flows have directly generated inflation by themselves.

But we must see this in its proper perspective. Whatever the international influences, it is still true that in most cases the larger part of inflation has been homemade. And in all fairness it should be added that greater domestic stability in all the major countries would probably have prevented the international system from unfolding all its negative features. If countries had shown, individually and collectively, more strength of purpose and more resistance against inflation at home, more stability could have been achieved all round. Moreover, even under the old system, a country could at least partially shield itself from imported inflation by appropriate use of the exchange rate mechanism.

2. If disequilibrating capital movements have reached such disruptive dimensions mainly because the dollar was involved, then a temporary float between the dollar and the currencies of other industrial countries would seem to be an appropriate defense. Thus, the collective float centered on the hard core of the EEC countries is a logical outcome of the recent currency crises. It may have to be continued as long as the dollar is still under a cloud of distrust.

A collective float against the dollar—or between the dollar and a group of other currencies—does not, of course, solve all the problems. The countries that maintain a firm parity link inside the group may yet have to battle with inflation transmitted among themselves. Whether they will succeed in moving nearer to a "community of stability," instead of degenerating into a "community of inflation," will depend on whether they are sufficiently homogeneous in their balance of payments prospects and sufficiently strong-willed in fighting inflation at home. In a closely knit regional currency area—which the EEC may one day become—with mutually supporting action on stability among the members, fixed parities inside the group may become once again an instrument of balance of payments discipline.

3. We should not only ask what contribution the international monetary system has made to world-wide inflation. We should also look at the reverse relationship and inquire: What impact is chronic inflation in major countries likely to have on the international monetary system? If it should turn out—which I hope will not be the case—that the present rampant inflation becomes an intractable problem in many countries, then the prospects of re-establishing a general system of fixed parities soon are not rosy, whatever rules we may agree on in the negotiations on a reformed system. "It is virtually impossible to operate a system of fixed parities in a world of chronic inflation" (E. M. Bernstein). Both the willingness to tolerate inflation and the capacity to fight effectively against it differ from country to country. Therefore, divergent developments would be inevitable. This is, of course, also applicable to the members of the EEC, although they have, in my opinion—or should I say, hopefully?—a better chance of harmonizing the development of their domestic economies, especially if they are adequately protected against disturbances from the outside, by a common float or otherwise.

4. Finally, if my analysis is correct, the question of whether our future monetary system will be more prone or less prone to inflationary tendencies is likely to be determined less by any new written rules than by two other factors, that is, first, the evolution of the U.S. balance of payments and rehabilitation of the dollar, and, second, the outcome of the fight against inflation in the major countries.

The structural adjustment in cost and income levels between the United States and a number of other industrial countries seems now to have come to an end, mainly as a consequence of the currency realignments. The recent depreciation of the dollar may even have overdone the necessary adjustment. Now everything depends on a quick restoration of confidence in the dollar. Once the dollar has regained its position as a strong currency and the United States has become again, as it was a decade ago, an anchor of stability for the rest of the world, we will be in a different ball game. Then a system of stable parities, duly reformed, might be given a new lease on life. And the stable parity system might then serve as a mechanism transmitting not inflation, but stability.

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MR. BURGESS: Thank you, Dr. Emminger, for a very frank and vigorous speech. I am sure that those who live in the dollar area get the point that you made.

You all know that your program has a sheet on which questions can be written out, and those questions will be collected when we have an interval in a little while from now.

At the moment, I am going to call on the next speaker, Dr. Diz, the Argentine financial representative in Europe.

# Commentaries

*Commentaries on Otmar Emminger's presentation were offered by Adolfo Diz of Argentina and János Fekete of Hungary. The texts of their statements follow, beginning on this page and on page 58, below.*

## *Adolfo Diz*

IN THE FIRST PLACE I WANT TO THANK the Per Jacobsson Foundation for the great honor of offering me this opportunity to give you some personal thoughts on the matter under discussion. I felt a certain reluctance to accept this invitation because of the high standards set by the series of Per Jacobsson lectures, the intellectual quality of the participants, and their considerable expertise in international monetary affairs.

In the second place I should like to take this opportunity to evoke the figure of Per Jacobsson, a man whom I never met but of whom I have heard so many interesting things. In his inaugural speech before the Executive Board of the Fund, Per Jacobsson stated: "The time has come to inaugurate a new tradition." The facts of his period in the Fund until his death almost exactly ten years ago, in May 1963, bear witness to his accomplishments. After his death the Per Jacobsson Foundation also started a "new tradition" with this series of lectures on problems that also were his preoccupations. I am highly honored to share today in this "new tradition" that the Foundation has started and keeps in his name.

The subject of our discussion today is the question of inflation and the international monetary system. Since we have one but not the other, some have suggested to me that the subject should have been inflation *or* the international monetary system.

Dr. Emminger stresses in his paper, and worries about, the "progressive strengthening" and the "universal character" of inflation in industrial countries today. I too am very worried, particularly because these trends might develop in a very dangerous way.

The current inflationary problem is completely different from other European experiences of the past. To cite two examples which come to my mind: Today's inflation is not like the experience of Hungary during 1945-46, when prices increased in a period of twelve months by $3.81 \times 10^{27}$; it is also not like the case of Germany in 1922-23, when, during a period of sixteen months, prices increased by $1.02 \times 10^{10}$; nor like that of other equally dramatic experiences of European countries in the 1920s and 1940s which were characterized by brutal price explosions. Negative as they were, these experiences carried with them the seeds of political reaction precisely because of their very dramatic and traumatic nature.

The experience of industrial countries today seems more dangerous because of the importance of the countries themselves and because the universality of the process provides excuses for political inaction. This danger is very real and it is well illustrated by Dr. Emminger in his paper when he says (and I think that we should pay particular attention to this statement) that in Europe "there is hardly a government today that would not blame a large part of its domestic inflationary troubles on the inflationary international environment."

I think this is tremendously important because political inaction carries with it the danger of converting this process into the kind of protracted, addictive type of inflation we have known in many other non-European countries. It is dangerous because people get used to it and learn how to accommodate to it. It thus weakens the political will, which is indispensable for the fight against such processes. Incidentally, I think that there is some truth in the nonacademic definition of inflation, which says that you are in an inflationary process when prices that once looked appalling begin to look appealing.

I should now like to make some comments on these other types of inflation by drawing on the experience of my own and other countries faced with similar problems, which I have studied extensively.

