CRITIQUE OF CURRENT ARRANGEMENTS FOR INTERNATIONAL FINANCIAL ADJUSTMENT UNDER THE INTERNATIONAL MONETARY FUND

by

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INTRODUCTION

Statement of the Problem

The main function of the international payments system is to enable payments to consummate international purchases and sales of goods and services and international transfers of capital. The existing international payments system functions according to basic principles that are embodied in the institutional arrangement of the International Monetary Fund which was established in 1944.

The payments and trade systems have changed in the past two decades. Most restrictions on international payments have been lifted, markets of several industrial countries have been integrated, the international debt structure altered, various economies of the world developed new production techniques and found new market outlets, and trade quotas and restrictions on most manufactured goods have been eased.

Though the IMF arrangement was designed to evolve with changing economic and payments conditions, and in some respects helped these changes to come about, the evolution of the international monetary and economic parameters may have rendered the IMF arrangement inadequate. Plans for improving the system of international payments and for reinforcing the volume of international monetary reserves have been submitted in abundance during the past several years. The profusion of such plans may be in itself viewed as a critical commentary on the

functioning of the international payments system.

Studies that are concerned with the international monetary system deal either with some aspect of international monetary co-operation or with the payments problems of some particular country. Whenever any of the studies concerns itself with the International Monetary Fund, the Fund's function of providing additional monetary reserves is the center of study. No comprehensive study has been done on the balance of payments adjustment process which is implicit in the IMF arrangement.

The thesis proposes to study and evaluate the adjustment process embodied in the IMF arrangement. Specifically, the study attempts to check the hypothesis that the IMF arrangement does not provide for a viable system of balance of payments adjustment in view of the changes that have occurred in the international economy.

The objective of the thesis is to investigate the system of international financial adjustment, to point out the shortcomings of the system and to study the various schemes that have been presented to enhance its operational efficiency. The study also concludes what prerequisites are necessary to any scheme to improve on the existing system of balance of payments adjustment.

Terms of Reference

Any approach to the system of international financial adjustment must take into consideration two sets of objectives which are

germane to international payments systems, and which consequently set the limitations to our study.

First, we have to recognize that any international monetary system is based on the existence of national governments and national sovereignties that have vital national objectives. These aims are twofold: a "relatively high and stable" level of economic activity and a "reasonable" rate of economic growth, and they are on every nation's list of priorities.

Second, we must make explicit that a free system of multilateral international trade is a desired international goal and that free currency convertibility is an intermediate goal which is necessary for the operation of a multilateral trade system. Transfers of foreign exchange (claims) which constitute the international monetary system result from flows of goods and services and from transfers of titles. These foreign exchange transfers reflect a certain degree of international specialization which motivates all international trade.

The objectives of relatively high and stable level of economic activity, of a reasonable rate of economic growth, and of a free system of multilateral international trade, constitute the constants of the system of international financial adjustment. The system has to accommodate to these objectives by adjusting other variables or manipulating other instruments of policy.

Though the study is limited to the financial and economic aspects of the international monetary system, we recognize from the

outset that other political and non-economic factors influence the system. International trade and payments do not exist or operate in isolation. They are imbedded in a larger framework of international cooperation which is influenced by the diverse cultural backgrounds of nations, by their levels of education, and by other than economic variables. We shall not make particular use of these non-economic variables in our study because knowledge and specialization in other fields of the social sciences are required.

Finally, our study will be limited to the international financial adjustment among countries outside the communist bloc.

Definition of Terms

The Balance of Payments

International financial adjustment is concerned with adjustments of deficits and surpluses in the balances of payments of countries. A definition of these terms must, therefore, precede the main study.

The balance of payments of a country constitutes "a systematic record of all economic transactions during the period between residents of the (reporting) country and residents of other countries."[1] Though the time period considered is arbitrary, it is generally taken to be a year. When all economic transactions are included, the balance of

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[1]International Monetary Fund, Balance of Payments Manual, (second edition, January, 1950), p. 1.

payments always balances since, as in all double entry accounts, total receipts (claims on foreigners) must equal total payments (claims on domestic residents). Such formal balance applies only to the whole account in which are found items which may be of a balancing character.

Total receipts equal total payments only in a sense that there is equality in the receipts and payments of an individual who schedules, as debits, all his purchases, payments, loans and gifts, and, as credits, all income, borrowings, charity or credit received. Equality of total debits and credits is basic to any understanding or discussion of the balance of payments. Such equality, however, has no independent meaning and is not helpful for the study of balance of payments adjustment. Useful inferences and insights may be drawn from isolating certain sub-categories or components of the total balance of payments statement. The most important analytic component for the purposes of our study includes the 'compensating' or 'balancing' items of the accounts.

The major conventional categories of a country's international economic transactions are the current account, the capital account, the unilateral transfer account and the gold account. Use of these conventional categories necessitates a detailed definition.

The current account groups together "all transactions which

give rise to or use up national income".[2] The current account summarizes the following transactions: Merchandise exports and imports, service exports and imports which includes insurance payments, transportation costs and brokerage fees, investment income payments, and tourist expenditures. The current account records trade items which involve "money payments from nationals of one country to those of another made in respect of flows of goods and services in the opposite direction".[3] The difference between the debit and credit items is referred to as the 'balance of trade'.

Current account items may also be grouped into 'visible' and 'invisible' transactions. Current visible transactions refer to imports and exports of physical goods that pass through 'customs'. Invisible transactions refer to imports and exports of services.

The capital account records "changes in the claims of residents of . . . /the/ country on residents of other countries, and changes in liabilities owed".[4] The capital account summarizes the following economic transactions: Private investment -- direct and portfolio --, governmental and private loans, and short term capital claims.

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[2]Charles Kindleberger, International Economics, (Homewood, Illinois: Richard D. Irwin, Inc., 1958), p. 22.

[3]W. Scammell, International Monetary Policy, (London: MacMillan Co. Ltd., 1957), p. 19. (Italics are mine)

[4]Kindleberger, Op. Cit., p. 28.

The capital account is conventionally classified under private sector and official sector, depending on the status of the party to the capital transaction in the reporting country. The capital account items are recorded in terms of net changes in assets and liabilities, and not, as in the current account, in terms of gross transactions on a credit - debit basis. "Increases in assets and decreases in liabilities indicate an outflow of capital (a debit); decreases in assets and increases in liabilities indicate an inflow of capital (a credit)."[5] Valuation changes, i.e., changes in market values of assets and liabilities, are not included in evaluating the items on capital account. Their exclusion biases the conventional classification of the capital account.

The capital account of the balance of payments may also be classified according to whether the capital transactions are considered long-term or short-term. Long-term capital transactions are "capital transfers whereby nationals of one country acquire bonds, securities or tangible assets in another with the purpose of earning a future income."[6] Short-term capital transactions refer to claims that are transferred from country to country "to take advantage of differences

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[5]D. Badger, "The Balance of Payments: A Tool of Economic Analysis", International Monetary Fund Staff Papers, Vol. II, (September, 1951), p. 101.

[6]Scammell, Op. Cit., p. 19.

in interest rates, for speculative purposes, or to serve as a balancing item should a nation overbuy or oversell on current account".[7] The dichotomy between long-term and short-term capital accounts is not clear-cut and their classification is arbitrary. For example, transactions classified under long-term capital account may be transferred for speculative purposes.[8]

The unilateral transfer account records receipts and payments which are not matched by simultaneous flows of goods and services in the other direction, and which do not give rise to claim or debt, or take place in settlement of claim or debt.[9] Unilateral transfer account includes private transfers, such as emigrants' remittances, and government transfers, such as government grants and reparation payments. Such unilateral transfer payments do not involve a quid pro quo transaction and are classified by the IMF and by some countries in the current account category. Other countries include unilateral transfer

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[7] Ibid, p. 20.

[8] The United States Bureau of Foreign and Domestic Commerce defines long-term capital as constituting "claims or liabilities of indeterminate maturity or with a stated original maturity of more than one year from the date of issuance". Short-term capital is defined as comprising "claims or liabilities with a maturity of one year of less". Though this definition may be more clearcut, we shall follow Scammell's definition because we shall consider claims that mature in 18 months or three years of short-term character. See U. S. Bureau of Foreign and Domestic Commerce, The Balance of Payments of the United States 1949-1951, 1952 pp. 91-93.

[9] James Meade, The Theory of International Economic Policy: The Balance of Payments, Vol. 1 (London: Oxford University Press, 1951) p. 6.

transactions in the capital account.[10]

Unilateral transfers may substitute for the use of compensatory transfers of capital and their separation from transactions classified under other accounts will clarify the analysis of balance of payments adjustment.

The gold account records the transfer of ownership of monetary gold from country to country. Non-monetary gold and gold used in arts and industry is classified in the current account with merchandise exports and imports. Transfers of monetary gold ownership are an important component of compensatory finance.

Surplus and Deficit

If total debits equal total credits in the balance of payments account, the presence of a surplus or a deficit which implies a discrepancy between total debits and total credits seems to indicate a contradiction. The equality of total debits and total credits is brought about by 'induced' transactions in the balance of payments. Disaggregating total transactions into 'autonomous' transactions and 'induced' transactions, according to a motivational criterion, would resolve the apparent contradiction imparted by the presence of a discrepancy. This disaggregation would help define, unequivocally, a deficit and a surplus in the balance of payments.

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[10] Badger, Op. Cit., p. 88.

'Autonomous' transactions in the balance of payments take place for reasons other than the status of the balance of payments. "The distinguishing feature of 'autonomous' /transactions/ is that they take place regardless of the size of the other items in the balance of payments."[11] The balance of payments category of 'autonomous' transactions includes all 'regular' commercial transactions (exports and imports), gifts such as emigrants' remittances or reparation payments, and capital transfers which occur on the initiative of private enterprise as a result of differences in relative yields. Speculative transfers of capital are also included in the 'autonomous' category of transactions because they are transferred for motives other than to balance the balance of payments account.

Any difference between the outpayments and receipts on 'autonomous' transactions in the balance of payments will constitute what we shall refer to as a discrepancy--a surplus or a deficit. Discrepancies induce accommodating transactions which would establish balance in the accounts, and can be measured, therefore, by the actual amount of induced finance required over a given period of time.

Accommodating or induced payments may be made by the private or by the public sector and may be planned or unplanned. The distinguishing feature of the accommodating transactions is that

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[11] Meade, Op. Cit., p. 11.

"they have taken place only because the other items in the balance of payments are such as to leave a gap of this size to be filled".[12]

Plan of Study

The balance of payments is an ex post measure. It represents an ex post equality of the demand for and supply of the country's currency--an equality guaranteed by the double entry bookkeeping. Ex ante demand or supply of a country's currency are not necessarily equal since both demand and supply arise from autonomous exports, autonomous imports and autonomous capital transfers which result from dispersed and divergent desires and motives.[13]

There are five methods by which reconciliation or adjustment of the ex ante divergence and the ex post equality of demand and supply (of debit and credit) takes place:

1. Prices and incomes in the various countries may vary freely and bring about shifts of demand and supply for imports and exports which will bring the balance of payments to balance.
2. The prices of the currencies or the rates of exchange of the currencies may vary freely according to the variation in demand and supply. The free variation will cause the relative prices of imports and exports to alter in a way that will bring about adjustment.

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[12] Ibid.

[13] Scammell, Op. Cit., p. 29.

3. Direct controls over foreign exchange transactions can establish ex ante equality of supply and demand.
4. Excess demand over supply can be offset by transfers of international liquid assets or claims.
5. Any combination of the four listed variables can bring about equality in the balance of payments.

The adjustment process according to the IMF arrangement utilizes, to a varying extent, several variables in the adjustment of balance of payments discrepancies. However, the fourth variable, i.e., transfers of international liquid assets, is the most important single variable in the IMF arrangement for balance of payments adjustment and our study will devote more space for evaluating the supply of and demand for international liquid assets.

Chapter One is devoted to a brief description and evaluation of the systems of adjustment that depend on the free market mechanism. The first part discusses the adjustment of balance of payments under the international gold standard which depends on price and cost variation. It also attempts to identify the reasons that caused the breakdown of the mechanism in the nineteen thirties. The second part discusses the adjustment process according to the system of freely fluctuating rates of exchange.

In chapter Two, balance of payments adjustment according to the IMF institutional arrangement is studied together with the mechanism that guides the IMF provision of additional monetary

reserves or liquid assets.

Chapters Three and Four analyse the sources of supply and the factors that affect demand for international liquidity respectively, and draw some conclusions on the adequacy of supply in view of the present and prospective demand for international liquidity.

In chapter Five the various plans for reforming the international monetary system and for increasing the volume of international liquidity are critically reviewed. Emphasis is also given to possible contribution of schemes toward the solution of balance of payments adjustment.

Various aspects of the study are tied together in chapter Six and some conclusions are stated.

CHAPTER ONE

Balance of Payments Adjustment In a Free Market System

Introduction:

In this chapter we shall study the systems of international financial adjustment which are based on the functioning of the market mechanism. The first system depends on the variation of prices and costs, and is self-regulated in theory, through the market mechanism, and with the least government intervention. The second system depends on the variation of the rates of exchange and is also self-regulated through the market mechanism and with the least intervention from government.

The system of international financial adjustment that is based on the price/cost variation is known as the gold standard. The gold standard served for a long period of time and consequently lends itself to more intensive study and appraisal. The system of freely flexible exchange rates functioned for a short period of time during the nineteen thirties and was abandoned thereafter--except for a limited extent use by a few countries.

Discussion of the gold standard mechanism will have a historical flavor which will be lacking in the discussion of the freely flexible exchange rate system. The historical tone of the presentation of the gold standard will provide helpful insight for the study of the existing arrangement in chapters Two and Three.

The Gold Standard System of International Financial Adjustment

Theoretical Setting

A country to be on the gold standard must satisfy two requirements: (1) The country's monetary unit has to be defined in terms of a fixed quantity of gold, and (2) the monetary authorities have to undertake to keep the domestic currency convertible into gold at this fixed rate, and to permit the free movement of gold within and between countries.[1]

The second requirement is of vital importance for monetary policy. If the convertibility of a currency into gold is to be guaranteed, the primary duty of the monetary authorities is to safeguard the relationship between the supply of money and the country's gold reserves.

> Each monetary authority must make arrangements for the domestic supply of its own money. . . such that the supply of money increases more or less automatically when there is a persistent inflow of gold and decreases when there is a persistent outflow of gold from its territory [2]

Temporary balance of payments discrepancies are to be settled freely by a transfer of gold. The country developing a

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[1]Edward Nevin, The Mechanism of Cheap Money, (Cardiff, University of Wales Press, 1955), p. 3.

[2]Meade, Op. Cit., p. 178.

deficit in its balance of payments will export gold and since any gain or loss of gold specie would create a corresponding change in the quantity of money in circulation, the gold-losing country would experience a decrease in the supply of money and consequently a fall in prices and wages.

The price decline of the products of the deficit country will make its exports more competitive and will result in a rise in exports. The increased exports will tend to redress the discrepancy in the balance of payments. On the other hand, the surplus country will import gold. An opposite change in credit, prices and wages will ensue which would result in higher prices, less exports, more imports and a faster pace of adjustment.

In addition to the intervention of monetary authorities to guarantee the convertibility of the currency, the process of adjustment requires wage and price flexibility to obtain in the trading countries, and quick and considerable reactions of both demand and supply to price change. Absence of any of the three conditions will interfere in the process of adjustment.

Role of Gold and Credit Transfers

Gold performed the function of settling clearing balances, just like a payment made by one clearing bank to another. Balance of payments discrepancies were offset by a suitable transfer of claims.

Gold transfer was necessary only when international credit was not available. Empirical studies on the pre-1914 gold standard show that balance of payments discrepancies were settled to only a small extent by actual transfers of gold.[3]

> It was found that gold movements were small and infrequent relatively to the gaps which continually arose in the international accounts. The explanation is simple. To a large extent, the gaps were filled by equilibrating movements of private short term funds in response to interest (rate) differentials or slight exchange variation within the gold points. More particularly they could be filled by sales or purchases of foreign bills and balances held as reserves - instead of or in addition to gold - by commercial banks as well as central monetary authorities; and like gold movements, such sales or purchases were capable of affecting the domestic money supply.[4]

W. A. Brown Jr. asserts in his study about the gold standard, that transfers of short-term and long-term credit were the most important factors of adjustment, and that a minor role was assigned to gold as an equilibrating factor in international trade.[5]

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[3]R. G. Hawtrey, "The Gold Standard and The Balance of Payments", The Economic Journal, vol. XXXVI, (March 1926), pp. 51-56.

[4]League of Nations, Economic, Financial and Transit Department, International Currency Experience, (1944), p. 100. The book is written mainly by R. Nurkse.

[5]W. A. Brown Jr., National Bureau of Economic Research, The International Gold Standard Reinterpreted, 1914-1934, (2 Vols.; Series No. 37; New York: National Bureau of Economic Research Inc., 1940), p. 777.

The delicate mechanism of equilibrating capital transfers depended largely on the supremacy of London as the world banker and Sterling as the world currency. Therefore, a closer investigation of the role of London and Sterling would clarify the study of the gold standard.

Role of the Bank of England

An investigation of the mechanism of international payments under the gold standard will show that gold and sterling performed similar functions. "Certainly sterling was the more active partner, for, unlike gold it could be transferred from one country to another almost without expense."[6]

The credit system of the world was organized in a way to facilitate the functioning of the gold standard. The Bank of England acted not only as a central bank of Great Britain, but also as an international clearing bank. When needed, it was able to draw resources from other countries and to employ them in the most profitable fashion. "If actual gold was needed, it was forthcoming as in the case of the United States during the 1907 crisis."[7]

Great Britain was the strongest creditor nation in the

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[6]B. Tew, International Monetary Cooperation, (London: Hutchinson's University Library; 1952), p. 121.

[7]J. H. Jones, "The Gold Standard", The Economic Journal, Vol. XLIII, (December, 1933) p. 564.

world, and London was, consequently, the center of international finance.[8] Most of the foreign exchange transactions were cleared through the London banks which resulted in the same sort of banking economies that intra - and inter - bank clearance provides in a national banking system. Since London was the center for the distribution of most of the world's newly mined gold, the Bank of England was able to conduct its operations with a small volume of gold reserves.[9]

The Bank of England manipulated the discount rate in such a way as to induce gold and other capital transfers from one country to another. The impact of such capital transfers, however, was not uniform. Because the ratio of gold reserves to aggregate demand liabilities varied from one country to another, the same quantitative discrepancy in the balance of payments of two countries resulted in different variations in the money supply and hence in different price changes.[10]

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[8]Great Britain had $18 billion worth of foreign investments prior to 1914; France had the equivalent of $9 billion and Germany $5.8 of foreign investments respectively. The United States was a debtor nation. See: R. Triffin, The Evolution of the International Monetary System: Historical Reappraisal and Future Perspectives; "Princeton Studies in International Finance", No. 12, (Princeton: Princeton University, International Finance Section, 1964), p. 7.

[9]Brown, Op. Cit., p. 774.

[10]Arthur Bloomfield, Monetary Policy Under the Gold Standard 1880-1914, (Federal Reserve Bank of New York, 1959), p. 21.

The Bank of England changed discount and interest rates continuously in order to accentuate or slow down the transfer of capital to and from London, and to protect the slender reserves of monetary gold at the disposal of England. On the other hand, France and Germany, the two other major creditor nations, owned an adequate supply of gold reserves which enabled them to cushion balance of payments deficits with minimum resort to changes in discount and interest rates.[11]

Extensive use of manipulation of discount rates by the Bank of England inflicted capital losses on capital importing and raw material producing countries. Higher discount rates improved England's 'terms of trade' vis-a-vis raw material producing countries which sold most of their exports in the British markets.

> Increases in discount rates . . . /tended/ to reduce British prices and costs, improving the competitiveness of British exports in world markets and of home made import substitute goods on the domestic market . . . /it/ also affected . . . the ease with which inventories of staple foods and raw materials can be financed, thus forcing also a quicker liquidation and attendant price declines in Britain's chief import goods. Such declines could be expected

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[11] Triffin, Op. Cit., p. 5.

to be far larger than those in the less sensitive and volatile prices of British industrial products.[12]

The Bank also used other methods called gold devices. These include, advances to gold shippers during transit, advances in the rate of gold purchases and a premium for gold bullion or foreign coin. Such devices were used with a readiness which suggests that the bank had itself come to regard them as orthodox measures.[13]

Other Factors that Facilitated Adjustment

Other developments and factors contributed to the functioning of the gold standard prior to 1914.

1. Before the war, balance of payments changed slowly in their composition as countries passed through successive stages of

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[12] Ibid., p. 6, effects of such bank rate manipulations by the Bank of England on the other countries of the world are presented in some studies; for details see:

(a) P. B. Kenen, British Monetary Policy and the Balance of Payments, 1951-1957, (Harvard University Press; 1960).
(b) A. C. Day, Outline of Monetary Economics, (Oxford University Press; 1957).
(c) R. Triffin, "National Central Banking and the International Economy", Review of Economic Studies, (Postwar Economic Studies, No. 7; Washington: Board of Governors of the Federal Reserve System; September, 1947), and
(d) A. G. Ford, "Bank Rate, The British Balance of Payments, and The Burdens of Adjustment, 1870-1917", Oxford Economic Papers, (March 1964).

[13] R. S. Sayers, "The Bank in the Gold Market", Papers in English Monetary History, T. S. Ashton and R. Sayers, (eds) (Oxford: The Clarendon Press; 1953) pp. 140-148.

economic development. The character of international trade as a whole was varying slowly as the world-wide spread of industrialization altered, in unequal degree and at varying rates, the economic life of many important countries. The growth of the economies during this period was not very dynamic and the institutional setting could accommodate such growth easily.[14]

2. Other contributing factors were the secular expansion in world trade and production, and the unimpeded flow of international long-term investment. These factors characterized the period as a whole and facilitated adjustments to balance of payments disequilibria.[15]

3. Lack of major strifes and wars helped the development of institutions and arrangements that created operating standards of cooperation and stability. The last important war had taken place in 1870-1871.[16]

4. The gold standard system of stable exchange rates was widely accepted by the ruling and most articulate national institutions. Acceptance of the gold standard system implied that individual member countries followed agreed objectives for monetary and for

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[14] Ibid., p. 775.

[15] Bloomfield, Op. Cit., p. 22. See also Triffin, Op. Cit., pp. 4-10. This particular factor will be treated in a later section of this chapter.

[16] International Monetary Fund, International Reserves and Liquidity, (Washington: 1958), p. 4.

fiscal policy. Such objectives were favorable to England and to other powerful nations.

5. Raw material producing countries, whether colonies or newly independent nations, do not seem to have fully comprehended the results of the gold standard mechanism of balance of payments adjustment. If these countries were aware of the costly effects-- in terms of capital losses and unfavorable terms of trade-- of discount rate manipulation by the Bank of England, no evidence of complaint is available.[17]

Automatism of the Gold Standard Mechanism of Adjustment

The gold standard system of international financial adjustment is self-regulating only when it functions in a setting that conforms closely to the assumptions of the theory. Credit expansion in the gold importing country and credit contraction in the gold exporting country did not occur according to the theoretical model.[18]

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[17]We are not passing any value judgement on the Bank of England's management of the gold standard mechanism, because the Bank channelled investments into these raw material producing countries which might have brought benefits that outweigh the capital losses incurred and which should be taken into consideration before any value judgement is passed.

[18]C. R. Whittlesey, International Monetary Issues, (New York and London: McGraw-Hill Book Co., Inc.; 1937), p. 48.

Central banks were assigned the active function of reinforcing changes in the ownership of international assets by concurrent changes in domestic assets.[19] Whenever a country with a surplus in its balance of payments imported gold and other international assets to offset the surplus, the central bank was expected to increase the national currency supply by purchasing additional domestic debt instruments. Similarly, whenever a country developed a deficit in its balance of payments and exported gold or other international claims to offset the deficit, the monetary authorities were supposed to decrease the domestic supply of money by selling domestic securities. In this way, the influence of international gold and credit transfer on the domestic credit base was to be magnified in accordance with the central banks' reserve ratio.

Inaction of central banks, in the face of international transfers of gold and international assets, constituted a violation of one of the conditions of the theoretical model.

> In a negative sense, adherence to the rules of the game has sometimes been taken to mean that central banks should not take deliberate action to counteract the effect of gold inflows in increasing commercial bank reserves or of outflows in reducing them. This interpretation implies simply the absence of deliberate 'offsetting' policies.[20]

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[19] League of Nations, Op. Cit., p. 68.

[20] Bloomfield, Op. Cit., p. 47.

Central Banking authorities, however, as far as can be inferred from their actions, did not consistently follow any rigid criterion of policy; "[central bankers] constantly used their judgement on such matters as whether or not to act in any given situation, and if so, at what point of time to act, the kind and extent of action to take, and the instrument of policy to use."[21]

Bloomfield, in his study on the pre-1914 gold standard, compared the year-to-year changes in international assets--gold, foreign exchange and silver--and in domestic income-earning assets--discounts, advances and securities. Bloomfield concluded that "In the case of every central bank, the year to year changes in international and domestic assets were more often in the opposite than in the same direction."[22]

Central bank action did not, as was theoretically assumed, accentuate the effect of gold (and other reserve) transfers, but tended to counterbalance them.

The Bloomfield study assembled evidence of central bank interference and management during the pre-1914 gold standard era. Data on discount rates and reserve ratios for eleven central banks of countries belonging to the gold standard showed that:

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[21] Ibid, p. 25.

[22] Ibid, p. 50.

> For five of the eleven banks examined, discount rates and reserve ratios did not characteristically move in opposite directions--even on an annual average basis--which indicates that the link between discount rate changes and movements of gold was not so close or general . . . , as is often supposed.[23]

Nurkse performed an investigation similar to Bloomfield's study for the inter-war period. Nurkse concluded that during the period between 1922 and 1938, central banks' international and domestic assets changed, from year to year, more often in the opposite than in the same direction. In 60 per cent of the cases observed, the international and domestic assets varied in opposite directions, whereas they changed in the same direction in 32 per cent of the observed cases.[24]

The practical operation of the gold standard mechanism of international financial adjustment differed from the mechanism envisaged by the theoretical model. The mechanism did not operate automatically according to pre-set rules, and the national monetary authorities tended to offset international gold and credit transfers.

Stability of Markets

Balance of payments adjustment according to the gold standard

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[23] Bloomfield, Op. Cit., pp. 31-32.

[24] League of Nations, Op. Cit., pp. 68-71. Actually Nurkse performed the investigation first and Bloomfield copied Nurkse's method and arrived at similar results.

mechanism is contingent on the stability of markets for imports and exports.[25] The mechanism of adjustment depends on the sensitivity of demand for imports and supply of exports to price changes. Appropriate elasticities of demand and supply to price changes of internationally traded goods is a sine qua non to the functioning of the mechanism of adjustment.[26]

If demand for a country's exports is inelastic, the decline in prices of these exports, following a deficit in the balance of payments and an export of gold (or transfer of credit), will not increase the value of exports to adjust the balance of payments. "The change in the value of [a country's] exports depends on the elasticity of the rest of the world's demand for [the country's] goods."[27]

Similarly, if the supply of a country's exports is inelastic, a drop in the price level resulting from a deficit in the balance of payments will not increase the value of exports and will not start a process toward adjustment.

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[25] G. Haberler, A Survey of International Trade Theory, "Special Papers in International Economics" No. 1, (Princeton: Princeton University, International Finance Section, 1961), pp. 36-39.

[26] Elasticity of a demand curve is defined as the percentage change in quantity demanded that is related to a small percentage chang[26]Elasticity

[27] Joan Robinson, "The Pure Theory of International Trade", The Review of Economic Studies, Vol. XIV, No. 36 (1946-1947), p. 101.

If a country is relatively small and sells in competition with rival sources of supply, demand for the country's exports will be elastic, and the value of its exports will decline as the prices rise following a surplus. If the country is the sole supplier of a commodity foreign demand may be inelastic and the value of its exports will increase as credit and prices rise following a surplus in the balance of payments.

A price decline in the exports of a deficit country would always improve its balance of payments if the sum of the elasticities of the country's demand for imports and of the foreign demand for the country's exports is greater than unity.[28] If this sum is smaller than unity, price declines in the country with balance of payments deficit will result in a worsening of the balance of payments, i.e., in a further deficit, and not in the automatic correction of the

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[28]This formal condition is often called the Marshall-Lerner-Robinson condition after the three economists who derived it independently. For details see: G. Hart and P. Kenen, Money, Debt and Economic Activity, (3rd ed. Englewood Cliffs: Prentice-Hall, Inc. 1961) pp. 315-323; also, Joan Robinson, "The Foreign Exchanges", in American Economic Association, Readings in the Theory of International Trade, (Philadelphia: The Blakistone Company, 1950) esp. pp. 90-91. Mrs. Robinson has a more detailed analysis where price elasticities of demand and supply in four markets are shown to be relevant, namely, home demand for imports, foreign demand for exports, home supply of exports and foreign supply of imports. The assumption is made, however, that home supply and foreign supply have infinite elasticities and therefore the exposition will be limited to the sufficient conditions for stability, which require the sum of the elasticities of home demand for imports and foreign demand for exports to be greater than unity.

deficit.[29] If the home demand for imports is inelastic and if the foreign demand for exports is elastic enough to compensate for the inelasticity of the home demand, then a price rise (or decline) following a surplus (or deficit) will result in automatic adjustment of the balance of payments.

