



SPECIAL PAPERS IN INTERNATIONAL ECONOMICS

No. 3, AUGUST 1962

PLANS FOR
REFORM OF THE
INTERNATIONAL
MONETARY
SYSTEM

FRITZ MACHLUP

INTERNATIONAL FINANCE SECTION

DEPARTMENT OF ECONOMICS

PRINCETON UNIVERSITY • 1962

This is the third number in the series SPECIAL PAPERS IN INTERNATIONAL ECONOMICS.

The author is Walker Professor of Economics and International Finance at Princeton University and also Director of the International Finance Section. Thus, the usual disclaimer of responsibility for the opinions expressed cannot be invoked so far as the Director is concerned. He still may say that his ideas may or may not be shared by his colleagues on the Editorial Committee of the Section or in the Department of Economics.

The submission of manuscripts for this series is welcome.

FRITZ MACHLUP, *Director*
International Finance Section

SPECIAL PAPERS IN INTERNATIONAL ECONOMICS

No. 3, AUGUST 1962

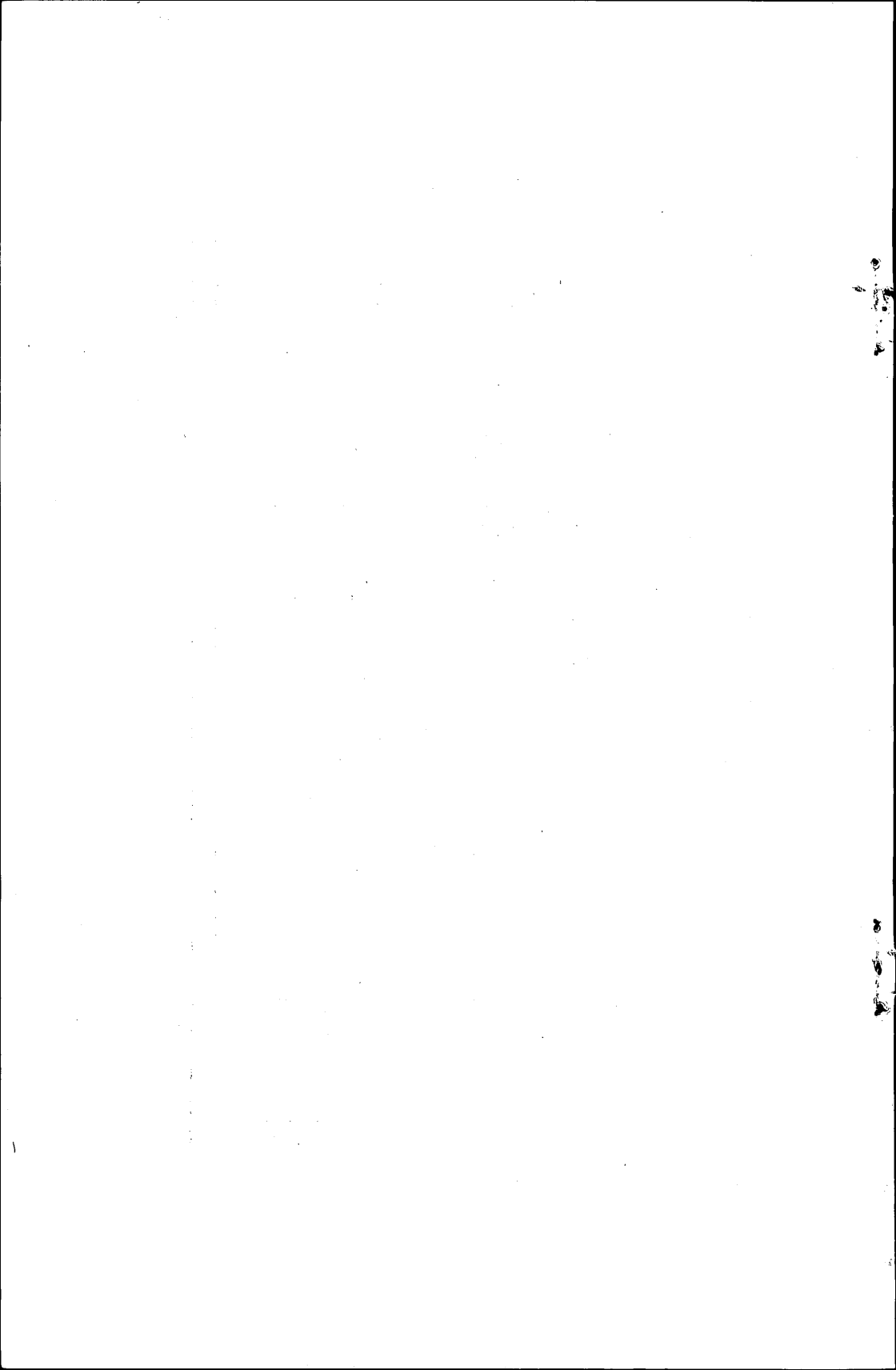
PLANS FOR
REFORM OF THE
INTERNATIONAL
MONETARY
SYSTEM

FRITZ MACHLUP

INTERNATIONAL FINANCE SECTION

DEPARTMENT OF ECONOMICS

PRINCETON UNIVERSITY • 1962



PREFACE

Perhaps it should be explained why this paper is published not as one of the *Essays in International Finance* but rather as one of the *Special Papers in International Economics*. One reason is its length: it is longer than any of the numbers in the Essay series. Another reason is its tone: it is largely written with pedagogic purposes in mind and thus lacks some of the grace that an essay should have; in some places the exposition is exceedingly patient, or even repetitive, because it was thought that this would make it more helpful to the student. A third reason is multiple publication: the paper is appearing elsewhere, something which the Section strives to avoid for issues of the other two series. A German version has been published by the Institut für Weltwirtschaft of the University of Kiel, and an abbreviated Italian version will be published in *Bancaria*, Rome. In addition, a reproduction of this paper is planned as part of the author's *Essays in International Economics*, a volume being prepared for early publication by Charles Scribner's Sons.