In general, these inflations have three important characteristics: their level is significant, they usually become prolonged, and their rates show significant variability through time. The problem is compounded by the fact that these three elements tend to interact in such a way as to reinforce each other. The first characteristic implies that the appearance of such inflation tends to affect the allocation of resources in the economy and, consequently, to create serious economic inefficiencies. Moreover, as the very significance of its level would call for drastic measures to correct it, they become economically and politically more difficult to stop. Thus the second characteristic sets in and with it a process in which public resistance against the inflation weakens. Those who preach against it do not get political support and those who accommodate to it do not lose their political support. The authorities begin to take the inflationary revenue for granted. Inflationary expectations set in, and the inflationary mentality becomes ingrained.

The third characteristic has important economic and political implications but it has not been very thoroughly analyzed. Economically, the variability of the rate of inflation tends to blur expectations about the rate of change in prices, and as such expectations are increasingly frustrated additional resource misallocations are produced. Politically, the process of fighting against inflation becomes more difficult. Let me illustrate what I have in mind. Let us assume the case of a country in which inflation has been going on at a stable rate of 10 percent a year for a few years. If the authorities now do something and bring down the rate to, say, 7 percent, people will immediately see the change and believe that something new has happened. If, contrary to the previous case, we now assume a country in which inflation has been going on at an average rate of 10 percent a year but with successive price increases of 8, 11, 9, 10, 12 percent a year, a similar success on the part of the authorities will not be readily believed. People will tend to take a 7 percent rate as an additional demonstration of the variability of the process rather than a demonstration of success. The results are frustration on the part of the authorities, short-lived political support for their efforts, and, most probably, another jump in the rate of inflation.

In the face of these and other difficulties, many authorities have attempted to suppress these inflations through price and other controls—a process similar to that of attempting to suppress the fever by breaking the thermometer. The results are not less negative. Relative prices cease to perform their economic function, interest rates become negative in real terms, capital markets suffer and deteriorate, the currency becomes externally overvalued, real wages are subject to big swings, et cetera. Every economic sector suffers in turn the consequences of such "policy." Different sectors blame each other and thus divisiveness and dissension begin to appear and rip the social fabric.

It is not my intention to sound apocalyptical, but I think that time is not on the side of stability and that delays in this area are paid for dearly in terms of economic, political, and social costs.

I will now make some direct references to the paper of Dr. Emminger. We have received from Dr. Emminger the excellent paper which we all expected from him. My comments, however, for the sake of provoking reaction and further thoughts, will have a critical bias. At the same time, I will silence the many praises the paper deserves. Thus my comments will have an inherent fundamental disequilibrium, they will have a deflationary bias, and I hope that later on I will be able to take appropriate adjustment action.

It is a condensed paper. This is natural, as Dr. Emminger has so many things to say; but it makes it very difficult to comment upon, and, given the time limit, many points will have to be left without any comment. The paper is divided into two parts. In the first part, which goes up to section VIII, Dr. Emminger analyzes some of the difficulties and problems of the Bretton Woods system as we knew it until very recently. In the second part, he gives increasing emphasis and attention to the question of reform, that is, the system of the future. Then, in section X, he mentions a very important point, namely, that inflation is not only a function of the international monetary system. He states that "it is still true that in most cases the larger part of inflation has been homemade," that is to say, a do-it-yourself proposition. I think this statement was indispensable in the paper, because otherwise one would have ended up with the impression that, were it not for the founding fathers at Bretton Woods, the world would not have known inflation in the postwar period.

The central theme of his comments in the first part is that "the system has broken down because of its inflationary implications" and that "actual developments have demonstrated that the mechanism of adjustment to payments imbalances has resulted in an inflationary bias of the system." I have some difficulties with this statement. I would rather be inclined to say that the practice of nonadjustment has given the system its inflationary bias. Fortunately, I do not need to support my statement by referring to other sources. I would simply state very succinctly that I would subscribe rather more to these other two statements, also by Dr. Emminger. The first one is the following: "Thus, in the name of supporting the fixed parities system they [by which, in the context, is implied most industrial countries] allowed a large structural imbalance to build up in the world economy, with the further consequences of imported inflation and excessive liquidity creation." The second quotation is: ". . . a number of industrial countries resisted for too long the inevitable realignment of their currencies in relation to the dollar." (The paper calls this the "anti-upvaluation bias.") I tend to agree more with these two statements than with the first one.

The first reason why there is this discrepancy is simply because the word "adjustment" is used in two different senses. Let me explain.

In my view, when a country is faced with external disequilibrium, either because of monetary reasons or real reasons, that country has to take an adjustment decision. For this it has to utilize a set of adjustment tools—domestic policies and exchange rate changes. These tools will produce an adjustment process, that is to say, a restructuring and reallocation of resources within the economy that will, after some variable lag, correct the disequilibrium. However, in the paper sometimes the idea is given that "adjustment" should exclude changes in the exchange rate, particularly in section V, where a difference is made between the so-called balance of payments discipline and the discipline of the exchange rate adjustment. I would rather speak of the "discipline of adjustment" implemented through the utilization of domestic policies as well as exchange rate measures.

The second reason for our discrepancy, it seems to me, is that we are here dealing with the thorny problem of the responsibility of initiating adjustment (including exchange rate changes) among different countries. In some cases the solution is very clear. I think this is the case Dr. Emminger has most in mind when, for instance, he criticizes the idea of "timely adjustment of exchange rates to whatever external situation has been created by domestic policies."

But there are some other cases in which the situation is not so clear and the responsibility for the initiation of adjustment is a little bit blurred. Take, for instance, the "normalization" or "catching-up" process of Europe and Japan in the postwar period that Dr. Emminger has just referred to. Incidentally, in his mind that was not a very little problem. He says that this problem was "more important than the much discussed 'inflation differentials' in causing the protracted payments disequilibrium of the United States and the consequent imported inflation in Europe and Japan." He also says that this problem of catching up "strained the system of fixed parities beyond the breaking point." Now, I also think that in the postwar period this was a great problem. But here we had a case where the responsibility for the initiation of adjustment, including exchange rate adjustment, was far less clear than the case I mentioned before, and where delays in acknowledging such responsibility complicated the functioning of the system. Clearly, Europe could not and should not have prevented the productivity increases. Equally clearly, the United States could not have maintained the absolute predominance of the initial stage. Under such circumstances, should Europe and Japan have adjusted more because normalization was taking place precisely there, or should the United States have adjusted more because of its inability to maintain its predominance?

