

INTERNATIONAL MONETARY FUND

STAFF PAPERS

CONTENTS

THE FUND AND INTERNATIONAL LIQUIDITY

J. Marcus Fleming 177

THE MANAGEMENT OF INTERNATIONAL LIQUIDITY

Oscar L. Altman 216

GOLD OUTFLOWS FROM THE UNITED STATES, 1958-63

Poul Høst-Madsen 248

PROBLEMS IN COMPILING GOLD AND FOREIGN

EXCHANGE STATISTICS N. John Brady 262

THE LIBERIAN ECONOMY .. Moeen A. Qureshi, Yoshio Mizoe,

and Francis d'A. Collings 285

FOREIGN ISSUES IN EUROPE

Jean O. M. van der Mensbrugghe 327

RESUMES 213, 245, 259, 283, 324, 334

RESUMENES 214, 246, 260, 284, 325, 335

INTERNATIONAL MONETARY FUND

STAFF PAPERS

CONTENTS

THE FUND AND INTERNATIONAL LIQUIDITY

J. Marcus Fleming 177

THE MANAGEMENT OF INTERNATIONAL LIQUIDITY

Oscar L. Altman 216

GOLD OUTFLOWS FROM THE UNITED STATES, 1958-63

Poul Høst-Madsen 248

PROBLEMS IN COMPILING GOLD AND FOREIGN

EXCHANGE STATISTICS N. John Brady 262

THE LIBERIAN ECONOMY .. Moeen A. Qureshi, Yoshio Mizoe,

and Francis d'A. Collings 285

FOREIGN ISSUES IN EUROPE

Jean O. M. van der Mensbrugghe 327

RESUMES 213, 245, 259, 283, 324, 334

RESUMENES 214, 246, 260, 284, 325, 335

STAFF PAPERS

J. KEITH HORSEFIELD, *Editor*
DOROTHY WESCOTT, *Assistant Editor*

Editorial Committee

J. Keith Horsefield, *Chairman*
Hans Aufricht
J. Marcus Fleming
Charles L. Merwin, Jr.

Subimal Mookerjee
Henry C. Murphy
Brian Rose
Ugo Sacchetti

From the Foreword to the first issue:

"Among the responsibilities of the International Monetary Fund, as set forth in the Articles of Agreement, is the obligation to 'act as a center for the collection and exchange of information on monetary and financial problems,' and thereby to facilitate 'the preparation of studies designed to assist members in developing policies which further the purposes of the Fund.' The publications of the Fund are one way in which this responsibility is discharged.

"Through the publication of *Staff Papers*, the Fund is making available some of the work of members of its staff. The Fund believes that these papers will be found helpful by government officials, by professional economists, and by others concerned with monetary and financial problems. Much of what is now presented is quite provisional. On some international monetary problems, final and definitive views are scarcely to be expected in the near future, and several alternative, or even conflicting, approaches may profitably be explored. The views presented in these papers are not, therefore, to be interpreted as necessarily indicating the position of the Executive Board or of the officials of the Fund."

The authors of the papers in this issue have received considerable assistance from their colleagues on the staff of the Fund. This general statement of indebtedness may be accepted in place of a detailed list of acknowledgments.

Subscription: US\$6.00 a volume or the approximate equivalent in the currencies of most countries. Three numbers constitute a volume. Single copies may be purchased at \$2.50. Special rate to university libraries, faculty members, and students: \$3.00 a volume; \$1.00 a single copy. Subscriptions and orders should be sent to:

THE SECRETARY
International Monetary Fund
19th and H Streets, N.W.
Washington, D.C. 20431

**INTERNATIONAL
MONETARY FUND**

**STAFF
PAPERS**

Vol. XI

July 1964

No. 2

This page intentionally left blank

The Fund and International Liquidity

J. Marcus Fleming *

THE PRESENT PAPER is intended to indicate to what extent the International Monetary Fund, with its present policies and practices or with some modification of those policies and practices, is capable of dealing satisfactorily with certain problems of international liquidity described in the following sections. Throughout the discussion, the attempt is made to secure any given result with the minimum adaptation of present arrangements; but it has not been assumed that the Articles of Agreement of the Fund are incapable of amendment in cases where they would appear to impose an inescapable legal obstacle to useful developments. No assumption has been made as to whether action affecting the supply of international liquidity is now, or may soon become, desirable. The only question raised is whether and how such action, if it did become necessary, could be undertaken through the Fund, under either the existing or amended provisions of the Articles. The discussion of a particular course of action in this paper does not necessarily imply that it could be adopted without amendment of the Articles.¹

Nature and Types of International Liquidity

International liquidity consists essentially in the resources available to national monetary authorities to finance potential balance of payments deficits, i.e., in their command over compensatory official financing. It may consist in the possession of assets or in the ability to borrow internationally. Typical items entering into international

* Mr. Fleming, Deputy Director in the Research and Statistics Department, is a graduate of Edinburgh University. He was formerly a member of the League of Nations Secretariat, Deputy-Director of the Economic Section of the U.K. Cabinet Offices, U.K. representative on the Economic and Employment Commission of the United Nations, and Visiting Professor of Economics at Columbia University. He is the author of numerous articles in economic journals.

¹ The general theoretical conception of international liquidity of which the present paper represents a particular application is set forth in an earlier paper by the author, "International Liquidity: Ends and Means," *Staff Papers*, Vol. VIII (1960-61), pp. 439-63.

liquidity are holdings of gold and convertible foreign exchange; but claims on international institutions or entitlements to borrow from international institutions, from foreign governments, or even from private sources abroad, may be included in the concept. Not only may international liquidity take various forms, but it may be of various qualities, so that it cannot be unambiguously measured even for a single country.

An important distinction must be drawn between assets or borrowing facilities that place financing unconditionally at the disposal of the possessing government, and those that confer only a possibility of obtaining financing, subject to conditions. There are three important types of conditions: (a) those relating to circumstances with which the country using the liquidity is confronted, (b) those relating to policies which that country should pursue, and (c) those relating to the period for which the liquidity may be used, i.e., the period for which the financing is made available. Type (a) is exemplified by the stipulation contained in the Articles of Agreement of the International Monetary Fund that countries may draw from the Fund only currencies which are "presently needed for making in that currency payments which are consistent with the provisions of this Agreement."² Type (b) is exemplified by the tranche policies of the Fund, under which requests for transactions in the higher credit tranches are likely to be favorably received only "when the drawings or stand-by arrangements are intended to support a sound program aimed at establishing or maintaining the enduring stability of the member's currency at a realistic rate of exchange."³ Type (c) is exemplified by the repurchase provisions of the Fund Articles,⁴ and by the policy requiring drawings to be repaid within three to five years, at the outside.⁵ Liquidity that is conditional in any of these senses may be somewhat less prized by the country possessing it than would be an equivalent amount of unconditional liquidity; but the imposition of such conditions may be for the general advantage of the international community, and may make countries having surpluses in their balances of payments readier to provide, or to facilitate the provision of, additional liquidity.

In what follows, "conditional liquidity," when referred to without further qualification, means liquidity subject to conditions of type (b)—"policy conditionality"—and the main contrast will be between unconditional liquidity and liquidity that is conditional in this sense.

² Article V, Section 3 (a)(i).

³ International Monetary Fund, *Annual Report, 1962*, p. 31.

⁴ Article V, Section 7.

⁵ Executive Directors' Decision No. 102 (52/11), reproduced in *Selected Decisions of Executive Directors* (Washington, D.C., Second Issue, September 1963), pp. 21-24.

Criteria of Need for International Liquidity

Any increase in the supply of liquidity—particularly unconditional liquidity—since it facilitates the financing of payments deficits, is likely to result in an increase in the magnitude or duration of such deficits.⁶ There will be milder or slower resort to methods—such as exchange rate adjustment, the use of restrictions on imports or capital exports, and the application of deflationary internal financial policies—whereby these deficits would otherwise have been reduced or eliminated. In itself, any diminution in the use of restrictions, particularly restrictions on current transactions, may be considered desirable, and the same is true of any decline in the necessity for applying policies that result in unemployment and setbacks to economic growth. On the other hand, an expansion in liquidity can be considered undesirable to the extent that it gives rise to, or perpetuates, inflation, or leads to the obstinate retention of too favorable rates of exchange. Any given increase in international liquidity of the unconditional variety may have good results in some countries and bad results in others. This makes it more difficult not only to judge what “the need” for international liquidity is, but also to obtain a consensus among the different countries of the world that any given expansion or contraction of liquidity is in fact desirable.

An increased supply of the type of liquidity of which the use is subject to policy conditions will have somewhat different results. While it will probably increase the amount and the financing of external deficits, even this is not certain. It will not so much reduce recourse to other measures of dealing with disequilibria as alter, presumably for the better, the nature of the measures taken. If this type of liquidity is wisely administered, there can, in principle, scarcely be too much of it available, although there is, of course, a limit to the amount that can appropriately be used. The fact that, in practice, liquidity subject to conditions tends to take the form of short-term to medium-term drawing or borrowing facilities⁷ makes this limit narrower than would otherwise be the case.

The various types of liquidity are to some extent substitutes for each other. The need for unconditional liquidity will therefore be the less, the greater is the amount of conditional liquidity that is available.

⁶ This is merely a probable net effect of influences that pull in opposite directions. More liquidity in the hands of countries with payments surpluses promotes policies tending to reduce surpluses; more liquidity in the hands of deficit countries promotes policies tending to enhance deficits. It is surmised that the latter set of influences will prove the stronger.

⁷ See page 181, below.

The advantages of conditional liquidity from an international standpoint would appear to make it desirable in principle to ensure that the need for such liquidity is fully met before assessing and meeting the residual need for unconditional reserves. There are, however, limits to the extent to which conditional liquidity will be accepted by countries as a satisfactory substitute for unconditional liquidity.

Despite considerable divergence of views as to the present adequacy of international liquidity, it would probably be widely agreed (1) that over the longer run, in the absence of coordinated international action, the rate of growth of international liquidity, both conditional and unconditional, may become inadequate to meet the growing needs; (2) that situations may arise in which it is desirable to vary substantially the amount and distribution of international liquidity; and (3) that the potential instability of the system under which reserves are held in the form of foreign exchange on a purely voluntary basis may make it necessary to take steps at some time or another to avert the danger of a running down of official holdings of reserve currencies, or to provide an alternative holder for such currencies. The present paper considers to what extent the Fund would be in a position, or might be enabled, to deal with these contingencies, if they should arise.

Types of Liquidity Arising from Fund Positions and Operations

Members of the Fund, as such, possess liquidity of different kinds, in amounts that depend primarily on the size of their quotas, on their IMF positions,⁸ and on whether or not they have a stand-by arrangement with the Fund. All drawings are subject to a small transactions charge of $\frac{1}{2}$ of 1 per cent, and on drawings beyond the gold tranche interest is paid varying with the amount of the drawings and the length of time for which they have been outstanding. Under present policies, a member is entitled to receive the overwhelming benefit of the doubt for any drawing not exceeding its gold tranche position. The

⁸ A member's "IMF position" is the relationship between its quota and the Fund's holdings of its currency. Its "gold tranche position" is defined as its quota minus the Fund's holdings of its currency (if the result is positive); this includes the member's "net creditor position," which is that part of its gold tranche position which exceeds 25 per cent of the member's quota. A member is said to be drawing in "the credit tranches" to the extent that the drawing increases the Fund's holdings of its currency to a figure greater than its quota; each credit tranche is equivalent to one fourth of the quota. Such a member's "credit tranche position" is the difference between twice its quota and the Fund's holdings of its currency.

liquidity that such a drawing confers is therefore almost as free from burdensome conditions as that resulting from the possession of gold or foreign exchange reserves. Such drawings, however, are still subject to the conditions that the member must be eligible to draw from the Fund and that the currency required must be needed for making payments consistent with the provisions of the Agreement. Though the "overwhelming benefit of the doubt" applies also to this statutory proviso, there is an obligation on members to respect it. Broadly speaking, this implies that a member should not draw from the Fund except to meet a deficit or threat of a deficit—not, surely, a significant limitation on the usefulness of the drawing right in question. Drawings within a member's net creditor position are not subject to any repurchase obligation. Drawings within the rest of the gold tranche are subject both to the obligations under Article V, Section 7(b), and to the obligations to repay within three years⁹ or within a three-year to five-year period,¹⁰ which are undertaken or imposed as a matter of Fund policy. Within the gold tranche, however, the force of these repurchase obligations is weakened by the ease with which new drawings can be made, subject to payment of the small transactions charge, under the "overwhelming benefit of the doubt" policy.

Drawings or stand-by arrangements beyond the gold tranche require a degree of justification that increases with the amount of drawings outstanding. The power to draw within the credit tranches therefore confers upon a member a type of liquidity that is subject in varying degrees to policy conditions. There is no fixed limit to the amount of conditional liquidity that a member may obtain in this way. However, without a special waiver, a member cannot draw within the credit tranches more than a sum equivalent to its quota, i.e., it cannot draw beyond the point at which the Fund is holding an amount of its currency equal to twice its quota.¹¹ Until recently, this has been taken as the practical limit to the amount of a member's drawing facilities, and hence to the amount of conditional liquidity available to it through the Fund. A new facility providing financing to compensate for export fluctuations, however, makes it likely that this limit will be exceeded from time to time in appropriate circumstances. The export compensatory financing facility itself provides a type of conditional liquidity, normally not exceeding 25 per cent of quota—one conditional, however, more upon the presence of certain circumstances (the occurrence

⁹ For drawings under stand-by arrangements.

¹⁰ For other drawings.

¹¹ The amount a member may draw without a waiver is further limited to the equivalent of 25 per cent of its quota annually. Waivers of this limit are, however, regularly granted if the drawings are otherwise suitable.

of a shortfall in exports) than upon the adoption of appropriate policies by the drawing country. Since export compensatory drawings can be made even when the Fund's holdings on account of other drawings have reached twice the member's quota, and since the limit on other drawings is to be waived to the extent that drawings within the special compensatory tranche are still outstanding, the practical limit on total drawings within the credit tranches may now be equivalent to 125 per cent, rather than 100 per cent, of quota.

Drawings under stand-by arrangements may be either free from policy conditions or subject to rather precise conditions, according to the terms agreed when the arrangement was granted. Stand-by arrangements themselves, however, are granted on the same general conditions as drawings within the tranche which would be reached if the arrangements were fully drawn upon.

Members not only have a claim that the Fund will in certain circumstances add to its holdings of their currencies, i.e., will permit them to draw; they also have an obligation, in other circumstances, to enable the Fund to reduce its holdings of their currencies. If they have drawn, they will have repurchase obligations. Even—and especially—if they have no drawings outstanding, they are liable to have their currencies drawn upon by other members. These obligations could constitute a liquidity hazard for the country in question. Where repurchase obligations arise under Article V, Section 7(b)—which provides, *inter alia*, for repayment more or less *pari passu* with the recovery in reserves—this hazard is nominal. Other repurchase commitments, setting a maximum period within which repayment is to be made, may make the hazard material. The liability of members to have their currencies drawn upon by other members—within the limits set by the Fund's holdings of their currencies—could be inconvenient to the members in question, were it not that (1) the Fund provides guidance to drawing members regarding the currencies to be drawn with a view to avoiding the drawing of currencies that are in a weak position, and (2) as explained below, a member whose currency is drawn is compensated for any loss in other reserves by an enhancement of its Fund drawing facilities, usually in the form of highly liquid drawing facilities in the gold tranche.

There is, at first sight, a certain tension, or tendency to incompatibility, between the Fund's policy of making members' gold tranche positions liquid by enabling their possessors to draw them down freely, and its need to be able to add where necessary to the amount of such positions held by countries whose currencies are required for drawings. This tension, however, is largely resolved by three factors. First, even gold tranche drawing rights do not entitle a country to draw unless it

needs to do so to meet a payments problem. Second, the transactions charge, though small, tends to discourage drawings of a frivolous character. Finally, the Fund's policy regarding the currencies to be drawn is designed to secure an equitable and acceptable distribution of gold tranche positions.

It should be noted that all members' rights and obligations vis-à-vis the Fund—the size of quotas, of drawing facilities, of repurchase obligations, etc.—are fixed in terms of gold; their gold value is unaffected by exchange rate adjustments with the possible exception of a (theoretically conceivable but practically quite unlikely) uniform change in par values.¹² The fact that gold tranche positions possess a constant value in terms of gold, as well as being able to be freely drawn upon, renders them, objectively, a good substitute for gold reserves.

When a member country draws from the Fund, it obtains the currency of another member in exchange for its own currency. How does this operation affect the level and distribution of international liquidity, both conditional and unconditional? The answer to this question is complex and is conveniently given in stages.

Take, first, the effect on liquidity derived from IMF positions. As we have seen, insofar as the member draws within the gold tranche, it forfeits a corresponding amount of quasi-unconditional liquidity in the Fund. Insofar as it draws beyond the gold tranche, however, it uses up conditional drawing facilities. The member whose currency is drawn, on the other hand, improves its position in the Fund. As a rule, such a country will already have a gold tranche position, and the improvement in its IMF position will constitute an increase in quasi-unconditional liquidity. Most Fund drawings nowadays are in the credit tranches rather than in the gold tranche, and the effect of such a drawing, *as far as IMF positions are concerned*, will normally be (a) to increase quasi-unconditional liquidity and (b) to reduce conditional liquidity.

In order to arrive at the effect on the amount and distribution of liquidity in *all* forms, however, we have to take account of the repercussions of drawings on countries' owned reserves of gold and foreign exchange. Here again we proceed by stages, and assume first that changes in reserve holdings are composed of gold and foreign exchange in the same proportions in each of the countries affected. Now, as a result of the drawing, the drawing country will be in a position either to increase its reserves or to finance an increased deficit. There will therefore be a rise in owned reserves either in the drawing country or in the countries from which it imports, and the currency drawn will

¹² See Article IV, Section 8.

be converted partly into gold and partly into reserve currencies. The country whose currency is drawn will experience a decline in reserves of equal magnitude, again partly in gold and partly in reserve currencies. There will (on the hypothesis adopted) be no change in aggregate holdings of reserve currencies and thus no change in aggregate owned reserves. The country whose currency has been drawn (the drawee country) will probably have approximately the same amount of unconditional liquidity as before, but its composition will be changed: it will experience an increase in its gold tranche position in the Fund and a reduction in owned reserves. The drawing country or its suppliers (taken together) will have more unconditional liquidity, in the form of gold and foreign exchange, and less drawing facilities (probably of a conditional character) in the Fund.

However, we must take account of the fact that the countries concerned do not necessarily have the same marginal propensity to hold foreign exchange in their reserves. If, for example, the drawing country (and most of its suppliers) has a high marginal propensity while the country whose currency is drawn has a low marginal propensity, the drawing will probably result in some increase in aggregate holdings of reserve currencies and hence in the total of gold and foreign exchange reserves.¹³ The drawing in question is thus likely to result in a twofold increase in unconditional liquidity: (a) in the form of gold tranche positions and (b) in the form of foreign exchange reserves. This increase in unconditional liquidity will accrue to the drawing country and/or its supplying countries and to reserve currency countries. If, on the other hand, a country with a low marginal propensity to hold foreign exchange in its reserves should draw on a country with a high marginal propensity, the opposite result would be likely to ensue, viz., a decline in the holding of foreign exchange reserves, constituting a partial offset to the increase in unconditional liquidity in the form of gold tranche positions. The owned reserves of drawing and/or supplying countries will rise. Those of reserve currency countries will decline.

Either the drawing country, or the drawee country, or one of the suppliers of the latter, may itself be a reserve currency country. Such countries tend typically—though not inevitably—to effect their reserve changes largely or exclusively in gold. Their marginal propensity to hold foreign exchange in reserves is very low. Thus, any drawing of a reserve currency from the Fund is likely to result in a rise in the holding of reserve currencies, including that of the drawee country. That

¹³ Sometimes the drawing country, though not in general accustomed to hold a high proportion of foreign exchange in its reserves, tends to hold in this form a high proportion of reserves acquired from drawings. This makes more likely the outcome described in the following sentences.

country may even gain more unconditional liquidity *qua* reserve currency country than it loses *qua* drawee; in this case, the rise in its quasi-automatic drawing rights will be only partially offset by a decline in its owned reserves.

Repayments of drawings (i.e., repurchases) have the opposite effects on countries' liquidity to those produced by drawings. Repurchases normally reduce gold tranche positions while restoring conditional drawing facilities, and may have analogous effects (in reverse) on the holding of foreign exchange reserves to those discussed for drawings.

Broadly speaking, we may say that a Fund drawing not only serves currently to finance a deficit by providing liquidity to a country that has immediate need of it, but also—if it is a drawing in the credit tranches—adds to the aggregate amount of liquidity available in unconditional form. It thus increases the ease of financing potential future deficits. Assuming that the Fund's drawing policies remain unchanged, the total of outstanding drawings is likely to increase at times when payments disequilibria are particularly large and frequent. At such times the need for liquidity is greater, and it is not inappropriate that Fund transactions arising in response to this need will generate additional liquidity.

Ways of Influencing International Liquidity Through Changes in Fund's Readiness to Provide Financing

Let us now consider various methods by which the amounts of unconditional and of conditional liquidity, respectively, can be increased through the Fund.

INCREASES IN QUOTAS¹⁴

Increases in quotas in the Fund have a dual aspect. They increase the drawing facilities afforded by the Fund to its members—assuming no change in the Fund's policies governing drawings—and they simultaneously increase the resources available to the Fund to meet the drawing requirements of members. They thus affect the liquidity both of Fund members and of the Fund itself.

The immediate effect on the external liquidity of members is complex, but on balance expansionary. Twenty-five per cent of any in-

¹⁴ What is said here regarding quota increases applies also, *grosso modo*, to new quotas, which may be regarded as quota increases from a zero level.

crease in quotas has normally to be paid in gold and the rest in domestic currency. The subscribing member's owned reserves are, of course, reduced by the payment of gold. In return, however, the member's potential drawing facilities increase by at least 125 per cent of the addition to its quota.¹⁵ Where the member, just before the increase in its quota, has no drawings outstanding beyond its former gold tranche, one fifth of the additional facilities—equivalent to 25 per cent of the addition to its quota—will consist of quasi-automatic drawing rights in the gold tranche, and the member will suffer virtually no decline in unconditional liquidity. Where, however, the member has previously drawn beyond the gold tranche, less than one fifth, if any, of the additional drawing facilities will be in the gold tranche and the member will suffer some decline in unconditional liquidity. Moreover, in either case, to the extent that the member finds the gold for its subscription, not out of its own holdings but by converting foreign exchange reserves, there will be a secondary loss of gold reserves in the reserve currency countries. On the other hand, conditional liquidity in the form of drawing facilities in the credit tranches will be increased by an amount lying between 100 and 125 per cent of the addition to member quotas—an increase which, for most members, is much more important than the deterioration in the composition, or decline in the amount, of their unconditional liquidity.

The foregoing discussion of the effects of quota increases on liquidity has proceeded on the assumptions that quasi-automatic drawing rights are available only to the extent of gold tranche positions, and that the acquisition of gold by the Fund in subscriptions is neither reduced under Article III, Section 4(a), nor offset by the use of gold owned by the Fund to acquire currencies or investments. The effects of removing these assumptions are discussed later in this paper.

So much for immediate effects. In the longer run it may be assumed that, with unchanged drawing policies, outstanding drawings in the credit tranches will come to represent as great, or almost as great, a proportion of the enhanced quotas as, in the absence of the quota increase, they would have represented of the old quotas.¹⁶ When this adjustment has been accomplished, gold tranche positions will have increased in much the same proportion as quotas, and the increase in such positions will exceed the gold subscriptions associated with the increase in quotas. Nevertheless, as long as quasi-automatic drawing rights are confined to the gold tranche, it is very doubtful whether

¹⁵ The member also acquires contingent drawing facilities under the compensatory financing decision equal, normally, to 25 per cent of the addition to its quota.

¹⁶ This will hold true if, but only if, the expansion of quotas does not outrun the demand for conditional drawing facilities.

quota increases, even in the longer run, make any significant net contribution to the expansion of unconditional liquidity.