FRITZ MACHLUP

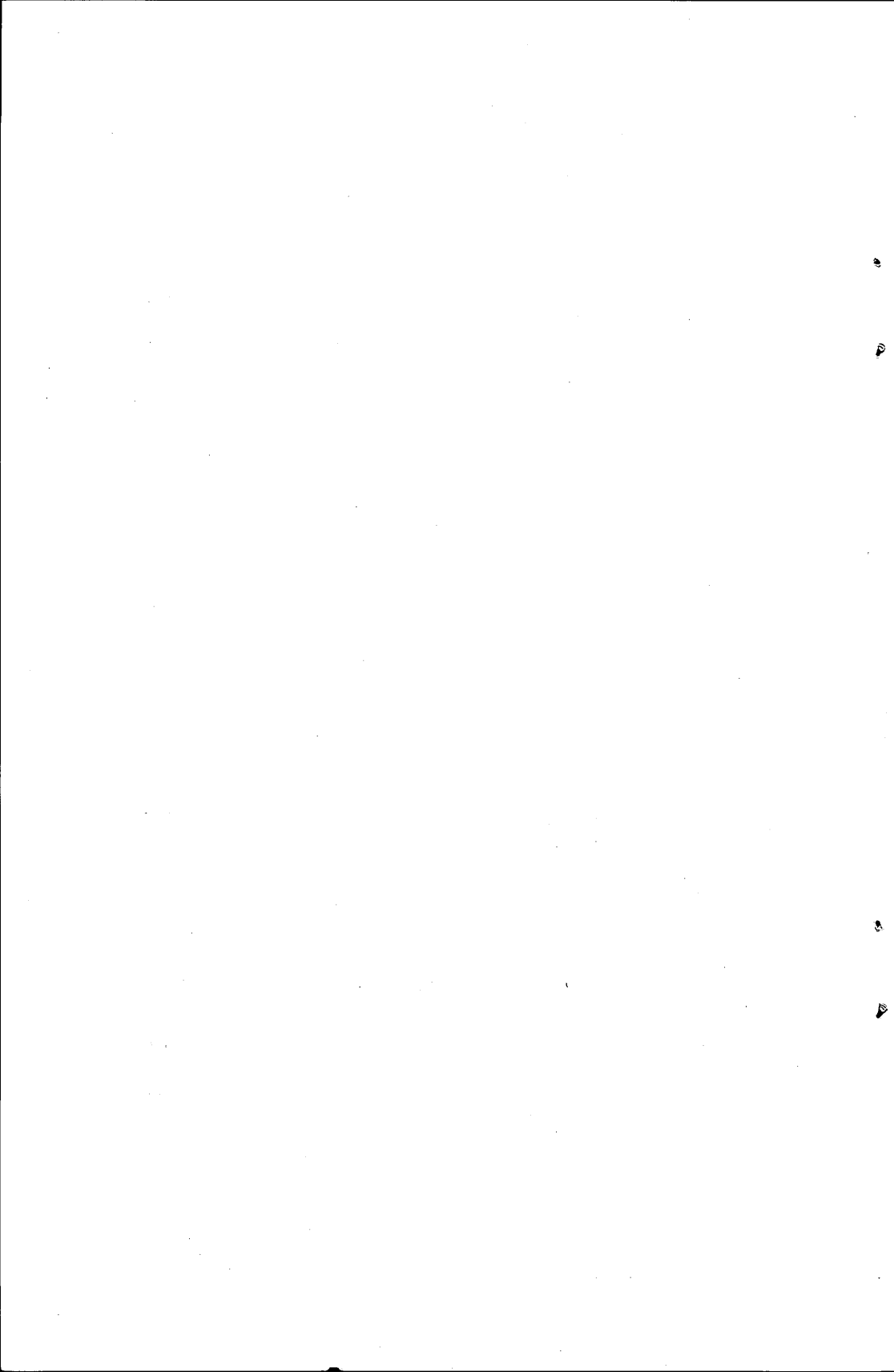
Princeton, New Jersey
May 1962

PLANS FOR REFORM OF THE INTERNATIONAL MONETARY SYSTEM

	PAGE
I. The Present System	1
II. Charges against the System	5
A. Difficulties with the Balance of Payments	5
B. Inadequacy of International Reserves	7
C. Danger of Collapse	10
III. A Selection of Plans	12
A. Extension of the Gold Exchange Standard	13
B. Mutual Assistance among Central Banks	17
C. Centralization of Monetary Reserves	25
D. Increase in the Price of Gold	42
E. Freely Flexible Exchange Rates	51
IV. Concluding Remarks	66

TABLE AND T-ACCOUNTS

	PAGE
Table 1. Reserves of Central Banks and Other National Monetary Authorities of the Free World	3
T-Account	
Set 1. International Payments in a Multiple-Currency- Reserve System	14
Set 2. Alternative Forms of Support of One Central Bank by Another	18
Set 3. Short-Term Capital Movement and Compensating Support Action	21
Set 4. Keynes Plan: Reserve Creation through Loans to Central Banks	28
Set 5. Triffin Plan: Reserve Creation through Purchase of Securities	31
Set 6. Stamp Plan: Reserve Creation through Aid of Development	33
Set 7. Credit Transfer versus Credit Creation by the Fund	40
Set 8. Reserve Creation through Revaluation of Gold Stocks	43
Set 9. Gold Revaluation: Capital Gains and Composition of Reserves	45



Plans for Reform of the International Monetary System

THERE has been growing dissatisfaction with the present international monetary order or disorder. Some experts have come to regard reforms as desirable, necessary, or even urgent, and several plans for reform have been submitted. Some of these plans are radical, evidently because their proponents consider the defects