The third point which divides us in the way of looking at the problem is the question of the so-called asymmetry of adjustment. I still believe, and I fail to be convinced otherwise, that the system as we have known it until now is a system that puts more pressure on deficit than on surplus countries for exchange rate changes, particularly because deficit countries have a zero reserve limit where they have to stop financing disequilibrium and have to adjust, but surplus countries are not faced with an equally inflexible upward limit. I want to stress now that there is no contradiction between what I just said and some of Dr. Emminger's statements. The reason why there is no contradiction is that, in every case in which Dr. Emminger refers to deficit countries, he refers exclusively to the United States and the United Kingdom, and, of course, these two cases are cases in which there was unlimited financing. The United Kingdom, in 1967, apparently was able to obtain external financing up to three times the amount of its reserves at the beginning of the deficit period; and the United States, for obvious but different reasons, has had almost unlimited financing. But for the rest of the deficit countries, it seems to me that they have been subject to strict asset settlements, and consequently there was more pressure to adjust.

The problem here is that if adjustment were to be attained only through domestic measures I would tend to agree with Dr. Emminger when he quotes from the IMF Annual Report for 1964, which refers to upward adjustment of costs and prices in surplus countries. But if exchange rate changes are included as part of the adjustment decisions, then I think that we should reach a different conclusion. And that conclusion is that surplus countries did not adjust enough and deficit countries, other than the United States, did adjust a lot.

Coming back to the European and Japanese "catching up," I ask myself the questions: What would have been the adjustment to the normalization through domestic measures? Should Europe and Japan have prevented the productivity increases? Should they have accepted more inflation? Or should they have adjusted exchange rates more promptly? On the other hand, in the case of the United States, of course, I would agree that it would have been possible to produce adjustment by reducing all prices proportionally in the domestic economy so as to get a different relative price structure, rather than doing it through a change in the exchange rate. But I think we have here a question of efficiency. It is like changing the hour in the summer. Of course, we could change the habits of people, we could change all the timetables for the operation of the railroads, and the hours of opening of banks, and so on. But instead of doing that, which is very complicated, we simply change the hour. And I think that in both these cases changing the exchange rates would have produced the adjustment more efficiently, as was finally the inevitable case.

Still on this section, I would finally say that a better adjustment (including exchange rate adjustment on the part of deficit and surplus countries alike) to emerging disequilibria will in a future system avoid many of the problems we have had in the past. I would agree with Dr. Emminger that it is not a question of "warning points." I think it is more a question of conviction on the part of the different authorities to be ready, to have a propensity, to make timely adjustments to incipient balance of payments disequilibria. A more elastic system is not necessarily unstable if good economic management prevails; and, at the same time, it would afford smooth adaptation to changes in the underlying real economic conditions of different countries or groups of countries, which are also important as a dynamic factor in the international economy.

I would now very briefly make some comments on the question of disequilibrating capital flows and capital controls.

We observe that short-term flows have increased in volume, in their importance relative to that of other transactions, and in their variability. There has been a greater availability of funds to feed these movements. But there has also been another element, which I will call an increased responsiveness to stimuli (either expectations of exchange rate changes or changes in interest rate differentials) to explain these vast movements. I think that the second element is the consequence of a learning process that has created a new awareness for making profits or avoiding risks or losses through the exchange markets. I believe that this process will not reverse itself and that this increased responsiveness to different stimuli will be part of the future system. The consequence has been that these tremendous and fast flows have become much more difficult to offset and have created serious problems in the external sectors and, even more important, in the internal sectors of many economies.

Three additional points should be mentioned in this area of capital movements. First, that if the amounts involved in these capital flows vary inversely with the smoothness of the adjustment decisions, then one should expect that smoother decision making in the future on matters of adjustment will also tend to diminish such flows, apart from the other advantages mentioned before. Second, that capital movements have many times had the merit of forcing reluctant authorities to take the right exchange decisions, which they were bound to take sooner or later, but obtaining them sooner rather than later. Third, that there has been a general tendency to criticize such movements, sometimes overlooking their positive contributions throughout the postwar period.

As to capital controls, my own personal view is that I am highly skeptical about their efficiency in attaining results without undue damage, and that in view of their varied nature as well as the wide divergence in national circumstances, I think that the only way of approaching this problem is the pragmatic way. I believe in incentives rather than controls, but I also recognize that incentives or disincentives have not worked in major monetary turbulences.

There is an additional observation that should dampen our enthusiasm for controls: The astronomical flows that we have seen on the occasion of the latest crises have coexisted with an array of capital controls of an enormous extension and intensity. This should raise some doubts about their effectiveness. There has probably been a question of costs (administrative and otherwise) that have prevented their effective application. Or it may be that they have been subject to large evasion or circumvention. Or it may be that they have been misplaced. In fact, one of the most important elements in these recent and not so recent crises has been the question of leads and lags, that is, the money flows derived from changes in the time structure of payments for current transactions. Most capital controls in existence today are useless to deal with this problem. So, in general, capital controls do not appear to be terribly effective or efficient.

My conclusion will completely agree with Dr. Emminger's that "there will always be situations where inflationary money inflows can only be stopped or limited by greater exchange rate flexibility."

Finally, two points on the question of liquidity creation. The first one is that the Bretton Woods system provided very unsatisfactory methods of liquidity creation. It was bound to produce trouble, and it did produce trouble in the end. We have today the possibility of doing much better through the SDR facility in the Fund, although I would agree that its existence is a necessary but not a sufficient condition for the good management of international liquidity creation.

This leads me to my second point. Part of the troubles of the Bretton Woods system were caused by the tremendous ambiguity inherent in the expression "fundamental disequilibrium," which did not provide operational criteria to deal with adjustment decisions. In the liquidity field, today, we are faced with the same danger. SDRs can only be allocated or canceled to meet long-term global reserve needs. But what do we mean by long-term? What do we mean by global? What do we mean by reserves? And, above all, what do we mean by needs? I, for one, think that one of the ways in which we would probably be able to overcome this problem of operational criteria for liquidity creation through the SDR facility would be through the use of a set of rules or indicators rather than through sole reliance on authorities. Further advance in our knowledge—or, better still, reduction of our ignorance—about the individual country and the aggregate stock-demand for international liquidity might progressively provide better criteria to solve this particular case of the old dilemma of "rules vs. authorities."

I would conclude by saying that, with the quotation from Lord Robbins, Dr. Emminger implies that people in processes of reform tend usually to be too much dominated by the events of the time. This has been the case, for instance, of many of the Latin American central banks created or conceived during the 1930s, as a consequence of which their major preoccupation was how to prepare themselves to cope with deflation rather than inflation. Many of these banks were born not really prepared, institutionally or intellectually, to fight the inflation which shortly afterward was their real problem.