If, provisionally, one ignores any effect which the transfer of gold to the Fund may have on the amount of foreign exchange that members are willing to hold in their reserves, the Fund's net contribution to unconditional liquidity up to any point of time can be measured by the amount of members' gold tranche positions *less* the amount of gold held by the Fund. At the end of 1963, the net contribution, thus measured, amounted to some \$1600 million. Of this amount, \$800 million was attributable to the fact that between 1956 and 1960 the Fund invested that amount of its gold in U.S. securities. The remaining \$800 million, reflecting the Fund's ordinary transactions, particularly the amount of outstanding drawings in the credit tranches,¹⁷ represented some 5½ per cent of member quotas. This figure has varied between 3 per cent and 8 per cent of quotas during the past decade. If, now, one takes account of the indirect effect of the net transfer of gold by members to the Fund in reducing members' holdings of reserve currencies, and assumes that one fourth of the gold so transferred¹⁸ was obtained by the conversion of reserve currencies, it would appear that the consequential reduction in foreign exchange reserves, and hence in total owned reserves, may have amounted to some 4 per cent of total quotas. It will be seen that any net contribution of the Fund to unconditional liquidity as a result of ordinary transactions has thus far been insignificant.

As long as additions to Fund quotas keep pace roughly with the rising demand to use the Fund's drawing facilities and as long as present drawing policies and repurchase arrangements remain unchanged, there is no reason why there should be any great change in the average proportion that outstanding drawings in the credit tranches bear to quotas; under these conditions, quota expansion must be regarded almost exclusively as a means of increasing the supply of conditional, as distinct from unconditional, liquidity.

If quotas were increased more rapidly than the demand for drawing facilities, the proportion of outstanding drawings to quotas would tend to decline, and the contribution of the Fund to unconditional liquidity would tend to become negative—gold and foreign exchange reserves would decline faster than gold tranche positions would expand. On the other hand, the expansion in the supply of, relative to

¹⁷ This figure is also influenced by the accumulated net earnings of the Fund which, by adding to the Fund's stock of currencies, tend to reduce the amount of gold tranche positions relative to the Fund's gold holdings.

¹⁸ The gold transferred is made up of gold subscriptions *plus* repurchases in gold *minus* the Fund's use of gold to replenish its stock of currencies.

the demand for, conditional drawing facilities would reduce members' need for unconditional liquidity, and this is probably much more important than the above-mentioned effect on the supply of unconditional liquidity. To take a highly simplified example, suppose that with total quotas of 100, Fund gold holdings amount to 25, drawings outstanding in the credit tranches to 6, and gold tranche positions to 31, and that the transfer of 25 of gold to the Fund has resulted in a decline of 6 in members' foreign exchange reserves. The Fund's net contribution to conditional liquidity in the form of unused credit tranche positions would then be 94, and its contribution to unconditional liquidity would be 0. If, now, quotas were raised from 100 to 200, without any corresponding increase in the need for Fund drawing facilities, the Fund's gold holdings and the associated negative impact on members' foreign exchange reserves might both be doubled. Drawings outstanding in the credit tranches, however, would probably rise less than in proportion to quotas, say, by 3. Gold tranche positions would rise by only 28, against a loss of gold and foreign exchange reserves of 31, so that the Fund's contribution to unconditional liquidity would *decline* by 3. However, the rise of 97 in its contribution to conditional liquidity (drawing facilities in the credit tranches) would surely reduce the need for unconditional liquidity by far more than 3.

Regarded as a method of increasing the liquidity provided by the Fund, increases in quotas have the disadvantage that they tend to occur—if past experience is any guide—in large amounts at infrequent intervals. A general increase in quotas has thus far occurred only once in the Fund's history—in 1959—although, of course, increases in individual quotas have occurred at other times. It is true that these abrupt and infrequent expansions in conditional liquidity are only gradually utilized in drawings. Nevertheless, it is arguable that the abrupt increases in conditional—and reductions in unconditional—liquidity associated with increases in quotas should themselves be smoothed out over time.

One possible method would be for general increases in quotas to be considered annually; this, however, runs into the difficulty that countries are unwilling to seek authorization from their legislatures for such increases as often as once a year. A more promising variant would be for increases in quotas to be undertaken at less frequent intervals, say, once in five years, but to come into effect by annual installments.

CHANGES IN DRAWING POLICIES

The Fund possesses considerable power to vary the conditions on which consent is given to drawings or to the granting and use of stand-

by arrangements. In particular, it can alter the degree of scrutiny of applications for, or the severity of the conditions imposed on, drawings over any given range of IMF positions; or alter the amount of drawings (in relation to quotas) to which any given policy applies.

For example, if it were felt that the quasi-automatic drawing rights now applicable to the gold tranche were still not quite automatic enough to induce all members to regard them as fully equivalent to their other reserves, it might be possible to arrange, by permanent stand-by arrangements or otherwise, that members could draw within that tranche without their applications even having to be considered by the Executive Board. Members would still be under obligation to draw only to meet a payments deficit, and would consult with the Managing Director regarding the currencies to be drawn.

Again, the proportion of a member's quota that may be drawn upon quasi-automatically could be altered. For example, drawings in, say, the first 5 per cent of quota beyond the gold tranche, instead of being granted on the condition (now applicable to the whole of the first credit tranche) that the member "is making reasonable efforts to solve its problems" could be granted on the same conditions as apply to the gold tranche. If such a step were taken, there would be an immediate increase in the amount of quasi-unconditional liquidity made available to members through the Fund. Unless further steps were taken, however, this increase in unconditional liquidity would involve some decline in conditional liquidity, since the amount that could be drawn within the credit tranches, subject to policy conditions, would be *pro tanto* diminished. However, the substitution of unconditional for conditional liquidity would no doubt have an effect on countries' policies similar in kind, though not in degree, to that resulting from an outright increase in reserves.

Again, members might be permitted, through the exercise of the waiver power, to draw up to a higher maximum limit than is now customary,¹⁹ subject, however, to suitable conditions. Here, obviously, the immediate effect would be to increase conditional liquidity. However, since the adoption of this policy would lead to increased drawings, it would also tend to enhance the quasi-unconditional gold tranche positions in the Fund of those countries whose currencies are drawn.

Clearly, the above-mentioned policies could be combined. For example, if gold tranche drawing rights were extended to the first 5 per cent of the member's quota beyond the gold tranche, the normal maxi-

¹⁹ I.e., beyond the point where Fund holdings of a member's currency equal 200 per cent or, if the special compensatory tranche is fully utilized, 225 per cent, of its quota.

num of drawing facilities—apart from the compensatory financing facility—could be extended into the fifth credit tranche, e.g., to the point where the Fund would be holding 205 per cent of the member's quota. In this way, unconditional liquidity would be increased without any reduction in conditional liquidity.

The examples of changes in drawing policies given above have as their object an increase in the amount or automaticity of drawing facilities.²⁰ It is easy to see how they could be applied in reverse so as to bring about the opposite result.

Each extension of quasi-automatic drawing rights gives rise to a once-for-all increase in unconditional liquidity, followed by recurrent increases with each subsequent expansion of quotas. For example, the extension of quasi-automatic drawing rights to the first 5 per cent of quota beyond the gold tranche would yield an increase of \$600-750 million in quasi-unconditional liquidity,²¹ and—if we assume a long-run constancy in the proportion of outstanding drawings to quotas—would mean that any subsequent general expansion in quotas would increase unconditional liquidity for this reason alone by some 4 or 5 per cent of the increase in quotas.

Now, suppose it were desired that the Fund should contribute to the expansion of conditional and unconditional liquidity, respectively, at specified annual rates. One way of achieving this result, in principle, would be to expand drawing facilities, both conditional and unconditional, through a liberalization of drawing policies, while keeping quotas constant. Such a course, however, would soon run the Fund into difficulties in finding the resources wherewith to implement the drawing facilities it offered. A more practical approach would be to increase quotas annually by an amount equal to the total increase in liquidity desired, while simultaneously extending quasi-automatic drawing facilities at the expense of conditional facilities. Since, as time

²⁰ In addition to the changes mentioned in the text, innumerable changes are conceivable in the conditions prescribed for drawings and for stand-by arrangements, in the various tranches. To discuss them in detail would yield too little that is relevant to our purpose to justify the space that would be required. However, it is arguable that, if access to Fund resources within the credit tranches were made to depend more on past performance and less on promises of future performance by the drawing countries, with respect to policies of adjustment, countries whose record was good in this respect would be encouraged to regard their drawing rights in the credit tranches as more nearly equivalent to gold tranche drawing rights or gold reserves without there being any loss of the incentive to good behavior associated with conditionality.

²¹ The lower figure is based on the assumption that the extension of quasi-automatic drawing rights would lead to no increase in drawings outstanding. The higher figure is based on the assumption that drawings in the credit tranches would be increased by the amount now outstanding in the first 5 per cent of quota beyond the gold tranche.

went on, a given quota increase as such would generate a larger and larger increase in unconditional liquidity, the need for a progressive substitution of quasi-automatic for conditional drawing facilities would diminish and finally cease. Thus, suppose that the world "needed" a Fund contribution to unconditional liquidity amounting to \$600 million per annum, and a contribution to conditional liquidity of equal amount.²² In order to add \$1200 million to total liquidity, it would be necessary to expand quotas by some \$1280 million.²³ On the assumption that an increase in quotas under present conditions adds nothing to unconditional liquidity, the \$600 million of unconditional liquidity required would have to be obtained in the first year by extending quasi-automatic drawing facilities at the expense of conditional drawing facilities by an equivalent amount (i.e., less than 4 per cent of present quotas). In the second year, a further addition of \$1280 million to quotas under the new drawing conditions would, of itself, add some \$45 million to unconditional liquidity, thus reducing to \$555 million the addition to unconditional liquidity for which a further substitution of quasi-automatic for conditional drawing facilities would be required. And so on. Once quasi-automatic drawing facilities had been extended approximately through two credit tranches, amounting to 50 per cent of quotas, all required further expansion in unconditional liquidity would be provided by quota increases.

Turning to the second of the objectives listed above (p. 180), the question arises whether drawing policies can be adjusted with sufficient speed and flexibility to make a significant contribution toward meeting cyclical or short-term variations in the need for international liquidity. Though changes no doubt occur fairly frequently in the detailed interpretation given to these policies, they have been formally altered on only a few occasions in the history of the Fund, and only once or twice in a restrictive sense. To some extent this is inevitable. An explicit change in drawing policies requires a laborious process of formulation, and after this process has been gone through, time is required before members can see what the change means in practice. Moreover, the adoption of more restrictive policies might be regarded by some members as a breach of the understanding on which they had previously requested increases in quotas. Nevertheless, some of the inflexibility

²² \$600 million is slightly under 1 per cent of present world reserves of gold, foreign exchange, and IMF gold tranche positions, and slightly under 4 per cent of the present level of conditional liquidity, including IMF credit tranche positions (up to the 200 per cent point), the reciprocal credit arrangements of the United States, and an allowance for less formal (Basle) arrangements.

²³ It is assumed that 25 per cent of subscriptions are paid in gold, that the associated reduction in foreign exchange reserves is 6 per cent, and that additional drawings lead to an expansion in gold tranche positions equal to 6 per cent of the addition to quotas.

could be remedied. For example, it is not necessary that the tranches with respect to which policies are formulated should always be multiples of 25 per cent of quota. Moreover, despite the difficulties mentioned above, a more systematic periodic reconsideration of drawing policies might be aimed at, with a view to their being tightened up at times when inflationary pressures prevail or when countries show an undue reluctance to adopt realistic rates of exchange, and relaxed at times when the tendency is toward deflation or when a spread of restrictions tends to curtail the volume of international trade and payments.

CHANGES IN GOLD POLICIES

The Fund acquires gold (1) as part (normally 25 per cent) of initial quota subscriptions or of increases in quota subscriptions; (2) in a certain proportion of repurchases under Article V, Section 7(b), and Schedule B; (3) in some repurchases outside Article V, Section 7(b); (4) in charges under Article V, Section 8(f); and (5) in sales of currency for gold under Article V, Section 6(a).

The Fund may use gold (1) to replenish its holdings of scarce currency under Article VII, Section 2(ii); (2) to acquire income-earning investments under implied powers; or (3) to repay loans contracted under Article VII, Section 2(i).

The Fund has little power to vary the rate at which it acquires gold, though (1) in connection with an increase in a quota, the Fund may reduce the proportion of the increase to be paid in gold if the reserves of the member are less than its increased quota; and (2) it may be possible to induce members to include more or less gold in their repurchases outside Article V, Section 7(b). Apart, however, from the possibilities, discussed below, that the Fund might borrow gold or that it might secure the repayment in gold of investments originally made in gold, the main scope for varying the Fund's gold holdings probably lies in the discretion it possesses with respect to the use of gold.

If the Fund uses its gold to purchase currencies that it needs for drawings, or if it induces members to repurchase in currencies—necessarily the currencies of net creditor countries—rather than in gold, the result in both cases is likely to be the same, namely, a decline in the Fund's holdings of gold (as compared to what they would otherwise have been) and an increase in its holdings of the currencies of net creditor countries. The effect on the liquidity of the members primarily concerned will be slight, the increase in their gold reserves being offset, or nearly so, by the decline in their gold tranche positions. However, the countries whose currencies have been bought will probably con-

sider their ratio of gold to foreign exchange assets as having increased and therefore use a fraction of their gold acquisitions for the purpose of acquiring reserve currencies. In this case there will be a secondary expansion in the reserve positions of the reserve currency countries.

The use of gold by the Fund to purchase creditor currencies may have further effects on world liquidity via its effects on the Fund's own liquidity. If the currencies acquired are urgently needed, their acquisition may enable the Fund to avoid a contraction in drawings or a drawing of unsuitable currencies that would otherwise have been necessary. Such purchases will therefore affect the amount and distribution of international liquidity in an expansionary sense. On the other hand, if the currencies acquired are not urgently needed, the Fund's liquidity may on balance be adversely affected, since the currencies acquired may not be those that will be most needed later, and the gold which could have been used later to acquire the latter currencies will have been dispersed.

To reduce the gold proportion of subscriptions to the Fund would have an expansionary effect in some ways greater, in other ways less, than the use of gold to acquire creditor currencies. Some, at least, of the countries whose gold subscriptions are remitted are likely to have substantial amounts of drawings from the Fund outstanding. Such countries, had they paid subscriptions in gold, would have lost reserves and gained, not drawing facilities in the gold tranche, but merely conditional drawing facilities in the credit tranches. The remission of the gold subscription thus enhances their liquidity. Moreover, since they would probably have obtained the gold by selling foreign exchange, the remission avoids a drain on the reserves of the reserve currency countries also. On the other hand, the substitution of holdings of currencies for holdings of gold tends to reduce the liquidity of the Fund.

If the Fund uses gold to repay indebtedness previously contracted under borrowing arrangements, the effect on international liquidity will probably be less expansionary than the operations so far considered. If, as is probable (see the section, *Borrowing Arrangements*, p. 203, below), the Fund instruments of indebtedness have conferred on their holders unconditional liquidity similar to that conferred by a gold tranche position, the "automatic" effects of such repayment (other than those resulting indirectly from repercussions on the Fund's own liquidity) will be similar to those of a use by the Fund of gold to acquire a creditor currency, i.e., mildly expansionary. The effects on Fund liquidity, however, will be as adverse as in the circumstances described in the preceding paragraph, and the reaction on the Fund's drawing policies might be a contractionary one.

The expansion in international liquidity that can be achieved by reducing the Fund's gold stocks is necessarily limited in amount and is of a once-for-all character. On the other hand, in the absence of acts (of replenishment or investment) specifically designed to return gold to countries' reserves, the Fund might gradually accumulate a stock of gold in excess of what it requires in the interests of its own liquidity. Such an accumulation would exercise on the growth of unconditional liquidity in the world a negative influence which, even if not strong, might well be undesirable.

The accumulation and decumulation of gold by the Fund could, in principle, be used as a means of bringing about variations in world liquidity but, for the reasons explained, their effect is likely to be moderate and largely confined to reserve currency countries. In any event, gold operations constitute a reasonably flexible instrument only in an expansionary direction. The Fund has no established means of acquiring gold in substantial quantities, save as a part of a general increase in quotas. One way of strengthening this instrument for use in a contractionary direction might be for the Fund to borrow gold. The effect of this would not be the precise opposite of the use of gold to repay indebtedness, since the enhancement which would occur in the Fund's own liquidity could be, as it were, sterilized; it need not be allowed to affect the Fund's policies on drawings, etc. However, any contractionary effect of such borrowing on the external liquidity of member countries would, as has been shown, be a mild one. Another possible method for the Fund to acquire gold would be for it to obtain repayment in gold of short-term investments which it might possess.²⁴ The right to secure repayment in this form would be natural in the case of investments originally acquired through the payment of gold, and is indeed provided for in the case of the gold investments at present held by the Fund for income purposes. If the repayment were made in gold, the contractionary effect on world liquidity would be somewhat greater than if the repayment were made in currency.

CHANGES IN REPURCHASE PROVISIONS

The resources of the Fund are used to assist members in meeting temporary balance of payments deficits, including deficits arising out of seasonal, cyclical, or emergency situations. Under the Articles, members are obliged at the end of each year to repurchase on the basis of the development of their reserves. As a matter of Fund policy, members undertake to, or represent that they will, repay any drawings

²⁴ See the section, Investment by the Fund, page 196, below.

within three to five years of the date of drawing, and even earlier if the payments problem for which the drawings were made has been solved. The express repurchase provisions of the Articles show clearly that drawings from the Fund are intended to compensate or offset balance of payments fluctuations. The repurchase policies subsequently adopted imply a view that countries should aim at keeping their payments and receipts in balance over a moderate number of years. The Fund's ability to induce drawing members to achieve such equilibrium by acceptable methods would be greatly reduced if there were not a time limit on repurchases. Under present policies, the Fund can say that it will renew drawings that fall due for repurchase only if suitable policies are adopted. Thus, the effective conditionality of the use of the Fund's resources is linked to their revolving character.

By an act of policy, the Fund could alter its terms of repayment for drawings in ways that would allow drawings, or certain classes of them, to remain outstanding for longer periods. For example, the outside limit for drawings could be made four to six years, or five to seven years, instead of the present three to five years. The longer the period specified as the limit for repurchases outside Article V, Section 7(b), the greater would be the proportion of drawings which would have to be repaid under the provisions of Article V, Section 7. It could indeed be argued that the logical terminus to the process of liberalizing repurchases would be the abandonment of all stipulations as to repayment other than those arising under Article V, Section 7.

As has just been shown, such measures, particularly if carried to the point of abolishing all repayment undertakings, are open to the objection that they weaken the Fund's ability to secure the adoption by drawing members of appropriate balance of payments policies. This objection would not, however, have great force with respect to drawings in the gold tranche, or in any other tranche to which quasi-automatic drawing rights may be extended, since in these tranches repayment provisions can easily be nullified by fresh drawings. The withdrawal of time limits on the use of the Fund's quasi-automatic drawing facilities would therefore merely formalize the actual state of affairs, and would have the advantage of strengthening the resemblance of these drawing facilities to other reserves held by members. There may therefore be a case for rendering inapplicable any repurchase obligations, other than those arising under Article V, Section 7(b), where the effect of such repurchases would be to reconstitute quasi-automatic drawing facilities.

Where conditional drawing facilities are concerned, there are still further objections to the elimination of repayment undertakings or to

extending their terms unduly. To make repayment contingent entirely on a recovery in reserves might weaken the incentive for countries to achieve a payments surplus and a consequential rise in reserves. Moreover, as the duration of the drawing extends beyond five years, it becomes more and more questionable how far it can be regarded as bona fide balance of payments financing. The concept of compensatory or balance of payments financing rests on the notion that countries should so act as to ensure that any deficits in the remaining (non-compensatory) items of the balance of payments are succeeded by equivalent surpluses in the foreseeable future. Where the balance of payments is concerned, it is difficult to forecast with any confidence a period more than five years ahead—though admittedly the possibilities of balance of payments planning vary greatly as between countries.

Any extension of the time allowed for the repayment of drawings along the lines discussed above would increase the degree of utilization of quotas (i.e., the average ratio of outstanding drawings to quota), and would thus increase the proportion of unconditional liquidity to conditional liquidity (as measured by the credit tranche positions remaining unused) provided by the Fund. It is unlikely, however, that any mere lengthening of repayment terms while retaining the repurchase provisions of Article V, Section 7(b), would make a significant contribution to the growth of unconditional liquidity or reserves. If this effect were desired, it would probably be necessary for the Fund to transcend the sphere of balance of payments financing altogether and to provide, in addition to such financing, longer-term lending of noncompensatory kinds. It would probably be a wrong approach to the problem to seek to introduce a new type of long-term drawing facility that would be exempt from the repurchase provisions of Article V, Section 7(b), but would still be related to quotas and still be activated on the initiative of the drawing country. Since the primary purpose of the Fund's entry into the longer-term lending field would be less to accommodate the immediate borrowers than to enable the Fund to make a net contribution to the stock of reserves, it would be more appropriate to consider such longer-term lending under the head of investment by the Fund, which is the subject of the next section.

INVESTMENT BY THE FUND

By "investments" are here meant essentially any securities (other than the Fund's own instruments of indebtedness) which the Fund might buy or sell but which would not count as holdings of a member's currency for the purpose of calculating drawing entitlements, repur-

chase obligations, etc., and would therefore leave unaffected such rights and obligations. Under implied powers, the Fund has used gold to the extent of \$800 million to acquire investments, in the form of interest-bearing U.S. dollar securities redeemable on demand with a gold guarantee, for the purpose of maintaining the income of the organization and providing a certain reserve.

In what follows, we consider the consequences of extending the concept of investment by the Fund so that it may be undertaken for purposes relating not only to the Fund's income but also to international liquidity, and so that it may be financed not only out of the Fund's gold holdings but also out of its currency holdings (whether the currency of the country in which the investment is made or another) or by borrowing. For simplicity, it is assumed that the investments take the form of securities denominated in the currency of the country in which the investment is made (the "country of investment"), but subject, like currency holdings under the Articles, to a gold-value guarantee; and that they are bought and sold from or through the government of the country of investment.

Since this is a type of operation not yet undertaken, it can be given any characteristics desired. However, in order that the power of investment should be useful, we shall assume it to possess the following characteristics, the first of which follows from the definition given above. First, investments would not enter into the calculation of the Fund's holdings of currencies, or of the IMF position of the countries of investment, and would not as such affect their drawing rights (though the method of acquisition of the investments might do so). Second, the formal initiative as to the buying or selling of investments in any particular country would lie with the Fund, though the consent of the country of investment would be necessary both for purchases and for sales before maturity. Third, investments would be made on long term as well as on short term.

By virtue of the first characteristic listed above, investment would permit of an increase in the amount of external liquidity, unconditional and conditional, available to Fund members at any given level of quotas. This effect would be most clearly seen if the Fund purchased an investment in a member country by using its ordinary holdings of that member's currency. The decline in these holdings would improve the IMF position of the country of investment, and thus increase its drawing facilities, without impairing the IMF position of any other member. The initial position of the country of investment would determine whether the drawing facilities acquired were quasi-

unconditional gold tranche drawing rights or conditional facilities in the credit tranches.

If the Fund used its holdings of country B's currency to invest in country A, the effect would be the same as if it had used its holdings of A's currency for this purpose while at the same time A had made a drawing of B's currency. If, as might often be true for this kind of investment, A had initially a debtor IMF position and B a creditor position, the effect of the drawing element in the transaction would be to transform what would otherwise have been an expansion of conditional liquidity into an expansion of unconditional liquidity.

Again, if the investment in A were paid for out of the Fund's holdings of gold, the effect would be similar to a combination of an investment financed from the Fund's holdings of A's currency and a use of the Fund's gold to purchase A's currency. Generally speaking, the investment of gold would have a more expansionary effect on unconditional liquidity than any other kind of investment.