and dangers of the present system too fundamental for mere patchwork to remove them. Other plans are less ambitious, probably because their proponents regard radical reforms as unnecessary or believe they are unacceptable given the conservatism of the practitioners and their qualms about political feasibility. It goes without saying that there must be essential differences between plans that are designed to serve different objectives, to correct different defects, or to avert different dangers.

I. The Present System

The present monetary system in most countries of the free world is the gold-exchange standard.¹ Under this system, the foreign reserves of central banks consist not only of gold but also of liquid claims against certain countries, called the key-currency or reserve-currency countries. At present these claims consist partly of deposits in American and British banks and chiefly of American and British short-term government obligations.² Since neither dollar deposits nor sterling deposits are legally redeemable in gold, some writers prefer to speak of a "currency-reserve standard" rather than "gold-exchange standard."³ The difference, however, is not very great, inasmuch as the U.S. Treasury does in fact sell gold at the official parity rate to foreign governments and central banks holding dollar deposits. (Dollar securities can of course be readily sold and thus transformed into dollar deposits. Dollar balances of private holders can at any time be sold to their respective

¹ It happens that my first two books dealt with the gold-exchange standard: *Die Goldkernwahrung* (Halberstadt: Meyer, 1925); and *Die neuen Wahrungen in Europa* (Stuttgart: Enke, 1927).