I hope that, in this exercise of reform in which we are engaged in the Committee of Twenty, we are not going to be too much impressed by the problems of this hour and that we will have the ability and the courage to take a longer-term view so as to look at the alternative solutions in their right perspective.

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MR. BURGESS: Thank you very much, Dr. Diz, for your pungent and helpful comments.

Our next speaker comes to us with a well-earned reputation for knowledge and understanding of the questions before us today. He will, as you know, speak for himself and not for his institution. I have pleasure in introducing Dr. János Fekete.

## *János Fekete*

MRS. JACOBSSON, LADIES AND GENTLEMEN: After so many eminent economists who have taken part in the lecture series organized by the Per Jacobsson Foundation, I am really grateful to have the opportunity to participate in this panel today.

I knew and I highly appreciated Per Jacobsson. I had opportunities to be together with him—arguing, sometimes debating, but mostly agreeing on many questions. All this happened in a period when friendly talks between East and West were quite rare. I feel that we today can best serve the commemoration of Per Jacobsson if we carry on our discussions objectively, without any prejudice, in the same way that he used to.

Since we have entered a phase of rapidly growing cooperation in many new fields in East-West relations, perhaps it is not surprising and unreasonable that a Marxist economist is invited here to express his views.

I have read Dr. Emminger's paper and think it is an excellent one. I have heard his comments, and I have also heard the very imaginative comments of Dr. Diz. I must say that I agree with most of the subjects that they have talked about; but, of course, on some questions our views differ.

I would like to question Dr. Emminger's views, or to supplement his statements, on five issues, namely, (1) the justification for speaking of a "world monetary system"; (2) the reasons for the current trend of inflation; (3) the dilemma of fixed or floating exchange rates; (4) how to evaluate the SDR; and (5) gold.

As far as the *first issue* is concerned, it seems to me that to use the expression "world monetary system" is not justified because some, not insignificant, countries contributing about one third of the world's industrial output are not members of this monetary system. I must admit that Dr. Emminger uses this expression in his final paper alternatively, and I would not have mentioned it had he not given, in his first draft, this wording as the heading of his paper. So I have the impression that this problem really exists between us. Therefore, I would express my view clearly: I do not consider today's international monetary system as a *world* monetary system. I personally hope that before long and under adequate conditions we may be able to speak of a new, universal, world monetary system. These issues, however, are not raised in Dr. Emminger's paper; therefore, I would not want to direct the debate to this topic.

The *second issue* is to reveal the reasons for today's increasing inflation. I mostly agree with Dr. Emminger's statement on the facts. But

I am wondering how it is possible that, starting from the same facts, we arrive at such different conclusions. This being the main issue of our discussion, allow me to dwell on it somewhat longer.

I think that the present expansion of inflation is more closely linked to the changes in the international monetary system than is believed by Dr. Emminger, in whose opinion the system was originally inflationary because "no adequate defenses against inflation were built into the system." He divides, from the point of view of inflation, the past years into five-year periods. I am all for five-year periods if planning is on the agenda. But if the issue is the periodization of the past, I am for taking into consideration qualitative changes and not just the quantitative increases in the annual average rate of inflation. Therefore, from this point of view I would divide the era after World War II into three periods.

The first period was the period of reconstruction, which lasted up to 1958 and the introduction of convertibility. The Bretton Woods system had functioned adequately. Its three important pillars were gold, the convertibility of the key currencies into gold, and the mechanism of fixed exchange rates. This system was a comprehensive one and provided a permanent and rapid expansion of world trade and relative economic stability, and ensured gradual progress toward a general convertibility, which has been its main aim. One of the characteristic features of this period was that inflation was kept under control in every advanced capitalist country. The rate of inflation was in adequate proportion to the savings banks' rate of interest, ensuring a real rate of interest. In this period the average yearly increase of the consumer price indices was about 2.5 percent in the ten most advanced Western countries.

The second period, for me, lasted from 1958 to 1968. Convertibility during that period among the industrially advanced Western countries functioned; there was an equilibrium, but this equilibrium was a relative one only. This has been proved by the fact that the continuation of convertibility could only be ensured by repeated concessions to the key currencies. These concessions were far from being based on sound economic principles. Through these concessions, liquidity became abundant and inflationary tendencies got stronger but yet could be held under control. The average yearly rate of inflation in this period was 3 percent or so.

The third period started with the introduction of the two-tier gold system, and has lasted since then. The recent years have been characterized by the disintegration of the Bretton Woods system and by a specific monetary *ex lex* condition: that means the old system does not exist any more and the new one is not yet in existence. The three pillars of Bretton Woods have been demolished.

Gold was the first pillar of the Bretton Woods system. The introduction of the two-tier system in March 1968 excluded gold from the system *de facto;* the suspension of dollar convertibility in August 1971 consolidated the situation *de jure* as well. The introduction of the two-tier system was, for me, like the suggestion of a doctor to a patient with a high fever to break the thermometer.

Thus the world unwantedly turned from a gold-exchange standard to the paper dollar standard. As a natural consequence of the dollar standard, not only the famous doctrine of "benign neglect" could appear on the American scene, as cited by Dr. Emminger, but governments and central banks, which ten to twenty years ago endeavored to increase their dollar inflows in various imaginative ways, started making some effort to prevent the inflow of dollars. *Sic transit gloria mundi.*

Finally, in 1973 the third pillar, the fixed exchange rate system, collapsed too. Thus, from a pragmatic viewpoint, the world business community has to face a new situation. The previous, relatively stable basis for calculations has ceased to exist.

I feel that the main difference between Dr. Emminger's views and mine is that he does not treat the Bretton Woods system as an organic entity of these three elements which I have detailed. He allows for an arbitrary substitution or omission of some of the elements without seeing in them a change in the system as a whole. So, for example, he puts the blame on fixed exchange rates for the propagation of inflation, that is, we have to blame those who disassembled the brake from the car (the gold). If the car has a brake missing, it is not the fault of the wheels (the exchange rates) that they are turning; the car is running and cannot be stopped. It is the same if we disassemble one of the wheels (fixed rates): it is not a car any more, nor is it a tricycle; it is a wreck! A system is a given composition of elements, and changes do not maintain a system or transform it automatically into another one.

During the first and second periods, inflation was under control, and it was mainly homemade.