The second characteristic suggested for the power of investment, namely, that the Fund should have more initiative and freedom of action than with respect to drawings, is clearly one the degree of which is debatable. It would, however, seem desirable that member countries should have no right to receive an amount of investment, or even a share in total investments, in any way related to quota, though doubtless the solicitation of investment could not in practice be excluded. Though for investments, as for drawings, the consent both of the Fund and of the country of investment (cf. the drawing country) would doubtless be necessary, nevertheless the fact that the initiative lay with the Fund should give the latter much more effective power in influencing the amount, timing, and distribution of investments than it has with respect to drawings.

The third characteristic proposed for investment, that it extend to assets of long as well as short maturity, is, of course, of fundamental importance for the Fund's ability to expand the total amount of credit—and hence the amount of unconditional liquidity created in the form of gold tranche drawing rights or instruments of the Fund's indebtedness, relative to the amount of short-term to medium-term conditional drawing facilities which it provides. Investment by the Fund is thus a third way of bridging the possible gap between what the Fund ought to contribute to the expansion of unconditional liquidity or reserves and what, if anything, it contributes as the counterpart to the use of its conditional drawing facilities. The other two possible ways of bridging this gap, as already explained, are an extension of quasi-automatic

drawing rights beyond the gold tranche and a lengthening of the term of drawings.

Investment differs from an extension of quasi-automatic drawing rights beyond the gold tranche in five main respects: (1) it can be distributed more selectively than an extension of automatic drawing rights, which would normally be applied to all members in proportion to their quotas; (2) insofar as the investment is made with a currency other than that of the country of investment, it resembles an extension of automatic drawing rights *plus* an actual drawing; (3) investment will create more drawing facilities free from repurchase obligations than will an equal extension of automatic drawing rights beyond the gold tranche; (4) investment will constitute a bigger drain on the Fund's resources than will an equal extension of automatic drawing rights;²⁵ (5) whereas an extension of automatic drawing rights beyond the gold tranche automatically increases the effectiveness of increases in quotas in expanding unconditional liquidity, investment does not. To achieve a similar result, investment would have to be increased *pari passu* with the increases in quotas.

Investment of the type outlined differs from the introduction of longer-term drawing rights mainly with respect to the first two characteristics of investment discussed above. Owing to these characteristics, Fund investment has the advantage over the provision of long-term drawing facilities that it could more easily be kept distinct from the Fund's everyday task of providing short-to-medium-term drawing facilities, and is therefore more likely to leave that valuable function unimpaired.

In one respect, investment might act more powerfully on a country's policies than either of the other two methods of expanding credit from the Fund, viz., if it is regarded by the country of investment as entering into its balance of payments as a positive item "above the line." An increase in liquidity that results from a payments surplus (or a decline in liquidity that results from a payments deficit) is likely to be more effective than one arising independently of the balance of payments.

Insofar as investment is employed for the purpose of enabling the Fund to contribute to a long-term expansion in the trend of unconditional liquidity, it would seem appropriate that it should take the form of a purchase of securities amortized over a long period of time—e.g., 20 years. While the Fund would, of course, not be precluded from

²⁵ Both (3) and (4) are attributable to the fact that, assuming that the investments are distributed between countries in the same proportions as would be an extension of quasi-automatic drawing rights, countries' IMF positions will be generally more positive in the former than in the latter case.

holding long-term investments in the more highly developed countries, it would seem desirable that as high a proportion as possible should be held in those countries where the need for capital is, humanly speaking, greatest—namely, the less developed countries. Since the latter would be unlikely to use the proceeds of such investments to build up their own reserves, but would spend them on the products of the industrial countries, the effect on the reserves of the industrial countries would probably be almost as great as if the investments had been made in these countries in the first place. Moreover, insofar as the object of expanding liquidity is to encourage the industrialized countries to adopt more expansionary financial policies, the underlying purpose would be better achieved by investing in the less developed than in the more highly developed countries, since in the former case increased liquidity would accrue to the industrialized countries in the form of export receipts, with a stimulating effect on incomes, and in the latter case it would accrue only in the form of greater ease in the money and securities markets. Investment by the Fund in less developed countries should, of course, not exceed amounts which the countries in question could economically absorb at the relatively low rates of interest which the Fund would be able to charge. Such investments would not be part of the Fund's own liquid reserves; they would be a means to the creation of liquidity in the hands of national monetary authorities, with beneficial side effects on the provision of resources for economic development.

Any long-term investment by the Fund in the less developed countries should presumably be carried out as far as possible through existing intermediaries, such as the IBRD and the IDA, though neither the terms and conditions of the investments nor even the investment criteria need be precisely those at present applied by either of these institutions. While the technique here discussed has some resemblance to the "Stamp Plan,"²⁶ there is no suggestion that the investments should be in any way tied to imports from such countries as are willing to accept additional claims on the Fund, nor is it suggested that those claims should necessarily take the form of transferable certificates rather than, for example, gold tranche positions.

The technique of investment (and disinvestment) has certain advantages over that of changes in the liberality or severity of drawing policies as a means of bringing about such temporary variations in the amount of liquidity as may be useful in counteracting cyclical fluctuations in the industrial world. Temporary changes in the amount of unconditional liquidity, such as may be called for by alterations in the

²⁶ See *Moorgate and Wall Street*, Spring 1961.

condition of the foreign exchange markets, are likely to be evoked, through variations in the demand for drawings, even with constant drawing policies. Where some positive anticyclical action is called for, however, drawing policies are likely to prove too inflexible, and open market policies more effective. Investments for this purpose could be of a short-term though renewable character, and would normally be made predominantly in the industrial countries.

Long-term investment in central reserve countries might also be an appropriate means of counteracting any sudden and substantial decline in official holdings of reserve currencies. These investments should be on long term to cover the possibility that the decline might be a permanent one, but there could be arrangements for withdrawing the investments if official holdings of the currencies in question should recover.

Ways of Influencing International Liquidity Through Changes in Fund's Ability to Provide Financing

The Fund provides its members with international liquidity through its readiness to provide financing, in the form of drawings or of repayment of the Fund's own indebtedness. But such financing involves the provision of currencies other than that of the country that is being financed. The Fund cannot carry out this financing unless it has access, preferably assured access, to the currencies that it requires. Moreover, as we have seen, acts of financing by the Fund, whether in the form of drawings, repayments, or investment, give rise to claims on the part of the countries whose currencies are used—claims which are generally themselves of a liquid character. The Fund must have assurance that those of its members that are in a strong balance of payments position will be willing to accumulate and hold such claims, and will not compel it to withhold or withdraw financing from countries that need it. The Fund cannot create international liquidity, any more than a domestic banking system can create domestic liquidity, unless its members (customers) are willing to hold additional liquidity in the form of claims upon it. These are aspects of the Fund's problem of obtaining sufficient resources to enable it to discharge its functions properly.

Apart from repurchases (i.e., repayments of drawings)—which of course restore its power to extend new drawings but do not enable it to increase the net amount of drawings outstanding—the Fund has two main ways of replenishing its resources, and thus of ensuring that it

can continue to expand world liquidity, viz., increases in quotas, and borrowing arrangements.²⁷

INCREASES IN QUOTAS

Increases in quotas affect countries' liquidity in the manner discussed in an earlier section. They also provide the Fund with additional resources consisting of gold and "drawable" currencies, the former to the amount of 25 per cent of all quota increases, and the latter to the amount of 75 per cent of the additions to quotas of countries whose currencies are, at any given time, usable for drawings. The addition to the Fund's holdings of gold and drawable currencies is intended to maintain the Fund's liquidity, i.e., to enable it to honor the enhanced drawing facilities that accompany the quota increases without the necessity of paying out the currencies of countries that are in a weak balance of payments position or reserve position and might thus be embarrassed by the drawing. In the short run, before countries have had time to use their new drawing facilities, a rise in quotas will necessarily increase the Fund's liquidity. In the long run, however, if the increase in quotas is matched by a corresponding proportionate increase in the demand, and need, for drawings, the additional resources provided by an all-round increase in quotas will only suffice to enable the Fund to maintain its original degree of liquidity. Thus, if the original country distribution of quotas, relative to the distribution of potential payments surpluses and deficits, was such that the resources of the Fund had to be supplemented by borrowing arrangements with certain countries, and if the distribution of potential surpluses and deficits remains unchanged, a quota increase as described above will normally have to be supplemented by a proportionate increase in the borrowing arrangements. Only insofar as the increase in quotas outstrips the increase in the demand, and need, for drawings will it be possible for the Fund to reduce its reliance on such arrangements.

Thus far we have dealt with general, all-round increases in quotas. Quotas, however, can be increased at different times for some classes or groups of members (e.g., members with "small" or "medium" quotas), to the exclusion of others. If the quotas increased are primarily those of countries that are seldom in a net creditor position and frequently in a debtor position, the increases will have effects in some ways comparable to the adoption of more liberal drawing policies

²⁷ The use of gold for purposes of replenishment, which has been discussed in an earlier section, is an intermediary stage in the mobilization of resources ultimately derived from quota subscriptions, repurchases, etc.

—the level of outstanding drawings will be increased without any increase in the Fund's resources and with some decline in the Fund's liquidity. Conversely, if the quotas increased are mainly those of countries normally in a creditor position, the main—though not the only—effect will be to increase the resources and the liquidity of the Fund, and to reduce the need for borrowing.

BORROWING ARRANGEMENTS

Under Article VII, Section 2, the Fund can borrow a member's currency from that member, or (with the consent of both parties) from another source, whenever "it deems such action appropriate to replenish its holdings of any member's currency." Such borrowing may affect the liquidity of members directly, but much more important is its effect, or the effect of the arrangements under which it is carried on, on the liquidity or resources of the Fund itself.

The nature of the borrowing arrangements will determine (1) the nature of the resources made available to the Fund; (2) the conditions governing repayment and the other characteristics of the instruments of Fund indebtedness; and (3) the conditions under which the resources are made available to the Fund.

As regards (1), the proviso from Article VII, Section 2, quoted above, would seem to confine the currencies that might be borrowed to those suitable for being drawn from the Fund, though the Fund's need for the currencies in question does not necessarily have to be immediate.

As regards (2), countries acquiring claims on the Fund by lending to it might be able to require the Fund to convert these, on demand, into currencies or gold; or the claims might be repayable at fixed dates but (like gold tranche drawing rights) convertible into foreign currencies whenever required to meet payments difficulties experienced by the lending country; or convertible in some proportion to the decline in that country's other reserves; or repayable only on maturity. The duration of the claims might be short or long. They might be transferable generally, as between central banks, or not at all. They might be interest-bearing or otherwise.

The precise degree of liquidity to be accorded to a claim on the Fund arising out of an act of borrowing is thus variable, and should depend on the effect that the Fund wishes to exercise on world liquidity. In practice, it might be difficult to induce lending members to be content with a lesser degree of liquidity than that afforded by a gold tranche position in the Fund unless substantial interest were paid. On the other hand, it would be important for the Fund's own liquidity

that lenders collectively should not be in a position to encash too high a proportion of their claims on the Fund at any one time. Any system of deposits withdrawable (i.e., convertible into currency or gold) on demand would leave the Fund exposed to the possibility of "runs" that might deprive it of the power to maintain or expand world liquidity at a time when this was required. It would, therefore, seem necessary that repayment of the Fund's indebtedness on the initiative of the creditor should be confined to situations in which the creditor was able to represent that its balance of payments created a need for such repayment. The precise degree of liquidity that could safely be given to instruments of the Fund's indebtedness would depend in part, as will be shown, on the nature of the access to resources conferred on the Fund by the borrowing arrangements.

In discussions of international liquidity, emphasis is often laid on transferability as an important attribute affecting the liquidity of claims on the Fund arising out of Fund indebtedness. Any value such transferability might have for the holders of such claims would depend on the willingness of other countries to accept transfers. Such willingness could certainly not be relied on in the absence of definite arrangements whereby countries would agree to accept transference of such claims up to specific amounts. These arrangements, in turn, would be likely to be at the expense of undertakings to provide resources directly to the Fund. Countries might even insist that claims on the Fund transferred to them be counted against any lines of credit which they might be extending to the Fund. The system is therefore not one which would provide additional facilities for Fund members at no cost to the Fund's resources. The fact that the transferee would be, by definition, a willing holder of claims on the Fund would be an advantage, but bilaterally arranged transfers might conflict with those general understandings regarding an equitable distribution of liquid claims on the Fund which would probably be necessary if the Fund was to supply unconditional liquidity on a large scale. If the rights of the creditor to encash indebtedness to meet payments difficulties were made sufficiently automatic—in conformity with suggestions made earlier for further increasing the automatism of drawings in the gold tranche—the attractions of transferability to the lender might well become negligible.

It should be noted that if, as appears likely, the degree of liquidity attending to instruments of Fund indebtedness were not very different from that attaching to a gold tranche position, an act of borrowing by the Fund, taken by itself, would be likely to have only a minor effect on countries' external liquidity. A member lending its own currency

would probably be a country with a gold tranche position. The rise in the Fund's holdings of its currency would involve a decline in that position, to offset which it would acquire a claim on the Fund of a degree of liquidity comparable to that afforded by a gold tranche position.²⁸ Conceivably the claim on the Fund, having the legal form of an asset, would be deemed by the member as more worthy of inclusion in its reserves than any kind of drawing right. The real gain in liquidity would, however, be slight or negligible. Again, if a member lent to the Fund gold or the currency of another member, the lending member would acquire a highly liquid claim on the Fund but would suffer a corresponding loss in its reserves. A country whose currency was lent to the Fund by another member would suffer a decline in its Fund position, probably a gold tranche position, but its other reserves might benefit from the reduced supply of its currency in the international exchange market. However, if the act of lending to the Fund involved a decline in the holding of foreign exchange reserves, the net effect would be to reduce international liquidity.

The real significance of an act of borrowing is that it would increase the Fund's resources without having much direct or immediate effect on members' liquidity. (In this respect it contrasts with a quota increase, which, as we have seen, would not only increase Fund resources but also immediately enhance members' conditional liquidity in the form of drawing facilities in the credit tranches.) However, as soon as the Fund used the resources it had borrowed, whether for additional drawings or investment, a net increase in international liquidity of the sort described in earlier pages would occur.

As regards (3), resources might be made available to the Fund (a) in the form of deposits made on the initiative of the lender, though on conditions laid down by the Fund and possibly subject to quantitative limits established by the Fund; (b) under lines of credit, calls on which could be on the Fund's initiative subject to conditions agreed in the credit arrangement; or (c) as the outcome of an agreed rule of a more or less automatic statistical character.

The Fund could not, at present, accept deposits entirely at the will of the lender and in any currency that the lender chose to deposit. It could accept only currencies potentially needed for drawings, and then only if the country whose currency was deposited consented. However,

²⁸ It might conceivably be possible to assign currency borrowed by the Fund in advance of use to some reserve account which would not count as normal holdings and would therefore leave unimpaired the drawing facilities of the lending member. Any such reserve holding would, however, in the terminology of this paper, rank as investment, as defined above, and the increase in unconditional liquidity associated with this transaction would result from this "investment" rather than from the borrowing as such.

the Fund could reasonably declare its willingness to accept deposits in any currency of which its holdings fell below a certain low percentage of quota (say, 25 per cent or 20 per cent), provided that the deposits were made by or with the consent of the country whose currency was deposited. Interest rates could be such as to make such deposits attractive. While depositors might hesitate to incur the loss involved in depositing at par strong currencies standing at a premium in the market, they might hope to recoup this loss by drawing premium currencies at par when the time came to withdraw their deposits. One attraction of this technique would be that, since the deposits would be made on the initiative of the depositor, no negotiation would be necessary between the lender and the Fund.

On the other hand, the system of voluntary deposits would seem to leave the Fund dangerously exposed to net withdrawals of its resources. This would be true even if the right to withdraw were confined to countries with a payments need, for there would be no assurance that surplus countries would necessarily be induced by the mere attraction of the interest paid, the gold guarantee, etc., to add to their deposits at a time when deficit countries were being compelled by payments difficulties to withdraw theirs. If deposits were encashable on demand, the situation would be even more precarious, since a general nervousness on world exchange markets, or a lack of confidence regarding the Fund's own liquidity, might lead to a net withdrawal of deposits just at the time when the Fund was anxious to extend itself in assisting member countries.

Lines of credit could be established by the Fund with individual lenders or, as in the General Arrangements to Borrow, with a group of lenders. The line of credit would have one very important advantage over the mere acceptance of deposits, in that it would ensure the Fund of access to additional resources for the lifetime of the stand-by arrangement. Voluntary deposits, once they had been withdrawn (e.g., to meet a payments deficit of the creditor) might not be reconstituted if the interest paid was not attractive or if the Fund's own liquidity was suspect. In the line-of-credit technique a similar difficulty would arise only when the credit arrangement lapsed and had to be renewed. It might, moreover, be possible to have permanent credit arrangements or lines of credit which, like subscriptions, would give the Fund a permanent increase in reserves.

The nature of the tension between a lending country's right to secure payment of its loan at need, and the Fund's right to draw on the line of credit at *its* need, is broadly analogous to that described earlier as existing between a member's right to draw on a gold tranche position

and the Fund's right to sell the member's currency and thus to increase or restore that gold tranche position. Some conventional rule is required to determine to what extent the Fund should draw on any given country's line of credit. The rule might be, for example, that the Fund would borrow from any given country to whatever extent was required to prevent its holdings of that country's currency from falling below some (low) percentage of its quota. The Fund's policy with respect to currencies to be drawn and used in repurchase would be determined so as to secure an equitable distribution of net IMF positions among creditor countries, including in the concept of net IMF positions not only gold tranche positions but also amounts lent to the Fund. Lending countries incurring payments deficits would be expected to take advance repayment of their loans before drawing their gold tranche positions below the aforesaid percentage of quota.

A good example of the third technique mentioned above, whereby countries lend to the Fund according to some statistical criterion, would be an arrangement under which many or all Fund members would hold claims on the Fund in some proportion to, or as a function of, their total gold and exchange reserves. These claims would be acquired by depositing gold or currencies needed by the Fund. This would provide for a long-term growth in Fund resources *pari passu* with the growth of official reserves and, if used to finance an expansion in investment by the Fund, or in drawings relative to quotas, would make possible a long-term growth in the liquidity provided by the Fund. Such an arrangement would, however, make great demands on the willingness of countries to undertake important commitments—though not necessarily sacrifices—for an international end. Moreover, a once-for-all commitment would not suffice. If, as is probable, it became necessary, in order to secure a higher proportionate rate of expansion of world liquidity than that of monetary gold stocks, to raise periodically the proportion of reserves held in the form of claims on the Fund, a new agreement would be called for on the occasion of each increase.

One disadvantage of a simple system under which countries would hold a proportion of their reserves in the form of Fund deposits would be that, especially when that proportion was still small, they could use such deposits to cover only a small part of any payments deficits that they might have. This would make the holding of a deposit less attractive than the holding of a gold tranche drawing right, and might constitute a real hardship for the majority of countries whose own currencies would not be acceptable for deposit and who would therefore have to establish deposits at the expense of other reserves. The

hardship would be greater if a part of the gold and foreign exchange holdings of the countries in question were pledged or otherwise unusable. A possible way round this difficulty might be a provision under which deposits with the Fund could be withdrawn *pari passu* with a decline in the depositor's other reserves and reconstituted *pari passu* with any recovery in these reserves until the required proportion was restored. Regulations might be required establishing priority between such reconstitution and repurchases of any drawings outstanding.

The three modes of Fund borrowing discussed above are merely illustrative. The borrowing instrument is very flexible. Many different combinations can be imagined. For example, the following system—involving a combination of the system of voluntary deposit with that of lending to the Fund in relation to a statistical criterion—might be of use for maintaining the level of international liquidity if that were threatened by some temporary or permanent decline in the propensity of monetary authorities to hold reserves in the form of foreign exchange, and if no adequate arrangements or understandings existed among these authorities with respect to the holding of reserve currencies.

The Fund would stand ready to receive deposits (i.e., to borrow) in reserve currencies held by monetary authorities to the extent that the latter wished to reduce their holdings thereof. Currencies thus acquired by the Fund would immediately be invested (i.e., held in a form apart from its ordinary currency holdings) in the countries whose currencies were deposited, and would thus leave unaffected the usual drawing facilities available to these countries. Such investments—which would, like other Fund investments, carry a gold guarantee—would be amortized in gold or currency acceptable to the Fund over a lengthy period (e.g., 20 years), and would also be redeemable on demand in domestic currency at the Fund's request. If depositing countries should subsequently desire to increase their holdings of the currencies formerly deposited, they would be under obligation to do so in the first instance by withdrawing their deposits from the Fund, which would in turn encash its investments. As long as the transaction had not been reversed according to this procedure, the deposit, though convertible into needed currency if required to meet payments deficits of the depositor, would have to be reconstituted when the other reserves of the depositor increased (or possibly according to some repayments schedule).

The main effect of this arrangement would be to enable countries losing confidence in a reserve currency to substitute a gold-guaranteed claim on the Fund. If the loss of confidence should turn out to be

permanent, the system would permit the euthanasia of the reserve currency in question, but this would not be assumed in advance to be inevitable. Instead, the fact that a temporary gold guarantee *could* be obtained whenever necessary would probably strengthen the desire to hold reserve currencies.

Interrelation Between Fund's Credit Policy and Form in Which Resources Are Raised

The two main methods of expanding the Fund's resources, by increases in quotas and by borrowing arrangements, respectively, have consequences that differ in two respects. The first, and obvious, difference is that the former method implies that increases in countries' unconditional liquidity (insofar as achieved through the Fund) will take the form of quasi-automatic drawing rights, while the latter method implies that they will take the form of liabilities of the Fund. The second, and more important, difference is that increases in quotas are associated, while increases in borrowing arrangements are not, with increases in drawing facilities in the Fund. From these considerations it follows that any preferences between automatic drawing rights and Fund liabilities as the form in which unconditional liquidity created by the Fund should be held, or any preferences between increases in quotas and borrowing as the method whereby the resources of the Fund should be raised, will have implications for the extent to which drawing facilities can appropriately be provided, or investments appropriately acquired, relative to quotas.

For example, if it were desired to avoid the necessity for borrowing by the Fund, and to create liquidity exclusively in the form of IMF positions, there would be a limit to the extent to which drawing policies could be liberalized, and/or drawing facilities extended to additional tranches, and/or investments expanded. All these acts would involve an expansion in the amount of credit extended by the Fund relative to the amount of quotas and thus in relation to the resources in gold and drawable currencies provided by the subscriptions.

Again, if it were decided, in order to avoid the necessity for an immediate increase in quotas, that additional drawing facilities should be provided by the adoption of more liberal drawing policies, it should be realized that once this liberalization had had time to take full effect, it would increase the likelihood that recourse to borrowing would be necessary.

It was pointed out above that if it were desired that the growth in quasi-unconditional liquidity provided through the Fund should outstrip the growth in short-to-medium-term conditional drawing facilities, one of the ways of achieving this would be for the Fund to expand its holdings of investments relative to drawing facilities in the credit tranches. Such a development, however, would be likely, if carried far, to involve a necessity for borrowing by the Fund on a substantial scale.

If the extension of quasi-automatic drawing rights beyond the gold tranche, rather than investment, were the technique adopted for raising the Fund's contribution to unconditional liquidity relative to its contribution to conditional liquidity, the resultant dependence on borrowing arrangements would be considerably less. For example, suppose that quasi-automatic drawing rights were extended beyond the gold tranche by 250 units, while conditional drawing facilities in the credit tranches were maintained by an equal extension of the limit on total drawings. Precisely the same effect on the amounts of unconditional and conditional drawing facilities available to each country could have been achieved by a Fund investment to the amount of 250 units distributed among members in proportion to quotas and purchased with the currencies of the countries in which the investments were made. Drawings outstanding would increase under both procedures to a similar extent; but the investment method—to the extent that investments were made in countries whose currencies were drawable—would use up the Fund's stock of these currencies, and thus draw down the resources of the Fund, to a greater extent than would the method of extending automatic drawing facilities. If, as is likely, investments in the less developed countries were made not in their own currencies but in drawable currencies, the increase in unconditional liquidity resulting from the investments would be greater than has been assumed above; but so, *pro tanto*, would be the drain on the Fund's resources.