² A few countries hold French Francs and West German D-Marks as parts of their official reserves.

³ J. Herbert Furth, "Professor Triffin on the Problem of International Monetary Reform," *Zeitschrift fur Nationalonomie* (Winter 1961), pp. 140-147.

central banks and thus be readily transformed into "official" balances. In monetary statistics, official and private dollar holdings are nevertheless stated separately. After all, only the official holdings are included in the "foreign reserve" of the countries concerned.)

Table 1 gives the foreign reserves held by the monetary authorities of the nations of the free world from 1949 to 1960. There is first the time series of their gold holdings, then of their holdings of foreign exchange, and finally of their "gross position"⁴ with the International Monetary Fund (I.M.F.). The last item has not been included in the monetary reserves until very recently, so that in most discussions only the gold and exchange reserves have been counted.⁵

The increase from 1949 to 1960 in the gold holdings amounted to \$4,900 million, or 14.8 per cent. This corresponds to an annual rate of increase of 1.3 per cent. The increase in foreign-exchange holdings amounted to \$11,145 million, or 106.1 per cent over the eleven years, which corresponds to an annual rate of increase of 6.8 per cent. Gold and exchange holdings together increased by \$16,045 million, or 36.8 per cent, an annual rate of increase of 2.9 per cent. If we now add the gross I.M.F. position of the national monetary authorities, we find that their foreign reserves increased by \$25,378 million, or 49.2 per cent over the eleven years, an annual rate of increase of 3.7 per cent.

Thus, the composition of the monetary reserves has undergone considerable change, especially notable in the relative shrinkage of the metallic nucleus of the currencies. At the end of 1949, the monetary gold stocks of the nations included in Table 1 had been 75.9 per cent of their reserves; at the end of 1960 they were only 63.8 per cent. Correspondingly, the portion of foreign-exchange holdings in the total reserves, not counting the I.M.F. positions, increased from 24.1 per cent

⁴ This term is explained in the notes to Table 1.

⁵ What assets are included in the "monetary reserves" is to some extent arbitrary; and the practice of including holdings of foreign balances and securities without deducting current liabilities to foreign nationals is somewhat questionable. Several experts object to the customary statistical routine of adding the gross reserves of the various countries. They hold that statistics of *net* reserves, where gold and foreign assets are reduced by current foreign liabilities, would give a more accurate, or more relevant, picture of the reserve position of the countries. Others are satisfied with the more common usage because the statistics of gross reserves, supplemented by statistics of liabilities, furnishes more information than the net figures alone would. Some experts prefer to use gross figures for gold and foreign-exchange reserves, but net figures for the positions with the I.M.F. (The I.M.F. defines the "Net Position" as "a measure of the resources the member has provided to the Fund." This is of course much less than the member's drawing potential.) In any case, most discussions of the international monetary system have been in terms of the gross foreign reserves, and this is what is displayed in Table 1.

TABLE 1
RESERVES OF CENTRAL BANKS AND OTHER NATIONAL MONETARY AUTHORITIES OF THE FREE WORLD
(Millions of Dollars, End of Year)

	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	Increase 1949-60
1. <i>Gold reserves</i>	33,150	33,830	33,935	33,920	34,360	34,970	35,445	36,095	37,360	38,075	37,870	38,050	4,900
2. <i>Exchange reserves</i>													
a. U.S. Dollar	3,071	4,440	4,014	5,254	6,016	7,067	7,878	8,612	8,231	8,516	9,419	10,484	7,413
b. U.K. Pound													
Sterling	7,856	7,775	8,694	7,596	8,148	8,157	8,095	7,807	7,222	6,955	7,448	7,563	-293
c. B.I.S. and E.P.U.	100	541	794	1,286	1,485	1,432	1,258	1,352	1,541	1,877	378	477	377
d. Others, minus adjustments	-527	1,939	1,583	1,474	1,491	1,589	1,529	1,964	1,921	1,962	1,925	3,121	3,648
<i>Together</i>	10,500	14,695	15,085	15,610	17,140	18,245	18,760	19,735	18,915	19,310	19,170	21,645	11,145
<i>Gold and exchange</i>	43,650	48,525	49,020	49,530	51,500	53,215	54,205	55,830	56,275	57,385	57,040	59,695	16,045
3. <i>Gross I.M.F. position</i>	7,891	7,905	8,183	8,265	9,028	9,690	9,757	9,813	9,491	9,849	16,148	17,224	9,333
<i>Total</i>	51,541	56,430	57,203	57,795	60,528	62,905	63,962	65,643	65,766	67,234	73,188	76,919	25,378

¹ The *gold reserves* are only those of the national monetary authorities, and therefore exclusive of the gold stocks of the international monetary institutions.