Consequently, under unstable market conditions, the free market mechanism, which serves as the vehicle for the process of adjustment, will not implement adjustment in the balance of payments but will generate a process further away from adjustment.[30] Therefore, classical gold standard theory of international financial adjustment which presupposes that any movement away from equilibrium creates forces to restore equilibrium, will be inoperative under such unstable market conditions.

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[29]Haberler, Op. Cit., p. 38. For a graphical presentation of the various market conditions refer to, Hart and Kenen, Op. Cit., p. 319, and W. Scammell, International Monetary Policy, (London: Macmillan and Co. Ltd., 1957), p. 64.

[30]Mrs. Robinson argues that if the market mechanism implements adjustment in the long run, even when market conditions are unstable in the short-run, the adjustment will result in a decline in the population growth of the deficit country through migration or through a drop in the birth rate. J. Robinson, "The Pure Theory of International Trade," pp. 102.

Consequences of Gold Standard Adjustment Process

The adjustment process of the gold standard emphasized the role of money flows in generating corrective price adjustments and restoring a competitive pattern of international prices and costs. Discrepancies in the balance of payments were ascribed to international price and cost disparities and their correction depended on the elimination of such disparities through 'semi-automatic' domestic monetary expansion and contraction.[31] Gold standard theorists never referred to other factors such as transfers of capital accounts, or changes in income and employment, as possible causes of balance of payments discrepancies.

Nor did the gold standard theory take into consideration that the adjustment process could affect income and employment. The assumed conditions of full employment, and price and wage flexibility implied that the adjustment would be monetary and without effect on the levels of income and employment.

The gold standard theory of international financial adjustment minimized the relevance of business cycle fluctuations in the process of adjustment. By considering the impact of equilibrating transfers of capital only, the theory failed to foresee the effects of disequilibrating transfers of short-term capital on the process of adjustment.

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[31] R. Triffin, "National Central Banking and the International Economy", International Monetary Policies, (Postwar Economic Studies, No. 7, Washington: Board of Governors of the Federal Reserve System, 1947), p. 55.

Inclusion of more realistic relationships and assumptions in the gold standard theoretical model results in a different process of balance of payments adjustment. Identification of the actual (realistic) process would highlight the shortcomings of the model in view of the vital national economic objectives.

Effects on Income and Employment

Some gold standard theorists have noted that adjustments occurred much quicker than would have been explained by the theoretical underpinnings which took account of price and cost changes only.

> The actual merchandise movements seem to have been adjusted to the shifting balance of payments with surprising exactness and speed. The process which our theory contemplates--the initial flow of specie; the fall of prices in the lending country, rise in the borrowing country; the eventual increased movement of merchandise out of the one and into the other--all this can hardly be expected to take place smoothly and quickly. Yet no signs of disturbances are to be observed such as the theoretic analysis previses. One thing . . . stands out in the British phenomena. This is the unmistakably close connection between international payments and the movements of commodity imports and exports. And this closeness of connection, striking in the case of Great Britain, is found again and in the other countries also . . . The recorded transactions between countries show surprisingly little transfer of the only "money" that moves from one to the other, gold. It is the goods that move and they seem to move at once . . . The presumably intermediate stage of gold flow and price changes is hard to discern, and certainly is extremely short.[32]

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[32]W. F. Taussig, International Trade, (New York: The Macmillan Company, 1927), pp 239, 260-261.

The speed in the adjustment of balance of payments discrepancies was brought about by the mechanism of income transfers and the impact of these transfers upon levels of economic activity and employment, as well as upon prices and costs.

Assuming less than full employment levels and rigid prices and wages, a fundamental source of balance of payments adjustment may arise from changes in income and employment resulting from a surplus or deficit in the current account. In case of an export surplus, exporters' income increases and total domestic income rises by an amount in excess of the export surplus.[33] A portion of the increased income will be spent on imports in accord with the marginal propensity to import and will help close the gap in the balance of payments.

Conversely, a deficit in the balance of payments results in a decline in the level of domestic income more than proportional to the amount of deficit. Imports will decrease and the balance of payments will be readjusted at a lower level of income. However, if wages are inflexible--which they are--part of the adjustment may take

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[33] In addition to the initial rise in income generated by the export surplus, total domestic income in succeeding periods will be increased by successive rounds of spending induced by the rise in income.

the form of a reduction in the level of employment.[34]

Therefore, the balance of payments adjustment affects not only the stock of money but the flow and levels of income and expenditure. By assuming that the adjustment process affected only the price and cost structures of the economies, without having an impact on the level of economic activity, the adherents of the gold standard theory were blinded to the actual effects of its mechanism of adjustment. Once the impact of the adjustment process on income and employment levels is introduced, the limitations of the process of adjustment become apparent.

> A loss of gold does not lead automatically and directly to the fall of prices which is required to stimulate exports from a deficit country and foster its home production at the expense of imports.[35]

The gold standard theory of balance of payments adjustment expects deficit countries to restrict domestic credit in order to reduce prices, increase exports, reduce imports and hasten the pace of the adjustment process. In the face of wage and price rigidities,

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[34] The explanation is adopted from R. Nurkse, "Domestic and International Equilibrium," The New Economics, S. E. Harris (ed.) (New York: Alfred A. Knopf: 1950), pp. 266-273. A more formal presentation that uses the multiplier tool of analysis can be performed to show that a deficit or a surplus in the balance of payments has the same effect on gross national product as a decline or a rise in investment. For details see: A. C. Day and S. T. Beza, Money and Income, (New York: Oxford University Press, 1960), pp. 444-449.

[35] J. Robinson, "The International Currency Proposals," Economic Journal, Vol. LIII (June-September, 1943), p. 162.

restriction of credit results in a decline in the level of economic activity. A fall in the level of economic activity reduces demand for imports from all countries and results in a decrease in their levels of income and propagates the decline in the levels of economic activity.

Balance of payments adjustment by means of variation in income and demand "helps to account for the synchronization of cyclical fluctuations in economic activity under gold standard conditions."[36] A domestic investment slump in one country spills over to other trading countries by means of its impact on the balance of payments. The country may have a favorable change in its balance of payments because the decreased demand resulting from the fall in investment causes a decline in imports. But the decline in imports is likely to be smaller than the decline in effective demand at home and would only offset a part of the decreased demand.

Other countries will experience a deterioration in their balance of payments as a result of the decline in imports. The slump is consequently transmitted to them through lower incomes in their domestic markets and through decreased domestic investment which this decline induces.

In practice, the gold standard mechanism of adjustment has a built-in deflationary bias because the country receiving gold is under no compulsion to check the gold imports, whereas the country that

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[36] League of Nations, Op. Cit., p. 104.

exports gold is compelled to check outgoing gold transfers. This needs to be done more quickly, the smaller the reserves of the gold exporting country.[37]

Capital Transfers

By emphasizing the role of price and cost disparities in generating discrepancies in balances of payments, the gold standard theory tended to disregard the relevance of the capital account and the effect of international transfers of capital on the adjustment process. The only kind of credit or capital transfer emphasized by the gold standard theory was the transfer of short-term credit which substituted for gold movements in compensating for a discrepancy in the current account of the balance of payments. The implications and relevance of long-term capital transfers and disequilibrating short-term capital transfers were de-emphasized. Consequently, whenever discrepancies were caused by such capital transfers, "the classical perscription for remedial policy /was/ as misleading as the diagnosis upon which it is based."[38]

Direct and indirect long-term capital investments offset persistent deficits in the current account of the balance of payments

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[37]Robinson, Op. Cit., pp. 160-162.

[38]Thomas Balogh, "A New View of the Economics of International Readjustment", The Review of Economic Studies, Vol. XIV, (1946-1947), p. 83.

without calling for price and cost variation to correct the deficits. Long-term investments create increased income levels and increased imports. Part of the investment may be spent on imported goods, but the part which is converted into domestic currency of the capital importing country is expended on purchases of local factors of production and generates additional income. The additional income facilitates repayment of the original debt by means of more exports on current account and renders resort to gold exports in payment of the debt unnecessary.[39]

International long-term transfers of capital helped the development and growth of many countries.

> Developing countries, such as the United States, Canada, Argentina, Australia, etc. could maintain, over an average of years large and persistent deficits on current account, financed by correspondingly large, persistent and growing capital imports from the more advanced countries of Western Europe.[40]

The persistent deficit, on current account of the developing countries could not be accounted for by the gold standard theory of international financial adjustment. The theory implied that deficits would cause a transfer of gold and a drop in price levels which would automatically increase exports, decrease imports and adjust the balance of payments. The relevance of the long-term capital account in the process of balance of payments adjustment is

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[39]League of Nations, Op. Cit., p. 101.

[40]Triffin, Op. Cit., p. 6.

vital for any realistic consideration of the balance of payments theory. Such relevance is emphasized in the prevailing theory of balance of payments.

Transfers of long-term capital into developing countries fluctuated in accordance with fluctuations in levels of economic activity of the capital exporting countries. Whenever the European countries underwent a decline in the level of economic activity, their imports from raw material producing countries decreased and caused a corresponding slowdown in the level of economic activity of the developing nations. In addition, export of long-term capital into the developing countries decreased and accentuated the downturn in their levels of economic activity.[41]

Disequilibrating transfers of short-term capital, i.e., capital transfers from countries with a deficit to countries with a surplus in their balance of payments, were obscured in the theoretical treatment of the gold standard mechanism of adjustment.[42] Disequilibrating capital transfers are caused by 'fear' or 'confidence' crises and not by price and cost disparities. Therefore, should the capital exporting country treat deficits caused by short-term capital transfers, according to the theoretical perscription, and restrict credit in order to adjust the balance of payments, credit restriction would accentuate the decline

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[41] Ibid., p. 8.

[42] League of Nations, Op. Cit., p. 102.

in the level of economic activity, and would not adjust the balance of payments. The best remedy for adjusting deficits caused by disequilibrating capital transfers is to offset these transfers and not to reinforce them.[43]

The Gold Exchange Standard

During World War I, the gold standard was suspended and convertibility of currencies restricted. In 1922, an international conference took place in Genoa and agreement was reached on:

1. The wider use of the gold exchange standard.
2. The establishment of central banks in all developed countries.[44]

Agreement on the wider use of the gold exchange standard was the outcome of the possibility that a return to the gold standard might create an intense demand for gold specie that would cause an increase in gold prices.

> The gold exchange standard was successfully extended in the /nineteen/ twenties, thus meeting a substantial part of the total demand for international currency in the form of foreign exchange reserves instead of gold. Another source of relief was the substitution of banknotes and deposits for gold coins in domestic circulation, which produced a considerable accretion to central gold reserves.[45]

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[43] It was pointed out earlier (p. 25) that countries rarely reinforced capital and gold transfers by restricting or expanding domestic credit but tended to offset (neutralize) such capital transfers.

[44] International Monetary Fund, Op. Cit., p. 6.

[45] League of Nations, Op. Cit., p. 7.

The gold exchange standard is a practical device for economizing the use of gold in the application of gold standard. If gold is used as a medium of exchange only and not as a material of industry, the gold exchange standard may be operative on the basis that the "right to receive gold /would/ serve just as well as gold itself".[46]

Gold was withdrawn from circulation, but as long as governments guaranteed the convertibility of their currencies in gold or its value equivalent in foreign exchange, the disappearance of gold coin was of little consequence. Extensive adoption of the principle of the gold exchange standard was practiced prior to 1914 during which time central banks of countries on the gold standard owned foreign exchange assets in addition to gold. In 1913 fifteen European central banks together owned about 12 per cent of their total reserves in the form of foreign exchange. In 1925, the ratio of foreign exchange in the total gold and exchange reserves of 24 European central banks was 27 per cent, and in 1928 the ratio rose to 42 per cent.[47]

In addition to these basic similarities between the pre-war and the post-war gold standard, the process of adjustment under both was the same. Consequently, any evaluation of the breakdown of the gold exchange standard would apply to the gold standard.

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[46] R. G. Hawtrey, Gold Standard in Theory and Practice, (London: Longmans, Green and Co. Ltd., 1927), p. 56.

[47] League of Nations, Op. Cit., p. 29.

Reasons for the Breakdown of the Gold Standard

So far, the chapter was concerned with the mechanism of adjustment of the gold standard and its practical operation and theoretical underpinnings. The observation that is of interest is that, albeit its observed defects, the mechanism functioned prior to 1914. After that, the mechanism of adjustment of the gold standard ceased to function.

Many of the reasons that resulted in the breakdown of the gold standard mechanism of international financial adjustment are implicit in the presentation. In the following section, these factors will be presented explicitly together with other factors that contributed to the complete abandonment of the gold standard.

Some factors are related to the reconstruction of the postwar system. Others are more basic in character and were developing prior to 1914. "It is probable that, had there been no war, some of the characteristics of the gold standard as it existed in 1914 would have had to be modified."[48]

Three major factors contributed to the abandonment of the gold standard system of international financial adjustment: (1) Changing economic and social conditions. (2) Pursuit of different national objectives, (3) Devolution of financial control. A brief review of these factors will be presently undertaken.

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[48] Brown, Op. Cit., p. 778.

Changing Economic and Social Conditions

The economic problems which faced the world at the end of the war in 1919 were immense. The war-ravaged areas were in need of relief and reconstruction and most of the economies needed to adjust to the changes in the world economic structure that had come about during the war years and that caused changes in the pre-war relationships of international transactions.[49] These post-war economic problems could not be handled by a mechanism of adjustment that depended on the market mechanism.

The gold standard was re-established along older lines and techniques and did not adapt itself to the change. The apparent success of international financial adjustment in the first few years of the re-establishment of the gold standard blinded the nations that adopted it to the existence of basic changes in the various economies. The basic changes altered the conditions that could have made the gold standard mechanism of adjustment operative. These basic changes are:

a.) The world's industrial activity which was concentrated in England throughout most of the nineteenth century became more decentralized. Scientific knowledge, manufacturing techniques and mechanical skills spread to many parts of the world, and foreign trade and investment of countries other than England helped to provide the

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[49] H. W. Arndt, The Economic Lessons of the Nineteen-Thirties, (London: Oxford University Press, 1944), p. 222.

necessary capital goods.[50]

b.) The war created shifts of unprecedented magnitude in the structure of international debt. These shifts caused payments imbalances between the various economies that could not be handled by the market mechanism underlying the functioning of the gold standard.[51]

c.) The spread of unionism and organized labor coupled with the mushrooming of large scale productive units resulted in rigidities in the factor and product markets which made any price cut or wage cut unlikely. The inflexibility of prices and wages created unemployment whenever credit was restrained and rendered the process of adjustment of the gold standard undesirable to governments that worked to stabilize their economies and to increase the levels of economic activity.

d.) The perfect operation of the mechanism of adjustment of the gold standard presupposes the presence of "homogeneous countries of approximately equal size."[52] At the end of World War I, the world was divided into a multitude of small nations of various sizes and the prior predominance of five or six great nations was dissipated. The newly formed national entities followed independent monetary and economic policies and restricted the operation of the

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[50] League of Nations, Op. Cit., p. 191.

[51] For a good argument about the damaging consequences of the debt resulting from the Peace Treaty, see: J. M. Keynes, The Economic Consequences of the Peace, (New York: Harcourt, Brace and Howe, 1920).

[52] J. H. Williams, Postwar Monetary Plans, (New York: Alfred Knopf; 1947), p. 46.

theoretical balance of payments adjustment process whenever such operation infringed on their pursuit of vital economic objectives of full employment and stable price levels.

Though the conditions that were necessary for the functioning of the gold standard system of international financial adjustment were not present, some nations and statesmen - guided or misguided by economists - wanted to be ruled by an automatic mechanism. They either failed to realize that monetary mechanisms do not exist for their own sake, or believed that the mechanism served the purposes of the dominant political institutions and tried to use it for the specific benefit of these institutions.

> /Monetary/ mechanisms are instruments, intended to facilitate the production of goods and services. They inevitably reflect and conform with the economy which they are called to serve.[53]

Belief in the automatic mechanism reflected an economic, social and political order better known as "Laissez-faire", which was based on the proper functioning of the competitive market forces--on perfect flexibility of prices, perfect mobility of factors of production and stability of market conditions. But this market mechanism was given more credit than it deserved. The "rules of the game" necessitated the conscious intervention of central banks. The price of gold, as well as the initial par rate of the various currencies in terms of gold, had to be fixed by discretionary 'human' measures.

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[53] League of Nations, Op. Cit., p. 223.

Reliance on a market mechanism, which did not require discretionary intervention of central bankers and politicians, seems to have been used as a pretext to restore the status quo that existed prior to 1914. Success of the mechanism would have been more likely if the governments forced wage and price flexibility on the markets by reducing the power of labor unions and large scale production units. Complete success of the gold standard mechanism of adjustment would be contingent on the prevalence of stable markets for imports and exports which were outside the control of governments.

Changing National Objectives

The dominant and overriding objective of monetary policy in countries belonging to the gold standard was to maintain convertibility of the national currency, directly or indirectly, into gold and at the legal parity. The rationale of such objective is that complete convertibility enabled the multilateral settlement of international payments and consequently permitted countries to take full advantage of opportunities of multilateral international trade.[54]

Orientation of monetary policy favored 'internationalism' rather than 'nationalism' since exchange rate stability and not price stability was the goal. Such policy orientation resulted from the nonchalance of governments toward internal levels of employment and toward fluctuations in levels of economic activity. When full

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[54]Arndt, Op. Cit., p. 285.

employment objectives and stabilization of economic activity levels took priority, as a result of socio-political changes, goals of monetary policy had to be altered.

National objectives changed because the consequences of the gold standard adjustment mechanism, which caused unemployment and propagated business cycle fluctuations, could no longer be tolerated by the new national political institutions. The adjustment process of the gold standard depends on variation of prices and costs. Inflexibilities of prices results in unemployment and not in a lower level of prices. "The declining flexibility of the price structure meant that gold standard adjustment took place less and less through changes in the price structure and more and more through changes in the level of employment."[55]

The gold standard adjustment process implied that stability of the rates of exchange was maintained at the expense of stability of levels of economic activity. Adjustments in the price/income levels were the vehicle by means of which other more basic changes in production and distribution of resources were implemented. Such basic changes resulted in fluctuations in economic activity and in unemployment, and ran contrary to the new national objectives.

> The basic reason for the failure of this /gold standard/ system was that adjustments of this kind and of the magnitude required after the World War /WWI/ could either not be effected by market forces at all or only

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[55]Nevin, Op. Cit., p. 25.

at prohibitive social and economic costs.[56]

Owing to the immobility of resources and inflexibility of prices, market forces could not, or for good reasons, were not permitted to effect the necessary adjustments in the productive structure of the various national economies. Nations wanted to stabilize the fluctuations caused by the business cycle and propagated by the adherence to the gold standard, and therefore, governments interfered in ways to offset balance of payments discrepancies.

Devolution of International Financial Control

The third major factor that contributed to the breakdown of the gold standard is the devolution of financial control. Prior to 1914, the gold standard depended on the management and leadership of Great Britain. After the war the situation altered radically. The mobilization of part of the foreign investment by Great Britain during the war had weakened its position as an international creditor. As a result, sterling ceased to be as much in demand as gold. After 1919, "the sterling bill did not provide a world medium for financing world trade, and London did not perform the function of an international clearing house in quite the same way as before 1914."[57]

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[56]Arndt, Op. Cit., p. 290.

[57]Brown, Op. Cit., p. 782.

In contrast to Britain, the United States emerged as the dominant creditor nation of the world and France began to emerge as an international lender on a wide scale. The United States and France developed money markets in New York and Paris respectively which competed with the London money market in all aspects of international finance.[58]

Decentralization of financial control among the three centers resulted in the pursuit of independent financial policies by each member. As long as the independent financial policies followed by each member did not come in conflict with those followed by others, the international financial structure could be maintained. The system collapsed, however, when conflict occurred between the independent policies of each.[59]

Had the three financial centers coordinated their credit policies, the breakdown of the gold standard system of financial adjustment could have been postponed or avoided. The provision of credit from one country to another could have made up for the loss of gold or the transfer of short-term claims. For example, if France granted credit to England when demand for British gold stock was at its peak, the 1931 crisis could have been avoided. England would have been

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[58] Ibid., pp. 784-790.

[59] For details of the independent policies followed by each country see Brown, Op. Cit., pp. 782-790, and League of Nations, Op. Cit., pp. 39-46.

given time to liquidate long-term investments, or to contract long-term loans, or to increase its production and exports. The provision of international credit "might have greatly facilitated the correction of large maladjustments in the balances of international payments."[60]

During the nineteen twenties, transfers of short-term and long-term capital occurred from surplus countries to deficit countries and helped offset the deficits in the balances of payments. The devolution of international financial control and the lack of cooperation among the various international financial centers during the late nineteen twenties and the early nineteen thirties, resulted in erratic and disequilibrating capital transfers.

When the balance of payments of countries developed a deficit, the ensuing rise in the bank rate was taken as a danger signal and short-term funds were transferred out of the country rather than into it.

> The flow of capital would thus create or increase international [balance of payments] discrepancies, instead of meeting them, and so the demands made on the stock of international currency were greatly increased.[61]

Had the gold standard theory considered the role and effect of disequilibrating transfers of capital, means for international cooperation could have been devised beforehand to offset such transfers and to protect the system of international financial arrangement from collapse.

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[60] Arndt, Op. Cit., p. 292.

[61] League of Nations, Op. Cit., p. 16.

Conclusions

The gold standard theory of international financial adjustment is a logically coherent theory which can operate systematically and faultlessly if the conditions on which it is based are accepted and implemented. Prevalence of the necessary conditions results in a smoothly functioning, self-equilibrating system of balance of payments adjustment. The presence of price and wage flexibility, the reinforcement of international gold and capital transfers by corresponding changes in domestic money supply, and stable markets for imports and exports would cause automatic correction of discrepancies in the balance of payments.

Operation of the theoretical framework requires the implementation of these necessary conditions. Countries that follow the gold standard mechanism of adjustment and that do not enforce the necessary conditions for the operation of the mechanism must expect the possibility of the lack of any balance of payments adjustment, or the occurrence of the adjustment by means of variables other than prices and costs.

Governments may be able to enforce the conditions of price and wage flexibility but such enforcement results in halting modern technological progress by restricting growth of large scale enterprises, big government and powerful labor unions. Enforcement of the monetary condition of reinforcing gold and capital transfers by corresponding changes in domestic credit propagates cyclical fluctuations and enhances

instability in levels of economic activity. On the other hand, stable market conditions cannot be brought about by government intervention. The possible absence of market stability makes automatic balance of payments adjustment improbable even if governments interfere in enforcing the other two conditions.

The practical operation of the gold standard shows a different functioning system from the one envisaged by the theory. Countries did not rigidly enforce the necessary conditions. Instead of reinforcing international transfers of gold and capital, the majority of gold standard countries offset such transfers. No measures were taken to enforce price and wage flexibility, whenever rigidities occurred.

Divergence between gold standard theory and its practical implementation questions the usefulness of the theory. The gold standard theoretical process of adjustment is ideal and lacks any touch with reality. It calls for implementation of policies and conditions that might have been relevant to the economic setting of past centuries. In this century, nations adopt different sets of economic objectives which dictate the bases of operation of any mechanism of balance of payments adjustment. Vital national objectives of stable and high levels of economic activity and reasonable rates of economic growth are incompatible with the conditions necessary for the operation of the gold standard mechanism of adjustment.

Adjustment Under Freely Flexible Exchange Rates

The Theoretical Setting

The other extreme of the gold standard adjustment process is the adjustment process that operates through variation of the rates of exchange instead of variation of costs and prices.

Adjustment of discrepancies in the balance of payments by variation of the rates of exchange is based on the working of the free market mechanism.[62] Whenever a country develops a surplus in its balance of payments--which implies more receipts than payments--the exchange rate of the country's currency will rise. When a deficit occurs and payments exceed receipts, excess supply of the currency will result in the decline of the rate of exchange.

An increase in the rate of exchange of a country's currency following a surplus in the balance of payments renders foreign goods and services cheaper in terms of domestic currency, and results in an increase in imports, a decline in exports and in the adjustment of the discrepancy. On the other hand, a decrease in the rate of exchange of the deficit country's currency makes its goods and services cheaper relative to foreign goods, and causes an increase in exports, a decline

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[62]The description of the mechanism of adjustment that is based on the free variation of the exchange rate is based on M. Friedman, "The Case for Flexible Exchange Rates", Foreign Trade and Finance, Allen and Allen (eds.), (New York, the Macmillan Company, 1959), pp. 317-320.

in imports and the correction of the maladjustment in the balance of payments.

The expected adjustment of balance of payments discrepancies is instantaneous under freely fluctuating exchange rates. "The external appreciation(depreciation)of any currency can occur so quickly that the unsettling fluctuations of imports, exports or capital flows need not occur."[63]

The immediate settlement of a discrepancy depends on the presence of foreign exchange markets where dealers, without any government intervention, take positions in the market and buy and sell claims of different countries and restore equilibrium in the balance of payments.

> If the conditions responsible for the rise or the fall in the exchange rate are generally regarded as temporary, actual or potential holders [sic] of the country's currency will tend to change their holdings in such a way as to moderate the movement in the exchange rate."[64]

The mechanism of adjustment of a freely flexible exchange rate system is self-regulating and presupposes the operation of the market mechanism of supply and demand. The adjustment process is based on the concept of a stable equilibrium. Whenever supply exceeds

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[63] R. Roosa, "The International Monetary System", Foreign Affairs, Vol. XLII (October 1963), p. 111.

[64] M. Friedman, Op. Cit., p. 317.

demand, a fall in the price will invoke forces that operate throughout the entire markets and that would restore equilibrium in the balance of payments.

Market stability does not necessarily obtain. Supply of exports and demand for imports may not have the adequate elasticities, and the change in the rate of exchange may, as a result, create a movement away from adjustment rather than toward it.

> The result to be expected from an alteration in the exchange rate depends on the elasticities of demand in each country for the export of goods of the other country, as well as on the elasticities of the corresponding supplies.[65]

A fall in the rate of exchange of the deficit country's currency which implies a price decline in the country's exports would always improve the balance of payments if the sum of the elasticities of the country's demand for imports and of the foreign demand for the country's exports is greater than unity. If this sum is smaller than unity, price declines in the deficit country will result in worsening the deficit and not in its automatic correction.[66]

Effect of Freely Flexible Exchange Rates

Variation in the rate of exchange of a currency results in

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[65] Haberler, Op. Cit., p. 36.

[66] The necessary market conditions for occurrence of adjustment in a freely flexible exchange rate setting are similar to the conditions that are necessary for adjustment in a setting of freely varying prices and costs (gold standard setting), which were discussed in a previous section. For more details refer to pp. 26-29.

pricing some commodities out of the foreign markets or in making expansion of some industries more profitable as a result of advantageous foreign prices. The contraction and expansion of production in industries is effective in correcting discrepancies in the balance of payments if factors of production are perfectly mobile and prices and wages are perfectly flexible. In the absence of perfect factor mobility and perfect price flexibility, the process of adjustment in a system of freely flexible exchange rates causes unemployment.[67]

> A flexible exchange rate is an example of a flexible price . . . But to apply to the foreign exchange markets the logic of a perfectly free and perfectly flexible market economy we have to overlook the fact that we are in a world of sluggish prices, of administrative prices . . . [68]

Expansion and contraction in the production of export industries and import competing industries, and the resultant continuous shifting of factors of production causes instability in the level of economic activity and creates structural unemployment. Shifts of labor and other factors of production add to the costs of production if the exchange market conditions that call for them

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[67] J. H. Williams, Postwar Monetary Plans, (New York: Alfred Knopf, 1947), p. 199.

[68] Jacob Viner, Problems of Monetary Control, "Essays in International Finance" No. 45 (Princeton: Princeton University, International Finance Section, 1964), p. 31.

are temporary and self-reversible.[69]

Capital Transfers

The system of international financial adjustment which is based on freely flexible exchange rates does not adjust balance of payments discrepancies that are caused by disequilibrating capital transfers. Continuous variation in the exchange rates causes speculation in the foreign exchange markets which leads to further discrepancies in the balance of payments rather than to adjustment. A decline in the rate of exchange following a deficit does not necessarily create a willingness on the part of foreign exchange dealers to buy the currency of the deficit country at a reduced rate. It is possible for a decline in the rate of exchange to create expectations of a further decrease and thus to result in adverse capital transfers that would accentuate the discrepancy.[70]

Such adverse capital transfers, in a setting of flexible exchange rates have occurred during the nineteen thirties when flexible exchange rates failed to correct balance of payments maladjustment.

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[69] League of Nations, Op. Cit., p. 210; M. Friedman argues that such shifts will take time and therefore should not be undesirable; see M. Friedman, Op. Cit., p. 336.

[70] R. Triffin, Gold and the Dollar Crisis, (New Haven: Yale University Press, 1961), p. 83.

> Any considerable or continuous movement of the exchange rate is liable to generate anticipations of a further movement in the same direction, thus giving rise to speculative capital transfers of a disequilibrating kind tending greatly to accentuate any change that may be required for the balancing of normal transactions.[71]

Other reasons weigh heavily against the system of international financial adjustment that is based on freely fluctuating exchange rates:

1. Flexible rates of exchange increase the degree of risk and uncertainty for international traders and investors and result in added 'hedging' or 'insurance' costs which are avoided by a system of fixed rates.[72]
2. The operation of the system of flexible exchange rates requires the development of foreign exchange markets and the existence of alert and perfectly knowledgeable exchange dealers who operate with no government intervention. In the presence of planned economies, state monopolies, and large scale government loans and grants, dealings in the foreign exchanges are influenced by central banks and by other official institutions.
3. Whenever the underlying causes of discrepancies in the balance of payments consist of unsound fiscal and monetary policies or

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[71] League of Nations, Op. Cit., p. 210.