It does not follow from what has been said that pursuit of the investment path to the creation of international liquidity by the Fund necessarily involves undue reliance on borrowing. This could be avoided by means of suitable adjustments in drawing policies, in such a way that conditional drawing facilities were kept from rising proportionately while quotas were expanded to provide the resources necessary to finance the investment. However, in the past, drawing policies have not been very flexible, and such flexibility as there has been (since the first years of the Fund at any rate) has been mostly in the direction of liberalization.

Conclusion

It is reasonable to believe that there will be a need, as the years pass, for a gradual expansion in the amount of short-to-medium-term credit that is made available to monetary authorities conditionally on the adoption of policies directed toward the maintenance or restoration of equilibrium. Such conditional liquidity can suitably be provided by a gradual expansion of conditional drawing facilities in the Fund.

It is possible that the long-term upward trend in the liquid reserves of countries is inadequate and requires, or will require, to be supplemented by a similar or faster rate of growth of unconditional or near-unconditional liquidity in the form of quasi-automatic drawing rights and/or of the creation of indebtedness by the Fund with quasi-automatic repayment features.

Once it was decided what would be a desirable (long-run) rate of growth in the Fund's provision of conditional and quasi-unconditional liquidity, respectively, there would be a variety of ways—from an expositional standpoint an embarrassing variety of ways—in which this could be achieved.

For example, even if it were decided (1) that the Fund's borrowing arrangements should be confined to a given proportion of quotas, and (2) that an investment power should not be used, it would be possible to attain the desired expansion in the Fund's provision of conditional and quasi-unconditional liquidity by a suitable combination of (a) expansion of quotas, (b) adjustment, through drawing policies, in the proportion of conditional to quasi-automatic drawing facilities, and (c) adjustment, through drawing policies, in the proportion of total drawing facilities to quotas. In all probability, the proportion of conditional to quasi-unconditional drawing facilities and the proportion of total drawing facilities to quotas would both have to decline.

Again, if assumption (1), regarding borrowing, were retained, assumption (2) abandoned, and a new assumption (3) added, to the effect that no adjustment would be permitted in the proportion of conditional to quasi-automatic drawing facilities, then the desired result could be obtained by a combination of expansion of quotas, investment, and adjustment in the proportion of drawing facilities to quotas. In all probability, the proportion of investment holdings relative to quotas would have to rise, while that of drawing facilities relative to quotas would have to decline. As we have seen in the preceding section, this method would require a more severe curtailment of drawing rights relative to quotas than would the method considered in the preceding paragraph.

Finally, if it were impracticable for any reason for total drawing

facilities to decline relative to quotas, it would no longer be possible to enforce any given upper limit on borrowing relative to quotas. This would be true whether the approach to the creation of unconditional liquidity was through the extension of quasi-automatic drawing facilities or through investment. Any such limit, however, would be more quickly reached if reliance were placed on investment than if it were placed on an expansion of quasi-automatic drawing facilities at the expense of conditional ones.

From what has been said, it would appear that the Fund could contribute to the long-term expansion in unconditional liquidity without necessarily engaging in more active investment. The same objective could be achieved with less resort to borrowing by an extension of quasi-automatic drawing rights beyond the gold tranche. On the other hand, investment would be a more selective way of expanding quasi-automatic drawing facilities, and the facilities in question would be less encumbered with (even nominal) repurchase obligations.

Insofar as the investment power was used for this purpose, there would be no reason why a proportion of the investment involved should not be directed toward the less developed countries.

In order to smooth out the growth in quotas, quota increases could take place in annual installments.

The Fund's contribution to the long-term growth of unconditional liquidity could be slightly—but only slightly—enhanced if the accumulation of gold stocks that might otherwise result from quota increases were avoided by judicious purchases of needed currencies.

It might be necessary for the Fund to depend to some extent on borrowing to supplement its resources. Voluntary deposits would be an unreliable source of resources for the Fund. Borrowing stand-bys would be preferable, but should be kept as free as possible from restrictions that would hamper the Fund in the use of the resources received. One way to deal with long-term problems might be an arrangement in which each member normally held a proportion of its resources in the form of deposits with the Fund, with provision for temporary withdrawal in times of need.

Cyclical or temporary variations in the desirable level of international liquidity may take place either because of variations in the instability of international payments or because of variations in the pressure of monetary demand for goods and services, or for both reasons. The first sort of change in the need for financing is likely to result in a change in the use of Fund drawing facilities and thus in an answering change in the supply of liquidity. In the second type of change, however, and even to some extent in the first, any responsive-

ness in the supply of liquidity is likely to be insufficient. In this event, there would be a case for varying either the amount of the Fund's investments or the liberality of its drawing policies. In view of the inflexibility of such policies, the former technique is likely to be the more practicable. This sort of variable investment should be short term and renewable and should be held mainly in industrial countries. The resources required to finance such temporary extensions of Fund credit might in some instances be provided by effecting increases in quotas (or increases in the proportion of reserves held in the form of deposits with the Fund) earlier than would otherwise be appropriate. However, it would generally be appropriate to supplement the Fund's resources with borrowing arrangements of the stand-by type.

The third of the possible reasons, mentioned on page 180 above, why the Fund might have to take action in the field of international liquidity is that it might be necessary to offset the decline in liquidity that would ensue should there be any decline in countries' willingness to hold reserves in the form of foreign exchange. The most effective action open to the Fund in this contingency would appear to be the acquisition of long-term investments in reserve currencies, reversible if the willingness of countries to hold foreign exchange should recover. This, however, might create a temporary or permanent need by the Fund for additional resources. A scheme whereby such resources might, in the assumed circumstances, be raised by borrowing is described on page 203.

Le Fonds et la liquidité internationale

Résumé

Cet article examine par quels moyens le Fonds, avec les pouvoirs dont il dispose actuellement ou par extension de caractère organique de ces pouvoirs, pourrait s'adapter afin de jouer le rôle principal dans l'expansion ou la réduction de la liquidité internationale.

Une distinction importante est établie entre la liquidité inconditionnelle ou quasi-inconditionnelle (telle la liquidité disponible sous forme d'avoirs de réserve ou au titre d'une tranche-or au Fonds) et la liquidité soumise à certaines conditions quant à l'usage qui doit en être fait ou aux politiques que doivent suivre les détenteurs (par exemple les facilités de tirage dans les tranches de crédit du Fonds).

La portée des transactions du Fonds sur la liquidité conditionnelle et inconditionnelle des opérations avec le Fonds est étudiée. Il est montré que le Fonds, aux termes des lignes de conduite actuellement suivies, fournit avant tout de la liquidité conditionnelle.

Vient ensuite un examen des principales modifications des pratiques du Fonds qui pourraient lui permettre de contribuer de façon plus efficace à soutenir la tendance à l'accroissement de la liquidité internationale, à rendre les disponibilités en liquidités plus sensibles aux besoins courants, et à neutraliser toute tendance spontanée à l'instabilité dans le système de réserves. A cet effet, l'auteur considère tour à tour les conséquences du relèvement des quotes-parts du Fonds, de la modification de sa politique de tirage, de la modification de sa politique de rachat, du changement de ses avoirs en or, et du développement de ses opérations d'investissement. Il estime que les principales méthodes d'expansion de la liquidité du type "réserve" par l'intermédiaire du Fonds impliquent soit l'extension de droits de tirage quasi-inconditionnels aux tranches de crédit, soit un développement de la fonction d'investissement.

Enfin, un examen critique porte sur les différents moyens, tels le relèvement des quotes-parts, et un certain nombre de formes possibles de modalités d'emprunt (entres autres l'acceptation de dépôts), par lesquels le Fonds pourrait acquérir les ressources qui lui permettraient de mener à bien ces politiques.

El Fondo y la liquidez internacional

Resumen

Este artículo se ocupa de la forma en que dadas sus presentes facultades o ciertas ampliaciones de carácter orgánico de las mismas, el Fondo podría ser adaptado para que desempeñara el papel principal en la expansión o contracción de la liquidez internacional.

Se establece una importante distinción entre aquella liquidez disponible sin o casi sin condiciones (tal como la resultante de la posesión de activos que constituyen reservas o de la posición del tramo de oro en el Fondo), y la liquidez que se encuentra subordinada a ciertas condiciones en cuanto a su uso o a las políticas que los usuarios deben seguir (tal como la conferida por las facilidades de giro proporcionadas en los tramos de crédito del Fondo).

También se estudia la manera en que las transacciones del Fondo influyen sobre la liquidez condicional e incondicional de sus operaciones, y se muestra que de conformidad con sus actuales políticas el Fondo constituye ante todo una fuente de liquidez condicional.

Se dedica atención a las principales modificaciones en las prácticas del Fondo que podrían ponerlo en condiciones de contribuir más eficazmente a sustentar la tendencia a aumentar de la liquidez internacional, a hacer que como fuente de recursos se vuelva más adaptable a las necesidades existentes y a contrarrestar cualesquiera tendencias naturales hacia la inestabilidad en el sistema de las reservas. A este respecto se analizan los efectos de ampliar las cuotas en el Fondo, de reformar sus políticas sobre giros, de modificar sus políticas sobre recompras, de variar sus tenencias en oro y de dar mayor alcance a sus operaciones de inversión. Se aduce que los principales métodos para incrementar la liquidez del tipo "reserva" a través del Fondo entrañan ya sea la ampliación de los derechos de giro casi incondicionales hasta abarcar los tramos de crédito, o la expansión de sus actividades en el campo de la inversión.

Finalmente, se someten a un riguroso examen los diferentes métodos, tales como el aumento de las cuotas, y varias formas factibles de acuerdos de préstamo (entre ellas la aceptación de depósitos) mediante los cuales el Fondo podría adquirir los recursos que le permitirían poner en práctica esas medidas.

The Management of International Liquidity

Oscar L. Altman*

This is the text of a talk delivered at an Economics Department seminar at the University of Toronto and at a staff seminar of the International Monetary Fund. The views expressed are personal, and are not necessarily those of the International Monetary Fund.

THIS PAPER describes a number of the problems and issues involved in the management of international liquidity. It does not pretend to suggest whether international liquidity should be managed, or how it can be managed, or who is to manage it. It is not a manual for a prospective manager of international liquidity, and it does not recommend policies or courses of action. It is rather an examination of some of the issues that would have to be considered and decided by the manager of an international central bank. From this point of view, Section II of this paper addresses itself to four issues: (1) what is to be managed; (2) what are the means or instruments of management; (3) what are the objectives of management; and (4) what problems arise in measuring targets and results involved in the management of international liquidity. Section I sets the stage for this discussion by describing several important elements of the nature of management.

I. The Setting for Management of International Liquidity

NATIONAL INTERESTS AND INTERNATIONAL SYSTEMS

The international monetary system consists of a number of attitudes, objectives, practices, and institutions.¹ Some of these components are not well suited to each other, while others function in

* Mr. Altman, Deputy Director in the Research and Statistics Department of the Fund, and Fund Historian, is a graduate of Cornell University and of the University of Chicago. He taught economics at Ohio State University and was on the staff of the National Resources Planning Board and of the French Supply Council. He was Director of Administration of the Fund until 1954. He is the author of *Savings, Investment, and National Income* and of a number of papers published in technical journals.

¹ The nature and ruling conceptions of this system were well summarized by Irving S. Friedman, in "The International Monetary System: Part I, Mechanism and Operation," *Staff Papers*, Vol. X (1963), pp. 219-45.

divergent or contradictory ways. The present system is not logical, if by this is meant a system in which all parts work together and support each other in rational fashion. It is a product of history rather than logic. It is a product of personal and national interests and of the conflict and resolution of those interests. It is a mixture of the old and the new. Some of its components are static; some are developing; others are contracting. The system as a whole represents a set of compromises of divergent monetary interests within the context of broader national economic and political interests.

A set of compromises may be accepted as the best that imperfect human beings and selfish nations can agree on, but it can never be described as logical or rational. Clearly, anyone bold enough to devise a new and better monetary system from scratch would not advocate anything that remotely resembled the present one. Practically anyone can, with a little effort, imagine a far better system for creating and managing international liquidity. But the real question is: better for whom? Any international monetary system reflects a balance of national advantages and disadvantages, and of responsibilities and power. To be negotiable, the balance of advantages and disadvantages must be regarded by countries as appropriate. If something that looks like a better and more rational system in the quiet of the study cannot be negotiated around the conference table, the explanation is not that the political negotiators are ignorant and that they do not know what the score is. They know the score only too well.

Most proposals for more and better international monetary management basically rest upon the assumption that conflicts of interest are less important than they really are. Such an assumption makes it difficult to understand why the world's major financial powers do not proceed forthwith to replace an international monetary system that periodically runs into crises, and that always needs patching up, with one that is sound and forward looking. The fact is, however, that existing monetary arrangements are firmly rooted because they grew by negotiation and experiment. In the process, many conflicts of interest, some of which were very serious, were resolved. It follows that virtually no issue in the management of international liquidity can be discussed apart from national conflicts of interest. And in the background there is always the realization, even among the advocates of modification or reform, that the present system has some good things to its credit. As the French Minister of Finance stated in September 1963:

. . . One must indeed stress the fact that the present world monetary system has made it possible to restore convertibility of the main currencies, a result which, between 1945 and 1950, appeared unattainable.

This system then provided credit mechanisms to cope with the crises, both severe and temporary, which affected certain currencies.

I wish to emphasize that these results have been secured while maintaining a relatively high level of employment in the world, an outstanding contrast to the situation that prevailed in years when the world monetary system was based on different principles.²

NATIONAL CENTRAL BANKS AND AN INTERNATIONAL CENTRAL BANK

The last few years have seen many proposals for creating an international central bank or for transforming the International Monetary Fund (IMF) into such a bank. Many of these proposals rest upon the analogy between a national central bank and an international central bank.

Practically every country has found it desirable to establish its own central bank to act as a lender of last resort, to supervise the domestic monetary system, and to manage domestic monetary and credit policy to achieve full employment, economic development, and stable prices. Each central bank is provided with an armory of instruments, including the authority to prescribe reserve ratios for commercial banks, to hold these reserves in the form of deposits, and to operate with rediscounts, open market operations, moral suasion, and the like.

All of this has suggested to many that the world community of nations (outside the communist bloc) needs an international central bank to hold the deposits of central banks, presumably in some international unit of account, to make loans and investments, and, generally speaking, to manage the international monetary system and international liquidity. Such an international central bank would do for member countries and their central banks what each central bank now does for its own country and its commercial banks.³

² International Monetary Fund, *Summary Proceedings, Annual Meeting, 1963* (Washington, 1963), p. 60.

³ Some proposals for an international central bank obviously go this far. See, for example, the following testimony of Professor Robert Triffin before the U.S. Joint Economic Committee (with Senator Paul H. Douglas presiding):

THE CHAIRMAN. . . . I want to see if I understand your proposal.

Are you proposing that we have an international central bank whose relations with the national central banks shall be parallel to the relationship of the national central banks to their member banks?

MR. TRIFFIN. I think in essence you could describe it like that, and this is exactly the way my proposal was described by a journalist in *Business Week* some weeks ago.

But I do not like to put it that way for only one reason, that the use of such words is exactly what scares the hell out of central bankers. Those people are very conservative.

THE CHAIRMAN. It does not frighten me at all and I am not as timid as the international bankers or as the international central bankers. I want to know if this is really what you are proposing.

MR. TRIFFIN. It is, essentially.

It is understandable that proposals for creating an international central bank have attracted a good deal of attention. This attention has been strengthened by inadequate appreciation of the virtues of, and recent developments in, the existing system, and of the present and potential role of the IMF. The analogy between a national and an international central bank has a good deal of support, and this is increased by pointing out some rather obvious limitations of the present monetary system. It is said that this system does not appear to contain any calculated or managed way of expanding international liquidity in accordance with need, and that it is unstable because it uses national currencies as media for accumulating and holding international reserves.⁴ Moreover, it is said to be unstable because it rests upon gold—too little gold for a full gold standard and too much gold if gold is viewed as a barbarous relic of the past.

MANAGEMENT AND MANAGERS

Discussions of international monetary management in recent years have concentrated more and more upon one particular kind of management, namely, that based on a formal institutional structure operating with a managing board and a permanent staff. This is the only kind of structure which many consider to have the necessary qualities of continuity, staff work, and built-in international cooperation. Increasingly, management is considered to be a process in which individuals sit around a table at periodic intervals making decisions based upon staff work.

Though this view has a great deal of validity, the many other kinds of management should not be overlooked. There can be management through the price mechanism, the voting mechanism, tradition, and accepted standards and modes of behavior. The allocation of resources within free enterprise economies and the decisions as to what to produce and in what quantities are to a large extent based upon the consensus of the market place. The gold standard of the nineteenth century, based on London, was not a completely unmanaged, unpredictable system. Part of it was managed through the rules of the game; part of it was managed by the United Kingdom. No international body decided what part of the gold standard should be man-

See *Employment, Growth, and Price Levels*, Hearings Before the Joint Economic Committee of the Congress of the United States (86th Congress, First Session, October 26–30, 1959), Part 9A, p. 2933.

⁴ This was one of the few points that the international conference of economists which met at Bellagio, Italy, on January 17–23, 1964, could agree on. See *The New York Times*, January 27, 1964, p. 35, and *The Financial Times* (London), January 27, 1964, p. 9.

aged in one way or the other, and no body decided what part should be unmanaged. No international body selected the United Kingdom to play the most important managerial role. Assignment of key currency status to sterling, and later to the dollar, were important developments. These developments in their time were just as important as would be the decision, now advocated by many, to replace key currencies by an international unit. Yet, sterling and the dollar became key currencies without the decision of any international board or monetary conference. To a surprising extent, sterling and the dollar became key currencies without the decision of the United Kingdom and the United States. They became key currencies through the actions of tens of countries, hundreds of business enterprises, and millions of individuals who found it convenient to hold some of their liquidity in these forms.⁵ To many, the virtue of a sterling exchange standard was precisely that it did not centralize monetary power in Great Britain or elsewhere and that it was based on a distribution of power. To be sure, the United Kingdom and the United States might have tried to prevent their currencies from assuming a key status—and in the process, from developing large international capital markets. They could have tried to discourage all nonresidents, including foreign central banks, from holding their currencies—as Switzerland today discourages such holdings of Swiss francs. It is not clear, however, that the United Kingdom and the United States, given their international importance and interests, could have prevented their currencies from achieving a key status.⁶

In the last years, many students in the United Kingdom have tried to strike a balance between the advantages and the disadvantages of keeping sterling as a key currency, and a few have tried to do the same thing for the dollar. These students appear to assume that sterling, which became a key currency without international management, could easily be transformed into a non-key currency with management.⁷ The United Kingdom could, of course, transform sterling into a non-key currency, but this would involve major political and economic issues for the United Kingdom. Such a transformation could

⁵ See the statement in the *Economic Report of the President* (Washington, 1964), p. 136.

⁶ This leaves open the question of what effects such prevention would have had upon them as well as upon other countries and the international economy.

⁷ In his *Sunshades in October* (London, 1963), Norman Macrae argued that sterling should be allowed to float if the next sterling crisis could not be managed with higher interest rates but without domestic inflation. He welcomed the argument, usually made against a floating rate for sterling, that this would make the continuance of a key currency system very difficult. He explained (p. 132) that "this 'disruptive' case for setting the exchange rate of sterling free to float has always seemed very attractive to me."

hardly be done unilaterally without inviting reprisal. It would require a good deal of hard negotiation between the United Kingdom, the sterling area, and the rest of the world, and would necessarily involve many questions other than the technical role of sterling.

There is also the question as to who should be the managers of a managed international monetary system. Economists generally imagine themselves as the managers, and if not the managers, as the indispensable advisors of the managers. This makes it easier to imagine that the managers are wise and well trained, with a clear understanding of the past and a good view of the future. This in turn makes it easier to think that managers have the additional attribute of international objectivity, and that they can see beyond, and rise above, the selfish needs of the individual countries of which they are citizens.

This description, though somewhat overdrawn, is more pervasive than might appear at first glance. It is useful to recall the long controversy during the conferences at Bretton Woods and at Savannah about the role of Executive Directors in the Fund. Keynes conceived of Executive Directors as high officials in their governments, serving in a part-time capacity, acting for the international good as they thought best, and gradually in their periods at home converting their governments to internationalism. Opposed to this was the view, spearheaded by the United States, that Executive Directors were in fact political representatives of the countries which elected them. Executive Directors had to be responsive to the interests of their countries, and they were selected to represent and fight for them within the provisions of the Fund's Articles of Agreement. In this view, the interests of each country were to be frankly recognized in an Executive Board consisting of full-time Directors, along with the reality that the interests of member countries might often be in conflict and that these conflicts would have to be negotiated to a settlement.⁸

Keynes pushed his views vigorously at the Savannah meeting in 1946, and his views seemed to have some support at the time. In retrospect, his support was weaker than it appeared to be, and often rested upon arguments and associated political considerations quite different from those he himself relied on. It would now appear that vir-

⁸ On this general point, see two excellent articles by former staff members of the Fund: Ervin P. Hexner, "The Executive Board of the International Monetary Fund: A Decision-Making Instrument," *International Organization*, Vol. XVIII (1964), pp. 74-96; and Allan G. B. Fisher, "The Political Framework of an International Institution," *Manchester School of Economic and Social Studies*, May 1962, pp. 121-51. Also, R. F. Harrod, *The Life of John Maynard Keynes* (New York and London, 1951), pp. 632-35.

tually everybody believed, even at that time, that Executive Directors were and had to be political representatives of their governments.⁹ This is the general view today. This does not make the Fund's Executive Directors less able to deal with the Fund's problems. When experience and training are brought to the position, as they very often have been, this status has made Executive Directors more able—and often more realistic.

Many issues are involved in the question of what kind of management an international central bank might have, and who the managers would be. The present situation offers many possibilities, and the future will undoubtedly offer many new ones. This is an important point to consider in a long-lived organization, where members have responsibilities as well as rights. For example, would the prospect of managing international liquidity look more or less attractive, and to which countries, if voting were always on a weighted basis? Would such management be more or less attractive if the members of the Common Market cast one joint (weighted) vote rather than if they acted independently? What would be the effect upon the management of international liquidity if a political *detente* were reached and the Soviet Union, Poland, Hungary, Czechoslovakia, Bulgaria, Rumania, and Albania—not to mention Mainland China—joined the managing institution and were represented on the managing board? What would be the effect upon the management of international liquidity if a substantial number of Executive Directors were members of the communist party and/or trained in Marxian economics? It is not unrealistic to raise these last questions. The members of the Soviet bloc, with the exception of communist China, are after all members of the United Nations, the Soviet Union played an active part in the Bretton Woods Conference, and Poland, Czechoslovakia, and Cuba were once members of the Fund.

NATIONAL AND INTERNATIONAL MONETARY ACTION

In considering the readjustment between any country's balance of advantages and disadvantages in the present monetary system and in any prospective one, it is worthwhile to note several major differences between the role of a national central bank and that of an international central bank.

⁹ Unlike the Managing Director and the staff, Executive Directors do not "owe their duty entirely to the Fund and to no other authority" (Article XII, Section 4(c), of the Fund's Articles of Agreement). Executive Directors are subject to the instructions of the countries that appoint or elect them. The members of the Board of Governors are, of course, political representatives of their countries.

First, a national central bank operates within the sovereign authority of one government, while an international central bank would operate as the creature of many sovereign governments.¹⁰ A national central bank deals overwhelmingly in obligations of the national government, which are of uniform quality and which involve only one currency. The deficits of the central government can be and often are financed with credits obtained from the central bank.¹¹ This role of central banks in providing central governments with bank credit is intensified during periods of war, depression, and other events which require large-scale spending. On the other hand, an international central bank would necessarily, or at least probably, reduce the ability of any one country to act unilaterally. It is true that no country can act internationally without taking account of the repercussions of its actions. Yet there is a considerable difference between any one country's adjusting itself to all other countries acting individually and adjusting itself to all other countries acting collectively, i.e., through an international central bank.