In the third period, we find ourselves in a brand new situation. The most important feature of it is the turning of creeping inflation into running inflation, or, as Dr. Emminger puts it, a "system of intractable inflation" could come into being. The rate of inflation at least doubled in most of the developed capitalist countries. Dr. Emminger says that nearly all industrial countries of the world, except the United States, are marching at the rate of 7 percent inflation. I do not know whether he puts the United States before or after the 7 percent, because the most recent figures are not very encouraging. Striking statistics are being published even by countries which usually were considered as "islands of stability." This new phenomenon is the consequence of the anomalies of the third period, in which the spread of imported inflation is a new and important factor. Today, however, the main issue is not whether inflation is homemade or imported, but that imported plus homemade inflation is unbearable.

If I say unbearable it means that I am personally very much anti-inflation minded. I would like to explain why. First of all, because inflation hits mainly wage and salary earners, so I oppose inflation because of its unsocial character. Secondly, inflation consumes real interest rates and therefore can endanger the future economic growth. It is true that for the time being, as Dr. Emminger states, "in spite of the currency disorders, world trade has continued to expand by leaps and bounds . . . international investment—in particular, direct investment—is flourishing" and savers are depositing and subscribing to bonds. But, as it was pointed out by Irving Fisher in the post World War I inflation, "there is a period when the awareness of inflation is not strong." I wonder, however, why Dr. Emminger is not worried about the consequences of a change of the unawareness of inflation described by Irving Fisher, as he himself says that "the limit of tolerance for the inflationary effect of currency inflows had been reached." I will put the question: What will happen if people will not continue to save?

Why is this situation arising? Because the former international monetary system had a built-in brake—namely, gold—which, on the one hand, limited the overexpansion of international liquidity, while, on the other hand, it made possible an effective defense against inflation with classical means of anti-inflationary fiscal and monetary policies.

The elimination of the brake made defense against imported inflation quite impossible. If some countries—as, for instance, the Federal Republic of Germany—tried to curb inflation by means of classical economic and fiscal policies, the restrictive credit policy and the high interest rate gave a further drive to the capital inflow and thus stimulated the inflation already in existence because of domestic reasons. My witness for this is Dr. Emminger himself, who says, "In Germany, monetary policy was paralyzed by such inflows . . . practically from the autumn of 1968 through March 1973."

This situation has arisen because there was an expansionist economic policy on the one side and an opportunist one on the other. Both are responsible. Dr. Emminger says that "speculative movements sometimes had the merit of forcing the right measures of adjustment upon reluctant authorities." But why should the world always wait until the next crisis comes? As old Frederick the Great said, "Gouverner c'est prévoir." The world can be spared, at least in the future, the high costs of delayed and reluctant adjustment mentioned by Dr. Emminger if the authorities will stick to this old rule.

My *third remark* is related to the exchange rate system in the long run. I agree that we need more flexibility in exchange rates, as we had in the past. This, however, I think, cannot mean the eternalization of floating rates. I fully agree with Dr. Emminger in this respect. I hardly believe that such conditions could be maintained permanently without negative consequences for prosperity, as a considerable part of business profits are in this case needed to cover currency risks. The floating rate system, as a means of defense, can be an adequate method for protecting monetary policy against unwanted capital inflows and, temporarily, it can be useful for establishing realistic parities.

It seems to be, however, that those who consider the floating rate as a final solution (I have read a lot about this question) or at least one for a longer period, presume that neither now, nor in the coming years, can arbitrary international liquidity creation surpassing real international needs be blocked. Even if this were true—which, unfortunately, cannot be excluded, as shown by the experience of recent years—I would say that in economic terms the fixed parity coupled with a wider margin and with a more elastic policy in changing parities is right. Nevertheless, it is possible that, temporarily, the world cannot come off the floating rate system. This, however, is only the obvious manifestation of the weakness of international cooperation.

The *fourth question* is the issue of SDRs. Dr. Emminger's interest in the introduction of SDRs is well known, and he has discussed them in both his written paper and his oral remarks. At this time I would like to make some comments on his statement.

Starting from the right hypothesis—that the world's current gold production cannot secure the smooth development of increasing international trade—SDRs were created to satisfy the supposed international liquidity requirements, and the volume of total issues was fixed at $9.5 billion for 1970-72. The total increase of liquid international reserves in the last three years exceeded $70 billion. Hence, under given circumstances, SDRs in the present form did not solve but only increased the problems of the international monetary system. As Dr. Emminger pointed out, some people believed that the mere introduction of the internationally managed SDR system would be sufficient to gain better control over international liquidity, but this proved to be an illusion. I am afraid that not only some people, but governments and parliaments, shared this illusion when they passed legislation covering the rules of the game of the SDR system.

Why could SDRs not fulfill the expectations? First, because they were created without the necessary economic conditions, without an objective economic basis. They were established subjectively. Second, because their role is limited to the accounts of the central banks and they do not move beyond the official circle. Therefore, they could not fulfill the role of a transaction medium nor that of a real international reserve asset. Third, because they have a certain "altruistic" character: they function like credit, but a great part has not to be paid back. Besides, there is a paradox in that, out of this "altruistic" distribution, the developed industrial countries got about three quarters. Fourth, I think that SDRs cannot function as the numeraire of the system because in that case we have to say 1 SDR is equal to 1 other SDR. This infringes the logical principle that one thing cannot be explained by itself. Last, but not least, the issuing body must have the right to intervene if necessary, but that presupposes that member countries surrender to it a part of their sovereignty. Are they willing to do so?

I will speak now about the *fifth of my points,* which is about gold. Dr. Emminger remarks that after last year's Annual Meeting of the IMF Governors in Washington the *Economist* wrote that there was a horrible silence on world inflation. I am afraid that we are not speaking enough today about gold, so the *Economist* could say that there was a horrible silence on gold.

I think that in Dr. Emminger's paper there is a very small remark about gold, saying that "gold has, so to speak, catapulted itself out of the system." And that's all. After so many centuries of having served society, it would have merited a better obituary notice. And do not forget that at the end of a classical obituary notice there is the word *resurrection.*

I believe we all agree that the current official price of gold is a fictitious one. Economics, however, cannot accept fiction for the longer run. Back to the realities! I think we have to come back to the real issue. The price of gold on the free market is today a multiple of the official one. Accounts among central banks could be settled on the current official gold price, but this is not done because central banks are not altruistic institutions either. The frequently mentioned demonetization of gold has not even started yet. Those calculations which prove that the proportion of gold in monetary assets decreased significantly are neglecting the judgment of the market. Considering the market price, the proportion of gold in international liquidity practically is not less than it was five years ago. The inflationary problems caused by the lack of the disciplining force of gold have warned the world already that the demonetization of gold could only be realized, if it is possible at all, slowly, gradually, throughout a longer period. In that case, gold would have to be replaced by some other disciplining gadget yet to be discovered. But until that time I stick to my previous opinion in this respect, which is the following: I know that there are about three hundred economists in the world who are against gold, and they think that gold is a barbarous relic—and they might be right. Unfortunately, there are three billion inhabitants of the world who believe in gold. Now the problem is how can we three hundred convince the other three billion of the correctness of our ideas. I think we could if we had time. But we need a lot of time.