² The *exchange reserves* are the foreign-exchange holdings of national monetary authorities, i.e., their deposits in the U.S.A., U.K., and a few other countries, plus credit balances with the Bank for International Settlements (B.I.S.) and the European Payments Union (E.P.U.).

a. The holdings of U.S. dollars by the national monetary author-

ities equal the liabilities of the banks and the U.S. Government, to wit, (1) liabilities of the Federal Reserve Banks and other American banks to foreign monetary authorities, (2) official foreign holdings of short-term government securities and other short-term liabilities, (3) official holdings of U.S. securities with original maturities greater than one year; all these minus the U.S. liabilities to international organizations.

b. The holdings of pounds sterling by the national monetary authorities equal the liabilities of the U.K., to wit, (1) net

to 36.2 per cent. Most drastic was the increase in the claims against the United States: from \$3,071 million at the end of 1949 to \$10,484 million at the end of 1960. Claims against the United Kingdom remained almost unchanged—\$7,856 million in 1949 and \$7,563 million in 1960—and thus become a smaller part of total foreign-exchange holdings. The increase in the I.M.F. position goes back chiefly to the increase in the quotas in 1958.

This brief description of the situation may be sufficient for an understanding of the anxieties and warnings with regard to deficiencies and dangers of the present international monetary system.

holdings in sterling or Sterling Area currencies by foreign monetary authorities with banks in the U.K., (2) their holdings of British government securities, (3) funds held with the Crown Agents and Currency Boards, (4) certain intergovernment loans, (5) sterling securities issued by Commonwealth countries that are included in holders' Foreign Assets; all these minus U.K. liabilities to international organizations. (The net total includes some holdings by foreign individuals and corporations.)

- c. Balances with the B.I.S. are the B.I.S. liabilities that are counted as monetary reserves by the creditor countries. The E.P.U. liabilities reflect accumulated balances of E.P.U.-members acquired in the course of financing trade surpluses with other members. When the E.P.U. was liquidated in 1953, remaining debtor and creditor positions were converted into bilateral claims and debts, which are not included among the monetary reserves.
- d. Other foreign-exchange holdings are deposits in other countries with convertible currencies. Certain divergences between claims reported by creditors and liabilities reported by debtors were deducted from this item.

³ The "Gross I.M.F. Position" of a national monetary authority is calculated by doubling that member's quota and subtracting the I.M.F.'s holding of its currency. The result is a measure of the member's drawing potential. The Fund began publishing this series in August 1961 in *International Financial Statistics*.

Source: International Monetary Fund.

II. Charges against the System

SEVERAL experts, among them Per Jacobsson and Robert Triffin, have been careful to distinguish three different problems connected with the present system. To treat these problems separately is important not only for the sake of clarity but also because not all the experts share all the misgivings concerning the operation of the present system. Each of the three problems has at least two aspects calling for our attention.

- A. Difficulties with the balance of payments of individual countries
 - 1. because of excessive deficits or insufficient surpluses¹ in the balance on current account;
 - 2. because of massive international movements of speculative funds.
- B. Inadequacy of the growth of monetary reserves
 - 1. relative to the demand for "domestic liquidity" or to the "desirable" supply of domestic money;
 - 2. relative to the growth of foreign trade.
- C. Fragility of the gold-exchange standard
 - 1. dangerous to key-currency countries;
 - 2. dangerous to countries holding large exchange reserves.

A. Difficulties with the Balance of Payments

Problem A-1 should perhaps be stricken from the agenda since it cannot be regarded as a defect of the present system and since the balance-of-payments problem of particular countries could not be solved or eliminated by means of any of the reform plans. Yet, some of the plans are designed to institute a system of international payments that gives countries in difficulties much more time to wait for an improvement in their balance on current account without resort to the orthodox treatment with painful contractions of credit and effective demand. This tough remedy has become rather unpopular in a world more sensitive and less capable of adjusting to change. If the "old-

¹ Surpluses on current account are regarded as "insufficient" when they fail to offset completely deficits in the balance of long-term capital movements and unilateral transfers. In this formulation the concept of "balance-of-payments difficulties" is confined to cases of gold and exchange *outflows*; some writers may prefer to extend the concept to include cases of heavy *inflows* of gold and foreign exchange.

fashioned" cure is at all accepted nowadays, one tries to postpone it as long as possible in the hope that things will get better without treatment.