[72] P. Lieftinck, Recent Trends in International Monetary Policies, "Essays in International Finance", No. 39, (Princeton: Princeton University, International Finance Section, 1962), p. 9.

inflationary cost pressures, automatic exchange rate adjustments do not remedy the fundamental cause of the discrepancies but tend to perpetuate it.[73]

Conclusions

Despite the simplicity of operation of the freely fluctuating exchange rates system of balance of payments adjustment, its success in correcting maladjustments hinges upon the prevalence of the necessary conditions of price flexibility, mobility of factors of production and stable markets. Implementation of these necessary conditions is a prerequisite to the operation of the system of freely fluctuating rates of exchange. Enforcement of these conditions requires countries to eliminate market imperfections--large scale enterprises, big government and powerful labor unions--, and to develop perfect foreign exchange markets. On the other hand, the possibility of unstable market conditions, which are outside any government control, makes balance of payments adjustment by means of freely fluctuating rates of exchange doubtful.

Freely fluctuating rates of exchange cause fluctuations in levels of economic activity and create unnecessary shifts of factors of production whenever a variation in the rate is required to correct a temporary discrepancy. Additionally, adjustment of balance of payments

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[73]Triffin, Op. Cit., p. 82.

by means of freely fluctuating rates of exchange induces disequilibrating transfers of short-term capital that accentuate the maladjustment and intensify the variation of the rate of exchange.

CHAPTER TWO

The International Monetary Fund and the Balance of Payments Adjustment

Introduction

The International Monetary Fund (IMF) was established in 1944 as a result of the Bretton Woods Conference and started actual operation in 1946.[1] The IMF constitutes an institutional arrangement for implementing and supervising the mechanism of adjustment of the balances of payments of its 102 member countries. The principles which guide the arrangement are embodied in the Articles of Agreement.[2] The operational details of the arrangement which evolved during the past two decades are published in the various IMF publications.

In this chapter we shall study the IMF arrangement for international financial adjustment. The first part of the chapter discusses the nature and validity of the basic principles that guide the arrangement. The second part of the chapter will expose briefly

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[1]For details of the Conference see: United States Department of State, Proceedings and Documents of the United Nations Monetary and Financial Conference, (Bretton Woods, New Hampshire: United States Printing Office, 1948); also, R. Gardner, Sterling-Dollar Diplomacy, (Oxford: Clarendon Press, 1956).

[2]International Monetary Fund, Articles of Agreement, (Washington: 1944).

the machinery that implements the principles, in view of the basic Agreement, and the series of adjustments that were made during the operation of the IMF.

IMF Basic Principles

The IMF is an institutional arrangement aimed at the problems of adjusting balance of payments discrepancies with the least possible impairment of full employment, of freedom of international trade and of exchange rate stability.[3]

Article One of the Articles of Agreement sets the purposes of the IMF as follows:[4]

> 1. To promote international monetary cooperation through a permanent institution which provides the machinery for consultation and collaboration on international monetary problems.
> 2. To facilitate the expansion and balanced growth of international trade, and to contribute thereby to the promotion and maintenance of high levels of employment and real income and to the development of the productive resources of all members as primary objectives of economic policy.
> 3. To promote exchange stability, to maintain orderly exchange arrangements among members, and to avoid competitive exchange depreciation.
> 4. To assist in the establishment of a multilateral system of payments in respect of current transactions between members and in the elimination of foreign exchange restrictions which hamper the growth of world trade.

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[3]J. Marcus Fleming, "Developments in the International Payments System", International Monetary Fund Staff Papers, Vol. X (November, 1963), p. 462.

[4]International Monetary Fund, Op. Cit., pp. 1-2.

> 5. To give confidence to members by making the Fund's resources available to them under adequate safeguards, thus providing them with opportunity to correct maladjustments in their balance-of-payments without resorting to measures destructive to national or international prosperity.
> 6. In accordance with the above, to shorten the duration and lessen the degree of disequilibrium in the international balance of payments of members.

The IMF management is assigned the role of overseeing the maintenance of adjustment of balances of payments of member countries. The Fund Agreement laid down the standards of behavior--the rules--to which members undertook to conform. These standards were influenced, to a great degree, by the lessons learned from the inadequacy of the gold standard mechanism of adjustment, and the failure of international financial cooperation in the nineteen thirties.

Standards of international financial policy under the Fund arrangement are acceptable to the national monetary authorities of the member countries. This is because such standards do not interfere with the pursuit of vital national objectives of full employment and economic growth. By avoiding the rigidities and the conditions inherent in following the theoretical gold standard model, the IMF principles recognize the primacy of domestic objectives. Internal objectives are not sacrificed in favor of maintaining exchange rate stability. "One of the aims of the Bretton Woods Conference was to establish an institution which would provide international credit,

so that short term financial difficulties would not frustrate the achievement of these objectives."[5]

The Fund is not an organization which exercises authoritative powers over the member countries. The Fund objectives can be pursued mainly through consultation and cooperation, as provided by the Articles of Agreement, and by the conditions imposed on the member countries when the Fund credit facilities are extended to them.[6]

Adjustment of discrepancies in the balance of payments, under the IMF arrangement, is entrusted to three variables the use of which is guided by the Fund Agreement. These variables are:[7]

1. Adjustment of the rate of exchange to correct a "fundamental" or "persistent" disequilibrium.
2. The use of gold and foreign exchange reserves and other forms of compensatory official financing to offset discrepancies of short duration. The reserves are to be supplemented by the pool of resources at the disposal of the IMF.
3. Restriction of capital transfers by means of exchange control, and restriction of imports of goods and services by means of trade control.

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[5]International Monetary Fund, Annual Report of the Executive Directors 1962, (Washington: 1962) p. 42.

[6]Xenophon Zolotas, "Statement", International Monetary Fund, Summary Proceedings 1957, (Washington: 1957) p. 47.

[7]E. Despres and C. P. Kindleberger, "The Mechanism for Adjustment in International Payments: the Lessons of Postwar Experience", American Economic Review, (Papers and Proceedings), Vol. 43 (May, 1952), p. 332.

Since adjustment of balance of payments discrepancies occurs by means of any of these three variables, an evaluation will presently be made of the mechanism which brings any one of them to operation and the principles which guide such mechanism.

Administered Variation of Exchange Rates

The IMF arrangement for balance of payments adjustment is based on the use of several variables. The arrangement recognizes the merits of stable exchange rates, but rejects the corollary of the fixity of rates under the gold standard which require the adjustment to occur, unhampered, by free variations in prices and costs. On the other hand, the arrangement utilizes the variation of exchange rates for adjustment purposes in a way that avoids the disadvantages of the system of freely fluctuating rates. The system of adjustment, according to the IMF arrangement, tries to avoid the pitfalls that made the purely unmanaged systems of free rates and rigidly fixed rates unsuccessful.

The IMF arrangement recognizes the principle that variation of the rates of exchange is a matter of international concern. Consequently, delegation of national power was provided to the management of the Fund to manipulate, with the approval and at the initiative of the country concerned, the rate of exchange of the country's currency. "Member countries agreed to cede to the Fund [management] a considerable measure of control over modifications in the exchange

rates or the imposition of exchange restrictions."[8]

Rates of exchange of currencies of IMF member countries are fixed. Par values are expressed in gold, or in terms of the U. S. dollar of the weight and fineness in effect on July 1, 1944. Exchange dealings must be carried on at rates which do not vary from the par values as between maximum and minimum, in the case of spot transactions, by more than one per cent.[9]

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[8]R. Triffin, "National Central Banking and the International Economy", International Monetary Policies, Postwar Economic Studies, No. 7 (Washington: Board of Governors of the Federal Reserve System, September, 1947), p. 54.

[9]Article IV, section 3 (i). The one per cent variation in the rate of exchange is called the margin. The combination of margins on either side of par can result in a spread of 2 per cent between the lowest and highest limits between any two member currencies. In practice, countries fix their currencies in terms of the U. S. dollar. If the exchange rate of each currency vis-a-vis the U. S. dollar varies within a margin of one half of one per cent, the exchange rate between two such currencies can vary within a margin of one per cent or a spread of 2 per cent. Therefore, margins of more than one half of one per cent, vis-a-vis the U. S. dollar, could give rise to margins of more than one per cent between other currencies and margins greater than specified in the Articles of Agreement. Thus currencies that are based on par values agreed with the Fund can fluctuate considerably in terms of other currencies, without changes in par values or any other official action. For more details, see I. Friedman, "The International Monetary System", International Monetary Fund Staff Papers, Vol. X (July, 1963), pp. 224-229.

The Fund arrangement, like the gold standard system, establishes international currencies on a gold basis, but it "eliminates or moderates the disturbing rigidities which characterized the gold standard."[10] The exchange rates are not so rigid. To eliminate the danger of competitive variation in the rate of exchange, the adjustment of the rates is supposed to be "orderly, systematic and non-competitive",[11] and is permitted after consultation with the IMF.

No daily fluctuations, beyond the one per cent margin, are allowed in the rates of exchange. The fixity of the rates, according to the IMF arrangement, is supposed to render them stable. The Fund makes no 'fetish' of exchange stability, but permits exchange rate variation under certain conditions.

> The Fund has never insisted on the maintenance of an exchange rate which was not suited to a country's economy. On the contrary, it has always recognized that an adjustment of exchange rates may be an essential element in the measures necessary to enable a country to pay for the goods and services it needs from abroad without undue pressure upon its international reserves. Stability implies that when exchange rate adjustments are necessary, they should be made in an orderly manner and that competitive exchange depreciation should be avoided.[12]

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[10] A. Bourneuf and Goldenweiser, "A Review of the Bretton Woods Agreement", International Financial Stability, (New York: Irving Trust Co., 1944) p. 107.

[11] Ibid.

[12] International Monetary Fund, Annual Report of the Executive Directors 1948, (Washington: 1948), p. 21.

The Articles of Agreement permit member countries, after consulting with the Fund, to change the established parity of their currencies by 10 per cent--provided the proposed change, inclusive of any previous changes does not exceed this 10 per cent.[13] Any variation in the rate of exchange which exceeds 10 per cent must not be made without the express approval of the IMF, and is permitted only to correct a 'fundamental disequilibrium'.[14]

The IMF arrangement for international financial adjustment provides, therefore, a mixed system of stability and flexibility. The provisions of the Agreement condemn unilateral changes in the rate of exchange which might result in competitive depreciation, and bring under the control or management of the international institution measures that give flexibility to the system.

The provisions that call for Fund approval of any change in the rate of exchange constitute an indication "to brand depreciation as an extraordinary and rare measure, . . . the exception to the rule".[15]

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[13]Article I, iii.

[14]Article IV, section 2.

[15]G. Halm, International Monetary Co-operation, (Chapel Hill: The University of North Carolina Press, 1945) p. 124.

In accordance with these conditions of managed flexibility or adjustable peg, any change in the rates of exchange is made on the initiative of the monetary authority of the country and constitutes a deliberate policy to achieve adjustment. The change must be of a magnitude that would restore equilibrium to the balance of payments.[16]

Concept of Fundamental Disequilibrium

Discrepancies in the balance of payments are categorized by the IMF arrangement into temporary discrepancies, and fundamental discrepancies. Temporary discrepancies do not warrant a change in the exchange rate, but are offset by the use of international monetary reserves. Fundamental discrepancies necessitate a change in the rate of exchange to create required adjustment.

Rates of exchange are, therefore, permitted to vary to correct a "fundamental disequilibrium." The Articles of Agreement, however, fail to specify what constitutes a "fundamental disequilibrium".

Diagnosis of a fundamental disequilibrium in the balance of payments is a difficult task. "A deficit in a country's balance of payments is not necessarily evidence of an excessive and untenable level of domestic, as compared with international prices."[17] Many factors influence discrepancies in the balance of payments. Some factors may be temporary but may overlap with other random factors and result in a

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[16]Scammell, Op. Cit., p. 94.

[17]Triffin, Op. Cit., p. 75.

persistent deficit which does not reflect fundamental imbalance.

Several economists have attempted to define what constitutes a "fundamental disequilibrium" in the balance of payments, but no firm criterion has been forthcoming from their studies.[18] Haberler defines "fundamental disequilibrium" as a "serious and protracted loss of gold (or foreign exchange) due to a persistent deficit in the current balance of payments."[19] This definition leaves to the managers of the IMF the decision on how large the deficit must be, and how long it must have existed before the disequilibrium is considered "fundamental".[20]

Triffin provides a similar definition of a "fundamental disequilibrium". It is "a maladjustment in the country's economy so grave and persistent, that the restoration or maintenance of satisfactory levels of domestic activity . . . would prove incompatible with equilibrium in the balance of payments".[21] Triffin's definition

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[18]The following is a list of some of the studies that attempt to define a fundamental disequilibrium: (a) R. Nurkse, "Conditions of International Monetary Equilibrium", American Economic Association, Readings in the Theory of International Trade, (Philadelphia: The Blakiston Company, 1950) pp. 1-34; (b) G. Haberler, "Currency Depreciation and the International Monetary Fund", Review of Economic Statistics, (November, 1944); (c) A. Hansen, "A Brief Note on Fundamental Disequilibrium", Review of Economic Statistics, (November, 1944) and R. Triffin, Op. Cit.,

[19]Haberler, Op. Cit., p. 179.

[20]Ibid., p. 181.

[21]Triffin, Op. Cit., p. 78. (Italics are mine.)

is ambiguous because it leaves open the question of how grave the maladjustment should be, and how long must it persist before deciding whether a fundamental disequilibrium exists or not.

Nurkse suggests waiting for a period "long enough to relegate cyclical discrepancies to the category of temporary disequilibria"[22] before deciding that a certain persistent discrepancy in the balance of payments constitutes a "fundamental disequilibrium". But business cycles are not regular in duration or intensity. Discrepancies caused by fundamental factors may overlap with discrepancies caused by cyclical factors, and tools of analysis at the economists' disposal cannot distinguish between the two sets of factors. Nurkse's definition does not provide a firm criterion for judging a "fundamental disequilibrium". It leaves the necessary "waiting" time before deciding on the nature of the discrepancy to the discretion of the Fund managers, or to the monetary authorities of the country concerned.[23]

In view of the difficulty of giving a firm criterion for

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[22]Nurkse, Op. Cit., p. 6.

[23]Discrepancies caused by cyclical factors are considered temporary discrepancies and are offset by international monetary reserves. Should the rate of exchange be changed as a result of discrepancies caused by the business cycle, the change would have to be reversed as soon as the opposite phase of the cycle is reached. Continuous change in the rate might create a wave of competitive exchange rate depreciation. See: Nurkse, "Conditions of International Monetary Equilibrium", pp. 15-16.

identifying a "fundamental disequilibrium" in the balance of payments, the vagueness in the Articles of Agreement is possibly intentional.. Such vagueness constitutes a major weakness of the arrangement for international financial adjustment under the IMF and could cause divergent views on whether to vary the rate of exchange. Such divergence might lead to the lack of international cooperation and to the breakdown of the system.

Speculation and Short-Term Capital Transfers

The difficulty of identifying a "fundamental disequilibrium" that would necessitate a change in the rate of exchange induces speculative capital transfers. These transfers accentuate discrepancies in the balance of payments and add to the pressure on the country's international monetary reserves.[24]

Once a country experiences a persistent deficit in its balance of payments, the presence of a fundamental disequilibrium is suspected and the par rate of the country's currency is expected to fall. Suspicion of an impending currency devaluation would, undoubtedly, motivate speculators to transfer short-term capital to countries that have surpluses in their balance of payments, and whose currencies are not expected to devalue. "In extreme circumstances, a

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[24]Fleming, Op. Cit., pp. 463-464.

country might be driven to devalue its currency by pressure of speculation alone."[25]

Speculative short-term capital transfers constitute a threat to the IMF arrangement of managed flexibility of the rate of exchange. The possibility of a parity change offers speculators a one-way guarantee against losses. Capital transfers from one country to another are not costly. Therefore, speculators are not dissuaded from transferring their capital by any cost element. "The very fact that exchange rates are adjusted only at longer intervals implies that it is always clear to everybody which, if any, currencies may undergo a parity change and in which direction."[26]

Speculation pressures countries, with a state of fundamental disequilibrium in their balance of payments, to choose the wrong rate of exchange in order to convince the market, and especially the speculators, that the new rate of exchange can be maintained. "One way to accomplish this purpose [convince the market] is to make the devaluation so great that no one will doubt that the new rate can be maintained."[27]

Devaluation of a country's currency following a speculative

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[25] Ibid., p. 100.

[26] W. Salant, et.al., The United States Balance of Payments in 1968, (Washington: The Brookings Institute, 1963), p. 247.

[27] E. Sohmen, International Monetary Problems and the Foreign Exchange, "Special papers in International Economics", No. 4, (Princeton: Princeton University, International Finance Section, 1963), p. 65.

run on the country's international monetary reserves exposes foreign investors and foreign creditors--official and non-official--to capital losses, and results in a decreased rate of future foreign investment and international credit. A greater rate of currency devaluation increases capital losses.

Time lags that result from identifying a persistent deficit in the balance of payments as a reflection of a fundamental disequilibrium, and from agreeing on the specific rate of change and the timing of such change, constitute another disadvantage to the system of international financial adjustment under the IMF arrangement. Ideally, an adjustment mechanism should invoke corrective forces as soon as disequilibrium develops. "Measures for the restoration of international equilibrium must be timely and should serve to counteract disequilibrium as it arises."[28]

The existing arrangement calls for offsetting any type of discrepancy in the balance of payments by transfer of international monetary reserves. A persistent offsetting, to counter-balance a persistent and fundamental disequilibrium would possibly deplete the stock of international monetary reserves before requiring a basic corrective measure. Under the existing arrangement, the disequilibrium is ipso facto in existence by the time action is taken to correct it. Such disequilibrium would have worsened before the corrective action is effective.

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[28]Scammell, Op. Cit., p. 151.

Exchange Controls: A Variable of Diminishing Importance

The second variable, which is utilized by the IMF arrangement to correct maladjustments in member countries' balance of payments, is exchange and trade controls. Countries can adjust discrepancies in their balances of payments by restricting imports or by restricting transfers of capital.[29]

Though one of the Fund's objectives, referred previously,[30] is "the establishment of a multilateral system of payments in respect of current transactions, and in the elimination of foreign exchange restrictions", control measures are permitted, pursuant to the provisions of the IMF, for the three following purposes:

1. Under the scarce currency clause, limitations may be imposed on the freedom of exchange operations in a currency which the IMF has formally declared scarce. At the time of the inception of the Fund, nations expected a dollar scarcity resulting from the excess demand for United States products. The scarcity clause was included in the Fund Agreement to give formal approval to countries to discriminate against the United States dollar.

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[29]Supervision of trade controls is performed by the General Agreement on Tarriffs and Trade (GATT). We assume throughout that the degree of trade controls is not increased in a way that would counteract the effects of foreign exchange convertibility, but that it is liberalized in a manner that corresponds with the liberalization of restrictions on payments.

[30]See p. 60.

This provision has not been used at all.[31]

2. During the postwar transitional period, members are allowed to avail themselves of the provisions of Article XIV of the Articles of Agreement. They are permitted to maintain and to adopt exchange restrictions in order to cope with balance of payments difficulties. Except for a few countries in North and Central America, most countries of the non-communist world availed themselves of the provisions of Article XIV. Industrial countries of Europe continued to impose restrictions on foreign exchange, pursuant to Article XIV, until 1958 when they lifted exchange restrictions from transactions on the current account. The elimination of restrictions was made official in 1961 when the European countries declared their abiding by the provisions of Article VIII. Japan eliminated restrictions formally in 1963.

The vast majority of the developing nations still avail themselves of the provisions of Article XIV and use exchange control to adjust their balance of payments. In their case, then, direct controls

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[31]By permitting deficit countries to discriminate against countries that may have a persistent surplus in their balance of payments, and thus force the surplus countries to take measures to eliminate the surplus--such as increase their imports of goods and services or increase the rate of their long-term capital investment,--the Fund arrangement reflects the principle that correction of persistent discrepancies is the joint responsibility of both surplus and deficit countries. For a good discussion concerning the rationale of the scarce currency provisions, see E. M. Bernstein, "Scarce Currencies and the International Monetary Fund", Journal of Political Economy, (March, 1945).

are used as a variable in the process of balance of payments adjustment.

3. Use of controls is allowed to regulate capital transfers. Article VI, section 3 of the Articles of Agreement permits member countries to "exercise such controls as are necessary to regulate international capital movements, provided that the controls are not exercised in a manner which will restrict payments for current transactions or which will unduly delay transfers of funds in settlement of commitments."

The right to restrict capital transfers by Fund member countries was reaffirmed by the IMF Board of Governors in 1956. The Board of Governors declared that, under the Articles of Agreement, "members are free to adopt a policy of regulating capital transfers for any reason, due regard being paid to other related provisions, and the member countries may, for that purpose, exercise such controls as are necessary."[32]

Regulation of short-term capital transfers, whether speculative or non-speculative, is difficult to implement in practice without regulating all foreign trade and exchange transactions. "Speculative capital movements were proscribed in many countries but took place, nonetheless, as the ingenuity of the speculators exceeded or led in time that of the exchange controllers".[33]

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[32]International Monetary Fund, Annual Report of the Executive Directors 1957, (Washington: 1957), p. 162.

[33]Despres and Kindleberger, Op. Cit., p. 333.

Transfers of short-term capital can alter slightly. They can become exports or imports of primary commodities or transfers of foreign company shares, disguising a transaction of short-term capital as a current account transaction or as a transaction on long-term capital account. "When a country's merchants switch out of cash into imported primary products, or the reverse, this appears to be a balance of payments imbalance, or camouflages one that already exists."[34]

Since 1958, controls on payments related to current account transactions have been imposed on rare occasions by industrial countries as a result of the official relaxation of restrictions on currency convertibility. The IMF Agreement considers control measures temporary and condemns their use. The "exchange control" variable must be excluded from the kit of variables that are used in the process of adjustment under the IMF arrangement.

Use of exchange controls by developing nations, and by other nations availing themselves of the temporary provisions of Article XIV of the IMF Articles of Agreement, is considered temporary. Any evaluation of the variables used in balance of payments adjustment, under the IMF arrangement, must consider exchange controls as a variable of diminishing importance.

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[34]C. P. Kindleberger, "The Prospects for International Liquidity and the Future Evolution of the International Payments System" in International Trade Theory in a Developing World, R. Harrod, D. Hague, (eds.) International Economic Association, (New York: St. Martin's Press Inc., 1963), p. 377.

Consequently, if rates of exchange are not permitted to vary in the short period, and if the use of exchange restrictions is condemned by the IMF arrangement, what variable is expected to bring about adjustment according to the IMF?

The answer should await a brief review of the role of international monetary reserves in the mechanism of balance of payments adjustment.

Short Period Adjustment of Balance of Payments

International monetary reserves are used to offset discrepancies in the balance of payments. They do not correct the causes of the discrepancies. The offsetting characteristic of international monetary reserves provides countries with time that would enable seasonal or cyclical discrepancies to reverse themselves. The time would also enable monetary authorities of countries concerned to promulgate fiscal and monetary policies that would, hopefully, be effective in correcting the maladjustment of the balance of payments.

Fiscal and monetary policies are expected to result in varying prices and incomes in a way that would help balance of payments adjustment without creating unemployment or restricting economic growth.

> The basic job of placing each country in a position to restore its international payments is one for which the government of each country has the primary responsibility. That government alone can take the measure to expand its output and to place production on an efficient basis.

> That government alone can put its domestic finances in order, and thus prevent a chronic dependence on excessive imports or a chronic difficulty in supplying adequate exports.[35]

Consequently, the free variation of prices and costs, that served as the variable of adjustment under the gold standard mechanism of adjustment, is replaced in the IMF arrangement by the controlled or managed variation of prices and costs. But the managed variation of prices and costs takes time to be implemented administratively, which means that no adjustment occurs in the short period by means of price and cost variation.[36]

The lack of automatic variables that implement short period adjustments of balance of payments discrepancies highlights the role and usefulness of international monetary reserves. Monetary reserves shield the country's pursuit of vital internal economic objectives of full employment and growth, and provide it with time necessary for following monetary and fiscal policies that would correct the basic causes of discrepancies in the balance of payments.

Individual member countries resort to the IMF for credit to bolster their stock of monetary reserves. Only then can the Fund require these countries to take 'appropriate' measures to correct the maladjustment in the balance of payments.

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[35] Cammille Gutte, International Monetary Fund, Summary Proceedings 1948, (Washington: 1948), pp. 8-9.

[36] The time lags occur between the processes of spotting the discrepancy, identifying the causes of the discrepancy, agreeing on the policy measures, implementing the policy measures, and the time required for the measures to be effective.

> The Fund helps restore some measure of international discipline by which the Gold Standard, in its way maintained balance before 1914, but it also supplies a measure of credit by which the harshness of the old rules have been somewhat mitigated.[37]

The IMF has limited authority to impose monetary discipline or to induce it by pursuasion. The Fund arrangement depends on the willingness of individual countries to take the 'appropriate' measures--unspecified in the arrangement--[38] to adjust their balance of payments.

> A surplus country, e.g., the Federal Republic of Germany can have a chronic and large annual surplus and remain a Fund member in good standing. A deficit country which does not appeal to the IMF for help, e.g., the United States can run up as great a deficit and as chronic one as it wishes without the Fund having anything to do with it.[39]

The use of international monetary reserves postpones any basic balance of payments adjustment in the hope that the cause of the

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[37] Per Jacobsson, "The Work of the International Monetary Fund", International Financial News Survey, (August 15, 1958).

[38] The Fund's founders did not specify the 'appropriate' measures that should be taken by member countries to bring about adjustment. They probably expected individual countries to develop ad hoc solutions as the occasion demanded. Exports might be encouraged by some tax incentive scheme or lending abroad might be discouraged until the deficit has disappeared or any other such measure can be taken to help bring about adjustment. See L. Mansfield, "The International Monetary System: As It Is", Monthly Review: Federal Reserve Bank of Atlanta, (January 1964), pp. 1-3.

[39] M. Heilperin, "Monetary Reform in an Atlantic Setting", U.S. Congress, Joint Economic Committee, Hearings: International Payments Imbalance and Need for Strengthening International Financial Arrangements, (Washington: U. S. Government Printing Office, 1961), p. 334.

discrepancy is temporary, and would consequently reverse itself. In case a fundamental discrepancy develops, the Fund arrangement fails to provide a mechanism of adjustment in the short period. The use of international monetary reserves would be helpful in the adjustment process only if countries are concomitantly taking measures to correct the causes of the maladjustment. Without the willingness and capability of individual countries to follow policies that would implement adjustment, use of international monetary reserves would perpetuate the maladjustment, and would necessitate ultimate resort to exchange restrictions or to exchange rate variation.

The IMF and Provision of Additional Reserves

In addition to overseeing the orderly adjustment of exchange rates of member countries and giving them needed technical help in formulating adequate policies, the IMF constitutes a pool of currencies contributed by all member countries. The pool is used to provide member countries with short-term credit and supplement their 'owned' international monetary reserves in offsetting temporary balance of payments discrepancies.

IMF resources are intended to supplement the nationally owned international monetary reserves. They constitute a second line of defense in offsetting temporary discrepancies. "The Fund guarantees

each member a line of credit which it can draw upon when necessary."[40]

Member countries are entitled to obtain currencies of other member countries from the Fund in exchange for their own currencies. A country's currency is an obligation and constitutes a claim on its resources. When a country acquires foreign currencies from the Fund and pays for them in its own currency it, in effect, borrows and gives the Fund, in exchange, demand obligations which represent generalized claims on its goods and services.

> Currencies are obtained from the Fund only for immediate use in making payments in other countries, whereas currencies paid into the Fund in exchange for claims held by the Fund for use when and if a demand for them develops.[41]

Role of Quotas

The IMF Agreement makes the subscription of members, their borrowing rights, and their voting powers dependent on their assigned quotas.[42] Quotas determine the contribution of each member to the capital of the Fund. The size of the Fund's resources is the sum total of quotas of all members.[43]

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[40]Alvin Hansen, America's Role in the World Economy, (New York: W. W. Norton and Company, Inc., 1945), p. 55.

[41]Bourneuf and Goldenweiser, Op. Cit., pp. 115-116.

[42]Articles III-3, V-3.

[43]Oscar Altman, "Quotas in the International Monetary Fund," International Monetary Fund Staff Papers, Vol. V (August, 1956), p. 129.

Each member is required to pay into the Fund a minimum of 25 per cent of its quota in gold, and the balance in its own currency. The gold payment was defined as the smaller of 25 per cent of the member's quota, or 10 per cent of its officially owned gold and short term dollar assets.[44] Member countries are given the option of paying to the Fund on demand non-interest bearing non-negotiable notes, for the part of the deposits of their currency.[45]

The quotas determine the amount and the rate of borrowing of member countries. The borrowing rights of member countries were subject to the following conditions that are scattered in the Fund Agreement.

1. The Fund's resources may not be used to meet large or sustained transfers of capital.[46]
2. The Fund may deny the use of its resources to any country making an unauthorized change in the par value of its currency.[47]
3. The Fund shall not have declared the requested currency to be scarce.[48]

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[44]The alternative was inserted in the Agreement to ensure that no member pays an excessive proportion of its gold reserves to the Fund. See ibid, pp. 130-131.