We should come now to the question of better international management of global liquidity. But fortunately, it is not on the agenda of our discussion today, and I will leave this problem to the Group of Twenty, led by His Excellency Ali Wardhana, the distinguished Minister of Finance of Indonesia, and for the Deputies, led by my friend Mr. Jeremy Morse. I wish them both success in a difficult task.

# Questions and Answers

*Following the formal presentations, the speakers answered written questions from the audience. Some of these questions, and the answers, as well as further commentary from the speakers, are given below.*

DR. EMMINGER: I must say that my two co-speakers were rather lenient in not taking up more points in my paper that could be criticized. This very much facilitates my task of replying to them. I can also take up some of the questions from the audience while I am replying to my co-speakers.

First, I agree in substance with most of what Dr. Diz said. He just put it in a slightly different way. For instance, I think he was right when stating that one of the major reasons why the international monetary system has been afflicted by the inflationary bias that I was talking about was that there has been an increasing practice of nonadjustment on the part of deficit countries. I expressed the same thing in different words. One of my main points was that deficit countries increasingly refused, or were simply incapable of achieving, anything in the direction of price stabilization. In many cases they even were not able to significantly moderate their rate of inflation when they were in deficit. This, of course, meant that adjustment of balance of payments disequilibria had to come about in a different way, and a large part of it was forced upon surplus countries by foreign exchange inflows which had inflationary effects. That was what was stated in a cautious way in the Annual Report of the IMF as long ago as 1964. There was pressure on the deficit countries, but mostly they evaded it. And thus there was not the slightest trace of a "deflationary bias" in the system.

Another way in which countries failed to adjust was that surplus countries resisted an upward adjustment of their exchange rates for too long. Why? Because revaluation was too novel a thing in the world; it was also politically very difficult, and there was the difficulty of deciding whether surplus countries should upvalue or deficit countries should devalue. This latter difficulty was exacerbated by the fact that the currency of the main deficit country, the United States, served as the chief intervention and reserve currency of the world.

I do not want to go into greater detail now, but these are certainly some of the reasons for the inflationary effects of a rigid parity system, with a structurally weakening dollar as its main anchor. Dr. Diz termed these same reasons "nonadjustment," while I referred to them as leading to a degeneration of the adjustment process as well as to the "decline and fall" of the fixed (over-rigid) parities system. I should add that, when I mentioned that balance of payments discipline has now assumed more the connotation of timely adjustment of exchange rates than of domestic demand and prices, I was not criticizing this shift in emphasis; I was just describing it as a historian.

Dr. Diz then spoke about which side had the responsibility to adjust in such a large-scale, long-term, structural adjustment process as has been going on over the last ten years between the United States on the one hand and Western Europe and Japan on the other. Yes, who does really bear the responsibility? I have said something in my written paper on this, describing it as such a unique and novel problem that it was no wonder our system was for a long time unable to cope with it. It would have required either the acceptance by the Europeans of even more inflation for the sake of adjustment, or a continuous process of upvaluation of their currencies, or, a third possibility, a devaluation of the dollar.

Each of the three alternatives posed difficult and burdensome problems and, as I explained in my written paper, was bound to put the whole system of fixed parities under strains with which it could just not cope, and that is one of the reasons why the system finally broke down.

Another point on which Dr. Diz commented is that, when talking about deficit countries and their inflationary influence on the system, I dealt with a few major countries only, mainly the United States and the United Kingdom. The explanation is simple. I was trying to elucidate the reasons for the inflationary impact exerted by certain developments in the international system, and it is quite clear that it was only major disequilibria, huge deficits like those of the United States or the large deficits in the 1960s of the United Kingdom, that really had inflationary impacts on the system as a whole. That is why it was these countries which I talked about in the main.

There was also another reason. One of my points—and I drew attention to this both in my written and in my oral presentation—was that our reserve system was running wild. We have had an excessive creation of world reserves, the origin of which was mostly the deficits of the United States and, to a minor extent, also of the United Kingdom and other countries. So I had to mention explicitly those countries which were the main source of this uncontrolled process of reserve creation.

Finally, as concerns the point made by Dr. Diz on disequilibrating capital flows, I must say that I fully agree with his view as expressed in his final conclusion, which is exactly the same as the one that I also reached: disequilibrating money flows have to be dealt with in a pragmatic way.

I also share his doubts about the effectiveness of capital controls in certain situations; I stressed that point in my written paper. And this is why I share the conclusion which Pierre-Paul Schweitzer, the Managing Director of the Fund, recently expressed, namely, that there are certain situations where you cannot cope with disequilibrating capital flows except by floating, because controls, under such circumstances, are of little avail. I tried to circumscribe more closely those circumstances where all other means are likely to fail, namely, when there is lack of confidence in the leading currency of our system, the dollar. This is why I think that it was very logical to solve the recent crises in the end by floating vis-à-vis the dollar.

One point where Dr. Diz agreed with me was that people tend to be too dominated by contemporary problems; or, as it is sometimes put a little more unkindly, like generals they tend to prepare always for the wars of the past and not for those of the future. I think it is indeed a real danger in our reform discussions to project past or recent trends too easily into the future. This is why I tried at the end of my paper to do just the opposite, by saying that there is a chance that the tendency for the dollar to weaken will come to an end and may even end very soon. And as the weakness of the dollar has been one of the main reasons why the whole system has degenerated into such an inflationary impasse, this really gives me reason to think that, as I expressed it, we will in the future be in a different ball game when the dollar has been rehabilitated. There will then also be a new chance for fixed parities, but not before.