There are, of course, other currency doctors, who find that such soft-heartedness toward patients suffering from current-account troubles is out of place and that postponement of the one reliable cure could only be harmful. As a matter of fact, some of the critics of the gold-exchange standard have stated, with a serious frown, that the acceptance of ever-increasing amounts of demand liabilities of the United States as parts of the monetary reserves of other countries postponed for almost eight years substantial gold outflows from the United States and thus postponed the warning signals which such outflows would have implied. Hence, the present system is blamed for having enabled the United States to continue a credit and fiscal policy that was basically incompatible with an appropriate balance on current account.

There is obviously a serious ambivalence in the views about this problem. Some find the present system deficient because it gives countries in difficulties with their balance of payments too much time, and others because it gives them too little time, to get over their troubles.²

No such ambivalence exists regarding problem A-2, that is, regarding difficulties with the balance of payments on capital account because of hot-money movements. There is agreement on the desirability or need to improve present institutions to cope with speculative capital movements.³ Massive movements of hot money are brought about either by sudden changes in international interest-rate differentials or by rumors of imminent changes in official exchange rates. The return to convertibility and the abolition of restrictions on capital transactions have undoubtedly increased the dimensions of international hot-money movements and have thereby created difficulties with the balances of payments which perhaps cannot be managed with foreign reserves of the size now at the disposal of the monetary authorities in the countries concerned.

² There can be a third point of view: that the present system operates unequally relative to different countries, particularly in that it provides inadequate discipline on key-currency countries but rather harsh discipline on other countries. Hence, it gives too much time for adjustment to some countries and too little to others. This seems to be Triffin's judgment.

³ This should not be confused with problems of long-term capital movements—portfolio investment, direct investment, and foreign aid—that is, outflows of investable funds that should be reflected in the balance on current account of the investing, lending, or aiding country. (This would be part of problem A-1, that is, difficulties due to a balance on current account that does not fully reflect the movements of long-term capital, including foreign aid.)

One may ask why the gold standard before 1914 was not exposed to shocks of this sort and could work without any special shock absorbers. The answer is simple. In the old times there never were any rumors about impending devaluations, since no country ever seriously contemplated changing the gold par of its currency. In the old times, moreover, there were no disequilibrating differentials in interest rates or, at least, they were not allowed to last long, since the central banks were always trying to adjust their bank rates to the balance-of-payments situation. Under the rules of the gold-standard game, interest policy had to serve the equilibration of the balance of payments, and was not, as nowadays, subservient to employment and growth policies. Consequently, interest-rate differentials did not disturb but, on the contrary, helped maintain or restore international payments equilibrium.

This is in sharp contrast to present-day practice of some central banks, which insist on maintaining low interest rates (in order to fight unemployment) even if this leads to heavy outflows of funds.⁴ A credit policy with so little regard for its external consequences is apt to aggravate widespread fears of devaluation. After all, so the apprehensive ones reason, a country which cares so little about a loss of reserves that it would not even put up with higher interest rates apparently does not care much about the maintenance of its gold parity. Under such circumstances, massive international movements of speculative funds must be expected. It may take special institutions to cope with them, chiefly by providing the means for "compensatory official financing," that is, the foreign funds needed to meet the speculative demand, without recourse to payments restrictions and without peril to the maintenance of the fixed foreign-exchange rates.

B. Inadequacy of International Reserves

The question of the adequacy, or supposed inadequacy, of the growth of monetary reserves is controversial. It has been contended, for example by Sir Roy Harrod, that reserves have grown too slowly during the last ten or twelve years. Even as early as 1952 a group of experts appointed by the United Nations reported that the total stocks of international reserves were inadequate.⁵ This view is opposed by Per Jacobs-

⁴ The Federal Reserve Banks, in the summer of 1960, lowered discount rates in the face of payments deficits. The reverse side of the same practice is for a central bank to insist on high interest rates (in order to fight price inflation) even if this aggravates a heavy inflow of foreign funds. The German Bundesbank did precisely this until it learned the lesson.