[45]Ibid.

[46]Article VI, Section 1.

[47]Article IV, Section 6.

[48]Article VII, Section 1.

4. The Fund must be satisfied that the currency requested is presently needed for making payments which are consistent with the provisions of the Fund Agreement.[49]
5. A member shall not be entitled, without the Fund's permission, to acquire currency for the purpose of forward exchange transactions.[50]
6. The Fund may postpone exchange transactions with any member whose circumstances would lead to use resources of the Fund in a manner contrary to the purposes of the Agreement or prejudicial to the Fund or the members.[51]

Restrictions on the borrowing rights of member countries were liberalized in the early nineteen fifties. Member countries are now given the "overwhelming benefit of the doubt"[52] when they request credit within their "gold tranche" positions.[53] In other words, members have "automatic" rights to borrow the equivalent of their gold subscription to the Fund.

The IMF also liberalized its attitudes toward credit within the "first credit tranche" of member countries, which constitutes

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[49]Article V, Section 3 (a) i.

[50]Article V, Section 3 (b).

[51]Article V, Section 5.

[52]International Monetary Fund, Annual Report of the Executive Directors 1959, (Washington: 1959), p. 22.

[53]The 'gold-tranche' position is the portion of the member's quota which is paid in the form of gold or key-currency.

25 per cent of a member's quota above the amount of the gold subscription. "Credit-tranche" loans, better known as stand-by arrangements, are supposed to give members assurance of their ability to obtain credit from the Fund, even if they had no intention of making an immediate drawing.[54]

The Fund management can use its discretion in waiving the quantitative limits on members' borrowing beyond the 25 per cent "credit tranche" limit. However, the Fund requires "substantial evidence" that the borrowing country is taking the necessary steps to correct the causes of the discrepancies in the balance of payments.[55] The stand-by arrangements which correspond to lines of credit in domestic banking empower the IMF to create international credit and thus to increase the supply of international liquid assets.[56]

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[54] International Monetary Fund, Annual Report of the Executive Directors 1953, (Washington: 1953), pp. 50-51.

[55] Circa, p. 23, the Report does not specify the meaning of "substantial evidence". The implied meaning is that the Fund requires to see proof that policies are followed that would help correct the cause of the discrepancy. In many instances the Fund may suggest policy measures to be followed prior to giving out the loan, or, the Fund staff may help monetary authorities of the prospective borrowing country to devise corrective fiscal or monetary policies.

[56] Per Jacobsson, "Fund Report to ECOSOC", International Financial News Survey, (Washington), April 15, 1960.

Evolution of Fund Lending Techniques

Lending techniques of the IMF were developed gradually during the nineteen fifties when the Fund displayed its readiness to provide credit "in ways which were not envisaged at Bretton Woods, and might in some cases have been viewed with disfavour."[57] Though some of the new lending provisions were enacted during 1952-1954, only in 1956 did the Fund operate on any extensive scale. Until 1958, most of member countries availed themselves of the provisions of Article XIV of the Articles of Agreement. They restricted the freedom of international payments in a way that forced adjustment in their balance of payments, and limited their need for additional reserves from the IMF.[58]

During 1956 and 1957, many countries resorted to the IMF for additional credit though most of them still restricted the complete convertibility of their currencies. In fiscal year 1957, for example, IMF exchange transactions amounted to $1,114 million, nearly as large as in the nine preceeding years combined.[59] The reason for the increased

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[57] B. Tew, The International Monetary Fund, Its Present Role and Future Prospects, "Essays in International Finance", No. 36, (Princeton: Princeton University, International Finance Section, 1961), p. 16.

[58] Ibid., pp. 17-19.

[59] International Monetary Fund, Annual Report of the Executive Directors 1958, (Washington: 1958), pp. 51-56.

Fund activity is the transfer of short-term capital from Great Britain and the excess demand for United States products resulting from the break-down of other sources of supply as a consequence of the Suez Crisis. The crisis was temporary and the provision of Fund credit was timely. The credit helped European countries to restrain from using additional exchange controls, and from varying their rates of exchange to bring about adjustment in their balance of payments.[60]

Resort to the IMF pool of resources by member countries continued at the increased rate and intensified as a result of lifting the restrictions from payments on current account by the industrial countries of Europe in 1958. The increased demand for IMF credit prompted the recommendation of the Executive Directors to the Board of Governors to increase the resources of the Fund by increasing the quotas of member countries. The Executive Directors justified their demand for increasing the Fund resources on the basis of the expansion of world trade, the greater freedom of international payments and the concentration of demand for Fund credit over short periods of time.[61]

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[60] France, however, devalued its currency by 16 2/3 per cent in 1957; Ibid., p. 51. For more details of Fund lending activities see, B. Tew, Op. Cit., pp. 1-15.

[61] International Monetary Fund, Annual Report of the Executive Directors 1959, (Washington: 1959), p. 15.

IMF resources were increased in 1959 by the equivalent of $5.1 billion. Quotas of most member countries were raised by 50 per cent each. Canada, Germany and Japan increased their quotas with the IMF by more than 50 per cent. The increase in subscriptions of Fund member countries doubled the Fund assets of gold and U. S. dollars to $4.6 billion and increased deposits of the six currencies that were in major demand by 75 per cent to $8.2 billion.[62]

Prior to the increase in quotas, the aggregate resources of the Fund were $9,228 million. As a result of the increases in subscriptions, the aggregate Fund resources became $14,276 million.[63] The aggregate of all quotas measures both total lending commitments and borrowing facilities of the Fund's members. But, because the same country cannot be, at the same time, a net debtor and a net creditor (lender), the maximum net lending capacity of the Fund, at any time, cannot possibly exceed half the sum of the aggregate quotas, unless widespread waivers permitted member countries to borrow in excess of their total quotas. Consequently, the extreme limit of the lending capacity of the Fund, as a result of the increased quotas, is estimated at $7.1 billion.[64]

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[62] Ibid., pp. 14-16.

[63] International Monetary Fund, Annual Report of the Executive Directors 1960, pp. 14, 163-166.

[64] R. Triffin, Gold and the Dollar Crisis, (New Haven: Yale University Press, 1961), p. 96.

Under conditions that limit the rights of member countries to borrow from the Fund, an increase in the gold subscription with the Fund, decreases international monetary reserves by the amount of the paid gold and dollar subscriptions of members. As a result of liberalization of Fund lending policies that rendered countries' access to the equivalent of their "gold tranche" positions automatic, any increase in gold subscriptions had no effect on the aggregate of international monetary reserves. The possibility that the Fund can extend credit beyond the gold subscription of member countries implies the Fund's ability to create international reserves and increase the volume of international liquidity.

General Agreement to Borrow

In 1962, the IMF borrowed, on a stand-by basis, the equivalent of six billion U. S. dollars from ten major industrial countries in order to bolster its resources and be able to supply credit to countries exposed to disequilibrating capital transfers.[65]

According to the Agreement, the ten countries "stand ready to lend their currencies to the Fund up to specified amounts, when the Fund and these countries consider that supplementary resources are needed to forestall or to cope with an impairment of the international

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[65]The countries that signed the General Agreement to Borrow are: Belgium, Canada, France, West Germany, Italy, Japan, The Netherlands, Sweden, United Kingdom and United States.

monetary system."[66] Extension of credit by the Fund, from resources obtained pursuant to the "General Agreement to Borrow", is to be expended in accordance with established practices of the Fund, and has to be repaid within a period of three to five years. Any prepayment received by the Fund must be forwarded to the original lenders.[67]

Furthermore, the "General Agreement to Borrow" stipulates that each specific request for credit has to be linked to a specific exchange transaction or to a stand-by arrangement consistent with the policies and practices of the Fund. The provisions and the procedure prescribed for dealing with credits give the lending countries in the Agreement a decisive control over the Fund's transactions as far as the supplementary resources are concerned.[68] A loan must be approved by a complex qualified majority of the ten participants. Any member may restrain from providing credit by giving notice that its present and prospective balance of payments and reserve positions cannot withstand the provision of credit.

Resources (credit) that may be obtained, according to the "General Agreement to Borrow", must not be calssified implicitly with

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[66] International Monetary Fund, Annual Report of the Executive Directors 1962, (Washington: 1962), pp. 34-35.

[67] For details of the Agreement, see: Ibid., pp. 234-244.

[68] Lieftinck, Op. Cit., p. 12.

the rest of the Fund resources, since the credits are not readily available to the Fund managers or to the prospective borrowers.

In addition to the quantitative increments to the resources of the IMF, other provisions are included in the Articles of Agreement to ensure the shiftability of the Fund resources. Other qualitative policies were also designed to permit a greater degree of use of all Fund resources.

Repurchase Provisions

The possibility of depletion of Fund resources is minimized in the Fund Agreement by the provisions requiring borrowing countries to repay their loans within a specified period, and by imposing penalty rates (interest) on loans to members that do not repay in time.

Since the extension of credit by the Fund to member countries is to help them offset discrepancies of temporary duration, provisions were enacted to assure the observance of this principle, by requiring the repayment of the loan within a period of three to five years. The Fund can also exchange the claim (debt instrument) of a debtor country for gold or for key currencies and thus replete the Fund resources with shiftable assets--gold and key currencies.[69] The IMF, in addition, requires borrowing countries to repay part or all of their loans in

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[69]International Monetary Fund, First Ten Years of International Monetary Fund, (Washington: 1956) pp. 30-31.

case the amount of their 'owned' international monetary reserves has increased; the repayment is in accordance with the following formula:

> At the end of each financial year of the Fund, a member shall repurchase from the Fund with gold or convertible currencies, . . . part of the Fund's holdings of its currency, equal in value to one-half of any increase in the Fund's holdings of its currency that has occurred during the year, plus one-half of any increase, or minus one-half of any decrease, that has occurred during the year in the member's monetary reserves. But, this rule shall not apply when a member's monetary reserves have decreased during the year by more than the Fund's holdings of its currency have increased.[70]

Member countries that borrow from the Fund are required to pay on each loan a uniform service charge of one half of one per cent. If the member country's borrowing from the Fund exceeds the country's quota, additional charges are levied by the Fund. These charges are progressive and reach a rate of 5 per cent per year. Unless a member's monetary reserves are less than half its quota, all the charges are payable in gold.[71]

Other Lending Policies

Other qualitative policies that were introduced by the Fund management to increase the use of the Fund resources are concerned with the currencies that are drawn from the Fund. Up to 1960, the Fund gave credits primarily in U. S. dollars. After 1960, credits were given

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[70]Article V, Section 7, 6.

[71]Article V, Section 8.

in other currencies and the usefulness of Fund resources was enhanced. In 1957, for example, all loans given by the IMF were in U. S. dollars. In 1960 almost half the loans were given in currencies other than U. S. dollar, and last year more than half the loans were given in currencies other than the U. S. dollar.[72]

The change in the IMF lending practices helped integrate Fund operations with the multilateral system of world payments. When all currencies are completely convertible into gold or into other currencies, a country can use any currency to offset deficits in its balance of payments. No country needs to intervene in the exchange market to settle a particular transaction on a bilateral basis with any individual country. Individual transactions with a particular trade partner are indistinguishably merged into the totality of payments and receipts of the country concerned and the payments and receipts of all its trade partners. The Fund practices that distribute drawings or loans over a wide range of currencies, permit it to borrow more resources from more countries and thus increase its lending capacity.[73]

Summary and Conclusions:

The IMF arrangement for international financial adjustment

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[72] International Financial News Survey, (Washington) May 1, 1964.

[73] Per Jacobson, "Fund Report to ECOSOC", International Financial News Survey (Washington) April 28, 1961, p. 16.

is characterized by quasi-fixed rates of exchange. The rates are fixed in daily transactions but are allowed to vary in the long run to meet a fundamental disequilibrium. The arrangement condemns the use of exchange controls except for specific purposes and countries do not permit balance of payments adjustment to occur by automatic changes in prices and costs.

In the short periods, the IMF arrangement does not provide for the correction of discrepancies. International monetary reserves are used to offset discrepancies in the balance of payments, in the hope that such discrepancies are temporary and self-reversible. If the discrepancies do not reverse themselves, the use of international monetary reserves would give countries time to implement adequate fiscal, monetary or foreign trade policies that would correct the maladjustment in the balance of payments.

Long-run variation of the rate of exchange to correct a "fundamental disequilibrium" in the balance of payments, faces the IMF arrangement with several disadvantages. (1) The Agreement does not specify any criteria to identify a "fundamental disequilibrium". It leaves to the national monetary authorities, and to the Fund management, the job of deciding when a specific discrepancy constitutes a fundamental disequilibrium which necessitates a change in the rate of exchange. (2) The possibility of a change in the rate of exchange induces speculative (adverse) capital transfers from countries with persistent balance of payments deficits. Speculative transfers of

short-term capital accentuate deficits in countries' balance of payments. They create additional need for international monetary reserves, require countries to devalue their currencies and choose a lower rate of exchange than called for by the fundamental disequilibrium and thus expose foreign investments to capital losses.

The IMF arrangement provides the Fund with a pool of resources of foreign exchange that supplement the 'owned' international monetary reserves of member countries. Rules that govern the provision of credit from the Fund were restrictive at the time of the inception of the IMF. However, these rules were liberalized, to a certain extent, and member countries have automatic access to the part of the Fund resources that corresponds to their gold subscription. The Fund pool of resources was enlarged by raising members' quotas, and the use of these resources was intensified by the convertibility of currencies of the industrial European countries. The lending potential of the Fund was also increased through the "General Agreement to Borrow".

CHAPTER THREE

Supply of International Monetary Reserves

Introduction

The International Monetary Fund arrangement for international financial adjustment is characterized by stability of exchange rates over long periods of time. Maintenance of exchange rate stability requires international monetary reserves with which countries can settle temporary discrepancies in their balance of payments and this involves sales and purchases of the reserve assets (gold and foreign exchange) by the national monetary authorities at a fixed price.[1] The result of these settlements is that a country's reserves increase when there is a surplus and decline when there is a deficit in the balance of payments account.

The primary function of reserves is to keep the rate of exchange stable and to offset discrepancies between receipts and payments of foreign exchange. The reserves are consequently of great importance in the existing system of adjustment.

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[1]The Articles of Agreement of the International Monetary Fund permit a 1 per cent variation in the exchange rate. For more details see above p. 64.

> A store of international currency, whatever its form, is capable of softening the impact of (such) shocks; it enables an individual country, for a time, to purchase more goods from abroad than it is in a position to sell, hence it makes for greater stability not merely in the exchange rate but in the country's imports and real national income.[2]

The reserves are used to offset discrepancies in the balance of payments while "corrective" devices are being worked out or implemented. The corrective devices may not be needed if the discrepancy in the balance of payments is temporary, seasonal or just cyclical, since in that case the discrepancy will reverse itself.

No amount of reserves, however, can enable a country to offset a persistent and large deficit in its accounts. Should persistent disequilibria occur, other more basic measures, including changes in the rate of exchange or structural changes in the economy, must be followed.

Reserves permit countries to make necessary adjustments "without precipitate haste and without being forced to take measures that would have unnecessarily damaging effects on their own and other countries' economies . . . and make it possible for countries to continue economic expansion policies when expansion in other countries falters temporarily, or to pursue, up to a point, price policies, or

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[2]League of Nations, International Currency Experience, p. 212.

wage policies, or interest rate policies different from those followed elsewhere."[3]

This chapter is concerned with supply of international monetary reserves. The first part ties together the concepts of international reserves and liquidity and develops possible criteria for measuring reserves. The second part analyzes quantitatively the sources of total supply of international monetary reserves, and indicates the inappropriateness of the "conventional" computation.

Domestic and International Liquidity

Reserves are real resources from the point of view of the countries owning them. They constitute generalized claims on goods and services of other countries. Owning reserves has an opportunity cost and represents an allocation of real resources.

Monetary reserves of countries have been compared to cash reserves of individuals. Both "have as their main purpose the financing of temporary excesses of payments over receipts."[4] Discrepancies may result from temporary reductions in income or increases in expenditures. "In either case the ability to draw upon

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[3]International Monetary Fund, Annual Report of the Executive Directors 1963, (Washington, 1963) p. 39.

[4]United States, Commission on Foreign Economic Policy (Randall Commission) Staff Papers, United States Government Printing Office, (Washington: 1954), p. 476.

reserves permits the country to finance these deficits until either a normal level of income is restored or payments are reduced to a sustainable level."[5]

Domestic money, however, is not real wealth from the national standpoint. It is a claim on real wealth from the individual's point of view. International reserves constitute real wealth from the national standpoint.[6]

Any analysis of international reserves would be incomplete without relating it to international liquidity. Any reference to international liquidity must be distinguished from national liquidity.[7]

In monetary theory, liquidity refers to a quality of assets. The liquidity of an asset relates to its usefulness in offsetting liabilities. It is its degree of "moneyness". "In the international context, the liquidity of an asset can, by analogy, be said to relate to its usefulness in meeting international liabilities and can be defined as the degree to which it approximates, or the ease with which it can be converted into, generally accepted means of international

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[5] Ibid.

[6] L. B. Yeager, "The Misconceived Problem of International Liquidity," The Journal of Finance, Vol. XIV (September, 1959).

[7] The following analysis of liquidity is based on an article by H. W. Arndt, "The Concept of Liquidity in International Monetary Theory," Review of Economic Statistics, Vol. XV, No. 37 (1947-48), pp. 21-26; and on G. H. Hart and P. Kenen, Money Debt and Economic Activity, (3rd edition; Englewood Cliffs, N. J.: Prentice-Hall, Inc. 1961) esp. pp. 33-59.

payments."[8]

The concept of liquidity as used on the international level, has several implications. As imports of goods and services are paid for by exports of goods and services, liquid international assets are given up to pay for any excess of imports over exports. The relevant liabilities to be met by the use of "reserves" are, therefore, the "net" deficits in the "autonomous" -- as opposed to the "induced"-- items of a country's balance of payments.

The importance of liquidity on the international level is related to the harshness, and to the difficulties and inconvenience to which the economy is exposed as a result of the lack of it, given fixed rates of exchange. Whereas on the national level the "illiquidity" exposes the person or the firm to risks in the form of capital losses.

Liquidity of assets is a matter of degree related to their availability to the monetary authorities of the country in case of need and to their acceptability by potential creditors. The division of assets, therefore, into liquid and illiquid must be operational, because what some creditors may accept one day might become unacceptable to them the next. In domestic monetary theory, though, money, defined as cash (banknotes, coins) plus demand deposits, can be singled out as the most liquid, and other assets are compared to money, and their

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[8]Arndt, op. cit., p. 21.

degree of moneyness roughly imputed. Since money including demand deposits is "barren" and does not generally yield any explicit interest, this quality of "barrenness" might be an analogous criterion for identifying international liquid assets. Some international liquid assets conform to this criterion: gold reserves and some foreign balances owned in the form of demand deposits. But there are some assets owned in the form of interest-bearing short-term securities which should be included in the international liquid assets of the country.

There is another difficulty in the comparison of national and international liquidity. "When we speak of liquid assets in domestic monetary theory, there is no question as to who holds [sic] the assets."[9] In the international field the owner of these assets does not always determine their use. Control by the central monetary authority over these claims affects their availability. Banks and independent business firms own liquid reserve assets. In different countries, however, the degree and kind of control of the central authority over these private owners differs and renders any single rule that computes the liquidity of various countries on the same basis inappropriate. Some of the privately owned claims or assets can be used as balancing items in the event of any balance of payments discrepancy while others cannot. Consequently, special care should

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[9] Ibid., p. 24. (italics are mine)

be taken in computing the liquidity position of any country.[10]

Mere ownership of foreign liquid assets by nationals of one country does not render these assets unqualifiedly part of the international reserves of the country. International liquidity refers to assets immediately available to the national authorities for the purpose of consciously balancing their international accounts. If we include in the liquid position of a country short-term investments owned by private nationals on the basis that these investments can be induced to perform an equilibrating function in the balance of payments by a deliberate bank rate policy, it would be difficult to justify excluding gold in domestic hoard which might be mobilized, or central bank minimum reserves which might be made available by changes in the law, or 'refugee' funds which might be induced or cajoled to return, or foreign assets held in the form of easily marketable foreign long term securities, or, indeed, internationally marketable goods and services.[11]

The assets or claims owned by private groups are 'potential' reserves. They differ from official reserves in degree of liquidity which is in part a function of the relative difficulty which the national monetary authorities would encounter in mobilizing them for

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[10]This type of problem is relevant to the measurement of the deficit in the United States balance of payments. It will be pointed out in more detail later in the chapter.

[11]Ibid.

purposes of settling international payments. Disregarding these claims completely from any computation of the liquid position of a country results in an erroneous measurement, adding them to the reserves will inflate the figures.

The same type of consideration given to assets owned by nationals of a country must be accorded to the amount of loans the country can borrow from abroad. Such potential loans and lines of credit affect liquidity positions of countries and enhance their ability to offset temporary discrepancies in their payments accounts.[12] This variable, however, is very difficult to quantify and its exclusion results in erroneous judgments on the adequacy of reserves.

The amount of stocks of internationally salable commodities influence the liquidity position of countries too. But the addition of an evaluation of these stocks to reserves would not be possible on the basis that they are not readily available at a fixed price.

Some countries include their stocks of silver and precious stones in their monetary reserves. These assets should not be considered part of the liquid assets of the country "because they are not readily salable at an approximately predetermined price."[13] Consequently, stocks

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[12]Some authors refer to loans potentially available to monetary authorities for settling balance of payments discrepancies, as 'borrowed' reserves.

[13]International Monetary Fund, "Adequacy of Monetary Reserves," International Monetary Fund Staff Papers, Vol. III, (October, 1953), p. 184.

of precious metals and gems except gold, owned by countries will not be included in our computation of international liquid reserves.

International monetary reserves are the most liquid assets at the disposal of the monetary authorities of the various countries. The reserves are generally owned in the form of gold, for gold is acceptable in payment of debts by all countries of the world. Reserves are also owned as investments in short-term securities of foreign countries having convertible currencies. Part of reserves may be owned in the form of demand deposits with banks of major trading countries and consequently available for clearing international accounts.

Plan of Analysis

The rest of the chapter will analyze the sources of supply of reserves and the factors that determine such supply. The significance of the future growth of reserves and the factors that affect the demand will be appraised in chapter Four in order to arrive at some conclusions on the viability of the existing system of balance of payments adjustment.

Much confusion about the adequacy of monetary reserves appears in the literature on international finance. The confusion comes from lumping together all elements that affect demand for international liquidity and comparing this total demand with a quantitative measure

of the "conventional"[14] sources of supply. By disaggregating the various sources of supply and the various factors that affect demand, we shall identify the sources of shortcomings in the existing international financial arrangements; and consequently, we may suggest corrections to overcome these shortcomings.

Our interest is with the system of adjustment as a whole. The analysis and conclusions may not be necessarily applicable to individual countries. Some of these countries own large amounts of international monetary reserves that would satisfy their future forseeable need, others own very little amounts of reserves which can be considered unsatisfactory without any detailed analysis.

Note on Computation of Reserves

In stating the international monetary reserve statistics, the method followed by the International Monetary Fund and other countries will be used. The totals of reserves will be presented on a gross basis, i.e., the asset items are included but the liability items will be ignored. This method of stating reserves is "more meaningful

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[14]We are terming "conventional" the measure of supply of international monetary reserves used by the International Monetary Fund and by the various countries. The IMF computes international monetary reserves as the total of gold, gold tranche positions of member countries, and foreign exchange. It excludes other available credit and 'credit tranche' positions of member countries. See: International Monetary Fund, International Financial Statistics, (July, 1964), p. 15.

than the method that states them on a net basis."[15] On a comprehensive, aggregative net basis, foreign exchange, but for gold, would disappear completely as a reserve item for the world as a whole. In some instances, however, when gold stocks are pledged as collateral against foreign credit, reserves computed on a "gross" basis would give a biased account of the situation. "This is also the case when there are substantial short-term or medium term commercial debts weighing on the exchange position, or large outstanding debit balances on bilateral accounts."[16]

The double counting involved in the procedure of stating international monetary reserves on a gross basis intrudes certain difficulties for countries whose currencies are used as reserve units. Therefore, when analyzing the liquidity position of the two major countries whose currencies are used as reserve units, a note on their asset-liability relationship would be explicitly made.

The statement of international reserves on a gross basis implies that the international borrowing power of the country which provides the international reserve currency forms part of that country's liquidity. The shortcoming of this computation, which will be indicated at length later, is that the existing short-term liabilities

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[15]International Monetary Fund, "The Adequacy of Monetary Reserves," p. 199.

[16]International Monetary Fund, International Reserves and Liquidity, p. 46.

of the key currency countries constitute an indication of the willingness to lend which countries have shown up to the present. The magnitude of the liabilities do not, necessarily, indicate that an equal willingness to lend will be continued into the future.[17]

The "conventional" computation abstracts from the borrowing and lending, on short-term basis, that would be taking place in the future between the various countries. We shall try to overcome this exclusion by reviewing the various bilateral or multilateral credit arrangements and ascertaining the usefulness of these arrangements in offsetting part of the demand for international liquidity.

We shall use the time series method of analysis to derive the trend of the growth of international monetary reserves. In time-series analysis a large number of observations will provide more degrees of freedom, and will reduce uncertainty.[18] The year 1962 will be the terminal year in this analysis because, beyond that date, statistics are not complete. 1950 is chosen as the beginning because, prior to 1950, most countries were still recovering from the effects of the War and their balance of payments problems reflect the influence of the reconstruction programs and abnormal conditions and developments.

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[17]F. A. Lutz, The Problem of International Economic Equilibrium, (Amsterdam: North Holland Publishing Company, 1962), p. 62.

[18]It will have to be assumed that institutions and conditions that are covered by the time period under analysis have not changed and hence the study would be considering events in a relatively homogeneous period.

Supply of International Liquidity

Supply of international liquidity consists mainly of four components; namely, (1) gold, (2) foreign exchange, (3) credit from the International Monetary Fund and other international institutions and (4) credit resulting from 'swap' and other bilateral arrangements. We shall presently analyze the role of each of these four components in the growth of the total reserves.

Gold

At the end of 1962, the gold component of international monetary reserves was equivalent to $39,240 million.[19] Additions to the total gold reserves of the countries outside the Soviet bloc depend on the amount of gold initially made available by new production, mainly in South Africa and Canada, the sales of gold by the Soviet bloc to the rest of the world, the net amount of gold used for industrial and artistic purposes, and the amount of gold bought privately for saving and hoarding.

In a study of Gold Production[20] performed for the International

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[19] International Monetary Fund, International Financial Statistics, (April 1964), p. 16.

[20] Oscar Altman, "A Note on Gold Production and Additions to International Monetary Reserves," International Monetary Fund Staff Papers, Vol. VI (April, 1958).

Monetary Fund, projections on additions to monetary reserves from gold production are made. This study concludes:

> It is not unreasonable to assume that in the next decade gold additions to monetary reserves may average from one half to two-thirds of gold production. The percentage has rarely been less than 50 per cent, and it may be two-thirds, or more, under certain conditions.[21]

In this study, Altman computes a value to the probable annual increase in the official monetary gold reserves of $730 million.[22] These projections may appear optimistic. Available data on the addition of gold reserves to the official country reserves, presented below in Table I, indicate the addition of $695 million and $340 million of gold to the international monetary reserves during 1959 and 1960 respectively. The relatively low quantities of the additions to gold during 1960 are attributed to the uncertainty felt throughout the world concerning the devaluation of the U. S. dollar. This uncertainty inspired increased gold hoardings. Data for later years, however, indicate a higher rate of growth in the gold monetary reserves on account of additional sales of Russian gold and higher sales of newly produced gold. Consequently, the International Monetary Fund's estimated

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[21] Ibid., p. 281.

[22] Ibid., p. 288.

TABLE 1

World Gold Production (Excluding Russia)
(In millions of dollars at 35 dollars per fine ounce)

Year	Quantity Produced[1]	Increases in Official Gold Supplies[2]
1950	845	400
1951	827	200
1952	852	400
1953	848	475
1954	897	650
1955	940	680
1956	980	496
1957	1019	705
1958	1051	670
1959	1127	695
1960	1178	340
1961	1251	800[3]
1962	1304	400[3]

Note:

The increase in official gold supplies include all sources i.e., increases forthcoming from sale of Russian gold and from newly mined gold.

Sources:

[1]International Monetary Fund, International Financial Statistics, (April 1964), p. 14.

[2]Compiled by the Federal Reserve Bank of New York, quoted in U. S. Congress, Joint Economic Committee, Hearings; International Payments Imbalances and Need for Strengthening International Financial Arrangements, 87th Cong., 1st sess., 1961, p. 29.

[3]International Monetary Fund, International Financial Statistics, (April 1964), pp. 14-15.

projections may materialize for the coming decade and will be accepted as a basis for projections in our study.[23]

Foreign Exchange Reserves

The foreign exchange component of international reserves consists mainly of claims on the United Kingdom and the United States owned in the form of short-term securities.

The foreign exchange component of international monetary reserves has increased at a higher rate than the gold component in the last decade. The increase occurred mainly in the form of foreign ownerships of dollar short-term securities. (See Table 2)

Reserves Owned in the Form of Sterling Claims

The reserves owned in the form of claims on Britain, better known as sterling reserves, belong mainly to the British Commonwealth nations and are used to finance trade within the sterling area.