Now I have an interesting question in that connection from a gentleman in the audience: *You mentioned—and I agree—that a stable international monetary system* [in the sense of fixed parities, etc.] *would again be possible after two conditions have been fulfilled: (1) the U.S. balance of payments regains equilibrium and the distrust in the dollar is removed; (2) inflation in the major countries has been brought under control. When do you expect these conditions will be fulfilled: in six months, two years, five years, never?* I will give you an equally precise answer. I expect that the first condition, the rehabilitation of the U.S. balance of payments, will be fulfilled at the latest within the next two years, and probably sooner. As to the second problem, namely, when "inflation in the major countries has been brought under control," I would say it has to be brought under control within the next two years or we shall all sink into an abyss of permanent and chronic inflation.

I will also insert here another question, one which is connected with the one I have just dealt with: *You spoke of the "catching up" by Europe and Japan with the United States as a process that is almost completed. Why should not this process continue, with Japan and Europe eventually "going ahead" of the United States?* Well, I know, of course, these futurology forecasts that by 1980 or 1990 the per capita income of Japan will be higher than that of the United States. However, I am not looking ahead to 1980 or 1990 but, say, the next five years. I am quite modest in my forecasting abilities. I would say that we have now reached a new stage because, thanks to the various realignments of currencies, including the one in February-March, and the most recent one in May-June, 1973, we have now come to a point where—and I quoted figures in that connection—per capita income in some European countries has approached per capita income in the United States. We know, on the other hand, from a number of indications, that national productivity in most European countries is not fully up to the American level. So I would say that, as concerns a number of

European countries, we have now probably moved up to about an equilibrium level or even beyond, and I do not foresee that we have to adjust very much further in Europe as compared with the United States in this field. But, to be quite precise, in my written paper I did not make any forecast to the effect that this process of structural catching up with the United States has already been completed in every country. I ventured such a guess for my own country, that is, Germany, and I gave some figures for Germany which I think are quite impressive, namely, that on the basis of present exchange rates our per capita income is between 90 and 100 per cent of that of the United States.

I should perhaps try to answer a few other questions before coming to the points made by Dr. Fekete.

One question reads: *All the preconditions you mentioned concerning the adequate functioning of the Bretton Woods system (re-establishment of confidence in the U.S. dollar, economic discipline, etc.): don't they amount to the recommendation of the famous Irishman who, on being asked the way to Dublin, replied, "Well, my dear fellow, if I wanted to go to Dublin, I shouldn't start from here!"* I think this comparison is right. This is exactly one of the reasons why the old system has broken down; and it is also one of the reasons why we have to construct a new and more realistic system. The old system just was not functioning any longer in the real world in which we live, the world where deficit countries do not contribute to adjustment by deflation and where they usually are even unable to moderate their pace of inflation. Therefore, we need a system with more flexible exchange rates. This is one of the several reasons why Mr. Morse, the Chairman of the Deputies of the Committee of Twenty, and his colleagues are working on the reform of our system.

Here is another question that ties in with this issue of reform: *Can your address be construed as implying that international monetary reform is premature and that we should make the best of the interim period in order to devise workable rules of behavior? What role could the IMF perform during this interim period between now and completion of reform?* In some ways my remarks can be interpreted as saying that even if we had a new system tomorrow, even if Mr. Morse could present us next week with an outline for reform with which we could all wholeheartedly agree, then I do not think that we could introduce the new system, including dollar convertibility, forthwith, nor will the mere existence of new rules suffice to ensure a stable international monetary system. I tried to show that much more is required to return to greater stability all over the world than just new rules about exchange rates and convertibility. So, in that sense, I do not believe that we can achieve a more stable system overnight; but this does not mean we should not elaborate new rules as soon as possible. Some improvements could perhaps be introduced into the Fund's surveillance system on an experimental basis before the new rules are definitely in force.

Another question which also concerns the system and its reform reads as follows: *Shouldn't central banks rather refrain from recycling excess liquidity through Euro-money, U.S. Treasury bills, or reserve diversification, by simply depositing excess U.S. dollars with the Federal Reserve Bank, bearing no interest?* This is a very sensible proposal, except that I know of quite a number of countries and central banks which have already stated in the Committee of Twenty and elsewhere that they are just not prepared to accept any restraint on the freedom of investing their reserves as they please, and that is one of the reasons why I said I have become skeptical that we will achieve very far-reaching results as concerns both control of the Euro-markets and control of the dollar overhang. We can do these things only on a voluntary basis, and it may well turn out that there will not be enough volunteers.

I now come very briefly to the points made by Dr. Fekete.

First, he remarked that I was speaking of a "world" monetary system and that the present system does not apply to the whole world. I would answer that, in my paper, I made it very clear that I was dealing with the monetary system of Bretton Woods and the decline of the original Bretton Woods system; and, of course, I had to limit myself to that part of the world where the Bretton Woods system was in force.

His second point was that the main difference between him and myself was that I had not dealt with the fundamental change in the international system which came about at the end of the 1960s, when the system degenerated from a gold-exchange standard into a pure dollar standard. Yes, I have somewhat neglected this feature. I did not speak about gold in my oral presentation, though I mentioned it in my written paper. In twenty-five or thirty minutes you cannot speak about every problem. I think he is right in saying that from the end of the 1960s onward there has been a grave decay, a serious degeneration, in our system. But in my view this was not due mainly to the introduction of the two-tier gold system, as he claims. I do not believe that in the world in which we live gold has constituted, or could constitute in the future, a major disciplinary brake on the system. I would rather turn his statement around and say that the introduction of the two-tier gold system was not the reason for, but a symptom of, the process of decay that was taking place. The free market convertibility of the dollar into gold had to be suspended because the necessary basic conditions for convertibility no longer existed, and so the introduction of the two-tier gold market was just a consequence of the decay that had already set in. By the way, when I described the progressive worsening of inflation by quoting the average rates of inflation from one five-year period to the next, I used these periods only for statistical convenience. I did not want to imply, as Dr. Fekete inferred, that these five-year periods also constituted, in my view, a meaningful way of dividing up the evolution of our monetary system.

Dr. Fekete made another point in connection with SDRs. He accepted my thesis that the SDR system has disappointed certain expectations. But he did not accept my explanation. His explanation is quite different, so I have to clarify my own position. One of the basic goals of the SDR system was to gain through it a better control over international liquidity. In my view this expectation was disappointed because the installation of sufficient control over other forms of reserve creation, in particular, in the form of currency holdings, had been neglected and because creation of reserves in these other forms had got out of control. Reserve creation in the form of foreign exchange was so excessive that the whole system, including the SDR system, was really jeopardized.