Second, within any one country, action in the monetary sphere goes along with governmental action with respect to taxes, spending, public investment, and governmental influence on labor, capital, incomes policy, and the like. For example, the effects of a restrictive monetary policy may be mitigated, or compensated for, by subsidies, grants-in-aid, or tax relief. Monetary policy is only one of many policies, all of which can be coordinated by the national government and its agencies. The decisions of a national central bank, moreover, are never completely independent. To a greater or lesser extent, they are subject to review by the government.

An international central bank, on the other hand, would have a different position. International trade, tariff, investment, and labor policies would be determined in other international agencies, if they were determined at all; and the national distribution of power varies from one international agency to another. There would be no international government to coordinate, offset, mitigate, or intensify international monetary policy and other kinds of international policy. Hence, the actions of an international central bank to make or to withdraw short-term loans to member countries, or to vary the volume of international investment, might strike particular member countries with great force. These actions would inevitably be viewed

¹⁰ The three central banks for groups of the newly established African nations fall between these two extremes; they reflect the particular ties of the members with each other as well as with France. See "The CFA Franc System," *Staff Papers*, Vol. X (1963), pp. 345-96.

¹¹ As a general matter, the deficits of local governments are financed with genuine savings.

by the countries most affected as foreign support for good domestic policies or as foreign discipline for bad ones.

Third, the actions of a national central bank are more anonymous, and their results are more predictable, than would be those of an international central bank. Monetary control by a national central bank affects large numbers of business enterprises and individuals, but the bank has little if any contact with the inhabitants who are affected by changes in the volume of credit or in rediscount rates. Some of the bank actions take effect slowly, and all of them are diffused through the economy. The national central bank, in measuring the results of its past actions and in predicting the results of its future ones, has the advantage of dealing with the regularities inherent in the law of large numbers, and in the anonymity created by this. The responsibilities of a national central bank thus often appear to be more distant than they really are.

An international central bank would be in a different position. Its customers would sit on its board of directors, and be directly and immediately affected by its decisions. There would be no diffusion of responsibilities, and no way to "pass the buck." The actions of a few countries might greatly affect any one decision and any previously observed statistical regularity. An international central bank would operate within an environment of small numbers. Decisions by a few countries might greatly modify the international environment, and thus the task of the bank. For example, the structure of exchange rates, or the adequacy of any given amount of international liquidity, might seriously be affected by the decision of a small number of countries, or even of one country, to accumulate excessive reserves or to continue to run a balance of payments deficit.

II. Major Management Issues

This section examines some of the major issues that would be faced by an international central bank, but without any assumption that one is in the offing or that it is indispensable.

WHAT IS TO BE MANAGED

Suppose that an international central bank were to be instructed to manage international liquidity to achieve one or more stated objectives, on the assumption that there was some direct and demonstrable connection between the amount of international liquidity (or changes in this amount) and the volume of international trade or the world level of employment or other objectives (or changes in these).

This would at once raise the question of what kind or kinds of international liquidity an international central bank would wish to manage.

The conception of international liquidity, never very precise, has expanded and become less precise in recent years. This development has improved the analysis of liquidity problems but increased the problems of would-be managers. It is useful to approach this development by looking at what national central banks manage when they regulate the domestic volume of money and credit.

The views of central banks, and of economists, about what constitutes money in any one country have changed a great deal. Each change has after a time—sometimes a long period of time—resulted in changes in methods of management. When money consisted only of metallic coinage, the nature of money was simple. Widespread use of paper money, however, raised the question whether paper money was money. If it was, the monetary authorities would have to manage the total of coins plus paper money. On the other hand, if paper money was not money—that is, if paper money was merely a representative money which increased the velocity of circulation of coins—the authorities could confine their management to coins. Out of this debate grew the compromise permitting unlimited coinage of gold or silver, or both, combined with fractional reserve requirements for paper money.

In time, the growth of commercial banking and bank deposits presented the monetary authorities with the question whether demand deposits were money and whether they also should be managed. The Bank Act of 1844 rested on the compromise, accepted at least in the United Kingdom, that monetary management could confine itself to metallic currency and banknotes and that the volume of demand deposits could be left to manage itself.

Later, the great expansion in time and savings deposits posed the question whether these should be considered money from the point of view of economics and of monetary management. The Federal Reserve System continues to treat the money supply as currency and demand deposits in the hands of the public.¹² Some students have concluded that the time and savings deposits of commercial banks act so much like money that they should be considered money.¹³ Finally,

¹² See, for example, its latest study of "Bank Credit and Money in 1963," *Federal Reserve Bulletin*, February 1964, p. 145.

¹³ Milton Friedman and Anna Jacobson Schwartz, in their *A Monetary History of the United States, 1867-1960* (Princeton, 1963), analyzed the relationship in 1867-1960 between money and prices, etc. Money for this purpose was defined as the total public holdings of metallic currency, paper money, and demand and time deposits of commercial banks. These totaled \$206 billion in 1960 (pp. 1-5). This definition does not treat as money the \$36 billion of time deposits in mutual

in the last decade there has been increasing discussion of whether other types of financial assets should also be considered as money, and if not money, then domestic liquidity. General theories of liquidity preference have focused attention on various kinds of near-moneys, or rather, liquidities, and the growth of financial intermediaries has greatly accelerated this kind of analysis. These studies of money, quasi-money, and money substitutes, within a framework of liquidity preference, have reduced the clarity and the definiteness of monetary targets and therefore modified the task of the monetary authorities. Thus, the Radcliffe Committee reported that "though we do not regard the supply of money as an unimportant quantity, we view it as only part of the wider structure of liquidity in the economy. It is the whole liquidity position that is relevant to spending decisions, and our interest in the supply of money is due to its significance in the whole liquidity picture."¹⁴

Similarly, the conception of international liquidity has broadened in the last few years and has come to include much more than international reserves.¹⁵ International reserves, the narrower concept, consist of a number of different elements, and the total may change in many ways, some of which are erratic. Gold additions to official holdings may increase world reserves by that amount or by more than that amount. The world total of international reserves of gold and foreign exchange increases when a country draws currencies from the Fund and decreases when it pays back currency to reverse the transaction. A sterling or a French franc area country that deposits in London or Paris dollars that it draws from the Fund increases its reserves and those of the key currency country. From a broader point of view, of course, any country that draws on the Fund increases its unconditional liquidity but decreases its conditional liquidity. Both developments are important even though it may be impossible to summarize the change meaningfully with one number.¹⁶

savings banks and the postal savings system, nor the many kinds of near-moneys and money substitutes.

¹⁴ Committee on the Working of the Monetary System, *Report* (Cmd. 827, London, 1959), par. 389. See also the review article, "The Radcliffe Report and Evidence," by John G. Gurley, *American Economic Review*, Vol. L (1960), pp. 672-700. A similar view was expressed in the *Report of the [Canadian] Royal Commission on Banking and Finance* (Ottawa, 1964), esp. pp. 423-26.

¹⁵ Even the latter term does not lack complexity. In general, see Walther Lederer, *The Balance on Foreign Transactions: Problems of Definition and Measurement* (Princeton University, Special Papers in International Economics, No. 5, September 1963), pp. 23-48; and International Monetary Fund, *International Reserves and Liquidity* (Washington, 1958), current issues of its *International Financial Statistics*, and its *Annual Report, 1963*, pp. 39-46.

¹⁶ On the effect of the Fund's operations, see J. M. Fleming, "The Fund and International Liquidity" (above, pp. 177-215, esp. pp. 180-85).

The operations of the Euro-dollar market have greatly distorted the data on the world total of foreign exchange reserves, upsetting the measurement of changes from one period to another, changing the distribution of these holdings by country, and creating large unexplained residuals. As a result, the Fund no longer finds it worthwhile to attempt to publish a reconciliation of foreign exchange assets and liabilities.

Swap transactions contribute to international liquidity. It may seem strange to many that a swap arrangement between (say) the United States and Canada, even before it has been drawn upon, increases the international liquidity of both countries; and that after a swap has been made, the United States adds its newly acquired Canadian dollars to its reserves and Canada adds its newly acquired U.S. dollars to its reserves.

Finally, since October 1961, the United States has issued three quarters of a billion dollars of so-called Roosa bonds. These bonds have maturities of 15-24 months and are denominated in the currency of the owner rather than in dollars. Holders of these bonds differ on the question whether to include them in country reserves—they do not follow a uniform practice in this matter—but there is no question that these bonds add to international reserves and to international liquidity.¹⁷

These issues pose the difficult problem of what kind of reserves or liquidity an international central bank should attempt to manage. Given all these different measures, what should the bank manage in order to assure the world of an adequate stock of international reserves or international liquidity? The answer to this question affects, sometimes very greatly, estimates of the present adequacy of international liquidity and of future liquidity requirements.

Many answers have been given to this question. For example, Professor Triffin used three different totals of international reserves. Each of these was used to support the view that international liquidity was adequate, though each suggested different future liquidity requirements.¹⁸ The recent study by Salant and associates on *The United States Balance of Payments in 1968* also uses three definitions of international liquidity, which differ among themselves even more widely. In Chapter I, international liquidity consists of the

¹⁷ It may be noted parenthetically that these bonds have also presented the U.S. authorities with the question of whether or not they are to be considered liquid liabilities of the United States. If so, they increase the balance of payments deficit; if not, they should be treated as an inflow of long-term capital and thus not enter into the balance of payments deficit.

¹⁸ O. L. Altman, "Professor Triffin on International Liquidity and the Role of the Fund," *Staff Papers*, Vol. VIII (1960-61), pp. 151-91.

means that the United States used to finance its balance of payments deficit. This measure includes changes in gold and foreign exchange as well as changes in the gold tranche position of the United States in the Fund, implying that the gold tranche itself should be treated as a component of U.S. reserves. In Chapter VIII, international liquidity is the total of national holdings of gold and foreign exchange plus the Fund's holdings of gold, but excluding gold tranche positions per se. This measure is used to determine the future requirements for international liquidity.¹⁹ This treatment of the Fund makes world international liquidity lower by \$2 billion than does the conception used in Chapter I. Finally, in Chapter IX, the study examines the means of financing the prospective balance of payments deficit of the United States, and concludes that anything that is used to finance this deficit—even long-term bonds—may retrospectively be considered as liquidity. This conclusion considerably reduces the usefulness of any prospective liquidity requirement based on more limited definitions.

The management problem is considerably more complicated than that of having many numbers representing the total of international liquidity and many required rates of expansion of these totals. The significance of any particular total of international liquidity depends upon the distribution of these liquidities among countries, the composition of these liquidities, and the willingness of countries to use their liquidities to meet balance of payments deficits. The environment within which international liquidity is used also affects the demand for it. The environment includes such complex factors as whether the structure of exchange rates, at least among the major countries, is realistic, and the extent to which surplus as well as deficit countries cooperate to deal with payments imbalances. These many considerations raise the question whether any particular total of international liquidity has either theoretical or operational significance.²⁰

¹⁹ This measure assumes, among other things, that Fund quotas should increase at the same rate as trade, that one fourth of all quotas will be subscribed in gold, and that the Fund has no way of reducing its gold holdings. The first proposition is highly doubtful and the third one is incorrect.

²⁰ Tibor Scitovsky has written that "an adequate world supply of international reserves can be defined as the sum of what in each country is considered an adequate supply of that country's reserves." There is considerable question whether this definition has any operational significance. In any case, Scitovsky noted that this definition did not give any one number, since "there is bound to be quite a gap between the point below which reserves are considered inadequate and that above which they are considered excessive. An adequate world supply of reserves, therefore, cannot be defined as an exact level but is more likely to be a wide range." See *International Payments Imbalances and Need for Strengthening International Financial Arrangements*, Hearings Before the Subcommittee on International Exchange and Payments, Joint Economic Com-

Moreover, no total of international liquidity includes the amounts that members can draw from the Fund under appropriate conditions—excluding for this purpose the gold tranche, which members can draw virtually unconditionally—or the amounts that individual countries may make available as parallels or supplements to Fund drawings. No total of international liquidity can take account of international cooperation, although creditors will often finance the balance of payments deficits of debtors while both are putting their houses in order, simply because any other course involves excessively sharp adjustments and possible damage to them and to the international structure.

Finally, there are two quite different conceptions of what managing liquidity means. One of these, in effect, is that if individual countries can have prompt and adequate outside help in financing their balance of payments deficits on predictable and consistent terms (including repayment in relatively short periods), problems of the long-run level of liquidity cannot be serious and can be dealt with when and as they arise. The other view is that if international liquidity is increased systematically and steadily in accordance with the growth of world trade—a proposition which has been defined as increasing liquidity in accordance with the need for it—the short-run liquidity problem is minimized.²¹

It follows that the management of international liquidity involves great differences of opinion and wide areas for judgment. This conclusion does not suggest that it is impossible to have too much or too little liquidity, or that it is impossible for an international central bank to manage international liquidity. It does suggest, however, the enormous difficulty that would be involved in specifying in ad-

mittee of the Congress of the United States (87th Congress, First Session, May 16, June 19–21, 1961), p. 176 and fn. 1 on p. 176. See also the view of James Tobin that “the ‘right’ amount of aggregate international liquidity would give surplus countries as great an incentive to take actions to stem the inflow of reserves as deficit countries have to stem the outflow. The burden of adjustment to payments imbalances would be symmetrically shared. It is in this sense—that the burden falls disproportionately on deficit countries and forces them to take undesirable measures—that there is today and may well be tomorrow a shortage of international liquidity.” *The United States Balance of Payments*, Hearings Before the Joint Economic Committee of the Congress of the United States (88th Congress, First Session, November 12–15, 1963), pp. 554–55.

²¹ An analogous proposal for the money supply of the United States has been made by Milton Friedman in *A Program for Monetary Stability* (New York, 1959). His proposal is “to increase the money stock at a fixed rate month-in and month-out” (p. 93). And he explained that “there is little to be said in theory for the rule that the money supply should grow at a constant rate. The case for it is entirely that it would work in practice. There are persuasive theoretical grounds for desiring to vary the rate of growth to offset other factors. The difficulty is that, in practice, we do not know when to do so and by how much” (p. 98).

vance some specific liquidity target, and including this in the bank's articles of agreement. Instructions to an international central bank to manage international liquidity would thus have to be of a general character. This would be a great advantage for conducting flexible operations in an unknown future; but, on the other hand, the more general the provisions, the more unpredictable would be their application to individual members, each of whom had assumed an unlimited commitment to react in real terms to the monetary actions of the bank.

INSTRUMENTS OF MANAGEMENT

An international central bank charged with managing international liquidity might be expected to engage in both short-term lending and long-term lending (investment).²²

Each of these instruments has its counterpart in the armory of national central banks. Nevertheless, domestic operations, which are conducted in one legal tender currency, differ fundamentally from international operations, which involve more than one currency and would therefore be subject to the hazards of balance of payments difficulties and of changes in exchange rates. International central banking operations would, therefore, be inherently more complicated than domestic ones, and might be expected to be conducted with exchange rate guarantees based on gold or an international unit of account. In the Fund, for example, a country may purchase any currency it needs with its own, but it will eventually have to repurchase its own currency (repay) with resources equal in gold value to the gold value of its purchase (borrowing). The country will necessarily repurchase with some foreign convertible currency or with gold; in either case, its own currency may fluctuate with respect to one or the other.

Short-term lending

The amount of short-term funds that countries are prepared to borrow on a gold equivalent basis, repayable in relatively short periods, is limited. Since the beginning of the Fund's operations, drawings have totaled \$7.1 billion, and repayments²³ have totaled \$5.4 billion, so that net drawings outstanding at the end of 1963 were \$1.7 billion.²⁴

²² It might also be expected to act on the interest rates charged on borrowings by its members, presumably on countercyclical principles, and to vary its conditions of lending and repayment to facilitate repayment and encourage balance of payments discipline.

²³ Repayments by repurchases plus repayments by drawings of other countries.

²⁴ Drawings by themselves are not an appropriate measure of financial support extended by the Fund. Stand-by arrangements during the period totaled

Net drawings outstanding thus increased, on the average, by \$100 million a year in the 17-year period, 1947-63. These results reflect the rapid postwar expansion, when the value of trade increased from \$50 billion to \$135 billion, Fund quotas increased from \$9 billion to \$15 billion, and there were several large Fund transactions. Annual net additions would, of course, depend upon the particular years chosen for analysis, since drawings and repurchases varied greatly from one year to the next. Nevertheless, the largest average annual increase in net outstanding drawings in any decade since the Fund began operations was \$215 million.²⁵

For the purpose of assisting member countries to meet their balance of payments deficits with short-term self-liquidating drawings, operations on this scale may be regarded as satisfactory, though the Fund had resources to finance even larger ones. Such drawings made credit available directly where it was needed. Moreover, in many cases, the Fund's operations had a leverage effect, since they tended to certify the credit of the borrowing country. This made it easier for that country to obtain credit from other sources, at the same time as it encouraged residents to repatriate capital and nonresidents to invest new funds.

Nevertheless, such a volume of short-term lending is clearly unsatisfactory when measured against any of the proposed projections of international liquidity requirements. Net additions to reserves arising from the Fund's short-term lending increased international reserves in 1947-63 by less than $\frac{1}{5}$ of 1 per cent a year.²⁶ Future annual net additions to outstanding short-term credit may be expected to be larger, since the world economy will grow and Fund quotas and drawings may also be expected to grow. It is hardly likely, however, that

\$2.4 billion, but countries drew only \$1.8 billion of this amount. In addition, some members have felt freer to use their own resources because they had the opportunity of using the undrawn and uncommitted parts of their quotas.

²⁵ In 1952-61. The lowest net addition, in 1950-59, was \$76 million a year. It should be recalled that drawings are affected by the Fund's policy on the use of its resources as well as by members' needs for these resources. During the life of the Marshall Plan, the Fund curtailed the use of its resources by countries using Plan funds. The need for drawings was also reduced by the credits extended through the European Payments Union. On the other hand, the need for resources to finance short-term capital movements was increased when the major European currencies became convertible, *de facto* in 1958 and *de jure* (under Article VIII) in 1961.

²⁶ Net additions to reserves created by Fund drawings will vary with both the amounts drawn and the currencies drawn. In general, drawings of key currencies will increase international reserves considerably more than drawings of other currencies. For example, if country A draws Spanish pesetas from the Fund, it very likely will ask Spain to convert these pesetas into dollars. This reduces Spain's holdings of dollars and correspondingly increases country A's holdings of dollars, leaving total dollar reserves unchanged.

such additions will average a great deal more than \$200 million a year in the next five years. Indeed, the need for reversing drawings in not more than three to five years makes it unlikely that there will be large annual increases in net outstanding Fund drawings over periods of five to ten years. Such net additions to international liquidity as may be expected would increase the world total of international reserves by not more than $\frac{1}{3}$ of 1 per cent a year.

Currencies drawn from the Fund by deficit countries are reflected in reductions in the Fund's holdings of the currencies of other (usually surplus) countries. Hence, a country whose currency is drawn will usually find that its gold tranche position has increased. This increase may and should be considered a reserve asset; and it is arithmetically so treated in the statistics on international liquidity in the Fund's *International Financial Statistics*.²⁷ Changes in gold tranche positions are usually in the same direction, but not of the same amount, as changes in net drawings outstanding.

In the past four years, as Table 1 indicates, the (positive) gold tranche positions of Fund members increased by \$690 million, while net outstanding drawings increased by \$399 million. Gold tranche

TABLE 1. FUND MEMBER COUNTRIES: GOLD TRANCHE POSITIONS AND NET OUTSTANDING DRAWINGS, END OF YEAR, 1959-63

(In millions of U.S. dollars)

	Gold Tranche Positions		Net Outstanding Drawings	
	Amount	Change	Amount	Change
1959	3,250	—	1,268	—
1960	3,570	+320	867	-401
1961	4,158	+588	2,532	+1,665
1962	3,795	-363	1,601	-931
1963	3,940	+145	1,667	+66
Change 1959-63		+690		+399

Sources: International Monetary Fund, *International Financial Statistics*, February 1964, and Supplement to 1963/64 Issues.

positions thus increased international liquidity by almost \$175 million a year in 1959-63. The contribution of net outstanding drawings to the increase in international liquidity was, however, undoubtedly

²⁷ The gold tranche is defined in *International Financial Statistics* as "the member's quota minus the Fund's holdings of the member's currency, if this amount is positive and if the member has agreed an initial par value and paid its subscription." The significance of the gold tranche, and the effect of Fund operations on it, are described in the Fund's *Annual Report, 1963*, p. 40.

less than the \$399 million (\$100 million a year) shown in the table. In line with the Fund's policies on currencies to be used in drawings and repurchases, about 45 per cent of the drawings were made in dollars and sterling, while 75 per cent of repurchases were made in these currencies. Thus, Fund drawings increased country holdings of dollars and sterling by \$1.7 billion while repurchases reduced them by \$2.3 billion.²⁸

Investment

An international central bank charged with expanding the total of international liquidity in accordance with the growth of trade—assuming that such a rate of expansion was required to maintain the adequacy of international liquidity—would thus have to supplement its short-term loans with long-term investment operations. These would consist of making loans repayable in five to ten years or more, or of purchasing long-term securities.²⁹ Investment operations designed to expand international liquidity in (say) the next five years would have to average at least \$1 billion a year, assuming that international reserves grew by 3 per cent a year, and that gold and reserve assets resulting from IMF operations grew at the rate of 1½ per cent a year. Investment operations would have to average almost \$2.5 billion a year if international reserves were to grow by 5 per cent a year. If, at the same time, official holdings of dollars and sterling were to be reduced and ultimately eliminated from international reserves, the investment program would have to be correspondingly larger.

Investment programs of this magnitude would present an international central bank with a number of management issues, which would be essentially the same whether the investments were made by an international central bank, or whether they were made by creating bank credit to buy the bonds of some other agency, such as the International Bank for Reconstruction and Development (IBRD) or the Inter-American Development Bank (IDB). These management issues would involve reaching an appropriate compromise among three

²⁸ During this period, the United States paid out large amounts of dollars to finance its balance of payments deficits. It is possible that the United States might have taken sharper action to reduce its deficit if the Fund had not been absorbing dollars.

²⁹ For purposes of this discussion, long-term investments have the important characteristic of remaining outstanding. Short-term paper that was always renewed would have the same characteristic—and would do just as well as long-term paper.

elements: the creditworthiness of the borrower, the currency in which the investment is to be made, and the international liquidity target.

With or without a gold value guarantee, any government is more creditworthy with respect to obligations denominated in its own currency than in any other currency. Any government can supply unlimited amounts of its own money, since it can supplement the funds it can raise by taxation and by borrowing with those it can create. The functioning of the Fund's Articles of Agreement illustrates this proposition. The Articles provide that, if the par value of a member's currency is reduced, or the foreign exchange value of a member's currency has depreciated to a significant extent within that member's territories, "the member shall pay to the Fund within a reasonable time an amount of its own currency equal to the reduction in the gold value of its currency held by the Fund."³⁰ Many Fund members have depreciated their foreign exchange rates several times, some have been in external credit difficulties, and a few have suffered galloping inflation. Yet no member has ever been unable to pay to the Fund the additional amounts of its own currency required to maintain the gold value of the Fund's holdings. Whatever domestic problems such payments created for the country concerned—and they appear to have been negligible—they clearly created no external problem. Hence, if the only test of a government's creditworthiness was its ability to repay in its own currency, every government would enjoy a superlative rating.

Creditworthiness first becomes a problem when it is measured by a government's ability to repay in some foreign currency, since this usually requires earning a balance of payments surplus. In most cases, this ability is even more limited when foreign obligations are stated in terms of a gold equivalent or an international unit of account.

There is no reason to assume that the amount of investment required to expand international liquidity to predetermined levels is consistent with the amount of investment that could be made with high and consistent standards of creditworthiness combined with undertakings to repay in convertible currency, gold, or an international unit of account. On the contrary, it is likely that a large and increasing investment program can be carried out only by relaxing, probably progressively, standards of creditworthiness and repayment requirements.