In 1947 sterling balances owned by various countries "were estimated at $12.1 billion and constituted 88 per cent of total official foreign balances, as against 12 per cent for official dollar balances."[24]

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[23] R. Triffin maintains that Altman's calculations and projections are very realistic. See R. Triffin, Gold and the Dollar Crisis, p. 81.

[24] Triffin, op. cit., p. 59.

TABLE 2

Foreign Exchange Component of International Monetary Reserves

(in billions of dollars)

Year	Foreign Exchange Reserves	Gold Reserves (Total Includes IMF and EPU)	Total Owned Reserves	Percentage of Foreign Exchange to Total
1950	14.64	35.34	49.98	29
1951	15.15	35.56	50.71	30
1952	15.66	35.79	51.45	30.5
1953	17.2	36.2	53.4	32.4
1954	18.3	36.9	55.2	34.9
1955	18.8	37.5	56.3	33.4
1956	19.8	38.0	57.8	34.2
1957	19.0	38.7	57.7	33.0
1958	19.3	39.4	58.7	32.8
1959	19.2	40.2	59.4	32.3
1960	21.8	40.5	62.3	34.9
1961	22.4	41.1	63.5	35.2
1962	22.5	41.4	63.9	35.2

Source:

International Monetary Fund, International Financial Statistics, Supplement to 1963/64 Issues, pp. iv-v.

Since large sterling balances were accumulated during the War with an element of compulsion and were blocked by British regulations, to consider them now as part of the official international reserves is misleading. International monetary reserves owned in the form of sterling balances or securities would be more meaningfully understood if analyzed by way of time series that start in 1950. Such an analysis shows that the reserves owned in the form of claims on the United Kingdom have fluctuated about a $7 billion figure between 1950 and 1960. (See Table 3)

Reserves in the form of short-term sterling assets have declined in 1962 and such decline reflects the unwillingness of countries to increase their ownership of sterling reserves in the future. "Little reliance should be placed on the future growth of sterling balances to fill the prospective . . . world reserve requirement."[25]

Gross British reserves are low in relation to short-term sterling liabilities. Any rise in short-term sterling claims is likely to induce Britain to increase its ownership of reserves in the form of short-term dollar assets which would lead to little or no net additions to world liquidity or reserves.[26] Therefore, in assessing

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[25]Triffin, op. cit., p. 62. For a similar view see also E. M. Bernstein, "The Adequacy of United States Gold Reserves," American Economic Review (Papers and Proceedings) Vol. LI (May 1961), pp. 439-447.

[26]Triffin, op. cit., p. 62.

TABLE 3

Sterling and Dollar Components of Foreign Exchange Reserves

(in billions of dollars)

Year	Total[1]	Reserves Owned in the Form of Short-term Dollar Assets[2]	Reserves Owned in the Form of Short-term British Assets[3]
1950	14.64	5.15	n.a.
1951	15.15	6.19	8.15
1952	15.66	6.24	6.99
1953	17.2	7.29	7.49
1954	18.3	8.54	7.62
1955	18.8	8.83	7.57
1956	19.8	9.49	7.39
1957	19.0	9.43	7.02
1958	19.3	10.25	6.69
1959	19.2	12.31	6.97
1960	21.8	14.22	7.07
1961	22.4	14.69	7.10
1962	22.5	16.10	6.16

Sources:

[1]International Monetary Fund, International Financial Statistics (Supplement to 1963/64 Issues), p. V.

[2]N. Fatemi, De Saint Plalle and G. Keeffe, The Dollar Crisis, (Fairleigh Dickenson University Press, 1963) p. 268.

[3]International Monetary Fund, International Financial Statistics (Supplement to 1963/64 Issues), p. 238.

Note:

The totals of columns 2 and 3 do not exactly equal column 1. The inequality may be the outcome of reserves owned in the form of other currencies and included in the total reserves.

the future supply of international monetary reserves, increase in short-term sterling assets should not be considered as one of the sources of supply of additional reserves.

Reserves Owned in the Form of Dollar Claims

Except for 1957, the official reserves owned in the form of short-term dollar assets have increased each year since 1950. Throughout this period, but for 1957, the United States has experienced a deficit in its balance of payments account. The persistent deficit has been offset by increases in United States short-term dollar liabilities or by transfers of ownership of gold to other countries. (See Table 4)

The U.S. deficit was less than $1.6 billion annually in each but two years from 1950 through 1957. In 1950, the deficit was $3.58 billion, and was associated with the 1949 currency devaluations and the Korean war. Other extra-ordinary reasons accounted for the relatively larger deficit in 1953.[27] In 1957, the Suez crisis year, the United States exported more goods and services and earned a surplus in its balance of payments account.

Beginning in 1958, the U. S. deficit has been relatively larger than in the preceding period. This increased deficit has created

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[27]The reasons are the rise in United States military expenditures abroad and a temporary fall in exports of goods and services. For details see: Salant et.al., op. cit., pp. 9-10.

TABLE 4

Deficits in U. S. Balance of Payments

and How They Were Financed

(in millions of dollars)

Year	Total Surplus or Deficit	Increase (-) or decrease in Monetary Reserve Assets (Gold)			Increase of Liquid Dollar Liabilities to Foreigners		
		Total	Gold	IMF Position	Total	Official	Other
1947	4,567	-3,315	-2,162	-1,153	-1,252	n.a.	n.a.
1948	1,005	-1,736	-1,530	- 206	731	n.a.	n.a.
1949	175	- 266	- 164	- 102	91	n.a.	n.a.
1950	-3,580	1,758	1,743	15	1,822	1,554	268
1951	- 305	- 33	- 53	20	338	- 505	843
1952	-1,046	- 415	- 379	- 36	1,461	1,237	224
1953	-2,152	1,256	1,161	95	896	848	48
1954	-1,550	480	298	182	1,070	1,043	27
1955	-1,145	182	41	141	963	559	404
1956	- 935	- 869	- 306	- 563	1,804	1,130	674
1957	520	-1,165	- 798	- 367	645	20	625
1958	-3,529	2,292	2,275	17	1,237	735	502
1959	-3,743	1,035	1,075	- 40	2,708	1,248	1,460
1960	-3,881	2,143	1,702	441	1,738	1,449	289
1961	-2,370	606	741	- 135	1,764	681	1,083
1962	-2,186	1,533	907	626	653	453	200

Source:

Walter Salant, et.al., The United States Balance of Payments in 1968 (Washington: The Brookings Institute, 1963), p. 10.

concern on the part of the U. S. policy makers and also elsewhere. This concern has been translated into actions that have had some success in redressing the imbalance.

Prior to 1956, foreigners converted the surplus in their balance of payments accounts with the United States into short-term dollar assets. An average of 82 per cent of annual U. S. deficits took the form of increases in liquid foreign short-term assets and 18 per cent took the form of foreign net gains of gold. During the 1957-62 period, the portion of the surplus in the balance of payments accounts of foreign countries with the United States that took the form of an increase in the short-term dollar assets declined to 52 per cent of the total. (See Table 4)

Part of the increase in foreign ownership of liquid short-term dollar assets was added to the official reserves of the foreign countries. Another part was added to non-official ownership - designated in Table 4 by the last column, titled "other". The increase in non-official ownership of short-term dollar assets is significant and may permit the financing of deficits to occur outside the official reserves. Privately owned short-term dollar assets may permit, additionally, crises to develop as a result of the sudden transfer of these assets from ownership in one country to ownership in another.

The total deficits and surpluses of the rest of the world corresponding to the total surpluses and deficits of the United States

have been earned primarily by the Western European countries and Japan.[28] This correspondence indicates that Western European countries and Japan have shown a tendency to switch their ownership of liquid assets, as a result of the surpluses in their balances of payments, from short-term dollar securities to gold. The result of this preference has been a constant decrease in the United States ownership of gold and a relative steadying in the growth of short-term dollar liabilities.

The increase in the liquid dollar assets of major countries and areas between 1949 and 1962 is presented in Table 5. Of the total increase in liquid dollar assets over the period, Western Europe, Canada and Japan got 74.2 per cent. However, all Europe,[29] Canada and Japan shared 86 per cent of the increased ownership of short-term dollar assets.

Significance of the Increase in Short-Term Dollar Assets

Before discussing the significance of the increased ownership of short-term dollar assets by foreign countries and nationals, we would like to note briefly that the controversy about the measurement of the U. S. balance of payments deficit should not detain us from

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[28] Salant et. al., op. cit., p. 23.

[29] Excluding the Communist Bloc.

TABLE 5

Increase in Liquid Dollar Assets of Foreign Countries,[1] 1949-1962.

(in millions of dollars)

Country and Area	Liquid Dollar Assets Outstanding at End of		Increase	
Seven Principal Owners	1949-50	1962	Dollar Volume	Share of Increase
France	172	1,154	982	7.0
Germany	149	2,730	2,581	18.3
Italy	304	1,384	1,080	7.6
Switzerland	577	908	331	2.4
United Kingdom	574	1,617	1,043	7.4
Canada	869	3,349	2,480	17.6
Japan	214	2,177	1,962	13.9
Total	2860	13,319	10,459	74.2
Rest of Europe	748	2,404	1,656	11.7
Rest of Asia	736	1,249	513	3.7
Latin America	1437	2,621	1,184	8.4
All Other	180	469	289	2.0
Foreign Country Total	5961	20,062	14,101	100.0

[1]Excluding the Communist bloc.

Source:

Fatemi, De saint Phalle and Keeffe, The Dollar Crisis, (Fairleigh Dickenson University Press, 1963) p. 276.

analyzing the outcome of what is officially termed as deficit and basing conclusions on the official view and estimate.[30]

Causes of the deficit in the U. S. balance of payments have been discussed and treated at length in the past five years. Though reference will be made to some of the relevant causes of the U. S. deficit,[31] we shall assume the deficit as given for the past years and try to conjecture whether it will recur in the future.

The increase in foreign ownership of U. S. short-term dollar assets has presented constraints on two levels:

1. The growth of foreign ownership of short-term dollar assets coupled with a decrease of U. S. ownership of gold have made foreigners reluctant to acquire additional short-term dollar assets. The

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[30]The United States does not net out the short-term claims of United States banks, corporations or individuals against their short-term liabilities but, rather, takes into account only the change in gross short-term liabilities in calculating the balance of payments deficit or surplus. Since the gross short-term liabilities of the United States are convertible into gold if held by foreign central banks and, if in private hands, may readily be shifted to foreign official account, this accounting practice serves to focus attention upon the liquidity position of the United States, i.e., the volume of potential claims on the gold stock. For details of the controversy with respect to the advantages of the U. S. accounting practices see Hal B. Lary, Problems of the United States as World Trader and Banker, National Bureau of Economic Research, 1963. See also W. Lederer, "The Balance of United States Payments: A Statement of the Problem" Dollar in Crisis, ed. Seymour E. Harris (New York: Harcourt, Brace & World Inc., 1961).

[31]For a detailed analysis of some of the causes of the U. S. deficit in the balance of payments see W. Salant et.al., op. cit., Hal Lary, op. cit., U. S. Congress, Joint Economic Committee, Hearings: International Payments Imbalances and Need for Strengthening International Financial Arrangements, 87th Cong., 1st sess., 1961.

> reluctance is a reflection of their fear that the U. S. might ultimately devalue the dollar and thus bring down the value of their claims.[32]

The larger the percentage of dollars in the monetary reserves of other countries, the more their monetary authorities and bankers would be concerned with domestic and international economic policies of the United States which affect the stability of the dollar.

Any additional deficit in the United States balance of payments would result in additional decreases of United States ownership of gold stock because foreign countries would be unwilling to add to their dollar claims. A reduced level of U. S. owned gold stock would further reduce the liquidity position of the United States. Deficits may result from a relative increase in the price level, or a relative lag in the growth of productivity, or a higher rate of U. S. foreign investment or foreign aid.

> The fact that the U. S. is the world's major key currency (sic) tends to set limits upon the freedom of action of the U. S. in applying those economic policies which could most effectively serve its domestic needs and its international commitment.[33]

An increase in foreign ownership of short-term dollar assets means that foreign owners are lending short-term funds to the United States

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[32] Salant, op. cit., p. 242.

[33] T. Geiger, "Statement," U. S. Congress, op. cit., p. 165.

and it seems natural for lenders to be concerned with the soundness of their debtor's position. The foreign governments' concern, however, is the result of the dual role that their ownership of short-term assets performs. The short-term dollar assets are a form of investment which implies their lending nature, and they serve the purpose of offsetting discrepancies in the countries' external accounts at short notice, which implies their liquid nature.

Foreign owners of short-term dollar assets are more concerned with the liquidity position of the United States rather than with its soundness as a debtor. The United States has been borrowing on short-term basis and lending on long-term. It borrows by incurring short-term dollar liabilities and lends through long-term investments in foreign countries. This short-term borrowing and long-term lending decreases its liquidity position.[34]

2. The United States fears that an increase in foreign ownership of short-term dollar securities would expose the United States capital market to sudden jolts as a result of the tendency on the part of foreign investors in short-term dollar securities to exchange their dollar investments for other foreign securities on short notice.

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[34]The consideration of a country's position in its balance of payments accounts as a sign of its wealth is a legacy from the mercantilist era. The Gross National Product and the per capita income give a better indication of a country's wealth and ability to discharge its debts.

"Of the U. S. balance of payments deficit of $3.8 billion in 1960, about 70 per cent resulted from the outflow of short-term United States funds."[35] Awareness of the results of such an exchange of international assets has led the United States monetary authorities to devote additional attention and design policies with respect to its balance of payments, possibly to some neglect of its domestic objectives of growth and full employment.

Exchange of investments in dollar securities for other foreign investments is facilitated by the diversification of investments in short-term dollar assets. Short-term dollar assets owned by foreigners includes, in addition to demand deposits placed with the Federal Reserve Banks and commercial banks, a variety of interest bearing assets: U. S. Treasury bills and certificates, bankers' acceptances, commercial paper, and time deposits with United States commercial banks.

> In 1960, the proportion /of foreign owned short-term dollar assets/ retained in the form of demand and time deposits was 46 per cent, whereas 45.5 per cent was invested in treasury bills and certificates and 8.5 per cent in bankers' acceptances and other commercial paper.[36]

Three limitations on the freedom of action to pursue major internal economic objectives by United States monetary authorities have

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[35] E. M. Bernstein, "The U. S. and the International Monetary Fund," Public Policy, Vol. XI, (Ed.) Carl Friedrich and S. E. Harris (Cambridge: 1961), p. 289.

[36] Fatemi et. al., The Dollar Crisis, p. 271.

been identified.

> One limitation is the result of the increased freedom with which capital moves internationally in response to interest rate differentials. Low interest rates to stimulate recovery can now give rise to outflows of capital. A second constraint on domestic policy lies in the threat of international speculative movements of capital, independent of interest rates and in fear or hope of a change in exchange rates. A third and basic constraint lies in the effect of increases in the domestic price level on the competitiveness of U. S. exports abroad and foreign imports on U. S. markets.[37]

In view of the constraints and limitations that the position of the United States, as the world key currency country, places on its pursuit of the more important economic objectives of growth and full employment, the foreign ownership of short-term dollar assets is not expected to increase any further in the future. The problem that faces the international financial arrangement at the present, notwithstanding any measurement of the soundness of the United States debtor position, is that the United States can no longer permit deficits in its balance of payments similar to those that have been occurring since 1958. But United States economic policy that would eliminate deficits in its balance of payments will evidently hamper the growth of international monetary reserves. Any surplus in the United States balance of payments would wipe away part of the international monetary reserves owned in the form of short-term dollar assets.

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[37]Walter Heller, "Statement," U. S. Congress, Joint Economic Committee, op. cit., p. 46.

Consequently the international payments system will have to find other sources of supply of international monetary reserves should demand for such reserves continue at the same rate or at an increased rate.

The International Monetary Fund

A detailed analysis of the machinery of the International Monetary Fund and of its policies in managing the pool of resources at its disposal has been presented in the previous chapter. Presently, we are more concerned with the additional liquidity that the Fund provides to its members. Table 6 presents the sums of "gold tranche" positions of all member countries. The "total tranche" column represents the total of all resources available for the Fund. These resources are the paid subscriptions of member countries.

In considering the contribution of the IMF to international monetary reserves the sum of "gold tranche" positions of all countries must be added to the category of "owned" reserves and at the same time consideration must be given to the sum of the "credit tranche" positions of all member countries. The "credit tranche" positions are not readily available, but since they constitute a supply of additional (potential) credit, they should not be excluded from total supply of reserves.

When countries pay part of their total subscription in gold or in dollars, the payment comes out of their national reserves. The gold subscription is just transferred from one account to another account

TABLE 6

International Monetary Fund Resources

(in millions of U. S. dollars)

Year	Gold Tranche	Credit Tranche	Total
1950	1,570	5,240	7,910
1951	1,710	6,470	8,180
1952	1,770	6,490	8,268
1953	1,891	7,137	9,028
1954	1,845	7,845	9,690
1955	1,880	7,877	9,757
1956	2,278	7,535	9,813
1957	2,313	7,178	9,491
1958	2,512	6,337	9,849
1959	3,250	12,898	16,148
1960	3,570	13,654	17,224
1961	4,158	12,812	16,970
1962	3,795	13,363	17,158

Source:

International Monetary Fund, International Financial Statistics, (Supplement to 1963/64 Issues) pp. vi-vii.

belonging to the same country, therefore, no net addition to international reserves is generated by such transaction.

Prior to the liberalization of the Fund regulations, the transfer of the gold subscription from the national reserves of the country over which it has complete authority, to the Fund where the country's application for a loan has a chance of being rejected, constitutes a decrease in the readily available liquid reserves. The same reasoning cannot apply to the current arrangement by which the country is given "the benefit of the doubt" with respect to its gold tranche drawing.

> The resources of the International Monetary Fund cannot under present conditions be regarded by its members as part of their reserves. A member has virtually complete assurance that it can draw its net contribution to the Fund /gold tranche/. Thereafter a country has decreasing assurance that it will be able to use its quota for each successive credit drawing of 25 per cent. The right of members to draw on their quotas seems to be conditioned on their presenting an approved program for restoring equilibrium in their balance of payments. Under these conditions, the resources of the Fund represent another source of credit in times of need. They are by no means the same as reserves.[38]

In addition to the "gold tranche" and "credit tranche" positions at the disposal of the International Monetary Fund, the "General Agreement to Borrow" provides the International Monetary Fund

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[38] E. M. Bernstein, "The Problem of International Monetary Reserves," U. S. Congress, Joint Economic Committee, op. cit., p. 108.

with an additional 6 billion dollars to be used in case of emergency. The limitations on the use of these resources are stringent and since they are not readily available their inclusion with the international monetary reserves proper must be avoided. Credit available as a result of the "General Agreement to Borrow" must be categorized under the second category of "potential" reserves.

The Fund's significance as an additional source of international liquidity is greater than the amounts of the gold tranches of the countries would suggest. The Fund has been supplying countries with reserves on the basis of stand-by (credit tranche) arrangements and in this fashion has been generating additional credit. In addition, through the "General Agreement to Borrow", the Fund is capable of mobilizing reserves and supplying them to the country in need.

The importance of the resources that are at the disposal of the International Monetary Fund is more than that suggested by their volume. "The Fund's resources constitute a particularly efficient form of reserves, since their use can be pinpointed to particular areas of financial strain."[39] Granting of International Monetary Fund credit to countries implies that their payments difficulties are surmountable. Credit provided by the International Monetary Fund to countries exposed

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[39]International Monetary Fund, International Reserves and Liquidity, p. 97.

to speculative transfers of capital generally leads to a decrease in speculation against the currency of that particular member country.[40]

Consideration of the resources at the disposal of the Fund must take into account the added liquidity that has been provided to these resources as a result of the full convertibility of the Western European currencies in 1958. At the end of 1958, the International Monetary Fund had at its disposal about $3 billion of European currencies and about $2 billion of gold and dollars, and its total resources were about $8 billion. Convertibility of Western European currencies has raised the Fund's share of useful currencies from a fourth of its total resources to more than half.[41]

In evaluating the resources at the disposal of the International Monetary Fund, the "owned" reserves of member countries should be explicitly distinguished from the "potential" or borrowed reserves that may be utilized by member countries upon satisfying certain conditions.

The "owned" reserves constitute the "gold tranche" positions of all member countries and can be drawn on demand. The sum total of "gold tranche" positions is included in the "conventional" computation of reserves. The borrowed or "potential" reserves which constitute

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[40] If the country is not pursuing policies that would lead to an amelioration in its balance of payments account, the Fund would require the country to do so prior to granting it any credit.

[41] Peter Kenen, Giant Among Nations, (New York: Harcourt, Brace and Company, 1960) p. 94.

the "credit tranche" positions of all member countries, together with the credit made available as a result of the "General Agreement to Borrow" belong in a separate category of reserves which should be added to the "conventional" measure when certain demand conditions arise. The sum total of "credit tranches" is $13.3 billion, which, together with the $6 billion of credit made available by the "General Agreement to Borrow," make a significant total of $19.3 billion of "potential" international monetary reserves.[42]

Other Multilateral and Bilateral Credit Arrangements

Beyond international monetary reserves in the form of gold, foreign exchange, and Fund "gold tranche" positions, international liquidity includes a broad spectrum of facilities permitting countries, with more or less certainty, to acquire additional reserves in case of need. These facilities cannot be fully described in terms of statistics, since they range from resources that are practically at hand--such as Fund stand-by arrangements--to potential commercial bank accommodation, or the vague expectation of countries that friendly governments may be ready to grant short-term emergency help for severe difficulties.[43]

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[42]The figure of $13.3 billion is too optimistic because the Fund has to give liberal waivers to permit countries to draw the equivalent of their credit tranches. See above p. 87.

[43]International Monetary Fund, Annual Report of the Executive Directors 1963, (Washington, 1963) pp. 43-44.

There are a number of institutionalized arrangements of bilateral and multilateral nature, which are designed to provide additional liquidity to countries under certain conditions. Some of these arrangements are: the European Fund, the mutual credit arrangements among the Scandinavian countries, United States Treasury stabilization credits, arrangement between the French Treasury and certain countries in the overseas franc area, and finally the United States swap arrangements with some central banks.[44]

This list is not exhaustive because many other countries have bilateral credit arrangements among themselves. These bilateral arrangements do not come to any considerable amount. However, swap arrangements between the United States Treasury and Federal Reserve System on the one hand and the central banks of nine other industrial countries, on the other, are important because of their magnitude and their possible future use on a wider scale.

The understanding was reached in 1961 and 1962 between the United States monetary authorities and the central banks of nine industrial countries to engage in short-term swap transactions at the initiative of either party. The swap arrangements "allow each partner to draw on the currency of the other up to a certain amount over a period ranging from three to six months. At the end of the specified term, the transactions are reversed at the same rate of exchange as

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[44] Ibid.

that at which the original swap was arranged."[45]

Reversal of swap transactions at the same rate of exchange guarantees creditor countries against the risk of an alteration in the exchange rate. The swap facilities, however, are for restricted purposes since "they are intended to be drawn upon to deal with balance of payments swings of a short-term character, with the intention of preventing such swings from reducing a country's reserve figures."[46]

The central bank swap network provides mutual credit facilities of $2,050 million.[47] During the period between March 1962 and August 1963 total drawings on these swap lines by the United States Federal Reserve and other central banks amounted to $978 million.[48]

These swap arrangements originated on the initiative of the United States Treasury in 1961 in order to slow down the transfer of

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[45]F. A. Lutz, The Problem of International Liquidity and the Multiple Currency Standard, "Essays in International Finance," No. 41, (Princeton: Princeton University, International Finance Section, 1963) p. 11.

[46]International Monetary Fund, Annual Report of the Executive Directors 1963, (Washington: 1963) p. 45.

[47]Charles A. Coombs, "Treasury and Federal Reserve Foreign Exchange Operations and the Gold Pool," Federal Reserve Bank of New York: Monthly Review, Vol. XLVI, No. 3 (March 1964), p. 47.

[48]Coombs, "Treasury and Federal Reserve Foreign Exchange Operations," Federal Reserve Bank of New York: Monthly Review, Vol. XLV, No. 10 (October 1963), p. 147.

ownership of gold from the United States to Western European central banks at a time of some fear of dollar devaluation. The swap arrangements provide for short-term credit only--from three to six months--, consequently, their use is limited to balance of payments deficits which are reversible within a relatively short period of time.

Swap facilities were not designed to cope with discrepancies in the balance of payments that result from normal international trade. They were designed to offset speculative demand for foreign exchange reserves and hence, as will be pointed out later, the swap arrangements should be evaluated according to the purpose for which they were designed. Should swap facilities be used to finance a protracted deficit in the balance of payments that requires time consuming corrective measures, they will need to be constantly renewed and hence might not be a suitable arrangement.

Swap credit facilities are in the realm of "potential" reserves and are not included in the "conventional" measure of international monetary reserves.

Redistribution of International Monetary Reserves

Total international monetary reserves have increased and the total has become more effective through redistribution.

In outlining the growth of reserves owned in the form of short-term dollar securities, it was noted that about 75 per cent of the increased ownership of these securities was absorbed by seven

principal countries, and 86 per cent was absorbed by Western European countries, Canada and Japan. (See Table 5)

Table 7 provides information on the redistribution of official gold reserves between 1950 and 1962. During the twelve year period, there was a net addition of gold reserves of $5965 million. Moreover, the United States' ownership of gold decreased $6753 million. Together, a total of $12,188 million worth of gold was distributed among the countries of the world other than the Soviet Bloc and the United States.

The major part of the change in the ownership of gold assets affected the United States, the industrial countries of Western Europe, Japan and Canada. The Industrial European countries, Japan and Canada acquired 72.9 per cent of the increase in gold between 1950 and 1962. With Belgium and Netherland added to the list of industrial countries, the share of the increased ownership of gold that accrued to the group of countries would be 90 per cent. The United Kingdom, however, which is included in the group of industrial countries lost $300 million worth of gold during the period under discussion.

The developing nations, as a whole, did not witness any important change in their ownership of gold assets. Latin American countries decreased their ownership of gold assets, and the decrease was balanced by the increase in the gold ownership of the rest of the developing nations. (See Table 7)

TABLE 7

Changes in Official Gold Reserves, 1950-1962

(in millions of U. S. dollars)

	Ownership of Gold Assets		Increase, 1950-62	
	1950	1962	Dollar Volume	Share of Country
World Total[1]	35,490	41,455	5,965	
International Agencies	1,660	2,200	540	
All Countries	33,830	39,255	5,425	
United States	22,820	16,057	-6,753	
Country Total Excluding the United States	11,010	23,198	12,188	
Seven Principal Owners				
France	627	2,587	1,915	15.7
Germany	. .	3,679	3,679	30.2
Italy	256	2,243	1,987	16.3
Switzerland	1,470	2,667	1,197	9.8
United Kingdom	2,900	2,600	- 300	-2.5
Canada	580	708	128	1.1
Japan	7	287	280	2.3
Total of Seven	5,840	14,771	8,886	72.9
Rest of Europe	1,757	5,009	3,252	26.7
Belgium	587	1,365	778	6.4
Netherlands	311	1,581	1,270	10.4
Latin America	1,865	1,235	- 630	-5.2
Rest of World	893	1,003	210	5.6

[1]Excluding members of the Communist Bloc.

Source: International Monetary Fund, International Financial Statistics, April 1960, p. 18 and May 1963, p. 18.

Many of the non-industrialized countries have liquidated their reserves and used the proceeds to finance development. "In some countries the decreases in reserves followed the decline in recent years in the prices of primary products or were the natural consequence of short or prolonged inflation."[49] This liquidation of reserves indicates the unwillingness of developing countries to own liquid assets, the value of which could be used for financing development.

Total Supply of Reserves

The redistribution of reserves that occurred over the last decade resulted in significant developments that are implied in our discussion of the growth of short-term dollar liquid assets.

The loss of gold assets on the part of the United States, coupled with the increase in its short-term dollar liabilities, has negatively influenced the liquidity position of the United States and has resulted in the possibility that further increases in short-term dollar liabilities would be stopped. Therefore, any growth in international reserves would have to come from other sources, namely, from production of new gold and sales of Russian gold, from additional multilateral and bilateral credit arrangements, or from additional subscriptions to the International Monetary Fund.

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[49] International Monetary Fund, International Reserves and Liquidity, p. 92.

These other sources of supply of reserves are expected to provide around $730 million worth of new gold and Russian gold annually--at $35 per fine ounce. This amount of gold is the only guaranteed addition to international monetary reserves according to the "conventional" criteria set at the beginning of the chapter.

However, we have indicated other sources of "potential" or borrowed reserves that should be added to the conventional measure if a realistic approach to the international financial arrangements is to be followed. The International Monetary Fund "credit tranche" is a potential source of additional liquidity which has been supplying additional credit to various countries. The "General Agreement to Borrow" and other financial arrangements of bilateral and multilateral nature are other potential sources of additional liquidity. In referring to the supply of international liquidity, the importance of the "potential credit" (borrowed reserves) should not be overlooked.

CHAPTER FOUR

Demand For International Liquidity

Introduction

This chapter will be concerned with demand for international liquidity. The relationship between demand for reserves and the volume of international trade will be ascertained in the first part of the chapter. The second part will investigate the significance of the factors that influence demand for international monetary reserves from the viewpoints of two groups of countries, namely, the developing countries and the developed countries, and will evaluate whether these factors will cause an increased or a decreased demand for international monetary reserves. Finally, in the third part of the chapter, conclusions will be drawn on the adequacy of total supply of international liquidity in view of the qualitative analysis of the factors that influence demand for same.