Now to the final point, namely, gold, which to this day continues to be a fascinating subject. Dr. Fekete quoted my written paper to the effect that I said that gold has catapulted itself out of the system through the enormous price increases and instability of the market in the last few months. However, I did not make such a sweeping statement. I only said that gold has catapulted itself out of the system as a numeraire, as a measure of value for the currency parities, and I went on to say that gold would continue to remain an important part of the central banks' reserves, but not at a fixed official price. And here I have one thing in particular to say on the official gold price.

I quite agree with Dr. Fekete that the present official price of gold is purely fictitious, is unrealistic. The difficulty begins when one asks what the new official price should be. I can tell you that we had a very interesting debate on the question, what should a possible new official price of gold be, in a recent meeting of the Deputies of the Committee of Twenty; and the outcome was, I would say, so fruitless—or hilarious—that everybody who listened to that debate would despair of ever seeing a new official gold price again. In this connection I am reminded of Humpty-Dumpty, who, as you know, had a great fall, and the story then continues, "all the king's horses and all the king's men couldn't put Humpty together again." I am afraid this seems to apply as well to gold as a numeraire, that is, as a measure of value, in our system.

This leads me to a question on gold from the audience: *Why wouldn't it be possible to sell official gold at the free market price and thus help to dampen inflation and excessive speculation?* My answer is, yes, it should be possible to sell official gold at the free market price. It is perhaps not widely known that the IMF Agreement permits sales of official gold at a price higher than the official price. It was only in March 1968 that a group of central banks agreed among themselves through self-constraint no longer to sell gold on the free market. This March 1968 agreement has been overtaken by events and should be abrogated. Central banks should have full freedom to deal in gold. On the other hand, I do not believe that sales of official gold on the free market would have more than a marginal effect on the world-wide "ocean of inflation."

* * * *

MR. BURGESS: It is almost the witching hour. I would just ask whether our other two speakers have any ideas they would add or anything else they would like to say.

DR. DIZ: On the question of the numeraire of the system—if we are to utilize this French word with its exclusive English meaning, I believe coined in Switzerland—I think that the SDR can provide such a common denominator for expressing parities, on the basis of the "an SDR is an SDR" approach, that is, independent of gold.

The point has been made here—as well as elsewhere—that the official price of gold is now a fictitious and an artificial one. I need to be very brief, so I will just leave you with the following question: When was the official price of gold not fictitious or not artificial?

DR. FEKETE: When I spoke about SDRs I said that I do not think that the SDR can be a numeraire because, according to logic, one thing cannot be explained by itself. That was my idea. I did not say that it is gold, but I think that it is gold. Dr. Emminger then suggested gold as a numeraire. Perhaps that is right. It would be the right thing to get this numeraire under some formula, and if somebody has a better one I would be very pleased; but up to now nobody has had such an idea.

# Concluding Remarks

MR. BURGESS: When and where do we meet again? The Directors of the Foundation, who met this morning and have been in touch with each other, have been wondering what would be the place to go next year for our meeting. We have had four meetings in Washington, we have had three here, we had one in Rio, we had one in Rome, one in Stockholm. We are agreed that there is another part of the world that requires our thought and our friendship and our attention—that is, Japan and the Far East. We have been talking with some of our Japanese friends, and they have indicated to us that they would welcome our coming to Japan and holding our meeting there on problems that relate both to their area and to ours. There are, for example, common problems of the functions of regional organizations and their relation to broadly international ones. This is what we are thinking about. So, look at your maps and see if you would not like to attend our program next year.

Let me now thank the speakers, thank the Bank for International Settlements, thank you all, and thank the Per Jacobsson family for their participation. With all those pleasant thoughts in our minds, we will adjourn.

# Biographies

*Otmar Emminger* has been Deputy Governor of the Deutsche Bundesbank since January 1970. He joined the German central bank (until 1957 named the Bank deutscher Länder) in 1950, became a member of its Board of Governors in 1953, and a member of the Central Bank Council in 1958. His main interest lay on the international side of monetary policy. He represented the Federal Republic of Germany on the Board of Executive Directors of the International Monetary Fund (IMF) from 1953 to 1959, and has been Vice-Chairman of the Monetary Committee of the European Economic Community (EEC) since 1958. As Chairman of the Deputies of the Group of Ten from 1964 through 1967, he participated in the preparation of the special drawing rights (SDR) scheme. Dr. Emminger also represents his country on the Economic Policy Committee of the Organization for Economic Cooperation and Development (OECD) and its Working Party No. 3 (Balance of Payments Committee), of which he has been Chairman since 1969. He is a member of the Deputies of the Committee of Twenty, which is entrusted with the task of preparing an outline for reform of the international monetary system.

Dr. Emminger was born in Augsburg in 1911. He studied economics and law at the Universities of Berlin, Munich, Edinburgh, and London.

*Adolfo Diz* has been Financial Adviser of the Argentine Republic in Europe, based in Geneva, since 1969. In the course of this period he has represented his Government as the head of several delegations to meetings of the General Agreement on Tariffs and Trade (GATT) and the United Nations Conference on Trade and Development (UNCTAD) and, most recently, as Deputy in the Intergovernmental Group on International Monetary Affairs. He is also a member of the Deputies of the Committee of Twenty of the IMF. He was elected as an Executive

Director of the IMF by a group of Latin American countries in 1966, serving until 1968. During this period he participated in the preparation of the SDR scheme.

His academic career covered a period from 1951 to 1966, during which he was successively Professor of Statistics, Econometrics, and Monetary Theory as well as Research Director of the Institute of Economic Research at the University of Tucumán (1959-65). He received his doctorate from the University of Chicago and his undergraduate degree from the University of Buenos Aires. He has had studies and articles published by the University of Tucumán, the University of Chicago Press, and the Center for Latin American Monetary Studies (CEMLA).

Dr. Diz was born in 1931. He is married and has five sons.

*János Fekete,* banker and economist, was born in 1918 and educated at the University of Economics in Budapest.

He has served in the National Savings Bank, Szarvas, the Ministry of Finance, where he was Chief of the Foreign Exchange Department, and in the Foreign Ministry as Chief of the Economic and Financial Department.

In 1953 he joined the National Bank of Hungary as Chief of the Foreign Exchange Department. He is now Vice-Chairman of the National Bank.

Dr. Fekete has written and lectured extensively at home and abroad on a wide variety of Hungarian and international economic and monetary problems and is the recipient of many honors for his work in this field.

He is married, has one daughter, and lives in Budapest.

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Paper by Henry C. Wallich; Commentaries by C. J. Morse and I. G. Patel (available in English, French, and Spanish)