⁵ "Our examination of existing reserves has convinced us that they are not in

son, M. W. Holtrop, Karl Blessing, and several others, who deny that either the size of reserves or their rate of increase has been inadequate. Indeed, they hold that reserves have been excessive. Both factions seem willing to accept as a criterion of adequacy the influence which the reserves and their changes have upon the supply of money in the countries concerned. We have called this our problem B-1: the question of the adequacy of reserves relative to the needs of "domestic liquidity." According to Harrod this influence was deflationary and responsible for an unsatisfactory rate of economic growth. Jacobsson and the central bankers, on the other hand, regard the influence as inflationary since it permitted a general rise in the price levels of practically all countries. In view of these differences in judging the consequences of the operation of the international monetary system in the past, one cannot be very hopeful about reaching an agreement regarding the principles to be applied to the reform of the system.

The size and growth of foreign reserves relative to the needs of domestic liquidity and to the size and growth of the domestic money supply is only one of the possible criteria for judging the adequacy of the growth of gold and exchange reserves. Many experts prefer to rely on an indicator which "measures" the reserve position of the world as a whole, to wit, the numerical ratio between aggregate reserves and imports. This we have called our problem B-2. However, the difference between the two measures of adequacy is not simply one of statistical convenience, but reflects two separate functions of monetary reserves. They are used, on the one hand, as institutional determinants of the domestic money supply and, on the other hand, as international means of payments to finance temporary deficits in the balance of payments. Hence it is quite in line with this double function of international reserves that their adequacy is judged with reference to both national circulation and international payments.

Any reduction in the ratio between international reserves and total imports indicates to some observers that the growth of gold and exchange reserves has been inadequate. This, however, presupposes, even if it is not explicitly stated, that the ratio was "just right" at the outset, or was perhaps a barely tolerable minimum. Surely, if the reserves relative to foreign trade, or total imports, had been more than adequate

general adequate." Economic and Social Commission, United Nations, *Measures for International Economic Stability*, 1952. Members of the group of experts were Angell, MacDougall, Marquez, Myint, and Swan.

in the beginning,⁶ a decline in this numerical ratio need not imply that the reserves have become inadequate. The total value of imports of the countries of the free world did in fact increase from \$59.6 billion in 1950 to \$119.1 billion in 1960. Thus, the ratio of reserves to imports fell from 81 to 50 per cent. But who can say that the 81 per cent had been just right, or the bare minimum? Let us not forget that back in 1913 the ratio was only 21 per cent.

Apart from the question whether or not the ratio of reserves to imports was just right in the base year, and not unnecessarily high, there is absolutely no evidence for the contention that the need for reserves rises proportionately with foreign trade. It is true that in domestic circulation the need for cash balances on the part of householders is likely to increase approximately in proportion with consumption expenditures. On the other hand, the need for cash balances on the part of existing business firms does not usually increase proportionately with turnover. In all probability, the demand for cash balances in the economy as a whole will rise with the national product but the increase may be smaller if the share of investment in the income increase is greater. Even within the industrial circulation of money we may expect differences in the ratio of cash to turnover, depending on the different degrees of vertical integration of industries. Besides, one may say that with an increase in the volume of transactions the demand for cash balances will increase least in those sectors of the economy in which clearing systems have developed requiring only the payment of clearing balances. It seems to me that foreign trade falls into this group and that consequently there is no theoretical support for the assertion that the need for international reserves rises in proportion with imports.⁷

Even if, on this or other grounds, one refuses to admit that the growth of international reserves relative to the growth of international trade has been inadequate during the last ten or twelve years, one might still side with the inadequacy-theorists in their pessimism for the future. The prospects for the future growth of reserves would indeed be rather dim if one could not expect the pool of reserves to be fed during the next ten years or so through continuing increases in dollar claims; and

⁶ "Total international reserves immediately before the war were abnormally high in relation to the value of world trade." [Radcliffe] *Committee on the Working of the Monetary System* (London: H.M.'s Stationery Office, Cmnd. 827, 1959), p. 244, §871. The ratio of reserves to imports in 1938 was 117 per cent.

⁷ Cf. the comments on this point in my article, "Liquidité internationale et nationale," *Bulletin d'Information et de Documentation*, Banque Nationale de Belgique, Vol. XXXVII (Febr. 1962), pp. 105-116.