The history of the IBRD illustrates this point. The IBRD makes hard loans, almost exclusively in convertible currencies, to finance creditworthy projects; these loans are supported by government guar-

³⁰ Article IV, Section 8(b).

antees and are repayable in convertible foreign currency. These requirements are dictated by the fact that the IBRD itself has to raise the funds for these loans by selling its own securities, denominated in convertible currencies, in the world's financial markets.

The IBRD loan program got off to a flying start after the war, but has shown no upward trend in the last few years. Since 1958, new loans have averaged about \$500 million a year, but net outstanding loans (after repayments) have increased much less. The Bank's lending ability has in no way been limited by available funds, which have constantly been replenished by repayments and by sales of parts of its holdings to private banks and other investors. Since it began operations, the IBRD has disbursed \$5.6 billion in loans and received \$3.1 billion in repayments and in the proceeds of loans sold to others. The IBRD portfolio of government or government-guaranteed obligations was \$2.5 billion at the end of 1962. If all this portfolio, the results of 17 years of operations, were represented by additions to international liquidity—a rather unlikely assumption, since it would imply that no part of the foreign currencies borrowed from the Bank were paid over, in exchange for imports, to the countries which bought IBRD bonds—the net additions to international liquidity averaged \$140 million a year. If it is assumed that the additions to international liquidity created by IBRD investments are measured by the increase in debt held by the IBRD, plus the increase in the hands of private banks and other investors to whom the IBRD resold part of this debt, the total outstanding at the end of 1962 was \$4.2 billion. The net addition to international liquidity, under these assumptions, did not exceed \$250 million a year in the period 1947-63.

These results reflect the Bank's standards of creditworthiness and its insistence that borrowers amortize and pay off their loans. They also suggest how difficult it would be to expand international liquidity by large and growing amounts through investments made in accordance with such standards.

Targets for increasing international liquidity to predetermined levels of adequacy would require monetizing larger investment programs. It is possible, but not likely, that such investments could be confined to developed countries, with the objective of maintaining high standards of creditworthiness and using the capital markets of these countries to lend to the underdeveloped countries. But it is difficult to justify this on either economic or political grounds. The developed countries already have high rates of savings, and they should be exporting more capital than they do now. Yet IBRD loans to them would increase their liquid funds. If these loans were invested in developed countries, they would further increase the existing dis-

parities between rich and poor countries; if they were not so invested, they would increase the volume of savings that developed countries had to export. There is no justification for enlarging the capital exporting role of developed countries (and perhaps their political influence) by lending them outside funds. Nor is there any reason to suppose that developed countries would welcome the responsibility of exporting larger amounts of capital or that they could do so more efficiently than the IBRD. On the contrary, there is every reason to believe that underdeveloped countries would prefer to receive their larger capital imports from international agencies, other things being equal, than from individual countries.

Under these conditions, it may be assumed that investments to expand international liquidity would be directed largely, if not wholly, to underdeveloped countries. It is clear that such investments would require significantly lower standards than those used by the IBRD. The IBRD, for its own part, has not wished to modify its own lending standards radically.³¹ In these circumstances, it became advisable to create new international lending agencies to operate with softer lending standards, including longer periods of repayment, initial grace periods without interest payments, lower rates of interest, and repayment partly or wholly in local currencies. Thus, in 1960, the IBRD set up an affiliate, the International Development Association (IDA),³² and the nations of the Americas set up the IDB.³³ In the last fiscal year, which ended June 30, 1963, the IDA loaned \$260 million; and in September 1963 it asked for \$750 million of additional funds for 1963-66, implying future loans at the same annual rate. The IDB, in 1960-63, made loans at the rate of a little more than \$200 million a year.

The annual increases in the outstanding loans of the IBRD, IDA, and IDB, assuming that they had all been monetized and reflected in

³¹ At the Bank's last Annual Meeting, President Woods suggested that lending terms could now be modified in appropriate cases, in particular by lengthening the period of repayment beyond 25 years and the grace period before interest payments begin. (International Bank for Reconstruction and Development, *Summary Proceedings, Annual Meeting, 1963* [Washington, 1963], p. 12.) A loan to Colombia in February 1964 was made repayable in 35 years.

³² Loans are repayable in 50 years. There is a service charge of $\frac{3}{4}$ of 1 per cent on the amount outstanding at any time. There is no interest charge. The capital is repaid in installments of 1 per cent a year for the second 10 years and of 3 per cent for the last 30 years. Loans are repayable in foreign exchange.

³³ The IDB administers three kinds of funds: its own capital, a Fund for Special Operations, and a Trust Fund set up by the United States to support the Alliance for Progress. Interest and principal are payable wholly or partly in local currency. Loans of all kinds totaled \$875 million in 1960-63; some of these were made to local development banks, which then had to make loans for specific investment projects.

international reserves, would have expanded international reserves by about 1 per cent a year on the basis of recent experience.

This analysis suggests that there is only one sure way to expand international liquidity by large and growing predetermined amounts, and that is to create new money and give it away.³⁴ This is, indeed, the substance of the Stamp Plan,³⁵ under which new money would be created and given to the countries that need it the most—the underdeveloped countries. These countries would buy more from developed countries, which would then have the option of adding this new money to their reserves or of spending it in turn. Under such an arrangement, all the industrial countries could have balance of payments surpluses and hold increasing amounts of newly created money in their reserves. The underdeveloped countries would not have larger balance of payments deficits, since they would receive their share of the newly created money as gifts. The additional goods and services exported by the industrial countries to the underdeveloped ones could come (hopefully) from the expansion of output and the elimination of unemployment. Even after these industrial countries reached full employment, they could still make available the required goods for export by appropriate fiscal policy. The Stamp Plan would, in short, serve to eliminate balance of payments deficits in the countries concerned with them, eliminate unemployment, speed development, and satisfy public morality in a useful way. Under such an arrangement, the appearance of inflation in industrial countries after they have all reached full employment would signify nothing more than that the industrial countries had not used fiscal policy vigorously enough to offset the expansionary international monetary policy of the international central bank.

Apart from the many economic and political problems raised by the Stamp Plan and similar proposals,³⁶ there are three simple human problems which should not be overlooked. (1) Nations as well as

³⁴ The alternative to this is to monetize existing assets, but this would not affect the level of demand unless it increased spending.

³⁵ Version I (1960). Version II (described in 1962) was modified to be more acceptable to "established methods of thinking." It provided that the IMF would create new money which it would lend to the IDA for 50 years; the IDA in turn would lend these funds in its normal way. In this scheme, as Stamp noted, "against the Fund liabilities [newly created money] there is an asset on the books, albeit an illiquid one." Version II also set limits (somewhat reluctantly) both to what the Fund could create by way of new money and what a surplus country could be asked to absorb. See Sir Maxwell Stamp, "The Stamp Plan—1962 Version," in *World Monetary Reform: Plans and Issues*, ed. by Herbert G. Grubel (Stanford, California, 1963), pp. 80–89.

³⁶ For example, the proposal by Professor Robert Miller for an inconvertible development currency (DEVCUR) in his *International Monetary Plans* (1963; an unpublished dissertation prepared at Bryn Mawr College).

people find it difficult to give away large amounts of their income and wealth to other nations and to other people which may need them more—especially to achieve such an abstract and hard-to-explain objective as increasing international liquidity to an adequate level and keeping it there as the world economy grows. They may even find it morally wrong, or ethically enervating, for them to give, or for others to receive, large amounts of something for nothing. These feelings are strengthened by the inevitable waste, misdirection, and graft inherent in large programs of this kind.³⁷ (2) Even the industrial countries, whose populations on the average are wealthy compared with those of the underdeveloped countries, have substantial groups of people who are inadequately nourished, housed, and educated, i.e., their poor. Expensive programs to equalize economic conditions between rich and poor countries are limited by the domestic demands to equalize first conditions between rich and poor at home. (3) Standards of creditworthiness, requirements for repayment, and the payment of interest serve to determine how much some countries wish to invest and how much other countries wish to borrow. Easing any of these economic criteria uncovers ever larger amounts of demand for investment funds without increasing—and perhaps even reducing—the supply of such funds. Rationing the limited supply of investible funds through market criteria has obvious difficulties and inequities. For this reason, there are many national and international programs which operate on other criteria. Easing economic criteria, however, increases the need for noneconomic criteria, and transfers the basis for decision from the market place to the board room, from the economic sphere to the political, and from the impersonal to the personal. Every such easing presents more and more alternatives for action, creating new and more difficult problems for management.

OBJECTIVES OF INTERNATIONAL MONETARY MANAGEMENT

The best single statement of the purposes of the present international monetary system is probably to be found in the Articles of Agreement of the Fund. Article I (ii) states that the purpose of the Fund is “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.” To help achieve these purposes, the

³⁷ As well as by the large outflows of private capital from developing countries, which in Latin America alone must have been more than \$2.5 billion in 1957–62.

Fund was endowed with large financial resources, and it was designed to provide machinery for consultation and collaboration on international monetary problems. It was expected that the Fund would lend its resources to members under appropriate terms and conditions, and that its loans would enable its members "to correct maladjustments in their balance of payments without resorting to measures destructive of national or international prosperity."³⁸

High employment and price stability

The Fund's Articles of Agreement state a fairly general target which is much less exacting than the full employment targets set for the executive authorities in the United States and many other countries. The U.S. target, for example, is to promote maximum employment, production, and purchasing power in a manner calculated to foster and promote free competitive enterprise and the general welfare. A number of attempts have been made, without success, to add to this target the requirement to maintain a measure of price stability. Nevertheless, if the Fund were transformed into an international central bank, it would probably be charged with achieving some price objective. This is the reason why a price objective was included in recent statements of international financial objectives, one by the (U.S.) Secretary of the Treasury, speaking for the "Group of 10," and the other by the (U.S.) Council of Economic Advisers:³⁹

Statement of the Secretary of the Treasury

The Ministers and Governors reaffirmed the objective of reaching such balance [a better basic international equilibrium] at high levels of eco-

³⁸ Article I (v).

³⁹ Statement on October 2, 1963, by Douglas Dillon, U.S. Secretary of the Treasury, on behalf of the "Group of 10" members of the International Monetary Fund (published in International Monetary Fund, *Summary Proceedings, Annual Meeting, 1963*, p. 285); *Economic Report of the President* (Washington, 1964), pp. 134-35. A recent article in *The Economist* (London), March 21, 1964, pp. 1126-27, entitled "The Monetary Solution," argued for "the creation of a new world liquidity mechanism" which would "take the balance of payments out of aid." It suggested that "the best starting point is some variant of the Stamp plan, under which contributions to IDA would be fed, not from grants in national currencies voted by suspicious parliaments, but by newly created certificates of the International Monetary Fund itself." And it went on to say that "almost certainly some kind of formula for these annual issues would be needed, at least to set limits within which discretion could be exercised; and better probably than a flat ratio to the total volume of trade would be a link also to average commodity prices. This is probably the best way to accommodate the advantages of the Prebisch plan for terms of trade compensation while avoiding the great drawback of penalising the countries that do most of the commodity importing. And it would be greatly preferable to an extraordinarily complex plan for an International Commodity Reserve Currency. . . ."

conomic activity with a sustainable rate of economic growth and in a climate of price stability.

Statement of the Council of Economic Advisers

A properly functioning international system, like any monetary or financial arrangement, must be judged by its contribution to the basic economic objectives shared by all countries. These include: (1) full employment, (2) a satisfactory rate of economic growth, (3) mutually beneficial trade that reflects and contributes to efficient international allocation of resources through freedom of international transactions, and (4) reasonable stability of prices.

The problems of the Fund in carrying out the purposes stated in its Articles, and even in adding a price objective to them, are not bothersome as long as its members have modest expectations. To facilitate the expansion and balanced growth of trade and to contribute to high levels of employment, real income, and economic development is not difficult, since the Fund's contributions can be large or small. Major problems would arise, however, as soon as the Fund, or an international central bank, was expected to achieve stated targets.

Level of international liquidity

Nothing in the Fund's Articles of Agreement requires it to contribute to, or to maintain, an adequate level of international reserves or international liquidity.⁴⁰ These terms do not appear in the Articles, either as an objective or as an instrument, even though the Fund is directed to concern itself with certain other ways and means of accomplishing its purposes, such as the promotion of exchange stability, the avoidance of competitive exchange depreciation, and the establishment of a multilateral system of payments for current transactions.⁴¹

The question whether liquidity is stated as an objective, or as an instrument to be used along with other instruments, is a very practical one. All the other objectives can, for management purposes, be

⁴⁰ The requirement that the Fund should review the quotas of its members every five years, and propose such adjustments as it deems appropriate, may be regarded as contributing to international liquidity, though it is doubtful that increases in Fund quotas were considered in quite this light at Bretton Woods. Some of the pre-Bretton Woods drafts of the Articles provided for the automatic adjustment of quotas according to a prescribed formula, while Keynes' proposals for a Clearing Union contemplated automatic expansion in keeping with the growth of trade.

⁴¹ Article I (iii) and I (iv). It is possible that the stated objectives of an international central bank would not include one with respect to international liquidity. It should be noted, however, that doubts about the adequacy of international liquidity, and about the ability of the monetary system to expand liquidity in accordance with requirements, would unquestionably play a large part in establishing an international central bank.

assumed to be generally consistent with each other. Neither historically nor analytically, however, has it ever been demonstrated that specific liquidity targets are consistent with achieving the other stated objectives. On the contrary, a large and expanding volume of world trade can be conducted with many amounts of liquidity and with totals of many different compositions. For example, conditional liquidity may be a substitute for unconditional liquidity, though not necessarily on a one-for-one basis. Substitutability is important because, in general, it would be easier for countries to agree to a substantial increase of conditional liquidity, to be used when needed over a period of time, than to agree to the same increase of unconditional liquidity. Moreover, the significance of any total of international liquidity depends upon the efficiency of the international adjustment mechanism. Thus, a realistic set of exchange rates makes international liquidity more efficient, and action to put a larger share of the adjustment process on countries with balance of payments surpluses also makes international liquidity more efficient.

An international central bank would have a serious management problem at the present time in respect of these issues. The larger continental European countries have experienced substantial price increases; they fear inflation but some have substantial balance of payments surpluses; and far from wishing to increase their imports to check price increases, they have in the past few months increased some of their tariffs to protect some industries and to facilitate integration in the Common Market. The countries adversely affected by these tariff increases are in balance of payments deficit or in rough equilibrium. The United States, for example, has a large, though decreasing, deficit, and since the dollar is a key currency, its deficit adds to international liquidity. Nevertheless, these unwanted deficits have helped to increase international liquidity by only 2.1 per cent a year in the past two years, or by less than half the rate of increase of world trade in the same period. The major European countries have trouble enough assimilating the current increases in their reserves without adding to their domestic price pressures. A more rapid expansion of international liquidity would, from their point of view, undoubtedly make matters worse. Increases in the liquidity available to the United States and underdeveloped countries might both prolong their deficits and increase the surpluses earned by European countries.

These points have been stated briefly in order to indicate the kind of management issues an international central bank would have to deal with in the present circumstances, which are not unusual in reflecting strong national self-interests and pressures. In such cases, expanding liquidity would be inconsistent with other objectives.

Economic development

The number of countries that are members of the IMF is now more than 100, whereas only 45 countries were represented at Bretton Woods. All the newly created countries are underdeveloped, and encouraging economic development has assumed much greater political importance since 1944. It would be impossible to disregard these new underdeveloped countries in setting up the objectives for an international central bank. The Articles of Agreement for such a bank could hardly fail to deal more explicitly than do the Fund's Articles with economic development, the relationships between developed and underdeveloped countries, and the roles of debtor and creditor countries. In particular, a charter which authorized or required an international central bank to conduct large investment programs could hardly fail to describe the kinds and directions of investment that would be considered appropriate in relation to economic development.

Interrelationship of objectives

Objectives such as a high level of trade, full employment, and stable prices may seem to be reasonably meaningful within any one country, but they are very vague in an international context. Full employment is a concept that applies most easily, and that can be measured most readily, in countries with an efficient industry and agriculture. A full employment objective for underdeveloped countries must face the fact that these countries have large amounts of unemployment or underemployment, which are of a structural character, and which cannot be cured quickly or even principally with money.

The objectives already described would present problems enough for any international central bank. The important point, however, is that the choice among these objectives is not a technical decision but rather a political one. Even if the stated objective of an international central bank were to manage the level and change of international liquidity, its activities would really deal with the world's level of output and the distribution of that output. If an international central bank provided underdeveloped countries with additional funds, these countries would buy additional goods, principally from developed countries. The process of international credit creation would thus require the developed countries to buy with their real resources the funds created by a bank and turned over to underdeveloped ones. In the process, the developed countries might be expected to add to their reserves. This might be very useful if industrial countries suffered from depression or stagnation. But these countries have been

at, or reasonably close to, full employment since the war; at the present time some have strong upward pressures on prices and costs. If an international central bank undertook to expand international liquidity in such circumstances, the margin for expansion would be relatively small. Once this margin was reached, the expansion of international liquidity through monetary action would have to be offset by the contraction of liquidity through fiscal action. This is difficult enough if the two actions are taken within national boundaries by one sovereign country. There are literally hundreds of instances where such efforts have failed in capitalist free enterprise countries, in totalitarian regimes, and in communist regimes. To succeed in such an effort internationally would require a much greater international consensus than now exists, particularly in developed countries. Alternatively, it would require the development of an international government with powers to tax, spend, and subsidize.

TARGETS AND RESULTS

It may be useful to consider briefly how an international central bank would define its targets and how it could judge whether it was discharging its responsibilities appropriately.

An international central bank might define targets for long periods but must measure progress toward these targets during relatively short periods, such as six months or a year, and adjust its lending and investment programs accordingly. Over a period of five or ten years, for example, there should be a noticeable difference between increasing international liquidity at 2 per cent a year and at 5 per cent a year. Even crude measures of international liquidity having a substantial margin of error might serve to distinguish between two such results. But for a period of six months or a year, the difference between a 2 per cent rate and a 5 per cent rate of expansion might not be measurable, since the data might be, and often are, affected by distortions which cannot be traced.

Current and short-period measurements of prices and employment present even greater difficulties. Prices of raw materials, which are probably the most reliable of all prices, vary a great deal from year to year and are affected by production controls, subsidies, and the like. But no country appears to have an adequate index of the export prices of manufactured goods. General measures of employment are equally inadequate. These deficiencies would not be of major concern if an international central bank was not very much concerned with prices, or if its actions were on a modest scale. If it had large responsibilities in this field, and if its investment activities were also large,

short-term measurements of price changes would become very important in evaluating past policies and in agreeing on future ones.

III. Conclusions

1. International liquidity can be managed in various ways. Management can be decentralized or centralized, limited or unlimited. Management through an international central bank is thus only one way of managing liquidity.

2. The present international financial system is based upon the existence and interests of sovereign countries, and it constitutes a complex network of national advantages and disadvantages and of national rights and responsibilities. This system is managed partly through the market place; partly through a network of operating practices, policies, and attitudes which have grown up historically; partly through national discussions, consultations, and confrontations, usually termed international monetary cooperation; and partly collectively through the Fund. This blend has changed a good deal in the postwar period, and further changes are in prospect. Proposals for an international central bank basically aim to concentrate a much greater part of the management function in an international agency and to institutionalize the decision-making process.

3. Existing policies and practices reflect the interests of individual countries or groups of countries; and changes in these policies and practices therefore affect the existing balance of national advantages and disadvantages. Thus, the question whether the Fund should create more unconditional liquidity is not a technical problem, but a political one that greatly affects the interests of member countries, in terms of balance of payments discipline, ownership of resources, and the like. In the same way, the question whether the Fund should supplement its short-term, self-liquidating loans with an investment program designed to increase the volume of international liquidity is basically a political problem relating to the level and distribution of world output.

4. The problems of central banking in a national context differ greatly from those in an international one. Within any one country the central bank is a creature of the national sovereignty. The national government can change bank policies; it can offset or modify them; or it can make them part of a more general policy. Few, if any, of these alternatives would apply to an international central bank. Hence, the problem of agreeing on an international central bank would be much greater than that on setting up a national central

bank, while the problem of delegating limited and precise powers would assume much greater importance.

5. The management of an international central bank would face a very large and complicated number of alternatives in terms of what was to be managed, what objectives were to be pursued, and what instruments were to be used. This means that the charter of such a bank would have to be very flexible and general. However, these characteristics would create unknown and unspecified obligations at the same time as they created new rights and powers whose development would be unpredictable. It is basically these political problems, and this dichotomy, that would make negotiations and international agreement on an international central bank so difficult.

6. Much of the present discussion about the inadequacy of international liquidity, or projections of its future inadequacy, or about an international investment program to increase liquidity, disguise in technical dress problems of political balance and the use of resources. This creates anxiety without advancing the solution of the underlying real problems. The Bretton Woods Conference made progress because it recognized political problems and dealt with them as such. Any new solutions will have to take the same approach—and in a time of rather more complicated national crosscurrents and self-interests. All this suggests that much more progress is likely to be made by the undramatic processes of adaptation and experimentation than by the desire to strive for grand but irreversible institutional changes to meet problems which are only partially understood.

La gestion de la liquidité internationale

Résumé

Le système financier international comporte un ensemble complexe d'avantages et d'inconvénients nationaux, de responsabilités et de droits nationaux. Ce système fonctionne en partie par le jeu du marché; en partie par le truchement d'un réseau de pratiques, de politiques et d'attitudes qui se sont développées au cours de l'histoire; en partie par l'intermédiaire de discussions, consultations et confrontations nationales; et en partie par l'entremise du Fonds monétaire international. Les propositions qui visent à transformer le Fonds en une banque centrale internationale tendent à la centralisation bien plus poussée de la gestion de ce système aux mains d'un organisme international.

Les politiques et pratiques actuellement en vigueur reflètent les intérêts de pays particuliers ou de groupes de pays; et les changements qui interviennent dans ces politiques et ces pratiques influent par conséquent sur l'équilibre existant des avantages et inconvénients nationaux. De nombreuses discussions actuelles concernant l'insuffisance de la liquidité internationale et les programmes internationaux d'investissements visant à augmenter le volume de la liquidité traitent essentiellement de problèmes d'équilibre politique et d'utilisation des ressources déguisés sous une forme technique. A titre d'exemple, la question de savoir si le Fonds devrait ajouter à l'assistance financière qu'il accorde actuellement par des tirages un programme d'investissement visant à accroître le volume de la liquidité internationale constitue un problème politique qui joue un rôle dans la détermination du niveau et la répartition de la production mondiale.

La direction d'une banque centrale internationale aurait à faire face à un grand nombre de choix très délicats portant sur l'objet de sa gestion, les objectifs à atteindre, et les moyens à utiliser. Ceci impliquerait que les statuts de cette banque devraient être extrêmement souples et généraux. Mais ces caractéristiques créeraient des obligations imprévisibles et imprécises, de sorte qu'il serait difficile aux divers pays de se mettre d'accord à leur sujet. Il est par conséquent vraisemblable, pour le proche avenir, que les efforts d'adaptation et d'expérimentation se révéleront plus fructueux que les innovations institutionnelles ambitieuses mais irréversibles.

La administración de la liquidez internacional

Resumen

El sistema financiero internacional es una compleja red de ventajas y desventajas así como de derechos y deberes para los países. Este sistema está regido en parte por los mercados; en parte por un conjunto de prácticas de operaciones, de políticas, y de actitudes que han surgido a través del tiempo; en parte mediante pláticas, consultas y debates nacionales; y en parte mediante el Fondo Monetario Internacional. Las propuestas para transformar el Fondo en un banco central internacional tienen por objeto reconcentrar en un organismo internacional una parte mucho mayor de la función administrativa.