General Background

The need for reserves is only one factor that determines the extent to which they are demanded and owned. "The conditions governing the holding of international currency reserves by nations are at bottom similar to those governing the holding of cash balances by individuals."[1]

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[1]League of Nations, op. cit., p. 92.

Three factors govern the ownership of international monetary reserves:

1. The need for reserves which is influenced by the possible discrepancies in the balance of payments.
2. The will and desire to own international monetary reserves which is mainly affected by the desire to be protected against emergencies.
3. The ability to own reserves which is determined by the degree of wealth of the nation and the extent to which more vital projects or plans are implemented or need to be implemented.

Any analysis of demand for international reserves which is based on the need to offset possible discrepancies in the balance of payments must assume that countries concerned are willing to own reserves, i.e., they are willing to forego other investments and invest part of their resources in the form of international monetary reserves.

The desire to own reserves includes the purpose to keep the exchange rates stable and to offset the discrepancies between external payments and receipts.

> It is, of course, possible to think of a fairy-tale world in which, starting from a situation of international equilibrium with full employment and balance of payments equilibrium for all countries, everything continues to move in step and each country's payments stay in continuous balance. This would involve such conditions as (1) continuous equality between the rate of change in wages and increases in productivity, (2) continuous demand from domestic private sources adequate to maintain full employment, or immediate government compensation for any deviations from this

level, and (3) a stable pattern of international demand and supply.[2]

Several kinds of disturbances that result in discrepancies in the balance of payments may be distinguished. Some disturbances result from erratic movements in goods and services and are consequently related to the current account of the balance of payments, others result from erratic transfers of claims and are related to the capital account.

Disturbances in the balance of payments are also distinguishable between two groups of countries, namely, the developing countries and the industrial countries. We shall distinguish in our analysis the two groups of countries and identify the disturbances that generally affect the balance of payments of each of the two groups. First, however, we shall try to clear a misconception about the relationship between demand for reserves and the volume of international trade.

International Trade and Demand for Reserves

One might suppose that demand for reserves would vary with the volume of international trade and transactions in the same way as demand for domestic currency tends to vary with the volume of internal business. The case would be similar to that existing under the postulates of the quantity theory of money.

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[2]J. J. Polak, "International Coordination of Economic Policy," International Monetary Fund Staff Papers, Vol. IX, No. 2 (July 1962), p. 154.

The argument that follows along the quantity theory of money lines is based on the thought that reserves need to increase proportionately to the increase in trade. The growth of world trade since the end of the War has occurred at a fast rate - see Table 8. The proponents of the proportionality view point to this growth in world trade and conclude that reserves are inadequate since they have failed to increase at the rate of increase in international trade.[3]

Demand for reserves is determined by the possible discrepancies in the balance of payments and not by the volume of international trade.

> It is generally true, that demand for international means of settlement is likely to be larger the larger the volume of international business, this is so because a larger volume of international business is likely to give rise to larger discrepancies.[4]

But there is no direct and proportionate relationship between the growth of world trade and the growth of balance of payments discrepancies. If the growth of world trade induces a proportionate change in balance of payments discrepancies, the quantity theory approach to the demand for international monetary reserves might be applicable.

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[3]For details of such analysis and approach see: (1) International Monetary Fund, International Reserves and Liquidity, (2) United Nations, Economic and Social Council, Measures for International Economic Stability (New York: 1950), (3) Triffin, Gold and the Dollar Crisis, (New Haven: Yale University Press, 1961).

[4]League of Nations, Op. Cit., p. 13.

TABLE 8

World Trade

(in billions of U. S. dollars)

Year	Exports F.O.B.	Annual Rate of Increase	Imports C.I.F.
1937	24.1		27.3
1950	56.1		58.7
		--- 37	
1951	76.1		81.0
		--- 3	
1952	78.4		79.8
		--- - 4	
1953	74.3		76.1
		--- 3.7	
1954	77.1		79.2
		--- 9	
1955	84.0		88.8
		--- 11	
1956	93.3		98.1
		--- 7	
1957	100.1		107.6
		--- - 4.5	
1958	95.4		100.7
		--- 6	
1959	101.3		106.4
		--- 12	
1960	113.2		119.2
		--- 5	
1961	118.5		124.4
		--- 5	
1962	124.3		131.5

Source: International Monetary Fund, International Financial Statistics, Supplement to 1963/64 Issues, pp. xiv-xv.

The major part of international trade is cleared in the foreign exchange markets of the world. That is, imports are paid for by means of exports. Any gap between outpayments and receipts is settled by international monetary reserves. Whether such gaps occur in the same proportion, or at a different rate than the rate of growth of world trade, will have to be determined by an independent investigation and not a priori.

Poul Host-Madsen of the International Monetary Fund has performed a study on the imbalances (discrepancies) in the balance of payments of all countries for the period 1947-58,[5] which roughly indicates that there is no determinate relationship between the rate of growth of world trade and the degree of imbalances. (See Table 9)

Host-Madsen's study considers total discrepancies as the sum of the deficits of all deficit countries, and measures these deficits by the transfers of international monetary reserves plus extraordinary financing received from the United States.[6] Extraordinary financing

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[5]Poul Host-Madsen, "Measurements of Imbalance in World Payments, 1947-58," International Monetary Fund Staff Papers, Vol. IX, No. 3 (November 1962).

[6]Transfers of reserves used in the measure of the deficit include the change in (1) a country's monetary gold ownership, (2) its official foreign exchange reserves, (3) its net position with the IMF, (4) its debit and credit balances with the European Payments Union, (5) its payments and clearing agreements debit or credit balances, and (6) its liquid liabilities to foreign monetary authorities. For details see, Ibid., p. 351.

TABLE 9

Total Discrepancies in Balances of Payments of Countries Other Than the United States 1947-1958[1]

(in billions of U. S. dollars)

Year	Total Deficits	Total for Primary Producing Countries	Total for Industrial Countries Excluding U.S.A.	Total for Industrial Primary Producing Countries[2]
1947	9.7	1.4	7.4	0.9
1948	7.2	1.9	4.5	0.8
1949	4.5	1.1	3.3	0.1
1950	2.5	0.4	2.1	--
1951	5.2	0.9	3.8	0.5
1952	2.9	1.9	0.9	0.1
1953	1.7	0.6	1.0	0.1
1954	0.9	0.6	0.1	0.2
1955	1.7	0.6	0.7	0.4
1956	2.5	0.9	1.6	--
1957	3.9	2.1	1.6	0.2
1958	2.2	1.8	0.2	0.2

Note: [1]Communist Bloc countries are excluded.

[2]Includes Australia, Canada, Ireland, New Zealand and South Africa.

Source: Poul Host-Madsen, "Measurements of Imbalance in World Payments," International Monetary Fund Staff Papers, Vol. IX, No. 3 (November, 1962), pp. 344-345.

extended by the United States is included in the measure of balance of payments discrepancies because, during the period, many countries received grants, interest free loans or similar financing to offset deficits. Aid to underdeveloped countries is excluded from the measure of total deficits because such aid is not considered temporary, but is part of the ordinary long-term financing.

Poul Host-Madsen's measure of total world deficits must be taken cautiously and considered as a crude indicator of total discrepancies because the period prior to 1958 is characterized by trade and payments controls which supplemented the use of international monetary reserves in balancing maladjustments in the balance of payments.

Discrepancies in the balance of payments were greatest in the late nineteen-forties. The main reason for the high magnitude of the discrepancies is the reconstruction of Europe and Japan during the same period. The reconstruction was performed with the help of United States foreign aid programs. Except for 1951 and 1957, the imbalance in the 1950's, decreased in magnitude for the industrial countries.

Three observations can be made with respect to the imbalance obtaining in the balances of payments of three categories of countries summarized in Table 9:

1. Balance of payments deficits for the industrial countries decreased gradually ever since 1947. Between 1952 and 1958 the average measure of the discrepancies was one billion dollars per year as

compared to the average for the five previous years of $4 billion per year.

2. For the industrial primary producing countries the discrepancies were relatively low. Since 1950, discrepancies have fluctuated around an average of $0.2 billion.
3. There is no noticeable trend for the measure of discrepancies in the balance of payments of primary producing countries. The deficits decreased during the early nineteen fifties and increased thereafter.

During the same period under consideration, the volume of international trade increased constantly except for the years 1952 and 1957 -- see Table 8. World trade was $56.1 billion in 1950, and increased to $95.4 billion in 1958. The increase in international trade was of greater magnitude in Western Europe, the United States and Japan. However, the trade of all other countries increased as well.[7]

Therefore the hypothesis that the discrepancies in the balance of payments accounts are dependent on the magnitude of international trade, which implies that international monetary reserves should increase at the same rate as the increase in world trade, is not validated by Host-Madsen's findings.

Other variables than the volume of international trade

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[7]For details see International Monetary Fund, International Financial Statistics, (Supplement to 1963/64 Issues) pp. xii-xv.

influence discrepancies in the balance of payments. These variables should be identified and evaluated, in order to reach valid conclusions about the magnitude of demand for international monetary reserves. We shall first try to ascertain the variables that influence demand for international monetary reserves by the developing countries and then investigate the factors that influence demand for reserves on the part of the industrial countries.

A quantitative statistical computation of the expected demand for international monetary reserves is not possible because, as will be evident in the analysis, several factors that influence demand are not quantifiable. Therefore, our evaluation will be restricted to a qualitative, partial equilibrium analysis. Such approach would enable us to conclude whether demand for reserves would increase or decrease in the future as a result of the operation of the factors that influence such demand.

Demand for Reserves: The Developing Countries

The primary producing countries consisting mainly of the developing nations of the world have a special significance in any global analysis of international monetary reserves. We have indicated in Chapter Two that the majority of the developing countries avail themselves of the provisions of Article XIV of the International Monetary Fund Articles of Agreement and restrict the freedom of international trade and payments. Control measures that they use as a policy variable

in balancing their accounts tends to minimize their demand for international monetary reserves. Instead of incurring a deficit in their balance of payments as a result of their increased and persistent demand for development goods, developing countries manipulate trade and exchange controls to balance their outpayments and receipts of foreign exchange.

Since most of the countries in this group are in the process of developing their economies, the opportunity cost of owning reserves tends to be prohibitive. Many of these developing nations have decreased their ownerships of short-term liquid assets and gold, others maintained their reserves at the same level.[8] Whenever a developing country had a surplus in its balance of payments, it would purchase capital goods for development rather than accumulate the surplus in the form of short-term assets or gold.

Use of controls by the developing countries, and their increased need for long-term capital goods must not be construed that the countries concerned do not require short-term liquid reserves. As most other nations, developing countries are exposed to the occurrence of deficits in their balance of payments and need international monetary reserves to offset such deficits. But relative to the discrepancies in

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[8]A few countries have increased the volume of their international monetary reserves; Venezuela and Kuwait fall in this group but such countries are the exception rather than the rule.

the balance of payments of industrialized countries, the expected discrepancies in the balance of payments of developing nations are of a much smaller magnitude. The reasons are: (a) use of controls, (b) need for development goods, and (c) freedom from speculative transfers of short-term assets due to payments restrictions and the lack of developed capital markets.

The developing countries will need short-term liquid assets to offset discrepancies in their balance of payments that may result from any of three causes:[9]

1. Many of the developing countries are dependent on the export of one or few primary products, the prices and the volume of which tend to fluctuate from year to year. The fluctuation in the prices and in the volume of the traded primary products account for fluctuations in the balance of payments. These fluctuations in the balance of payments need to be offset by international monetary reserves. According to United Nations studies,[10] the mean year-to-year variation in the prices of individual primary commodities averaged 13 per cent during the period 1900 to 1958. During the years

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[9]Brian Tew, The International Monetary Fund, Present Role and Future Prospects, "Essays in International Finance," (Princeton: Princeton University, International Finance Section, 1961) pp. 22-23.

[10]United Nations, Instability in Export Markets of Under-Developed Countries, Department of Economic Affairs (New York: 1952); United Nations, Department of Economic and Social Affairs, World Economic Survey 1958 (New York: 1959).

1948-58, the average variation was close to 11 per cent.[11] Additionally the volume of exports of primary producing countries is exposed to yearly variation equivalent to the variation in prices.[12]

If no international (or national) measures are taken to stabilize prices and production of raw materials and primary products, fluctuations in prices and quantities will continue to influence demand for international monetary reserves by developing countries. Such demand has to be accommodated by the "owned" reserves of developing countries or by the provision of international credit.

2. International monetary reserves are also needed by the developing countries "for stabilization schemes under which a country hitherto suffering from inflation settles on a new exchange rate and tries to persuade [others] that this new rate can and will be held".[13]

Inflation in primary producing countries changes the structure of their export and import markets. A rising level of internal prices increases demand for imports and decreases supply of exports. Stabilization schemes require time to be effective and

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[11] United Nations, World Economic Survey, 1958, p. 40.

[12] Ibid.

[13] Tew, Op. Cit., p. 23.

international liquidity is necessary to provide the country with the needed time and to prevent a drastic variation in the rate of exchange of the country's currency.

3. Finally reserves are needed by developing nations which temporarily accelerate their development programs and get out of phase with the availability of long term development finance. Reserves would help the country, in such a case, get back into phase with the sources of long-term finance without restraining the implementation of development plans. Since most of the developing primary producing countries are implementing development plans at an increased rate, their economies are more likely to get out of step and increase their demand for reserves.

Developing countries also need long-term capital investment some of which they have been getting in the form of grants and aid from industrially advanced countries. The need for international liquidity by the developing countries is limited to offsetting discrepancies arising between outpayments and receipts on the current account, or to offset a temporary disruption in the supply of long-term finance for development. Absence of capital markets and of efficient banking and financial facilities in the developing countries, coupled with the use of exchange and trade controls minimizes the possibility of speculative transfers of capital and restricts demand for

international monetary reserves.[14] However, should the developing nations, as a group, liberalize their restrictions on trade and payments, additional demand for international liquidity will be exerted as a result of the possible increase in transfers of short-term capital.

No unequivocal conclusion can be drawn on the total demand for international liquidity by the developing group of countries. Factors that influence the discrepancies in the balances of payments are not expected to diminish in importance. The future intensity of demand for international monetary reserves will depend on the development policies, and on exchange and trade control policies of the respective countries.

Demand for Reserves: The Industrial Countries

Current Account:

Since the abolishment of restrictions on payments related to current account transactions in 1958, new variables have been added to the system of international financial adjustment. These variables affect the discrepancies in the balance of payments of industrial countries and influence their demand for international monetary reserves.

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[14] The ingenuity of speculators in transferring capital accounts from a deficit country, even in the presence of rigid controls, results in added demand for international liquidity to offset such transfers. We presume, however, that such added demand would be minimized by exchange controls.

Several factors have contributed to a closer integration of the markets of the western industrial nations.[15] (a) Trade among the industrial countries is considerably freer of restrictions, (b) gaps in technological advances between them have narrowed, (c) freight rates have been reduced considerably, (d) merchandising techniques have become internationalized and consumers accept foreign products increasingly.

With the growing integration of the non-communist industrial economies, balance of payments discrepancies that occur as a result of dynamic or structural changes in the economies are expected to increase in importance.[16] Dynamic or structural factors refer to changes in cost or demand associated with technological change, to differential increases in productivity, or to differential rates of growth in gross national product.

Rates of increase in the productivities of the economies of countries belonging to the Common Market (and Japan) have been higher than the rates of increase in the productivities of the United States and Britain.[17] Technological changes occur at different times and at

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[15]In the following discussion I have drawn on W. Salant et.al., The U. S. Balance of Payment in 1968, pp. 236-240.

[16]U. S. Congress, Joint Economic Committee, Report of the Subcommittee on International Exchange and Payments, 87th Congress, 1st Sess. 1961, pp. 8-9.

[17]Salant, op. cit., pp. 95-118.

varying rates in various economies, influence the relationships between their international transactions, and result in surpluses or deficits.

Correcting deficits that result from structural changes requires policies that accelerate the rate of growth in the productivity of the industries of the deficit country. The corrective policy measures that raise productivity "are often the opposite of those which would be applied to achieve an immediate improvement in [the] balance of payments."[18] For example, additional investment to modernize plant and equipment requires lower interest rates. Lower interest rates may temporarily worsen the balance of payments by causing transfers of short-term capital to countries with higher interest rates.[19] Moreover, measures or policies that raise productivity or that effect other structural changes in the economy "take time to bear fruit."[20]

Consequently, discrepancies arising from structural developments have a tendency to be more persistent, and given the rigidities in the price and wage structures of the various industrial economies, the discrepancies may be more intractable. The possibility of persistent and intractable discrepancies in the balance of payments will require more international monetary reserves.

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[18] U. S. Congress, Joint Economic Committee, op. cit., p. 9.

[19] Fiscal policies can be used, but they require time to be implemented, and international liquidity would be needed to provide the country with the time.

[20] Ibid.

Two arguments attempt to show that the closer integration of the economies of the industrial western countries results in smaller discrepancies or in a more rapid pace of adjustment of discrepancies caused by structural or dynamic factors. The arguments are:

1. With relatively freer trade and with an increased area of international competition, "imbalances in international payments will be smaller because given internal adjustments in costs and prices will have a larger corrective effect."[21] The argument assumes that cost and price adjustments occur rapidly and effectively, which is not necessarily true. If monetary and fiscal policies are used to lower the price and cost levels, they are more likely to result in unemployment than achieve their purpose.[22] If increased productivity or new technology are expected to bring down the price and cost levels, more time will be required and the discrepancy would persist.
2. The second argument claims that possible disparities between national cost and price levels which permit balance of payments discrepancies to develop will be held down "because industries whose wages and prices threaten to get out of line for domestic reasons will offer more resistance than in the past, owing to their greater dependence on international markets."[23]

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[21] Salant, op. cit., p. 238.

[22] Lutz, International Monetary Equilibrium, p. 49.

[23] Salant, op. cit., p. 238.

Some disparate changes in national prices may be effectively resisted, for example wage cost increases and in such cases the argument would be valid. But more basic changes in cost or demand which reflect variations in less controllable variables such as changes in productivity rates or changes in technology would continue to cause balance of payments discrepancies that require time to be corrected.[24]

Therefore, both arguments that attempt to show that market integration would decrease the magnitude of balance of payments discrepancies and cause a more rapid pace of adjustment are not valid. Freer world trade, complete convertibility of currencies of major trading countries and integration of the markets of industrial countries tend to create more persistent discrepancies in the balance of payments. The persistence of discrepancies intensifies demand for international monetary reserves.[25]

In the study made for the Brookings Institute by W. Salant and others a similar conclusion concerning the intensity of future deficits is reached.

> Our studies have led us to conclude that the relation between imbalances and the total volume of transactions is more likely to increase than to decrease. While the range of potential swings in balances of payments will probably continue to be a moderate percentage of the

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[24] Ibid.

[25] The conclusion is valid under Ceterus Paribus conditions.

> total volume of international transactions, these swings have widened greatly in recent years, and the trend of recent developments suggests that they are likely to widen further in the future.[26]

The same conclusion about the persistance of deficits is reached by the Subcommittee on the International Exchange and Payments. In its Report to the Joint Economic Committee of the U. S. Congress, the Subcommittee concludes: "Relatively large and persistent surpluses and deficits are a natural and necessary accompaniment of such vigorous growth and change."[27]

Coombs and other central bankers also arrive at a similar conclusion:

> While it would seem highly unlikely that the amplitude of these swings will increase in proportion to the growth of trade and investment, we would agree that some increase in the swings may well occur.[28]

Consequently the dynamic factors that are constantly varying within and among the various economies, are expected to create future discrepancies in the balance of payments of a much greater magnitude than the imbalances that occurred prior to 1958. This probable outcome would require additional reserves for the individual countries and for the system as a whole to accommodate the necessary adjustments,

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[26]Salant, op. cit., p. 236.

[27]U. S. Congress, Joint Economic Committee, op. cit., p. 8.

[28]Charles Coombs, et. al., "Conversations on International Finance", Federal Reserve Bank of New York: Monthly Review, Vol. XIV, No. 8 (August 1963), p. 116.

without resorting to other variables and without hampering the objectives of growth, full employment and free international trade.

Impact of Cyclical Fluctuations on Demand for Reserves

International monetary reserves are demanded by countries whose trading partners are exposed to cyclical fluctuations in their levels of economic activity. A depression in a country will tend to reduce its imports. A depression in a major trading country will tend to reduce substantially exports of other countries. If these countries maintain the level of their imports, their demand for monetary reserves would be enhanced, if they do not, exports of other countries will be further reduced and the depression will tend to intensify and spread.[29]

Availability of international monetary reserves enables the country to continue the same level of imports of goods and services though the level of its exports has declined. International monetary reserves would counterbalance the difference between imports and exports.

> /International monetary reserves are used/ to combat the spread of depressions by offsetting the effect of a fall in foreign demand on home employment through a rise in domestic demand, accepting the consequent gap in the balance of payments and settling it by an outward transfer of liquid international reserves.[30]

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[29] International Monetary Fund, "Adequacy of Monetary Reserves", Op. Cit., p. 197.

[30] League of Nations, International Currency Experience, p. 214.

The amount of international monetary reserves necessary to prevent the spread of downturns in the level of economic activity as a result of the business cycle "depends on the duration and intensity of the depression in the country of primary origin and the importance of that country in world trade."[31]

A major depression in a major trading country like the United States or the United Kingdom will result in an increased demand for international monetary reserves by the countries that depend on the United States markets or the British markets for their exports. "If the depression is deep and protracted at its point of origin, the amount of monetary reserves necessary to prevent its spread may become indefinitely large."[32] On the other hand, more intensive depressions in less important trading countries will not greatly affect demand for reserves by other countries.

Determination of a statistical measure of demand for monetary reserves to protect the national economies from the possible spread of depressions is impossible because tools of analysis for projecting the occurrence and intensity of business cycles are not well developed.

Postwar recessions have been mild and short lived as a result of the increased and stabilizing importance of the public sector in the

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[31] International Monetary Fund, Op. Cit., p. 197. (Italics are mine.)

[32] Ibid.

major industrial countries and as a result of stabilizing government policies. For example, the United States authorities have followed flexible monetary policies especially since 1951, and other fiscal policies that were appropriate for each phase of the cycle.[33]

> The fact that postwar recessions have on the whole been rather mild, and in any case short lived, has been taken to indicate that the U. S. economy has developed a considerable capacity to resist contracting influences.[34]

If we assume that fluctuations in the levels of economic activity of industrial countries will continue to be mild, demand for international liquidity would not be more intensive than during the past two decades--on account of cyclical fluctuations. Larger amounts of international liquidity would be demanded, the greater the relative weight of the respective economies in international trade and finance, and the more intensive the fluctuation.

Demand for Reserves: Capital Account

So far we have dealt with international monetary reserves as they are used to compensate for any discrepancy that arises from the outpayments and receipts of foreign exchange on the current account of

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[33]For a detailed view on the United States monetary and fiscal policies to stabilize the levels of economic activity refer to: Hart and Kenen, Op. Cit., especially pp. 438-483.

[34]Per Jacobsson, "Toward More Stable Money," Foreign Affairs, Vol. XXXVII (April 1959). p. 383.

the balance of payments. Demand for short-term assets is not restricted to their compensatory function on the current account. Demand for reserves may be induced by international differences in short-term interest rates and by the risk of devaluation of currencies. Additionally, international monetary reserves are demanded to offset sudden fluctuations in the supply of capital on long-term capital account. Factors that affect demand for international liquidity to offset discrepancies originating in the capital account of the balance of payments will be evaluated in this section.

Several developments in the international financial setup have contributed to the relatively easier transfer of claims amongst the various countries:

1. Free currency convertibility enables the conversion of short-term claims from one financial center to another without any delay and at a predetermined price.

2. The presence of a large volume of privately owned short-term assets that are not formally or legally bound to be invested in any particular country. Table 4 indicates the extent of the privately owned short-term dollar assets by foreigners--$10 billion. In addition a limitless supply of short-term dollar assets is owned by private United States citizens, and additional foreign short-term securities are owned by the citizens of the foreign countries. All these privately owned

short-term assets can be transferred from one country to another on demand.[35]

3. Foreign exchange markets facilitate the placement and transfer of short-term assets. Establishment of the Euro-dollar market in London which enables non-residents to place time-deposits denominated in foreign currencies--especially in dollars--has substantially increased international transfer of claims.[36] "The importance of time deposits denominated in foreign currencies is that no forward cover is needed and, therefore, the profit margin to the depositor increases."[37]

4. Though access to European capital markets is limited de jure by purpose or by nationality, de facto capital transfers are liberal. Many countries allow non-residents to take advantage of opportunities to earn higher interest by transferring funds on short-term and on long-term capital accounts. Capital exports from many European countries are scrutinized but are not completely prohibited.[38]

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[35] U. S. Congress, Joint Economic Committee, Report of the Subcommittee on International Exchange and Payments, p. 4.

[36] For a good statement on the working of the Euro-dollar market see: O. Altman, "Foreign Markets for Dollars, Sterling, and Other Currencies", IMF Staff Papers, Vol. VIII (Dec. 1961); and O. Altman, "Recent Developments in Foreign Markets for Dollars and Other Currencies", IMF Staff Papers, Vol. X (March 1963).

[37] I. Friedman, "The International Monetary System," International Monetary Fund Staff Papers, Vol. X (July, 1963), p. 233.

[38] Ibid., p. 240.

As a result of the liberal developments in the international financial setup that facilitated international transfer of short-term and long-term assets, two new phenomena characterize demand for international monetary reserves on short-term capital account:

(a) Free convertibility of the major currencies and the presence of foreign exchange markets permit financing of discrepancies through commercial banks and with minimal resort to official monetary reserves. Minor discrepancies in the balance of payments can be financed by inducing short-term capital transfer by way of a change in the rate of interest or the discount rate. A deficit country can, under normal conditions, increase the rate of interest and induce a transfer of short-term capital to offset the deficit. Such transfer of short-term assets is referred to as equilibrating transfer of capital. The criterion for the "equilibrating" characteristic is the transfer of short-term claims to deficit countries. The increase in the rate of interest is not a necessary condition for the transfer of short-term claims because the deficit in the balance of payments of a country would automatically increase the supply of its currency. The increased supply would decrease the par value to the lowest permissible margin, and make it profitable to foreign exchange dealers to purchase the currency.[39]

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[39]Below the permissible margin the government will interfere and purchase the excess supply of its currency with foreign exchange reserves. See above, p. 95.

(b) On the other hand, the ease of transfer of short-term claims has resulted, on several occasions, in the conversion of these assets from the country with a deficit to other countries with a surplus in their balance of payments. Generally when a country has a large or a persistent deficit in its balance of payments, the rate of exchange of its currency will be suspected to change. The suspicion of change is founded on the expectation that the persistent deficit is a reflection of a "fundamental disequilibrium" which, according to the provisions of the International Monetary Fund Agreement, permits the member country to change its exchange rate. Speculators would transfer their short-term dollar assets from the deficit country to other surplus countries and thus aggravate the liquidity position of the deficit country and induce additional demand on the country's international monetary reseeves. The transfer of short-term assets from a deficit country to a surplus country is referred to as "disequilibrating" transfer of short-term capital.

In addition to the disequilibrating capital transfers, other elements exert additional pressure on the country's monetary reserves: (1) Citizens of the deficit country who have future debts to abroad would transfer their obligations prior to the due date in order not to have to pay more as a result of the devaluation, and (2) foreigners who have payments due to the deficit country will try to postpone payments as much as possible in order to take advantage of the possible devaluation.

Increasing the rate of interest in the deficit country is not

very effective in reducing the negative transfer of short-term claims. Interest rates will have to be increased substantially in order to induce speculators that the payoff from interest returns outweighs the possible loss from devaluation, and countries are not willing to increase the rate of interest to a high level for internal economic reasons. Consequently, the use of reserves is the only possible measure to offset these speculative transfers if exchange rate devaluation and/or resort to payments restrictions are to be avoided.

Speculative Crises

In the last five years three major speculative crises occurred. These crises required special credit arrangements among the industrial countries. Reviewing the crises and the credit arrangements will provide us with the magnitude of demand for liquidity induced by speculation, and with the type of the most suitable credit arrangement.

1. In 1960, a possible devaluation of the United States dollar was suspected as a result of the large and persistent deficit in the United States balance of payments in the three previous years. The Department of Commerce estimates the transfer of short-term dollar assets, in excess of the normal requirements for short-term capital financing of exports, at $1,235 million in 1960 compared to $77 million in 1959.[40] The deficit in the U. S. balance of payments increased as a

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[40] U. S. Office of Business Economics, Survey of Current Business (December, 1960), p. 6.

result of the transfer of short-term dollar assets, and additional gold assets were transferred to offset the deficit.

2. In 1961, the revaluation of the German mark, as a result of the persistent surplus of the German balance of payments created anticipations of a second revaluation and caused a speculative transfer of short-term claims from the United States to Germany. The United States Treasury intervened in the foreign exchange markets and sold marks which the German Central Bank supplied as a result of the swap arrangements referred to earlier, and the transfer of short-term claims to Germany was reduced.[41]

Additionally, short-term claims were transferred from the United Kingdom to Germany. The transfer of British claims to Germany caused a number of central banks to grant the United Kingdom short-term credit equal to $900 million. The United Kingdom also received credit from the IMF equal to $1,500 million and concluded a stand-by arrangement for a further $500 million. The Fund assistance contributed to the reversal of the trend in the exchange markets.[42]

The amount of the Fund assistance gives an indication of the magnitude of demand for reserves of the United Kingdom as a result of the disequilibrating transfers of capital.