Las políticas y las prácticas actuales reflejan los intereses de los países en particular o de grupos de países, y los cambios que ocurren

en esas políticas y prácticas afectan, por consiguiente, el equilibrio existente de las ventajas y desventajas nacionales. Muchas de las presentes discusiones acerca de la insuficiencia de la liquidez internacional y de los programas internacionales de inversión para aumentar la liquidez, son básicamente sobre problemas de equilibrio político y de utilización de recursos, encubiertos por ropaje técnico. Por ejemplo, la cuestión de si el Fondo debe complementar la ayuda financiera que actualmente proporciona mediante giros agregando a ésta un programa de inversiones que tenga por objeto aumentar la liquidez internacional, es un problema político que afecta el nivel y la distribución de la producción mundial.

La administración de un banco central internacional se encontraría ante varias complicadas alternativas respecto de lo que debe ser administrado, los objetivos que habrían de lograrse, y los instrumentos que habrían de usarse. Esto hace pensar que la carta constitutiva de semejante banco tendría que ser sumamente flexible y genérica. Sin embargo, estas características originan obligaciones desconocidas e indeterminadas, lo que hace difícil que los países se pongan de acuerdo sobre las mismas. De aquí que resulte probable lograr un mayor grado de progreso en un futuro próximo mediante procedimientos de adaptación y experimentación, en vez de la voluntad de esforzarse por conseguir grandes pero irrevocables cambios institucionales.

Gold Outflows from the United States, 1958-63

Poul Høst-Madsen*

THIS PAPER analyzes the major influences that have determined the role of gold transactions in the financing of the balance of payments deficit of the United States¹ during the period 1958-63. Over the short run, the variations in the outflow of gold in relation to the deficit appear to be quite irregular. They depend mainly on such factors as the distribution of balance of payments surpluses and deficits in other countries (the net balance of which represents largely the counterpart of U.S. deficits) and the reserve policies pursued by these countries. Moreover, although the reserve policies of individual countries generally follow a consistent pattern over the long run, they are not inflexible and have been adapted in the short run to changing situations. Nevertheless, as indicated in a study by Oscar L. Altman,² there has been a rather systematic relationship between the U.S. deficit and the outflow of gold from the United States over the long run. During the period covered by this study, the counterpart of the deficit has accrued for the most part to 12 countries with relatively high reserves (see Table 1); these countries as a group have generally taken a little over 60 per cent of increases in their gold and foreign exchange reserves in the form of gold. Consequently, a deficit in the balance of payments of the United States has tended, on the margin, to give rise to an outflow of gold of a little over 60 per cent of the deficit. However, since other countries can add to their gold holdings not only from

*Mr. Høst-Madsen, Assistant Director in the Research and Statistics Department, is a graduate of the University of Copenhagen. Before joining the Fund staff in 1946, he was with the National Bank of Denmark.

¹ The U.S. deficit is measured for purposes of this paper by changes in U.S. official gold and convertible currency holdings; in the IMF gold tranche position; in liquid liabilities to official holders in foreign countries, to the Bank for International Settlements, the European Payments Union, and the European Fund, and to the International Monetary Fund on account of its gold investment; and in U.S. Government nonmarketable medium-term securities in foreign official holdings, whether or not they are convertible. (For a definition of "IMF Gold Tranche Position" see J. Marcus Fleming, "The Fund and International Liquidity," *Staff Papers*, Vol. XI (1964), p. 180.)

² "Quelques aspects du problème de l'or," *Cahiers de l'Institut de Science Economique Appliquée* (Paris), July 1962. Altman's study covers the period 1947-61.

TABLE 1. COMPARISON OF U.S. DEFICIT WITH CHANGES IN OFFICIAL RESERVES OF ALL OTHER COUNTRIES, 1958-63

(In billions of U.S. dollars)

	1958					1959					1960				
	Gold	Foreign Ex- change	Gold and Foreign Ex- change	IMF Gold Tranche Position	Total	Gold	Foreign Ex- change	Gold and Foreign Ex- change	IMF Gold Tranche Position	Total	Gold	Foreign Ex- change	Gold and Foreign Ex- change	IMF Gold Tranche Position	Total
Change in official reserves ¹ (excluding U.S.)															
12 high-reserve countries ²	3.1	0.9	4.0	0.2	4.2	1.0	0.5	1.5	0.5	2.0	2.1	2.9	5.0	0.7	5.7
Other	-0.1	-0.7	-0.8	—	-0.8	-0.1	0.9	0.8	0.2	1.0	-0.2	-0.3	-0.5	0.1	-0.4
Total	3.0	0.2	3.2	0.2	3.4	0.9	1.4	2.3	0.7	3.0	1.9	2.6	4.5	0.8	5.3
Financing of U.S. deficit	-2.3	-0.6	-2.9	—	-2.9	-1.1	-1.2	-2.3	—	-2.3	-1.7	-1.4	-3.1	-0.4	-3.5
Differences ³ resulting from															
Net additions to world official gold stocks	0.7	—	0.7	—	0.7	0.7	—	0.7	—	0.7	0.3	—	0.3	—	0.3
Gold transactions with IMF and BIS/EFU/EF ⁴	—	—	—	—	—	-0.9	—	-0.9	—	-0.9	-0.1	—	-0.1	—	-0.1
Other transactions with IMF ⁵	—	—	—	0.2	0.2	—	-0.3	-0.3	0.7	0.4	—	-0.3	-0.3	0.4	0.1
U.K. sterling liabilities to official holders	—	-0.3	-0.3	—	-0.3	—	0.3	0.3	—	0.3	—	0.1	0.1	—	0.1
Other liabilities to official holders ⁶	—	-0.1	-0.1	—	-0.1	—	0.2	0.2	—	0.2	—	1.4	1.4	—	1.4
Total	0.7	-0.4	0.3	0.2	0.5	-0.2	0.2	—	0.7	0.7	0.2	1.2	1.4	0.4	1.8
	1961					1962					1963				
	Gold	Foreign Ex- change	Gold and Foreign Ex- change	IMF Gold Tranche Position	Total	Gold	Foreign Ex- change	Gold and Foreign Ex- change	IMF Gold Tranche Position	Total	Gold	Foreign Ex- change	Gold and Foreign Ex- change	IMF Gold Tranche Position	Total
Change in official reserves ¹ (excluding U.S.)															
12 high-reserve countries ²	1.5	0.7	2.2	0.6	2.8	1.1	0.4 ⁷	1.5	0.1	1.6	1.3	0.5 ⁷	1.8	0.1	1.9
Other	0.2	-0.2	—	-0.1	-0.1	0.2	-0.2	—	0.2	0.2	0.2	1.7	1.9	—	1.9
Total	1.7	0.5	2.2	0.5	2.7	1.3	0.2	1.5	0.3	1.8	1.5	2.2	3.7	0.1	3.8
Financing of U.S. deficit	-0.9	-0.5	-1.4	0.1	-1.3	-0.9	-0.7 ⁷	-1.6	-0.6	-2.2	-0.5	-1.5 ⁷	-2.0	—	-2.0
Differences ³ resulting from															
Net additions to world official gold stocks	0.6	—	0.6	—	0.6	0.3	—	0.3	—	0.3	0.9	—	0.9	—	0.9
Gold transactions with IMF and BIS/EF ⁴	0.2	—	0.2	—	0.2	0.1	—	0.1	—	0.1	0.1	—	0.1	—	0.1
Other transactions with IMF ⁵	—	—	—	0.6	0.6	—	—	—	-0.3	-0.3	—	—	—	0.1	0.1
U.K. sterling liabilities to official holders	—	—	—	—	—	—	-0.3	-0.3	—	-0.3	—	0.3	0.3	—	0.3
Other liabilities to official holders ⁶	—	—	—	—	—	—	-0.2	-0.2	—	-0.2	—	0.4	0.4	—	0.4
Total	0.8	—	0.8	0.6	1.4	0.4	-0.5	-0.1	-0.3	-0.4	1.0	0.7	1.7	0.1	1.8

¹ Excluding credit balances in the European Payments Union.² Nine participants in the IMF's General Arrangements to Borrow, plus Austria, Spain, and Switzerland.³ Conceptually, the differences result from (a) net additions to the world's official gold holdings, (b) transactions between countries and international institutions, and (c) changes in foreign exchange reserves that take the form of claims on countries other than the United States, e.g., U.K. sterling liabilities and Euro-dollars. The signs used for this group are the same as those that the corresponding transactions have in one of the two preceding groups.⁴ Bank for International Settlements, European Payments Union, European Fund.⁵ Covers only transactions affecting countries' gold tranche positions and, for 1959 and 1960, the IMF's gold investment.⁶ Mainly unreported. The data cover liabilities corresponding to foreign exchange assets not included in the preceding line or in the financing of the U.S. deficit.⁷ Including increases in countries' holdings of U.S. Government nonmarketable medium-term obligations.

existing reserves but also from the new supply in gold markets that becomes available from net production and Soviet sales, the outflow of gold from the United States is also influenced by the size of the increase in world monetary gold holdings. Given the acquisition of gold and dollar reserves by foreign surplus countries in the 60 to 40 proportion, the United States could incur a deficit of two thirds (40/60) of the addition to world monetary gold holdings without losing gold, and the part of the deficit exceeding this amount would give rise to an outflow of gold of about 60 per cent of the excess.³ This general pattern continued throughout the period under observation.

In concrete terms, this formula implies that the United States could have incurred a deficit of some \$300 million annually during the entire postwar period without a gold loss, since additions to world gold reserves during that period averaged about \$460 million a year; during 1958-63, the deficit could have reached \$380 million a year without a gold loss. On the basis employed by the U.S. Department of Commerce in measuring the deficit, liquid liabilities to foreign holders other than the monetary authorities are also included as a means of financing the deficit (Table 2). Such holdings have no accompanying gold component. During 1950-63, the recorded increase in these liabilities was almost \$530 million annually, and during 1958-63 it averaged \$690 million. In the more recent period, the United States would have thus been able to incur an annual deficit, as the Department of Commerce conceives it, of a little more than \$1 billion without losing gold.

The net changes both in reserves and in gold holdings of the countries other than the 12 with high reserves distinguished in Table 1 have been small over the period 1958-63. The influence of these countries' balance of payments positions on the outflow of gold from the United States has therefore tended to cancel out over the long run. However, since they generally hold only a small part of their reserves in gold, the outflow of gold from the United States has usually been below normal when they have been in surplus and above normal when they

³ This hypothesis is expressed by the following formula: U.S. gold outflow = $0.60 \times (\text{U.S. deficit} - \frac{2}{3} \text{ of the addition to world gold reserves})$. This formula is similar to that developed through statistical analysis by Altman, *op. cit.*, where he found a good linear correlation between U.S. gold flows and the U.S. surplus or deficit, measured in the same way as in the present paper. For 1949-61, Altman's formula for the annual flow is (in millions of U.S. dollars): $-284 + 0.614 \text{ deficit}$. The constant term is not related to the addition to world monetary gold holdings in Altman's paper. In fact, Altman's constant is numerically larger (and the calculated gold outflow thus somewhat smaller) than hypothesized in the present paper. During the 15 years 1947-61, additions to gold reserves totaled \$7.0 billion, or \$467 million annually. Using this figure, the formula given in the first sentence of this note can be rewritten as $-187 + 0.60 \text{ deficit}$.

TABLE 2. U.S. BALANCE OF PAYMENTS: RECONCILIATION OF DEFICIT AS MEASURED BY U.S. DEPARTMENT OF COMMERCE AND IN INTERNATIONAL MONETARY FUND DOCUMENTS, 1958-63

(In millions of U.S. dollars)

	1958	1959	1960	1961	1962	1963
1. Deficit (-) as measured by U.S. Department of Commerce	-3,529	-3,743	-3,881	-2,370	-2,186	-2,660
2. Increase in U.S. liquid liabilities to foreigners other than central banks and governments ¹	502	1,460	289	1,083	200	603
3. Change (increase -) in non-convertible, nonmarketable medium-term bonds ¹	—	—	—	—	-251	43
4. Deficit in Fund documents (1 through 3)	-3,027	-2,283	-3,592	-1,287	-2,237	-2,014

¹ The deficit as measured in item 1 excludes the inflow of foreign liquid capital other than reserves (item 2), but includes the conversion of foreign short-term reserve holdings into nonconvertible, nonmarketable medium-term bonds (item 3). In Fund documents, on the other hand, item 2 is included in, but item 3 excluded from, the deficit. Item 2 is therefore entered with the ordinary balance of payments sign (no sign for credit), and item 3 with the balance of payments sign reversed.

have been in deficit. Transactions with the International Monetary Fund (IMF) also influence the outflow of gold, through their effect on the reserves of the countries conducting them and of the countries whose currencies are used, and through their secondary effects. Other variations in the annual outflow of gold have arisen because the high-reserve countries have taken about 60 per cent of their reserve increases in the form of gold only as a group and over the long run. There have been considerable differences among the countries in the group in the proportion of gold taken, and the reserve policies pursued by its individual members have varied over time, as have their relative shares in the group's reserve increase.⁴ In addition, the reserve policies of some of the other countries have changed from time to time. It cannot, therefore, be assumed that the relationship between the U.S.

⁴ It is not, in general, possible to relate the movements in the gold holdings of individual countries directly to sales of gold by the United States, even though there may in fact be some connection. For example, a country whose holdings of gold have not changed over a year as a whole may, in the course of that year, have purchased gold from the United States during a period of increase in reserves and sold the same amount to third countries during a period of decrease in reserves. In such a case, the accumulation of gold holdings by the third countries is only indirectly related to the outflow of gold from the United States.

deficit and the outflow of gold that has been observed here will necessarily continue.

RESERVE POLICIES OF HIGH-RESERVE COUNTRIES

The 12 high-reserve countries, as a group, reduced slightly the proportion of their gold holdings to their total gold and foreign exchange reserves between the end of 1957 and the end of 1963. The reduction was from 65 per cent to 64 per cent, if both balances with the European Payments Union (EPU) and gold tranche positions with the IMF are excluded from reserves. The group's acquisition of gold during this period was about 62 per cent of the increase in its total gold and foreign exchange reserves. The relative stability of the gold proportion was maintained by the group in spite of a number of divergent movements in the proportions of gold held by its individual members. Table 3 shows the total reserves of the group, and the composition of these reserves, at the end of each of the years 1957-63. Table 4 gives the percentage of gold holdings to total gold and foreign exchange reserves, excluding credit balances with the EPU as well as IMF gold tranche positions, of each of the 12 countries at the end of 1957 and 1963, and the change in each country's gold holdings during the period 1957-63 as a percentage of the change in its total gold and foreign exchange reserves.

While the United Kingdom has tended to keep all its reserves in gold except for working balances of \$200-300 million in foreign exchange, U.K. foreign exchange reserves were unusually high at the end of 1957, when they had been replenished by foreign credits, and again at the end of 1961, when they included large amounts of currencies drawn from the Fund and repaid in the following year. Over the period 1958-63 as a whole, foreign exchange reserves fell by about \$550 million from the high initial level, and the acquisition of gold exceeded by this amount the total increase in gold and foreign exchange reserves (only about \$400 million). Since the cumulative increase in the reserves of the United Kingdom was thus quite small during this period, its customary high rate of gold acquisition (close to 100 per cent) did not in itself affect much the group's average rate; the main effect in raising the group's average arose from the adjustment of the United Kingdom's foreign exchange holdings from their high level at the beginning of the period.

The changes in reserves in Canada had an opposite effect on the group's average rate of acquisition of gold. During the period covered by the analysis, Canadian gold holdings were reduced by the equivalent of US\$283 million, while official foreign exchange holdings rose

TABLE 3. HIGH-RESERVE COUNTRIES: OFFICIAL RESERVES, 1957-63¹

	1957	1958	1959	1960	1961	1962	1963
	<i>Million U.S. dollars</i>						
Outstanding at end of period							
Gold	10,039	13,115	14,145	16,195	17,699	18,781	20,034
Nonmarketable U.S. Government securities	—	—	—	—	—	251	893
Other foreign assets	5,412	6,188	6,935	9,791	10,575	10,714	10,593
Gold and foreign exchange	15,451	19,303	21,080	25,986	28,274	29,746	31,520
IMF gold tranche position	217	462	939	1,607	2,201	2,286	2,383
Total	15,668	19,765	22,019	27,593	30,475	32,032	33,903
Changes from year to year							
Gold		3,076	1,030	2,050	1,504	1,082	1,253
Nonmarketable U.S. Government securities		—	—	—	—	251	642
Other foreign assets		776	747	2,856	784	139	-121
Gold and foreign exchange		3,852	1,777	4,906	2,288	1,472	1,774
IMF gold tranche position		245	477	668	594	85	97
Total		4,097	2,254	5,574	2,882	1,557	1,871
	<i>Percentage distribution</i>						
Outstanding at end of period							
Gold	64	66	64	59	58	59	59
Nonmarketable U.S. Government securities	—	—	—	—	—	1	3
Other foreign assets	35	32	32	35	35	33	31
Gold and foreign exchange	99	98	96	94	93	93	93
IMF gold tranche position	1	2	4	6	7	7	7
Total	100	100	100	100	100	100	100
Changes from year to year							
Gold		75	46	37	52	70	67
Nonmarketable U.S. Government securities		—	—	—	—	16	34
Other foreign assets		19	33	51	27	9	-6
Gold and foreign exchange		94	79	88	79	95	95
IMF gold tranche position		6	21	12	21	5	5
Total		100	100	100	100	100	100

Source: International Monetary Fund, *International Financial Statistics*.¹ Excluding EPU credit balances: \$1,269 million at end of 1957 and \$1,374 million at end of 1958.

by about US\$1,050 million. The main reduction in gold holdings took place during the exchange crisis of 1962, when Canada sold US\$300 million worth of gold to the United States. Since then, during a period of rapid increase in total reserves, the Canadian monetary authorities have limited their acquisitions to purchases from gold newly produced in Canada.

While Japan had a cumulative increase in its gold and foreign exchange holdings of more than \$1.3 billion during the period 1958-63, its gold holdings rose by only \$266 million. Most of the increase in gold holdings took place in 1959; however, of the increase in that year of \$190 million, \$70 million represented the restitution of gold which had been in the custody of the occupation forces.

TABLE 4. HIGH-RESERVE COUNTRIES: OFFICIAL RESERVES, 1957 AND 1963

	Reserves, 1957					Reserves, 1963					Gold as a Percentage of		Change in Gold as Percentage of Change in Gold and Foreign Exchange Reserves, 1957-63
	Gold	Foreign exchange	Gold and foreign exchange	IMF gold tranche position	Total reserves	Gold	Foreign exchange	Gold and foreign exchange	IMF gold tranche position	Total reserves	Gold and foreign exchange	Gold and foreign exchange re-serves in 1957 and in 1963	
	Million U.S. dollars												
Austria	103	396	499	13	512	536	655	1,191	37	1,228	21	45	63
Belgium	915	90	1,005	6	1,011	1,371	431	1,802	138	1,940	91	76	57
France	581	64	645	—	645	3,175	1,282	4,457	451	4,908	90	71	68
Germany, F. R.	2,541	1,464	4,005	83	4,088	3,843	3,255	7,098	552	7,650	63	54	42
Italy	452	903	1,355	—	1,355	2,343	714	3,057	226	3,283	33	77	111
Netherlands	744	115	859	—	859	1,601	298	1,899	203	2,102	87	84	82
Spain	100	5	105	—	105	573	525	1,098	54	1,152	95	52	48
Sweden	219	246	465	25	490	182	524	706	53	759	47	26	-15
Switzerland	1,706	174	1,880	—	1,880	2,820	254	3,074	—	3,074	91	92	93
Total	7,361	3,457	10,818	127	10,945	16,444	7,938	24,382	1,714	26,096	68	67	67
United Kingdom	1,555	718	2,273	—	2,273	2,484	173	2,657	489	3,146	68	93	242
Canada	1,100	736	1,836	90	1,926	817	1,786	2,603	—	2,603	60	31	-37
Japan	23	501	524	—	524	289	1,589	1,878	180	2,058	4	15	20
Total	2,678	1,955	4,633	90	4,723	3,590	3,548	7,138	669	7,807	58	50	36
Grand Total	10,039	5,412	15,451	217	15,668	20,034	11,486	31,520	2,383	33,903	65	64	62

Source: International Monetary Fund, *International Financial Statistics*.

The effect of the reduction in Canadian gold holdings and of the much lower-than-average rate of acquisition of gold by Japan more than outweighed the effect of the higher-than-average rate of acquisition of gold by the United Kingdom; for the 3 countries taken together, the rate of acquisition was lower than the average for the high-reserve countries. The combined gold and foreign exchange reserves of the 3 countries rose by about \$2.5 billion, but their combined gold reserves rose by a little more than one third of this—or about \$900 million.

While the proportion of gold holdings to total gold and foreign exchange reserves was about the same at the end of 1957 and at the end of 1963 for the 9 high-reserve countries in continental Europe as a group, there were considerable variations for individual countries. Switzerland, like the United Kingdom, tends to keep all its reserves, except for necessary working balances, in gold, and over the period 1958-63 its additions to gold holdings have fallen short of its cumulative balance of payments surplus, about \$1.2 billion, by only a small amount. Italy increased its proportion of gold holdings to total gold and foreign exchange reserves from 33 per cent at the end of 1957 to about 70 per cent during the last few years. For the period 1958-63, additions to Italian gold reserves exceeded the total increase in gold and foreign exchange reserves of \$1.7 billion by about \$200 million. The percentage of gold holdings of the Netherlands has been maintained rather steadily at about 80 per cent, with minor variations from year to year. Its acquisitions of gold during 1958-63 amounted to 82 per cent of the total increase in its gold and foreign exchange reserves.

Belgium's foreign exchange assets have varied with its forward commitments, and the increase in its gold holdings during the period 1958-63 was only 57 per cent of that in its total gold and foreign exchange reserves. Usually, however, about 75-80 per cent of its reserves have been maintained in gold. France has generally maintained about 70 per cent of its gold and foreign exchange reserves in the form of gold; its rate of acquisition of gold during 1958-63 (68 per cent) was close to the average for continental Europe (at the end of 1957 the proportion of gold to total reserves was as high as 90 per cent, but French reserves were then exceptionally low). The Federal Republic of Germany has usually maintained a proportion of gold to total gold and foreign exchange reserves of about 50 per cent. However, its reserves at the beginning of the period included a large credit balance in EPU, and foreign exchange reserves in other forms have increased at a higher rate than gold holdings. Germany has generally refrained from buying gold from the U.S. Treasury

during the period covered by this study.⁵ Therefore, the proportion of gold to total reserves has tended to fall in periods of rapid reserve increases, and to rise in periods of reserve declines or only moderate reserve gains. Changes in the proportion of gold in German reserves also reflect variations in the supply of gold from sources other than the United States, including amounts used by other countries to finance their balance of payments deficits. Germany's acquisitions of gold were unusually low in 1960 and unusually high in 1961. The percentage of gold in the reserves of Spain was very high at the beginning of the period, when Spanish reserves were nearly exhausted. The percentage of gold held was reduced to about 30 per cent in 1959-60 but has subsequently increased to about 50 per cent. Austria raised the proportion of its gold to total reserves from about 20 per cent to about 50 per cent, thereby acquiring gold equal to slightly more than 60 per cent of the increase in total reserves during 1958-63. Finally, Sweden reduced its gold holdings by \$37 million, while increasing its foreign exchange reserves by almost \$300 million; by the end of the period its gold holdings were a lower percentage of total reserves than those of any other member of the group, except Japan.

DEVELOPMENTS IN INDIVIDUAL YEARS

The change from year to year in the share of gold settlements in the financing of the U.S. deficit may be broadly explained in terms of the preceding analysis. The main factors are summarized in Table 5, in which the actual outflow of gold from the United States is compared with that derived from the formula suggested at the beginning of this paper.⁶ The table also shows the calculated effect of the varying amounts added to world monetary gold holdings in reducing the outflow of gold. This effect, entered in column 4, is allowed for in the calculated gold outflow entered in column 3.⁷ Column 5 relates the change in the combined gold holdings of the 12 high-reserve countries to the change in their combined gold and foreign exchange holdings.