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[41] Lutz, op. cit., p. 10.

[42] International Monetary Fund, Annual Report of the Executive Directors, 1962, (Washington: 1962) p. 6.

3. In 1962, disequilibrating transfers of short-term assets affected Canada as a result of various uncertainties about the rate of exchange of the Canadian dollar. Canada contracted credit arrangements with the IMF equivalent to $300 million, and other financial assistance from official institutions in the United States and the United Kingdom to the amount of $750 million. Consequently, this extra credit of over one billion dollars relieved the pressure of the transfers of short-term capital from Canada.[43]

During each of the three major crises that occurred in the last five years, countries were able to negotiate credit agreements on short notice. The swap credit arrangement, special bilateral or multilateral credit and extraordinary stand-by agreements with the IMF were sources of additional supply of borrowed reserves. These sources of supply are excluded from the 'conventional' measure of supply of reserves. Consequently, abstracting from the supply of borrowed credit as a source of international liquidity, as performed by the 'conventional' analysis, results in erroneous conclusions about adequacy of reserves.

However, the fact that credit was forthcoming when needed to forestall major transfers of short-term claims does not validate the conclusion that in the future similar arrangements could be made. There

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[43] International Monetary Fund, Annual Report of the Executive Directors, 1963, (Washington: 1963) pp. 6, 105.

was a possibility that the United Kingdom or Canada might have been unable to contract additional credit, and might have been forced, as a result, to resort to restrictions on payments or to exchange rate devaluation.

Resort to unilaterally imposed payments restrictions by a major trading country will provoke retaliation by other countries. The general imposition of restrictions on international payments would hamper international trade.

On the other hand, resorting to exchange rate devaluation as a result of the pressure on the country's international liquidity from disequilibrating transfers of capital would decrease the value of foreign investments--short-term and long-term--in the devaluing country. Given the proper elasticities of demand and supply, such devaluation would result in an enhancement of the trade position of the devaluing country at the expense of other countries. But, other countries might not permit the changed international market structure and might devalue their currencies so as to protect their international trading positions. Such action would set in motion a wave of competitive currency devaluation which would create a new and uncertain international trade and investment relationship.

Therefore, provision of international liquidity to offset discrepancies caused by disequilibrating transfers of capital protects the creditor countries from a possible capital loss in their investments in the deficit country. It also saves the international payments

system from collapse by the wave of competitive devaluation. Formalizing the credit arrangements, on the basis that credit would be automatically extended to countries exposed to disequilibrating capital transfers, would provide the IMF arrangement for international financial adjustment with a secure basis for performing the required adjustment without jeopardizing vital national and international objectives.

Long-Term Capital Transfers

The integration of the economies of the industrial countries of the western world, the complete convertibility of their currencies and the development of foreign exchange markets have all helped facilitate the transfer of capital on long-term account.

Under relatively normal conditions international long-term capital investments occur because the long run interest rate is higher in one country than in another, or because, in the case of direct investments, the profit prospects are more favorable abroad than at home. In the past decade, long-term capital investments by United States citizens have occurred in Europe because of the relatively better yields in European enterprise.

Earnings from capital investments abroad as well as service charges and interest rates on long-term loans are recorded in the current account of the balance of payments. The long-term capital account records all transactions resulting in changes in the creditor-

debtor position of the country. Though the net position of the country on long-term capital account has an indirect influence on its demand for gold or for other short-term assets, we shall only concern ourselves with the transactions, on capital account, that have a direct bearing on the demand for reserves.

International transactions on long-term capital account that have a direct influence on the liquidity position of a country are the amortization payments on long-term investments and loans, and the flow of new investment funds. Whenever the par rate of a country's currency is suspected of change which suspicion causes disequilibrating short-term capital transfers, amortization payments would be timed to take advantage of possible changes in the par value. For example, if the par rate of the currency of country 'A'-- the creditor country-- is expected to increase (revalue), and amortization payments are due to 'A', debtors would transfer beforehand the amount of the payments into country 'A'. If feasible, debtors would pay off the debt as quickly as possible so as to avoid paying extra as a result of the revaluation. Such premature transfers would add to the surplus of 'A'.[44]

On the other hand, if country 'A' is the creditor country and has a deficit in its balance of payments which raises expectations of

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[44] The situation depicted in this example is similar to what happened to Germany in 1961 - for details see F. Lutz, op. cit., pp. 10-11.

a possible devaluation of 'A' 's currency, amortization payments would be delayed as much as possible. Such delay would exert additional pressure on A's deficit and increase A's demand for additional monetary reserves.

Similarly, if new long-term foreign investments are planned in country 'A', and A's currency is suspected of devaluation, thus precipitating disequilibrating short-term capital transfers, foreign investments would be delayed until devaluation occurs or until country 'A' offsets its deficit. If country 'A' was having a persistent surplus in its balance of payments and short-term capital was being transferred, prospective foreign investors, on long-term capital account, would prematurely transfer their long-term capital in order to take advantage of the possible currency revaluation. These leads and lags on long-term capital account accentuate the transfer of short-term assets of disequilibrating character and increase the demand pressure on the country's stock of international liquid assets.

Demand for International Liquidity: Summary

No quantitative measure can be provided for future demand for international liquidity. Our qualitative analysis of the factors that determine demand for international liquidity left undecided the impact of few factors, but ascertained that other factors would increase the magnitude and intensity of future balance of payments discrepancies and would consequently accentuate demand for international liquidity.

Demand for international liquidity will intensify as a result of integration of the markets and the possibility of discrepancies caused by dynamic and structural changes in the various economies. Additionally, the presence of large amounts of privately owned short-term capital accounts and the free convertibility of currencies of all industrial countries make possible disequilibrating transfers of capital that accentuate the demand for international liquidity.

Supply and Demand: Conclusions

In considering the forces that affect supply and demand for international monetary reserves, we are faced with the lack of a quantitatively defined relationship capable of yielding a definite conclusion. On the supply side we have indicated that the 'conventional' measure of international monetary reserves abstracts from the supplementary sources of international liquidity--what we termed borrowed reserves--and underestimates the supply of reserves.

Consequently we followed the 'conventional' computation of international monetary reserves and reviewed in addition, the various credit arrangements which provide countries with 'borrowed' reserves under certain conditions. Our approach and our investigation resulted in a peculiar conclusion. The borrowed reserves have an important function in the international financial system since they are utilized to provide massive doses of liquidity to countries that are exposed to disequilibrating capital transfers.

On the demand side, we cleared a very common and confusing misconception about the role of international monetary reserves. Most of the writers in the field - including Triffin, Harrod, Altman and others - use the volume of international trade as an indicator of the required amount of international monetary reserves. International trade increases at an annual rate of 4 or 5 per cent-- these writers say - consequently, reserves must increase at the same rate. Since reserves are needed to offset discrepancies in the balance of payments and since discrepancies are not necessarily directly correlated to the volume of trade we have discarded the approach followed by the above-mentioned writers. Instead, we have tried to ascertain the factors that influence discrepancies in the balance of payments and create demand for reserves.

In the analysis of the factors that influence discrepancies in the balance of payments countries were divided into two groups. The developing nations were grouped in a different category from the industrial nations because different identifiable elements influence the demand for international monetary reserves on the part of each group of nations.

The developing countries are permitted to use trade and exchange controls. Consequently, their demand for reserves is reduced to the function of offsetting discrepancies that arise from the fluctuations in output and prices of primary products and discrepancies

that result from sudden declines in the amount of long-term finance as a consequence of political or other reasons.

The need for reserves by developing countries, as a whole, is not of great proportions. In the past decade, IMF resources have been adequate in supplementing the national reserves of the developing countries and offsetting discrepancies in these countries' balance of payments.[45]

Industrial countries encounter problems different from those of the developing countries. Factors that affect demand for international reserves by industrial countries were grouped into two distinct categories because such grouping serves to clarify the confusion and discord that have been evident between economists and between nations, with respect to the supply and demand for reserves and the level of adequacy of international liquidity.

1. Some of the factors that affect discrepancies in the balance of payments in industrial countries result from the transactions on current account. Convertibility of currencies of industrial countries and the integration of markets of the Western World have resulted in the possible occurrence of discrepancies that would be more intensive and

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[45]For details of the Fund lending to developing countries, see, "Fund Policies and Procedures in Relation to the Compensatory Financing of Commodity Fluctuations" IMF Staff Papers, Vol. VIII (Nov. 1960), pp. 1-76. See also Brian Tew, The International Monetary Fund: Its Present Role and Future Prospects.

more protracted, and that would consequently increase the demand for reserves. But the increased demand for international monetary reserves, as a result of these dynamic factors has been evident since 1958. The existing arrangement together with the additional credit agreements have been able to cope with this increased demand, and would consequently be adequate in the future.[46]

The view, on the adequacy of international liquidity is expressed by many European countries and especially by France. However, our investigation has indicated that there would be no need for additional international reserves if we abstract from two phenomena, viz. the expected elimination of short-term dollar assets as a supplement to monetary reserves and the possibility of disequilibrating capital transfers. But it is unrealistic to abstract from the two aforementioned phenomena.

The United States is not willing to continue the deficits in its balance of payments and the lack of additional supply of short-term dollar assets is bound to create a shortage of international liquidity if new sources of supply of international liquid assets are not tapped.

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[46] M. Valery Giscard d'Estaing, minister of finance of France in his statement to the IMF Annual Meeting of the Board of Governors in 1963 says, "I shall concur with...(the conclusion) that there is at the present time no over-all shortage of world liquidity" - See International Monetary Fund Summary Proceedings 1963, (Washington: 1963) p. 59.

Short-term dollar assets make up 35 per cent of the total 'owned' reserves. A possible surplus in the United States balance of payments would diminish the foreign exchange component of total reserves. If continued such surplus would ultimately eliminate the dollar segment of the international monetary reserves. Gold production, the only other dependable component of monetary reserves is not expected to increase at the given gold prices, and the existing gold production level provides $730 million annually. Except for the resources of the IMF, the other bilateral and multilateral credit arrangements are designed to operate without complete assurance when a major crisis occurs.

Consequently, unless some other arrangement is made whereby an international institution or a country other than the United States would issue claims to replace the dollar claims, the existing level of international monetary reserves is bound to become inadequate in offsetting the discrepancies that occur on current account.

2. There are other factors that increase the intensity of demand for reserves. These factors result from transactions on the capital account. The presence of a large supply of short-term dollar assets with the private sector and the well developed foreign exchange markets facilitate the transfer of short-term assets in an equilibrating and in a disequilibrating fashion.

The disequilibrating capital transfers have resulted in three major crises in the past five years. Countries that were exposed

to the speculation that caused disequilibrating transfers of capital needed massive credits from other surplus countries to offset the capital transfers. The magnitude of the credit needed on each occasion and the extraordinary credit arrangements that were hurriedly put together indicate that the existing arrangement for providing international monetary reserves is not adequate to offset deficits in the balance of payments that are accentuated by short-term capital transfers.

No country would be willing to add to its reserves one billion dollars of additional short-term assets even if that were possible. Speculative transfers of capital occur sporadically and affect all the major trading countries. Speculation is inherent in the quasi-fixed rate system. The arrangements that have been devised to cope with such transfers of capital, e.g., "General Agreement to Borrow", swap credit arrangements, are either too scanty or too limited. A more formal international credit arrangement is required to bail out the various countries that would be exposed to such credit transfers.

The arrangement required to offset disequilibrating capital transfers is of a different nature than the one needed to make up for the decreasing supply of short-term dollar assets. When the British government[47] insist that the international monetary reserves are

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[47]Mr. Reginald Maudling, the British Chancellor of the Exchequer, in his statement at the meeting of the IMF Board of Governors in 1963 lists short-term speculation against the currency as the foremost reason why countries need access to more reserves. See International Monetary Fund, Op. Cit., pp. 65-66.

insufficient, they mean that the international financial arrangement is inadequate to offset the transfers of short-term claims from one financial center to another.

In devising a scheme to make up for the deficiency in the system that results from the quasi-fixed rates and from the disequilibrating capital transfers, we would not need an addition to the 'conventional' 'owned' reserves. What is required is an arrangement that would come into operation when needed, and that would as a result discourage capital transfers of a disequilibrating character or adequately provide for offseting the transfers of such capital.

Consequently, an adequate arrangement for overcoming the deficiencies of the existing arrangement for international financial adjustment must provide additional international liquid assets to replace the diminishing supply of short-term dollar assets and must be able to muster large sources of credit to bail out countries exposed to disequilibrating transfers of capital.

CHAPTER FIVE

Plans for Providing Additional Liquidity

Introduction

The existing system of international financial adjustment needs additional sources of international liquidity to overcome the deficiency that would result from elimination of the United States balance of payments deficit, and to offset the transfer of disequilibrating short-term capital from countries with a deficit to countries with a surplus in their balance of payments.

A properly functioning system of international financial adjustment must contribute to the basic economic objectives shared by all countries. These include: (1) stable and high levels of economic activity, (2) a satisfactory rate of economic growth, and (3) mutually beneficial trade that reflects and contributes to efficient international allocation of resources through freedom of international transactions. Under the existing arrangement of quasi-fixed rates of exchange, the lack or the possible scarcity of international liquidity would necessitate resort to economic policy variables that hamper these vital national objectives.

Provision of adequate international liquidity substitutes for the use of exchange controls which restrict the freedom of international transactions, and for the unnecessary variation of the rate of exchange

to stop the transfer of disequilibrating short-term capital. International liquidity provides countries that have deficits in their balance of payments enough time to follow monetary, fiscal or trade policies capable of correcting the maladjustment without impinging on the pursuit of vital economic objectives. Policies that eliminate or minimize balance of payments discrepancies are necessary for the adjustment process. Such policies require time to be effective and the use of reserves provides the time.

Plan of Study

Many proposals to increase international liquidity have been submitted.[1] In this chapter we shall discuss and evaluate the major proposals only, and determine whether any of them is capable of making the system of international financial adjustment more viable in view of the defects presented in chapter Four. The two essential criteria for acceptability of any plan are the capacity of the plan to provide additional liquid assets that would substitute for the diminishing

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[1]For a good summary of proposals to increase international liquidity see: F. Machlup, Plans for Reform of the International Monetary System, "Special Papers in International Economics", No. 3, (Princeton: Princeton University, International Finance Section, 1962); also, B. Tew, "International Monetary Reserves", U. S. Congress, Joint Economic Committee, Report: International Payments Imbalances and Need for Strengthening International Financial Arrangements, [87th Congress, 1st Session] (Washington: May 1961) pp. 286-300.

supply of short-term dollar assets, and its efficiency in providing massive doses of international liquidity to countries exposed to disequilibrating transfers of short-term capital.

Plans for reform can be distinguished according to whether they call for changing the system of adjustment by changing the variable through which the adjustment process occurs or whether they depend on the existing arrangement for balance of payments adjustment, but call for an increase in international liquidity. Plans falling in the latter category can be further divided into two sub-groups, namely, a group which provides for an increase in individual countries' 'owned' reserves and the other group which calls upon surplus countries to provide credit to deficit countries in one form or another.

Proposals to Change the System of Adjustment

Price/Cost Variation

Two sets of proposals that call for a change in the variables of the system for international financial adjustment will be evaluated presently. One set of proposals calls for allowing the adjustment to occur via changes in prices and costs, without any official compensatory policy.[2] This proposal means following the same

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[2] J. Rueff, "The West is Risking a Credit Collapse", Fortune, New York, (July 1961) and M. Heilperin, "Monetary Reform in an Atlantic Setting", U. S. Congress, Joint Economic Committee, Op. Cit., pp. 331-340.

system of balance of payments adjustment of the international gold standard.

Balance of payments adjustment by means of free variation in prices and costs is operative under the following conditions: price and wage flexibility, implementation of monetary policy capable of reinforcing balance of payments deficits and surpluses by corresponding changes in money supply, and market stability. These necessary conditions for the operation of the adjustment process are absent in the present economic setting and have to be implemented to permit the operation of the adjustment mechanism.

Enforcing the condition of price and wage flexibility requires breaking or restraining the growth of government, of large scale business units and of labor and trade associations. Such a policy of atomizing economic institutions in order to permit the perfect working of the market mechanism is in harmony with the eighteenth century and is definitely out of step with the technological and cost saving progress of the twentieth century. In the absence of price and wage flexibility balance of payments adjustment will occur by means of variations in the levels of income and economic activity and implies foregoing the national objectives of stable and high level of economic activity.

Implementation of monetary policy capable of reinforcing surpluses and deficits by corresponding changes in the supply of money is contingent on the effectiveness of the tools of monetary policy, namely, open market operations, discount and interest rate policy and

legal reserve requirements. In the presence of large scale and integrated business enterprises, and financial intermediaries, it is doubtful whether monetary tools of policy would be capable of efficiently expanding and contracting supply of money at will.[3]

Finally, balance of payments adjustment by means of free variation of prices and costs depends on the presence of appropriate price elasticities of supply of exports and demand for imports. Market conditions cannot be forced to a stable position and inappropriate elasticities will restrict the adjustment process.

Consequently, proposals for changing the system of balance of payments adjustment and permitting correction of maladjustments through freely varying prices and costs necessitate implementing conditions that would make the economic setting incompatible with modern economic and social progress. Otherwise, adjustment would occur by means of varying levels of income and economic activity which means foregoing the vital national objectives of high and stable levels of economic activity. The possibility of unstable market conditions would restrict the process of adjustment though the other conditions may be implemented.

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[3]The government may be able to control the quantity of money, but the velocity of circulation which depends on institutional factors outside efficient government control will make the control of the quantity of money ineffective in achieving its objective.

Exchange Rate Variation

The second set of proposals calls for using the free variation of the rate of exchange to correct maladjustments in the balance of payments.[4]

An efficient system of freely flexible rates of exchange to adjust balance of payments discrepancies hinges on the presence of flexible prices and wages, on the mobility of factors of production and on the stability of market conditions. Absence of any of the three conditions results in an impact of the process of adjustment on the levels of income and economic activity, or in no adjustment at all.

The free market mechanism must be rendered operative, if the system of adjustment that depends on freely flexible rates of exchange is to be successful. Enforcing the free market mechanism requires atomizing the economic institutions that create rigidities. Such atomization is out of tune with modern economic and technological progress.

Assuming that the free market mechanism can be forced to function, balance of payments adjustment by means of freely fluctuating rates of exchange would be restricted by unstable market conditions. Inappropriate elasticities of supply of exports and demand for imports render correction of maladjustments dubious.

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[4]For a list of advocates of the free variation of the rates of exchange see: Machlup, op. cit., pp. 57-58.

Both proposals for balance of payments adjustment that depend on the free market mechanism necessitate implementation of conditions that are incompatible with economic and technological progress. Absence of these market conditions entail that adjustment would cause fluctuations in the levels of income and economic activity and would be unacceptable to national governments pledged to the maintenance of stable and high levels of economic activity.

Plans to Increase International Liquidity

Many of the plans devised for increasing international liquidity are variations on the theme of increasing the borrowing potential of countries with deficits in their balance of payments.[5] If countries with a deficit in their balance of payments were given automatic credit so as to settle the deficit, the problem of adjustment would be temporarily solved, and no balance of payments crises or shortage of international monetary reserves could ever develop. The deficit country, however, will then have to implement fiscal and monetary policies that would correct the cause of the deficit.[6]

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[5] F. Lutz, The Problem of International Liquidity and the Multiple Currency Standard, "Essays in International Finance", No. 41 (Princeton: Princeton University, International Finance Section, 1963), p. 6.

[6] The corrective policies will not be necessary if the deficit is the outcome of seasonal variations or of a national disaster.

Automatic provision of credit from surplus to deficit countries constitutes the most extreme approach to solving the deficiency in international liquidity. It sets the limit for all the plans that are based on the principle of extending credit from surplus to deficit countries. The plans, however, vary in the conditions that govern the provision of credit, or in the magnitude of the credit, or in the organization of the agency that channels the credit or in some other minor detail.

On the other hand, two plans differ from the general theme of providing credit to deficit countries. One plan calls for increasing the price of gold in order to increase international liquidity. The other calls for increasing the number of reserve currencies to include the currencies of European countries that have surpluses in their balance of payments.

Increase the Price of Gold

The proposal to increase the price of gold is straightforward. The suggestion is to double the price of gold.[7] Doubling the price of

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[7]The main proponent of increasing the price of gold is Roy Harrod. For details of Harrod's views see: R. Harrod, "The Dollar Problem and the Gold Question", The Dollar in Crisis, S. E. Harris (ed.) pp. 46-62., idem, "Memorandum of Evidence", Committee on the Working of the Monetary System [Radcliffe], Principal Memoranda of Evidence, vol. III (London: H.M.S.O., 1960), pp. 114-116.

gold would increase the dollar value of the existing stock of monetary gold by $39 billion. It would also raise the value of newly mined gold that is annually added to the gold reserve stock, and increase the volume of such gold by making gold mining more profitable.

Increase in the price of gold means a devaluation in the rate of exchange of the dollar and of other currencies. This currency devaluation might inspire different reserve asset preference. The possible conversion of ownerships of foreign exchange reserves into gold assets would cause a decline in the total world monetary reserves that would offset part of the increase in the value of international monetary reserves.

Revaluation of gold raises the value of the 'owned' component of international monetary reserves. It would facilitate balance of payments adjustment without resort to increasing international credit which increase would depend on improbable international agreement. Increasing the value and volume of newly mined gold would substitute for the diminishing supply of short-term dollar assets.

The major gold producing countries are the Union of South Africa, Russia and Canada. The main owners of monetary gold stock are the United States and countries of Western Europe. Any measure for revaluing gold would increase the revenues of the gold producing countries and would provide countries that own gold stock with windfall capital gains. The haphazard distribution of the benefits of gold revaluation may be objectionable to countries that own their international

monetary reserves in the form of foreign exchange assets. Harrod considers such objections surmountable.

> The main answer to this [objection] is that the great benefit of revaluation would not be the immediate benefit issuing from the act of revaluation, but the greater volume of production and the greater flow of trade throughout the free world that would be its lasting consequence. To the extent that the mature countries are enabled to implement expansionist policies more continuously, they would buy more from the underdeveloped countries; thus benefits flowing from greater liquidity would rapidly be redistributed around the world.[8]

If the mature economies do not increase their imports from the developing countries, however, the latter would not benefit from the additional liquidity brought about by gold revaluation and would still require credit arrangements that would supply them with needed international monetary reserves.

The increase in the economic power of Russia and of South Africa -- which is objected to on a political basis -- as a result of the increase in price of gold is not considered by Harrod as a setback to his proposals. Though Russia benefits from gold revaluation, the benefits to the international financial system would be greater. Gold revaluation is also considered by Harrod to be salutary to the native population of South Africa and should, therefore, be acceptable to countries that condemn South Africa's racial policies.[9]

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[8] Harrod, "The Dollar Problem and the Gold Question", p. 60.

[9] Ibid., pp. 59-60.

Harrod's views on the levity of the additional economic power accruing to Russia and to South Africa are not shared by many nations or economists whose objections to the consequences of gold revaluation on these two particular countries might block the adoption of Harrod's proposals. Other reasons, however, are persuasive enough, in view of the criteria reached in the previous chapter, to prompt us to withhold acceptance and backing of the proposal to increase the price of gold.

Increasing international liquidity by means of gold revaluation does not provide for an adequate solution to the liquidity problem inherent in the transfers of disequilibrating capital. Though international monetary reserves may become sufficient to offset discrepancies that arise in the current account of the balance of payments, massive doses of international liquidity would still be needed to offset disequilibrating transfers of short-term capital. In the absence of an arrangement that provides adequate liquidity to countries exposed to speculative transfers of short-term capital, countries would resort to other policy variables which impede the freedom and growth of international trade and which restrict the pursuit of vital national economic objectives.

Revaluing gold and maintaining it as the cornerstone of the system of international financial adjustment is completely out of step with the present day and age. It is an absurdity, in our enlightened era, to spend resources in extracting gold, so as to transport it and

store it underground again. The social cost of maintaining gold as a basis for international finance is unwarranted, and measures for increasing international liquidity along lines other than gold should be given priority.[10]

The proposal to increase the price of gold in order to increase international liquidity is not acceptable because it does not provide for an adequate solution for offsetting speculative transfers of short-term capital and because its adoption would expose the system of international financial adjustment to the vagaries of erratic gold production.

Profileration of Key-Currencies

In order to make up for the diminishing additional supply of short-term dollar assets, the suggestion is made to include a few Western European currencies as key-currencies.[11] The currencies of France, West Germany, Italy, the Netherlands and Switzerland are proposed for inclusion in the key-currency mix.[12] The five European countries

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[10]The absurdity of depending on gold specie in the mechanism of international financial adjustment is accentuated by the possibility of the occurrence of civil war in the major gold producing country- South Africa- which would aggravate the shortage of gold supplies in bolstering world reserves.

[11]The main advocate of a multiple-currency standard is F. Lutz. For details see: F. Lutz, The Problem of International Equilibrium, (Amsterdam: North Holland Publishing Co., 1962); also, F. Lutz, The Problem of International Liquidity and the Multiple Currency Standard.

[12]Ibid., p. 12.

mentioned above had a continuous surplus in their balance of payments accounts, over the last five years, and consequently, had accumulated a high level of monetary gold assets. See table 7.

For a country's currency to become a key-currency, the following conditions should prevail:

1. The key-currency country must be willing to develop a continuous deficit in its balance of payments in order to enable other countries to accumulate short-term assets that would serve as international monetary reserves.
2. Key-currency status requires the country to have a well developed capital market that would provide foreign owners of the country's liabilities a variegated range of short-term securities to choose from.
3. The key-currency country must permit the transfer of long-term capital in the form of loans and direct investments in order to invest the incoming short-term funds.

None of these conditions are met by the proposed new key-currency countries. Surplus countries of Europe would be reluctant to permit their balance of payments to develop persistent deficits to the extent necessary to produce a significant increase in the total amount of international monetary reserves.[13] If European countries are willing to run deficits in their balance of payments, demand for their

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[13] B. Tew, "International Monetary Reserves", U. S. Congress, Joint Economic Committee, op. cit., p. 289.

liabilities would eventually weaken or decline because of the developing unfavorable gold asset to liabilities ratio.[14]

The absence of well developed capital markets in Europe restricts the transfer of incoming short-term foreign capital and of long-term domestic investments abroad. Official controls on capital exports, which are imposed in varying degrees in most European countries, and the high long-term interest rates and taxes levied on new issues, have impaired the development and broadening of international capital markets. Perpetuation of such controls will restrict the use of the Western European currencies as key-currencies.[15]

In a study made by C. J. Devine Institute of Finance of New York University, on the capital markets of eight industrial European countries, for the years 1960-1962, the findings show that

> During each of [the three years], sales [of securities] in the United States capital market exceeded the aggregate of the eight European countries. The disparity has been particularly large in foreign issues, . . . during the three year period foreign issues placed on the eight European markets totaled $733 million as against $2.5 billion absorbed by the United States capital market.[16]

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[14]The European countries will be faced with a situation similar to that currently facing the United States. Demand for short-term dollar assets is declining as a result of the increase in liabilities and decrease in gold assets of the United States.

[15]International Liquidity, The Bulletin of the C. J. Devine Institute of Finance, No. 27, (New York: New York University, Graduate School of Business Administration, November 1963).

[16]Ibid., p. 7.

Adoption of a multiple-currency standard would be successful in overcoming the shortage of international monetary reserves resulting from the decrease in the short-term dollar assets. The system of international financial adjustment would still require an arrangement capable of providing credit to offset speculative transfers of short-term capital. The new reserve-currency countries would be exposed to the hazards of the disequilibrating capital transfers and would, as a result need additional liquidity to enable them to pursue, without undue restraint, their vital economic objectives of growth, full employment and free international trade.

Increase the Borrowing Potential of Deficit Countries

Increase the Effectiveness of the IMF

Several arrangements have been recommended to increase the amount of international liquidity by means of increasing the effectiveness of the International Monetary Fund.

Effectiveness of the IMF can be enhanced by increasing the resources at its disposal, or by increasing the amount of credits it can give to any one member country. The principal advocate of the plan to increase the effectiveness of the Fund is E. Bernstein.[17]

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[17]Bernstein's proposals have varied in scope and detail. His main ideas are presented in: E.M. Bernstein, "The Problem of International Monetary Reserves", U.S. Congress, Joint Economic Committee, op. cit., pp. 107-116; idem, "The Adequacy of United States Gold Reserves", American Economic Review. (Papers and Proceedings) Vol. Ll May 1961.

Other economists, however, have submitted similar recommendations at an earlier date, but their proposals were neither detailed nor complete.[18]

Bernstein's proposals do not call for any basic change in the existing formal arrangements for international financial adjustment. Reserves would still be owned in the form of short-term dollar assets and gold. Three new provisions would be permanently added to the system so as to increase international liquidity. The three provisions are:

1. Member countries would be given greater automaticity in their access to the pool of Fund resources. Under the Bernstein proposals, restrictions on the borrowing of resources beyond the 25 per cent "gold-tranche" positions would be eliminated and the entire subscription of the member country to the Fund would be considered part of the international monetary reserves.[19]

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[18]Two Economists proposed plans similar to Bernstein's, namely, Xenophon Zolotas, Governor of the Bank of Greece, and Per Jacobsson, the late Managing Director of the IMF. For details see: X. Zolotas, "Address", International Monetary Fund, Summary Proceedings 1957. (Washington: 1957), pp. 40-43; idem, International Monetary Fund, Summary Proceedings 1958. (Washington: 1958), pp. 90-93; and Per Jacobsson, "International Liquidity", International Financial News Survey, (Washington) Nov. 21, 1958; idem, "Fund Report at ECOSOC", International Financial News Survey, (Washington) April 28, 1961.

[19]Bernstein, "The Problem of International Monetary Reserve", p. 109.

> Members should be free to draw 25 per cent of their quotas in successive 12-month periods without requiring the prior approval of the IMF. The position of a member would have to be restored after a reasonable period, say 3 to 5 years, as already established by Fund policy. Drawings in excess of the annual quota of 25 per cent and drawings that would increase the Fund's holdings of a member's currency above 200 per cent of its quota would continue to be made only with express approval and on terms agreed with the IMF.[20]

Relaxing restrictions on borrowing rights of IMF members would increase the volume of international liquidity by $13.5 billion. Free access to additional Fund resources would imply that countries with a surplus are willing to give automatic credit to countries with a deficit in their balance of payments.[21] Credit would be provided through an intermediary--the IMF--and would be limited only by the amount of the "members" paid subscription to the Fund.

2. Under the second provision of Bernstein's proposals, the IMF, or a subsidiary institution, would undertake to negotiate borrowing agreements with countries owning relatively large amounts of reserves, and relend the reserves thus borrowed, to countries with balance of payments deficits or to countries exposed to adverse speculative capital transfers.[22]

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[20] B. Tew, "International Monetary Reserves", U.S. Congress, op. cit., p. 290.

[21] H. G. Johnson, 'Statement', U. S. Congress, Joint Economic Committee, Outlook for U.S. Balance of Payments, Hearings Before the Subcommittee on International Exchange and Payments, 87th Cong. 2nd sess. December 1962, p. 237.

[22] E. Bernstein, "The Adequacy of United States Gold Reserves", p. 445.

This type of borrowing arrangement has already been followed in 1962, when the IMF borrowed $6 billion from nine major industrial countries on a stand-by basis. Provision of credit according to the "General Agreement to Borrow" is not automatic and the arrangement is not dependable in providing additional liquidity because lending countries are not bound to give credit to the Fund or to deficit countries. Whenever credit is most needed, it may not be forthcoming according to the "General Agreement to Borrow."

3. The third part of Bernstein's proposals for increasing international liquidity suggests increasing the resources of the IMF by means of increasing the quotas of member countries gradually rather than at dispersed intervals.

Increasing the resources of the Fund irregularly by way of increasing quotas of member countries creates problems concerning international agreement on the specific rate of increase and the timing of it.[23] Bernstein's proposals try to overcome this difficulty, but do not mention the exact method or formula that must be followed to

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[23] The Economist reports that the ministers of the ten industrial countries meeting in Paris are having a difficult time agreeing on the specific rate of increase of Fund quotas. "Even here initial hopes of a 50 per cent increase with no or virtually no gold payments have had to be severely scaled down. The treasured achievement of this week's [June 15, 1964] meeting is that France and Holland agreed to an increase in quotas at all; the amount of the increase has still to be bargained, but may not be above 25 or 30 per cent and could be lower", see, The Economist, June 20, 1964, p. 1392.

increase quotas. Should the formula to increase quotas depend on the hypothesis that the need for international reserves is directly and proportionately related to the increase in international trade, an erratic supply of reserves would result because demand for reserves might not correspond to the rate of increase of trade.

Inherent in providing a formula for increasing the quotas of member countries is the problem of ascertaining a statistically determined relationship between the supply of and demand for international monetary reserves. The forces that determine the demand for reserves are not quantitatively identifiable. Consequently, improvising a formula for increasing the quotas at a fixed rate would be impractical, and any suggestion for increasing reserves that is based on such formula would be unsound.

The increase in international liquidity that would be provided by Bernstein's plan will be highly efficient in the near future. Making members' access to the resources of the Fund fully automatic would provide additional liquidity to a limited extent only, because part of the resources of the Fund will not be demanded or utilized. The provision of additional reserves would be to the extent of the sum total of quotas of countries whose currencies would be in demand, which means that almost half the resources of the Fund would be utilized.

The increased liquidity resulting from the implementation of Bernstein's proposals would become inadequate at a future date.

Demand for international monetary reserves will be concentrated on the currencies of surplus countries the supply of which is limited by the countries' quotas. Increasing the quotas of all countries at a fixed rate will result in placing at the disposal of the Fund an amalgamation of national monetary assets which are not all useful.[24]

On the other hand, supplementing the supply of the Fund's resources through Bernstein's second provision, i.e., through resources borrowed on a stand-by basis, may be helpful in offsetting short-term capital transfers during speculative crises. The Fund will be an intermediary or a 'guarantor' between creditor and debtor countries, and creditor (surplus) countries are not bound to lend to the deficit countries in time of need.

Bernstein's proposals do not require basic changes in the existing IMF formal arrangement. Increasing the lending potential of the Fund necessitates international agreement and international negotiation on the extent of the regular increase in members' quotas. By calling for an automatic and regular increase in the members' quotas with the IMF, the proposals would enlarge the Fund's potential for providing additional liquidity which would substitute for the diminishing supply of short-term dollar assets. The second part of Bernstein's

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[24] R. Triffin, "The International Monetary Crisis, Diagnosis, Palliatives, and Solutions", U.S. Congress, Joint Economic Committee, op. cit., p. 303.

proposals which recommend contracting stand-by agreements with surplus countries would make available large doses of credit to countries exposed to speculative transfers of capital. Relaxation of the stringent provisions which guide the extension of such credit would render Bernstein's proposals more viable and would decrease the probability that countries exposed to large scale speculative transfers of capital would not be bailed out.

The Posthuma Plan[25]

Posthuma's proposals for increasing international liquidity are based on the arrangement whereby countries with a surplus in their balance of payments would be obligated to convert 60 per cent of their surplus into gold and keep the rest in the form of short-term dollar and sterling assets.[26]

By requiring surplus countries to convert 40 per cent of their surplus into dollar and sterling assets, Posthuma's proposals would bind these countries to lend 40 per cent of their surplus to the two key-currency deficit countries. Because sterling and dollar short-term securities constitute 35 per cent of total international monetary

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[25]Posthuma is the Governor of the Central Bank of the Netherlands.

[26]Lutz, op. cit., p. 15.

reserves (see Table 3), requiring surplus countries to own 40 per cent of their future surpluses in the form of short-term dollar and sterling securities would perpetuate the foreign exchange component of international monetary reserves and halt the declining growth of short-term dollar assets.

According to the existing IMF arrangement, surplus countries have the right to own all their reserves in the form of gold. They could convert the entire amount of the surplus in their balance of payments into gold if they so wish.[27] However, the right of conversion into gold has resulted in the gradual depletion of the U.S. owned gold stock, and consequently in measures to stop the deficit in the U. S. balance of payments. Posthuma's plan attempts to overcome the possible depletion of U. S. gold stock by binding the surplus countries to abstain from converting, at least, part of their surplus into gold.

Posthuma's plan calls for guaranteeing the conversion of the foreign exchange assets into gold or into any other currency, at a fixed rate. Such guarantee would allay the fears of the owners of foreign exchange reserve assets, concerning devaluation risks, and would result in mitigating the speculative transfers of short-term capital.

Variation in the composition of the foreign exchange assets required to be owned by countries would result in a slightly different

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[27]Actually by accumulating dollar assets which are convertible into gold on demand, the surplus countries are following the principle that the right to receive gold is as good as gold itself.

plan. For example, countries would be required to own 40 per cent of their surplus, or of their reserves, in the form of a fixed mixture of foreign short-term assets (currencies). Proliferation of the reserve assets to include securities of industrial countries, other than the United States and the United Kingdom, form the basis of another proposal submitted by Bernstein and referred to as the Composite Reserve Unit (CRU) proposal.[28]

Proliferation of reserve currencies encounters problems similar to those discussed under the multiple currency proposal. European countries might not be willing to develop consistent deficits in their balance of payments.

Proposals to increase international liquidity along the lines of the Posthuma plan would fulfill the objective of providing additional international liquidity to a limited extent. Additional supply of foreign exchange reserves to support the gold monetary reserves would assure the system of a supplement to the inadequate supply of gold stock. But the proposals are not explicit on whether guarantees against devaluation risks would apply to the new additions to foreign exchange reserves or to the already existing dollar and sterling reserve assets. In either case, the imposition of a guarantee is not acceptable to the United States (or to any other key-currency country)

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[28]For details see: "Farewell to the Liquidity Plan", The Statist, May 22, 1964, pp. 601-602.

because the guarantees would bind the U. S. to maintain a fixed rate of exchange, and leaves other countries free to revalue and ameliorate their terms of trade vis-a-vis the United States.[29]

Posthuma's proposals do not provide for any arrangement to give deficit countries lines of credit to offset adverse speculative transfers of short-term capital. The proposals depend on guarantees against depreciation to diminish transfers of short-term capital. Since the provision of credit to countries exposed to sudden transfers of short-term capital is an important requirement for an acceptable proposal to reform the system of international financial adjustment, Posthuma's proposals are inappropriate.

Internationalization of National Reserves

Proposals for internationalizing the national monetary reserves are associated with the name of Robert Triffin.[30] Triffin's proposals are adapted from the Clearing Union Plan presented by Keynes in

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[29]For a summary statement on the consequences of a United States guarantee to short-term dollar assets owners see S. T. Beza and G. Patterson, "Foreign Exchange Guarantees and the Dollar", American Economic Review, Vol. Ll (June 1961), pp. 381-385.

[30]The Triffin plan is more detailed than our presentation. The plan suggests measures to deal with foreign exchange reserves during the implementation of the new proposals. The details of the plan changed over time. However, its main concepts can be found in: R. Triffin, Gold and the Dollar Crisis.

1944.[31] Presently, we shall evaluate the proposals to increase international liquidity submitted by Triffin.

Triffin's proposals are based on the abolishment of present subscriptions of countries in the IMF, and their replacement by a mere obligation on the part of each country to deposit an agreed proportion--20 per cent--of its overall reserves with the Fund. Deposits of countries with the International Monetary Fund will be fully usable for settling discrepancies in the balances of payments and will carry a specific guarantee against exchange depreciation risks. In addition to countries' deposits, the Fund will be authorized to expand its deposits by loans and by open market operations. Both the loans and the open market operations will be performed at an expanding rate in order to expand the volume of international liquidity.[32]

The system of minimum deposits with the IMF, which is proposed by Triffin, has the following advantages over the existing system:

> /The/ deposits would automatically adjust to the

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[31]For details of Keynes Clearing Union proposals see: Seymour E. Harris (ed.), The New Economics, (New York: A. Knopf, 1950) esp. pp. 323-370, also, John H. Williams, Postwar Monetary Plans, (New York: A. Knopf, 1947); and George Halm, International Monetary Cooperation, (Chapel Hill: The University of North Carolina Press, 1945).

[32]Triffin, Op. Cit., pp. 102-103. The expansion of Fund deposits by loans and open market operations renders Triffin's plan different from Keynes!

> fluctuations in the overall reserve position of each country. The Fund's overall resources would thus increase over the years, as the overall level of the world's reserves increases as a result of future accretions to monetary gold stocks and of the Fund's own lending and investment operations . . . Second . . . , these deposits would not impair in any way the liquidity and reserve position of the contributing countries.[33]

The IMF, according to Triffin's proposals, will play the role of a world central bank and will be able to create deposits which constitute international monetary reserves. The creation of reserves, by the issuance of claims, would decrease the dependence of the international monetary system on gold. The gradual increase of international monetary reserves, in the form of IMF claims, would create a decrease in the proportion of gold to total reserves, and, if continued, would result in the demonetization of gold.[34]

The Triffin plan for increasing international liquidity is basically similar to other plans already discussed. It differs from other plans in one respect, namely, it permits the International Monetary Fund to take the initiative in increasing (or decreasing) the volume of international monetary reserves. In other respects, by providing deficit countries with automatic credits to offset

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[33] R. Triffin, "The International Monetary Crisis: Diagnosis, Palliatives, and Solutions", U.S. Congress, Joint Economic Committee, op. cit., p. 306.

[34] Machlup, op. cit., p. 32.

discrepancies in their balance of payments, the Triffin plan implies that surplus countries give automatic credit to deficit countries. The amount of credit at the disposal of the new IMF is unlimited, since the Fund can supplement the countries' deposits by getting direct loans or by selling its own claims.

According to Bernstein's plan, the IMF acts as a mediator between the surplus and the deficit countries. It arranges for credits, and guarantees such credits against possible risks. According to the Triffin Plan, the IMF issues its own securities or claims which can be used for settlement of international accounts and which can be converted into any currency. The issuance of claims is similar to the creation of 'Bancor' by the Keynes plan. Since the claims would be used mainly by the deficit countries to clear their accounts with the surplus countries, the creation of reserves by the IMF implies that the surplus countries would supply credit to the deficit countries.

> If this world bank grants a credit to country 'A' by creating a "bancor" deposit in its favor, and country 'A' then turns this deposit over, in payment for its deficit to country 'B', which then keeps the deposit, it is of course country 'B' which is really giving credit to country 'A'.[35]

The ultimate outcome of Triffin's proposals will have the IMF owning and managing all the international monetary reserves of the non-communist world. The 20 per cent deposit of members' reserves can

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[35] F. Lutz, op. cit., p. 6.

be gradually increased until a minimum amount of reserves is left with the member countries. Countries' international accounts will be cleared through the expanded IMF, and the necessity for owning international monetary reserves individually will disappear.

The deficiency of international liquidity would be completely resolved by the adoption of Triffin's proposals.

> Since, in the world as a whole, the sum of the balance of payments surpluses must always equal the sum of the deficits, a shortage of international liquidity could never arise under this system. In other words, the problem of international liquidity would here be solved by the readiness of the surplus countries always to lend to the deficit countries.[36]

The far-reaching powers that the IMF assumes, as a result of Triffin's proposals, have encountered opposition on the part of some critics who regard the Fund's rights to create reserves, as constituting a basis for exerting inflationary tendencies. The Fund prerogative to issue claims and to enter into open market operations is also considered as an infringement on national sovereignty.[37]

An expanded International Monetary Fund, need not exert

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[36] F. Lutz, International Monetary Equilibrium, p. 59.

[37] D. Altman, "Professor Triffin on International Liquidity and the Role of the Fund," International Monetary Fund Staff Papers, Vol. VIII (November 1960) pp. 185-186; see also E. Bernstein "Some Comments on the Triffin Plan," U. S. Congress, Joint Economic Committee, op. cit., pp. 112-113.

inflationary pressures.

> The major safeguard against an inflationary level of Fund lending would lie in the overall limitations placed on the net increase of the Fund's lending during any 12 months' period.[38]

A specific limit can be placed on the open market or lending operations of the IMF so as to prevent inflationary pressures from developing. The concern should be directed toward a possible deflationary pressure that an expanded IMF-- a la Triffin-- would cause as a result of the surplus in the balance of payments of the key-currency countries. In order to repatriate the foreign owned short-term assets, the United States and Britain must develop a surplus in their balance of payments which would have a deflationary rather than an inflationary influence.[39]

The fear concerning the infringement of the Fund on national sovereignty is not well founded. Similar objections to the existing IMF were raised in the 1940's and they have not materialized. Ways and means for reconciling Fund operations with national objectives could be devised to guide the functioning of the new IMF.

Objections to Triffin's proposals have been forthcoming from countries with a surplus in their balance of payments. These countries apprehend that the deficit countries might take advantage of the

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[38]Triffin, Gold and the Dollar Crisis, p. 115.

[39]Bernstein, op. cit., p. 112.

automatically available credit and maintain deficits in their external accounts, instead of implementing policies to redress the discrepancy. The possibility that deficit countries would fail to correct the deficit in their balance of payments can be minimized by the conscious management of the IMF. Provisions similar to the ones in the existing IMF Agreement can be inserted to abstain from providing credit to countries that do not follow policies to eliminate the deficit in their balance of payments.[40]

> The international lending potential which could be derived from such a system /a la Triffin/ should not be used blindly for automatic lending to any and all countries in deficit, but should be earmarked to support agreed policies of monetary stabilization against temporary balance of payments pressures, particularly in connection with capital movements.[41]

A major difficulty that faces Triffin's proposals for increasing international liquidity is a formula on which the rate of increase in international liquidity is based. Triffin suggests an annual increase in the total supply of reserves of 3 to 5 per cent on the basis that international trade is increasing at an even greater rate.[42]

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[40]The provisions could state that if countries' loans from the IMF keep increasing or do not decrease after a certain period of time, measures must be taken to stop or limit IMF lending to these particular countries.

[41]R. Triffin, "From Waterloo to Tokyo", The Economist (August 15, 1964), p. 657.

[42]Triffin, Gold and the Dollar Crisis, p. 103.

A 3 to 5 per cent rate of increase of international monetary reserves might not be the optimal solution because the need for reserves might fluctuate depending on the dynamic factors that influence it. The rate of increase might be more appropriately determined by the management of the Fund with an upper limit only inserted in the original agreement.

Objections raised against the Triffin plan do not have solid foundation. The superiority of Triffin's proposals over Bernstein's proposals is based on its long run applicability and on its independence from gold. If countries are willing to accept Bernstein's proposals which are based on the principle that surplus countries give (limited) credit to deficit countries on short-term account, they would be taking a small step forward by accepting Triffin's plan which is fundamentally more logical and more viable.

Triffin's proposals would be adequate to encounter the dangers resulting from disequilibrating short-term capital transfers since countries are assured of the availability of a supply of liquidity to offset the capital transfers. Similarly, the proposals provide for a substitute to the declining supply of short term dollar assets.

The Stamp Plan

If the Triffin plan is provided with a condition that binds the new IMF to investing a specific part of its assets in underdeveloped countries, the basis for another proposal for reforming the international

monetary system would be formed. The advocate of this proposal is Maxwell Stamp.[43]

Stamp's proposals are based on the concept of centralizing international monetary reserves in a new international institution empowered to increase the reserves at a predetermined rate. However, unlike the claims issued by the IMF-- a la Triffin-- which can be converted into any currency and which can be used for the discharge of any international debt, the claims of Stamp's proposed international institution can be exchanged for capital goods and machinery only.[44]

The international institution, according to the Stamp plan, would issue claims that are acceptable to all member countries. Such claims would be given to an aid-coordinating agency for investment in underdeveloped countries. The aid-coordinating agency or the underdeveloped countries would then spend the proceeds of those long-term loans on purchases of goods and services from the industrial countries. Exchanging the proceeds of the IMF loans for capital goods will have an indirect influence on increasing demand for goods of deficit countries and will correct the deficit by increasing their receipts on current account.

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[43]Maxwell Stamp, "Sterling and International Liquidity Arrangements" U. S. Congress, Joint Economic Committee, op. cit., pp. 313-323.

[44]Ibid., p. 322.

Channelling of the resources of an expanded IMF into underdeveloped countries can be fitted into Triffin's plan. The possibility of freezing part of the world's liquid resources in long-term investments in developing countries would, however, render the new IMF less liquid and would decrease international liquidity. Therefore, though Stamp's proposals might be appropriate and desirable from a humanitarian and world welfare viewpoint, they would not be effective in meeting the objective of increased international liquidity.

Conclusion

Proposals to increase international liquidity are classified into two major categories. The first category of proposals would increase the 'owned' international monetary reserves by means of increasing the price of gold or the number of key currencies. Increasing the amount of owned reserves, according to any of the two proposals would substitute for the diminishing supply of short-term dollar assets, but would not solve the problem related to the disequilibrating transfer of short-term capital. Therefore, plans that fall under this first category are not appropriate for resolving the problems facing the IMF arrangement for international financial adjustment.

The second category of plans for increasing international liquidity is based on the principle of providing short-term credit to

deficit countries. Such plans are contingent on the approval of surplus countries.

> Unless surplus countries are willing and able to extend credit, on terms and through media which are acceptable to deficit countries, there will not be in fact additional international credit, whatever the formal arrangement may seem to be.[45]

The most viable and sound arrangement for providing additional credit is embodied in Triffin's proposals. Since basically, all proposals in this category are similar, it would be unwise to call for implementing an inferior plan which patches up difficulties without providing fundamental reform. Triffin's proposals will give the system of international financial adjustment a solid basis of adequate liquidity which need not be reviewed or reformed every few years. The Triffin plan provides for a way to demonetize gold and to follow, on an international level, more modern banking principles that have been successfully tested and implemented on a national level. There will be no need for international trade and finance to be constrained by the "golden" strait jacket.

Internationalization of monetary reserves will help avoid the dangers and potential conflicts associated with the use of national currencies as international monetary reserves.

Objections raised by surplus countries against an arrangement

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[45] R. Roosa, "Statement", U. S. Congress, Joint Economic Committee, Outlook for U. S. Balance of Payments, p. 121.

that would provide adequate credit to deficit countries are not well-founded. True, surpluses in the balance of payments are a wrong and outmoded indicator of wealth and must not be the basis for binding countries with a surplus in their accounts to give credit to other countries. Credit that surplus countries are asked to provide is short-term, and would be repaid as soon as corrective policies are implemented by the deficit countries. Surplus countries can always spend the value of the surplus on long-term investments or on purchases of goods and services from other deficit countries and thus help the latter correct their deficit.

Opposition of surplus countries to the formulation of an international arrangement that would provide credit to the deficit countries presupposes that surpluses and deficits would continue to be reflected by the same countries, and are consequently chronic. Surpluses and deficits in countries' balance of payments are not necessarily persistent. Given the dynamic factors that influence the economies of the various industrial countries, and result in discrepancies in the balances of payments, the possibility is high that countries with a surplus would any time develop a deficit in their balance of payments.[46]

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[46] Not long ago, the economists were discussing the dollar shortage, whereas, at the moment, the dollar glut is a widely discussed topic.

On the other hand, countries with convertible currencies which have no effective exchange controls are susceptible to disequilibrating capital transfers. Both reserve and nonreserve countries have short term liabilities to foreigners.[47] These short-term liabilities can be transferred easily, and at little cost, thus exerting additional demand on the country's international monetary reserves and requiring massive credit support.

The provision of an arrangement which makes adequate credit available to countries exposed to disequilibrating transfers of capital benefits all countries. Such an arrangement minimizes the possibility of unnecessary devaluation of currencies which might inflict capital losses on foreign investments of (surplus and deficit) countries in the devaluing country, and which might start a wave of competitive devaluation that would wreck the existing system of international financial adjustment.

Implementing proposals similar to those embodied in the Triffin plan will provide a sound framework for international financial adjustment. Success or failure of such a framework will depend on the capability and willingness of the individual member countries to follow sound policies to correct their basic economic problems.

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[47] Reserve countries, however, attract 'official' deposits by other governments or other public institutions.

CHAPTER SIX

Concluding Remarks

The thesis has been concerned with international financial adjustment under the existing IMF arrangement. A brief statement of problems emphasized in the study and some concluding generalizations will be presented in this final chapter.

Balance of payments adjustment may occur by the use of any one--or combination--of the following variables: (a) Free variation of prices and costs. (b) Free variation of rates of exchange. (c) Use of exchange controls. (d) Use of international monetary reserves.

The IMF arrangement operates on the basis of the controlled and limited variation of exchange rates to adjust persistent discrepancies in the balance of payments. In short periods, the arrangement depends on the use of international monetary reserves to offset discrepancies in the balance of payments, and to give countries enough time to follow necessary fiscal, monetary and trade policies that would correct the basic causes of the discrepancy.

The present mechanism of adjustment under the International Monetary Fund relies on a mixture of variables not all systematically specified. The contributions of the respective variables to the adjustment process are not systematically assigned. Accordingly, explanations of the system of international financial adjustment under

the IMF are not completely coherent.

The IMF arrangement depends on the variation of exchange rates to correct balance of payments discrepancies that reflect a state of fundamental disequilibrium. The Agreement does not specify what constitutes a fundamental disequilibrium. Nor does it make clear when persistent deficits necessitate variation in the rate of exchange rather than other basic fiscal and monetary policies. The Fund management also failed to devise fixed criteria to guide member countries in using the respective variables in the adjustment process.

All deficits are offset by international monetary reserves. The IMF arrangement relies on the use of international liquidity to offset balance of payments discrepancies and to give member countries adequate time to implement necessary corrective policies. The arrangement, however, does not provide for an adequate supply of international liquidity that is capable of discharging its share in the process of adjustment.

Thirty five per cent of international monetary reserves are short-term dollar and sterling assets. The volume of sterling reserve assets has remained constant during the last decade. In future such short-term assets are not expected to supply the financial system with additional liquidity. Short-term dollar assets have provided the financial system with needed liquidity during the past 15 years. The growth of short-term dollar reserves, which has been made possible by deficits in the United States balance of payments, has imposed constraints

on the country's pursuit of vital economic objectives. Consequently, the United States is following policies to eliminate balance of payments deficits and to halt the increase in the dollar assets component of international liquidity.

Other components of international liquidity are: Monetary gold assets and credit from the IMF and from other multilateral and bilateral credit arrangements. No change in the rate of increase of monetary gold assets is expected to occur at the existing price of gold. Credit from the IMF and from other arrangements has been useful in providing liquidity to offset speculative transfers of short-term capital. Such credit is different from the category of 'owned' reserves and does not substitute for the deficient growth of short-term dollar assets. Its usefulness to the international financial system is limited by stringent restrictions set on its growth and disbursement.

The problem currently facing the system of international financial adjustment is not concerned with marginal growth of international monetary reserves, and does not require marginal analysis to help solve it. Marginal analysis may be useful in refining the relationship between demand and supply of international liquidity, and in providing a formula for the necessary rate of growth of international monetary reserves. The crux of the problem of international liquidity is that a major component of supply of reserve assets is vanishing, while factors that influence discrepancies in the balance of payments,

and hence demand for reserves, are increasing in intensity and importance.

The existing international financial arrangement needs an assured regular supply of international liquid assets that would replace short-term dollar assets and eventually gold. In addition, it needs a dependable credit system capable of providing large amounts of credit to offset speculative and disequilibrating transfers of short-term capital that may wreck the existing setup.

Transfers of international liquidity can be applied to offset discrepancies in the balance of payments. These, alone, would be sufficient to the task if the discrepancy were due to short-term reversible factors such as seasonal, cyclical, or random. These would be effective also to offset speculative and disequilibrating transfers of short-term capital which are accentuated by the feature of quasi-fixed rates of exchange peculiar to the International Monetary Fund arrangement.

Provision of additional international liquidity based on a dependable credit arrangement, however, would not assure fundamental adjustment to balance of payments deficits. But institutionalized international credit does provide a systematic and appropriate arrangement to permit countries to achieve and maintain adjustment in their balance of payments without precipitous prejudice to vital economic objectives. Ultimate success for such credit arrangements is contingent on the practical capability of individual countries to design and carry

through such policies that are basically corrective of their balance of payments difficulties.

The IMF arrangement requires implementation of appropriate policies to correct discrepancies in the balance of payments. The Agreement is vague, however, on the nature and type of such policies and the Fund management did not provide specific guidelines to member countries. Ad hoc policy measures are recommended, and our suggestion is to specify these ad hoc approaches as much as possible in future research on international financial adjustment.

Ad hoc policies to correct maladjustment in the balance of payments minimize recourse to exchange rate variation. Therefore, a specification of these policies would make clear that resort to exchange rate variation is to be at a minimum. Such clarification could contribute to the decline in the intensity of speculative transfers of capital.

National and international economic objectives are interdependent. Relative integration of various economies has increased the sensitivity of one economy to technological and dynamic changes in others. The integration requires countries to adopt fiscal, monetary and trade policies that are compatible with policies of other countries. Specification of policies capable of providing balance of payments adjustment under varying internal economic conditions, and capable of coordinating the economic objectives of the various nations, is an essential contribution that economists must provide to governments

in the field of international finance.

The role of cooperation between major trading countries must be emphasized because such cooperation is a sine qua non to any effective system of international financial adjustment. Major trading countries are oligopolists in their dealings in international reserve assets. Preference of one major country for some specific reserve asset, e.g., gold, which other countries might not be willing to forego, would result in competition over the acquisition of assets which would disrupt normal and equilibrating transfers of short-term capital.

The United States might restrict convertibility of dollar assets to gold or might devalue dollar parity rate, if France and Germany keep maintaining surpluses and converting them to gold. Such possibility would disrupt the existing arrangement for international financial adjustment.

An international agreement along the lines of the Triffin plan, which we forcefully advise, binds countries to the support of each other by means of the expanded IMF. The ultimate objective of Triffin's plan is to eliminate the use of gold from the scene of international financial adjustment, and to minimize the hazards attendant to its use which contributed to the breakdown of the gold standard in the nineteen thirties.

Finally, attention must be called to the limitations that our

approach sets on the conclusions of our study. The method of analysis of the thesis has been shaped to fit the treatment of problems of policy. From a theoretical viewpoint, the argument would have been more appropriately stated in terms of a general equilibrium and dynamic model that uses unlimited numbers of variables, structural relations and unknowns. From practical consideration, such an approach is virtually nonoperational and resort to partial equilibrium analysis has been mandatory.

Partial equilibrium analysis is too simplified and often omits important relationships. Therefore, our study does not provide perfectly valid conclusions. Until the variables, the relationships and the unknowns are treated in a dynamic general equilibrium model, our conclusions must be considered as rough approximations.

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