In 1958, the outflow of gold from the United States was particularly large (about \$800 million higher than suggested by the formula), mainly because the United Kingdom in that year reduced its foreign

⁵ According to the March 1964 issue of the *Federal Reserve Bulletin*, U.S. sales of gold to Germany in 1958-63 amounted to \$57 million.

⁶ In deriving the calculated outflow, the actual marginal change in the gold proportion of the high-reserve countries, 0.63, has been substituted for the rounded figure of 0.60 in the formula.

⁷ In other words, in making the calculation the addition to world monetary gold holdings has been treated as a variable rather than a constant. This makes it possible to disregard this factor in the following discussion.

TABLE 5. UNITED STATES: GOLD OUTFLOW, ACTUAL AND CALCULATED, 1958-63

Year (1)	Gold Outflow from United States		Calculated Effect of Increase in World Monetary Gold Holdings ¹ (million U.S. dollars) (4)	Marginal Change in Gold Proportion ² of 12 High-Reserve Countries (per cent) (5)
	Actual (billion U.S. dollars) (2)	Calculated (3)		
1958	2.3	1.5	280	80
1959	1.1 ³	1.2	280	58
1960	2.0 ³	2.1	120	42
1961	0.9	0.6	240	66
1962	0.9	1.3	120	73
1963	0.5	0.9	320	71
1958-63	7.7 ³	7.6	1,360	62

¹ Estimates of the hypothetical accumulation of gold by the United States that would have taken place if its balance of payments had been neither in surplus nor in deficit (not the deficit which the United States could have incurred without losing gold).

² Change in gold holdings divided by change in gold and foreign exchange reserves.

³ The figures for 1959 and 1960 each exclude additions to gold holdings of \$300 million resulting from sales by the Fund for investment; that for 1959 also excludes a decrease of \$344 million resulting from an additional gold subscription to the Fund.

exchange holdings from an abnormally high level at the end of 1957 to their customary size, accounting for gold acquisitions of \$500 million; other factors were the large increase in U.K. total reserves (the propensity of the United Kingdom to take gold being among the highest), a sharp rise in the proportion of gold in Italy's reserves, and a balance of payments deficit for countries other than the United States and the group of 12 (see Table 1). Some countries in the group of 12, however, acquired less gold than had been their custom.

In 1959, the outflow of gold from the United States was close to that suggested by the formula even though the distribution of foreign surpluses was rather favorable; as a result of surpluses outside the 12 high-reserve countries, the increase in the reserves of these countries fell short of the U.S. deficit plus the increase in world monetary gold holdings by \$1 billion. Therefore, a subnormal outflow of gold might have been expected. It seems likely that gold subscriptions to the Fund by countries other than the United States may have directly or indirectly contributed to maintaining the outflow of gold at the normal rate. The effect of the United States' own gold subscription of \$344 million was for the most part offset by a Fund sale of gold of \$300 million for investment in U.S. Government paper (both these transactions are eliminated in Table 5).

In 1960, the outflow of gold (\$1.7 billion) would have been \$300 million larger but for a further investment by the Fund of this amount

from its gold holdings. At \$2 billion, the outflow would have been almost equal to that indicated by the formula. In fact, reserve developments during 1960 were such that a much larger outflow of gold could have been expected. In that year, reserve accumulations outside the United States, to a degree unparalleled in postwar history, took the form of acquisition of foreign exchange other than dollars and sterling held in the United States and the United Kingdom, respectively. Of the total increase of \$2.6 billion in foreign exchange holdings outside the United States, only about \$1.1 billion can be identified with claims on the United States, and only \$0.1 billion with sterling balances in the United Kingdom. This leaves a residual of \$1.4 billion, which is believed to represent, for the most part, a build-up of foreign exchange reserves in the Euro-dollar market or held in currencies of countries in continental Europe. Mainly as a result of this development, the increase in the total gold and foreign exchange reserves of the high-reserve countries (\$5.0 billion) was \$1.3 billion larger than the deficit of the United States as here measured (\$3.5 billion) plus the rather low increase in world monetary gold holdings (\$300 million). (A secondary factor was that countries other than those with high reserves were once again in deficit.) In these circumstances, one might have expected an unusually large outflow of gold. The fact that the outflow was nevertheless about normal is largely explained by an unusually small rise in the gold holdings of Germany, which increased its total gold and foreign exchange reserves by a record figure of \$2.2 billion but added only \$334 million to its gold holdings. As a result, the proportion of gold in the increase in reserves of the 12 high-reserve countries as a group was the lowest recorded during the period under observation.

The outflow of gold in 1961 was rather high compared with the much reduced deficit; it exceeded by about \$300 million that which would have been expected on the basis of the formula. A main factor was that Germany, after having acquired gold only on a very modest scale in 1960, added about \$700 million to its gold holdings in 1961 while reducing its foreign exchange holdings by about \$900 million, thus restoring the proportion of gold holdings to total German reserves to about its customary level. A factor working in the opposite direction was a deficit in the balance of payments of the United Kingdom, financed in part by sales of gold and in part by drawings of currencies from the Fund, of which \$500 million was purchased by the Fund against gold, and a substantial portion of which was held by the United Kingdom as reserves at the end of the year. The U.K. drawing helped to reduce the outflow of gold from the United States both

directly by adding to the gold holdings of that country and other countries participating in the transaction and indirectly by limiting the increase in conventional reserves in the other participating countries to the extent that the United Kingdom made use of, or converted, amounts drawn in their currencies.⁸

In both 1962 and 1963 the outflow of gold was much lower than suggested by the formula. A new development in these years was that the United States began to issue medium-term nonmarketable securities, and *prima facie* one might have expected that this new financing technique could have accounted for the reduction in the gold outflow, relative to the deficit. If so, one would have expected the gold acquisitions by the 12 high-reserve countries to have been below the customary rates. However, except for the special case of Canada (see above), there does not appear to have been any marked change in the proportion of gold to total reserves held by the 12 high-reserve countries, and as a group these countries added gold to their reserves in about the usual proportion in both 1962 and 1963. The most important factors in reducing the outflow of gold relative to the deficit appear to have been, in 1962, the financing of \$600 million of the U.S. deficit through repurchases in U.S. dollars of currencies drawn from the Fund by countries other than the United States and, in 1963, a lower concentration than in earlier years of foreign surpluses in the 12 high-reserve countries. It is likely, however, that lacking the possibility of investing reserves in the special nonmarketable U.S. bonds, some of these countries would have added more gold to their reserves.

Sorties d'or des Etats-Unis, 1958-63

Résumé

Il y a, en longue période, une relation assez systématique entre le déficit des Etats-Unis et les sorties d'or. Au cours des années 1958-1963, la contrepartie du déficit des Etats-Unis a été absorbée principalement par douze pays qui ont des réserves relativement élevées et qui ensemble ont pris en or un peu plus de 60 pour-cent de l'augmentation de leurs réserves, bien que la part de l'or dans les réserves totales varie

⁸ For this year, it is particularly difficult to relate U.S. gold sales to changes in gold holdings in other countries (see footnote 4). Even though U.K. gold holdings fell by \$534 million, the United Kingdom was a net purchaser of \$306 million of gold from the United States.

d'un pays à l'autre. (Globalement les surplus et déficits des autres pays, qui en général détiennent en or une beaucoup plus petite partie de leurs surplus, ont eu tendance à s'annuler). Néanmoins, comme les avoirs en or peuvent aussi augmenter du fait de la production courante d'or et des ventes d'or soviétiques, les sorties d'or des Etats-Unis sont également influencées par l'accroissement des avoirs mondiaux en or monétaire. Dans ces conditions, les Etats-Unis peuvent ne pas perdre d'or si leur déficit ne dépasse pas les deux-tiers (40/60) de l'augmentation des avoirs mondiaux en or monétaire; si le déficit dépasse cette limite, les sorties d'or des Etats-Unis correspondant à environ 60 pourcent du montant par lequel cette limite est dépassée.

En pratique, le déficit tel qu'il est calculé dans l'article aurait pu atteindre environ 380 millions de dollars par an au cours de la période 1958-1963 sans causer de pertes d'or. Suivant la méthode quelque peu différente qui est généralement employée par le Département du Commerce des Etats-Unis pour calculer le déficit, le chiffre correspondant aurait été légèrement supérieur à 1 milliard de dollars par an.

En période courte, les sorties d'or des Etats-Unis varient de façon irrégulière; elles traduisent surtout les variations dans les surplus et déficits des divers pays avec des réserves importantes, ainsi que les modifications dans le surplus ou déficit global des pays avec des réserves peu importantes. Les transactions avec le Fonds exercent, elles aussi, une influence sur les sorties d'or.

Puisque les politiques des divers pays en matière de réserves varient dans le temps, on ne peut pas supposer que le rapport observé au cours des dernières années entre le déficit des Etats-Unis et les sorties d'or continuera nécessairement à se maintenir.

Salida de oro de Estados Unidos durante el periodo 1958-63

Resumen

La relación entre el déficit de Estados Unidos y las salidas de oro ha sido, a la larga, bastante sistemática. Durante el periodo 1958-63, la contrapartida de ese déficit fue acumulada mayormente por doce países con reservas relativamente elevadas, los cuales, en conjunto, adquirieron en oro un poco más del 60 por ciento de los aumentos en sus reservas, por más que la proporción de la totalidad de las reservas mantenidas en oro varía en cada país. (Los superávit y los déficit combinados de otros países que generalmente conservan en oro una

parte mucho menor de sus superávits, han tenido la tendencia a neutralizarse.) Sin embargo, puesto que las tenencias en oro pueden aumentar asimismo en razón de la nueva producción y de las ventas soviéticas, en la salida de oro de Estados Unidos influye también el aumento de las tenencias mundiales de oro monetario. Dadas estas circunstancias, Estados Unidos puede incurrir en un déficit de las dos terceras partes (40/60) del aumento en las tenencias mundiales de oro monetario sin sufrir una pérdida de oro, ocasionando la parte del déficit en exceso de esta cantidad una salida de oro que equivale aproximadamente al 60 por ciento del exceso.

En términos concretos, según se ha calculado en este estudio, el déficit podría muy bien haber llegado a US\$380 millones por año, aproximadamente, durante el periodo 1958-63, sin que se produjera una pérdida de oro. De acuerdo con la base un tanto distinta que el Departamento de Comercio de Estados Unidos convencionalmente emplea para calcular el déficit, la cifra correspondiente habría sido de un poco más de US\$1.000 millones por año.

A corto plazo, la salida de oro de Estados Unidos varía de manera irregular, reflejando principalmente tanto los cambios ocurridos en los superávits y los déficits particulares de los países de elevadas reservas como las variaciones en el superávit o el déficit conjuntos de los países de bajas reservas. También las transacciones que se efectúan con el Fondo influyen sobre la salida de oro.

Ya que las políticas de cada país en cuanto a las reservas varían con el transcurso del tiempo, no puede darse por sentado que la relación entre el déficit estadounidense y la salida de oro observada en los últimos años tenga necesariamente que continuar.

Problems in Compiling Gold and Foreign Exchange Statistics

N. John Brady*

This paper is a revised and expanded version of one which was prepared originally for the Seventh Meeting of the Central Bank Technicians of the American Continent held in Rio de Janeiro in October 1963.

GOLD AND FOREIGN EXCHANGE statistics serve three purposes. The total of a country's gold and foreign exchange holdings represents the major element in its international liquidity. The change in a country's gold and foreign exchange holdings during a period reflects its balance of payments surplus or deficit in a broad sense. Finally, the change in the national currency value of a country's gold and foreign exchange holdings during a period is an element of monetary analysis. The object of this paper is to look into the problems which arise in the compilation and use of gold and foreign exchange statistics, and to consider the extent to which the three purposes can be served by the same data.

Statistics for all three purposes have their beginning in the accounts of the money and banking system, because in most countries data on the foreign assets and liabilities of that system are readily available and because the holdings of the system approximate those that meet the criteria of each of the measurements. They tend to be the kinds of claims on foreigners which, by type of asset and by holding sector, are usable directly to finance balance of payments deficits. Their measurement tends to separate from the whole of an economy's transactions with foreigners (which necessarily net to zero) those which represent international monetary settlements rather than the commercial, investment, speculative, or other autonomous transactions requiring such settlement. And, as assets of the money and banking system, their changes tend to produce equal changes in the economy's money supply.

Problems in compiling gold and foreign exchange statistics arise from the fact that in many countries the institutional structure of

*Mr. Brady, economist in the Bureau of Statistics, is a graduate of the University of Melbourne, Australia. He is presently on leave from the service of the Reserve Bank of Australia.

the money and banking system is not clearly defined, owing to the extension of the monetary sector beyond the banking system proper: to the government at one end of the spectrum and to an array of other financial institutions at the other end. Problems also arise from the use that is made of the distinction between claims on foreigners and claims in foreign currency and between liquid and non-liquid claims in defining foreign assets. They arise further from the existence of foreign liabilities, which raises both the question of the extent to which liabilities are offsets to assets, and the question of the extent to which the ability to incur additional liabilities constitutes an element of international liquidity comparable to the holding of an asset. Finally, they arise from multiple currency practices, which raise questions concerning the measurement of profits and losses on exchange operations and whether these profits and losses reflect part of the monetary effects of transactions in foreign assets or part of the revenue or expenditure of government; and from changes in the valuation of foreign assets and liabilities, which provide discontinuous changes in the data. These problems affect the suitability of the original money and banking data to serve each of the three purposes for which gold and foreign exchange statistics are used, and they produce differences between the three sets of data because of the ways in which the problems are resolved.

The problems considered in this paper are under constant review at the International Monetary Fund (IMF). Changes in statistical procedures, are, of course, required from time to time as new forms of institutional arrangements develop; moreover, changes may also result from new thinking. The discussion in this paper is based mainly on the procedures currently used in the Fund's publication, *International Financial Statistics (IFS)*, which endeavors to present data for individual countries in an internationally comparable form. A recent review by the Fund of the reserve statistics published by individual countries shows that there is a wide variety of treatment of the problems in compiling gold and foreign exchange statistics. A summary of this review is given in the final section of this paper.

Problems Arising from Institutional Differences

In general, the money and banking system of a country may be defined as consisting of the central bank and commercial banks. In a number of countries, however, this definition is obscured by the fact that the government performs certain functions which are of a mone-

tary nature. An example common to many countries is the issue of coin by the Treasury. The splitting of monetary functions among the banking system, the government, and other institutions raises problems for the compilation of monetary statistics in general and, of more specific interest to this paper, for the compilation of gold and foreign exchange statistics.

In the introduction to this paper, it was suggested that the net change in the money and banking system's foreign assets broadly approximates the over-all surplus or deficit in the balance of payments. This is true only if the foreign assets of the money and banking system are held so as to provide a means of payment for foreign transactions rather than as investments in their own right. It assumes that the money and banking system does not make a conscious decision to purchase a foreign asset as an alternative to the purchase of a domestic asset. If such a decision were made, the purchase of the foreign asset would be classified more accurately as a transaction giving rise to the need for monetary settlement rather than a transaction representing such a settlement.

In those countries whose currencies are convertible, the commercial banks often acquire foreign assets as an alternative to investment in domestic assets, but, in general, it is not possible to distinguish such assets from those which serve only purposes of monetary settlements. In most other countries, particularly those practicing exchange control, the money and banking system does not engage in the purchase or sale of foreign assets for investment reasons, although this needs to be qualified to the extent that banks regard their discounts of foreign bills as investments. For these countries, the foreign assets of the commercial banks are likely to function as working balances only. In such countries, the monetary system is not likely to hold long-term foreign securities solely for their income or for the prospect of capital appreciation.

FOREIGN ASSETS OF GOVERNMENT INSTITUTIONS

In order to present statistics which reflect the activities of the whole monetary system, it is necessary to consolidate those accounts of the government which are of a monetary nature with the accounts of the banking system.

The inclusion of these government accounts in the definition of the banking system usually raises no conceptual or statistical problems. For example, currency boards were widely developed among dependent territories and are still maintained in some independent countries. These boards are responsible for the management of the currency

issue, through the issue of domestic currency against the receipt of foreign exchange. This is a function usually undertaken by a central bank, and the accounts of the board clearly need to be consolidated with those of the banking system. Since the assets of the board consist almost entirely of foreign exchange, the consolidation has direct relevance to the compilation of statistics of gold and foreign exchange for all three purposes.

Usually the banking system is the major holder of the foreign exchange reserves of a country. However, in some countries, the government establishes a separate agency, such as an exchange stabilization fund, to administer the purchase and sale of foreign exchange. If the accounts of the monetary system are to reflect the full extent of the country's holdings of foreign exchange and to indicate the monetary effects on the economy of a balance of payments surplus or deficit, the accounts of the exchange fund need to be consolidated with those of the remainder of the money and banking system. The method of consolidation depends upon the way in which the fund's purchases and sales of foreign exchange are financed. If the fund is financed directly by the central bank, the consolidation results in an addition to the foreign assets of the monetary system and the liquidation of the system's claims on the fund. If it is financed by the government, the consolidation adds to the foreign asset holdings of the monetary system and, on the assumption that the system had purchased government debt issued to meet the exchange fund's needs, an amount equal to the fund's foreign assets is deducted from the monetary system's claims on government. In both cases the result is the same: the accounts of the consolidated money and banking system will attribute changes in money supply to the balance of payments surplus or deficit rather than to changes in domestic credit.

There are also countries where the treasury holds gold on its own account. For reasons similar to those mentioned in the preceding paragraph, these gold holdings are consolidated with the accounts of the banking system. On the assumption that the acquisition of the gold was financed by borrowing from the central bank, the counterpart to the gold holdings is deducted from the monetary system's claims on government.

FOREIGN ASSETS OF OTHER OFFICIAL INSTITUTIONS

Apart from those government holdings already mentioned, there may be holdings of foreign exchange by certain other governmental or semigovernmental agencies, such as commodity marketing boards and local governments. Here the decision as to whether the accounts

of these agencies should be included with those of the banking system is less clear. Generally, however, the extent of their nonmonetary activities is such that the inclusion of these entities in the money and banking system cannot be justified. On the other hand, the official nature of these entities suggests that, if necessary, their holdings of foreign exchange could be centralized so that they would be available for international monetary settlements. In *IFS*, the accounts of these entities are excluded from the monetary surveys; however, their holdings of foreign exchange are included in statistics of gold and foreign exchange for reserve purposes.

IMF POSITION OF A COUNTRY¹

The function of holding a country's reserves of gold and foreign exchange is usually attributed to the monetary authorities. Since transactions between a member country and the IMF are intended to finance the balance of payments, it follows that the country's accounts with the IMF should be consolidated with the accounts of the money and banking system. However, a problem arises from the fact that legal and institutional arrangements for the payment of subscriptions to, and the making of drawings on, the IMF differ widely between countries. In some countries, the assets and liabilities arising from transactions with the IMF are recorded entirely in the accounts of the central bank; in other countries, these assets and liabilities appear in the books of both the central bank and the treasury.

For the former group of countries, there are no problems of consolidation since the IMF accounts are already part of the accounts of the money and banking system. For the second group of countries, the location of the IMF accounts within different institutions raises a problem. In these instances, the accounts of the treasury with the IMF need to be consolidated with those of the banking system. The consolidation may be carried out by adding the net treasury-IMF accounts to the net central bank-IMF accounts and adjusting the central bank's claims on government by an amount equal and opposite to the net treasury-IMF accounts. This is done on the assumption that the government's financing requirements from the banking system were marginally affected by its transactions with the Fund.

The accounts of the money and banking system may thus be widened to include a country's net asset or liability position with the Fund, whether the accounts are held by the central bank, the government, or both. The change in this net IMF position has a

¹ For a definition of the IMF position, see J. Marcus Fleming, "The Fund and International Liquidity," *Staff Papers*, Vol. XI (1964), p. 180.

counterpart in those changes in other foreign assets and liabilities that arise from a member's payments to and receipts from the Fund in gold or the currencies of other countries and from the Fund's transactions with other countries in the member's currency. In other words, these transactions involve a redistribution of foreign assets and liabilities which leaves their net balance unaffected. They do not have an impact on money supply; nor do they affect the over-all balance of payments surplus or deficit. To eliminate their effect on the movement in other net foreign assets, *IFS* includes the net IMF position in its statistics of gold and foreign exchange for balance of payments and monetary purposes; however, statistics of international liquidity require a different measurement of IMF accounts. This difference is considered later in the paper.

FOREIGN ASSETS OF THE NONBANK FINANCIAL INSTITUTIONS

The definition of the money and banking system has thus been widened to include certain monetary functions of the government. At the other end of the spectrum, there are various kinds of financial institutions which may have claims for inclusion in the money and banking system. Such institutions on the fringes of the banking system include savings banks, development banks, discount houses, building societies, and other specialized credit institutions. Their claims for inclusion in the banking system may be judged by the extent to which their liabilities approximate to money in the eyes of the community or by the existence of special circumstances in an individual country.

Where such institutions are included in the money and banking system, however, the premise that the balance of the system's transactions in foreign assets is a measurement of the balance of payments surplus or deficit is weakened. This is because these financial institutions are more likely to undertake transactions which give rise to the need for foreign payments. For example, the purchase of a foreign government security by a development bank would most likely represent an investment of surplus funds and thus would be regarded as a transaction which reduces the balance of payments surplus or increases the deficit, rather than as a transaction financing the surplus or deficit. If the development bank were included in the money and banking system, the transaction would imply no change in the system's holdings of foreign assets although, in fact, the real balance of payments position had changed. In these circumstances, the holdings of the money and banking system (as defined) no longer provide a satisfactory measurement of the balance of payments surplus or

deficit or of the monetary effects of international transactions. Hence, if the institutional structure of a country does not provide a clear separation between the money and banking system and other financial institutions, or if the compilation of money and banking statistics is widened to include the creators of a greater range of liquidities, it becomes more difficult to compile statistics of gold and foreign exchange which meet the purposes outlined in the introduction above.

PRESENTATION OF GOLD AND FOREIGN EXCHANGE STATISTICS

The preceding sections have discussed the general problems in compiling gold and foreign exchange statistics which arise when the institutional structure of the country's money and banking system is not clearly defined. These problems do not equally concern all three purposes which gold and foreign exchange statistics serve because, in the actual presentation of the data, differing interpretations of the extent of the money and banking system may be used.

(1) It is widely held that statistics on international liquidity should include only the holdings of the monetary authorities, i.e., the central bank and the government. The reason usually given is that the choice of monetary policy or exchange restrictions as an alternative to the use of reserves lies with the monetary authorities and it is their holdings which are most readily available for policy use. On the other hand, this restriction of reserves data tends to limit their usefulness since, if the need arose, the monetary authorities could probably exert pressure on the commercial banks to make their holdings available to settle temporary imbalances. In fact, as the IMF pointed out in its Annual Report for 1963,² commercial banks in some European countries have in recent years been freely permitted, and even encouraged, to add to their holdings of foreign exchange, in contrast to earlier years when they were usually not allowed to hold more than working balances in foreign exchange.

(2) In regard to statistics on the balance of payments position, there are differences of opinion as to whether the over-all surplus or deficit of the balance of payments is best measured by changes in the foreign assets and liabilities of the monetary authorities or by changes in the foreign assets and liabilities of the whole of the money and banking system. The extent to which changes in the foreign assets and liabilities of the commercial banks should be included in the measurement of surplus or deficit depends on the autonomy of the banks to undertake transactions for commercial, investment, and

² Page 48.

speculative purposes. The balance of payments statements published by the IMF do not show a specific surplus/deficit position, but show separately the changes in the foreign assets and liabilities of the monetary authorities and of the commercial banks.

(3) Gold and foreign exchange statistics in the monetary survey in *IFS* are meant to measure the extent to which transactions with the rest of the world have contributed to the expansion or contraction of money supply; these are, of course, compiled from the accounts of the whole of the money and banking system.

The Problems of Defining Foreign Assets

It is not possible to provide a single definition of foreign assets which would meet the criteria required for each of the purposes for which gold and foreign exchange statistics are compiled. Two main problems arise when an attempt is made to provide a common definition. They are the problems of distinguishing between claims on foreigners and claims in foreign currency and of distinguishing between liquid and nonliquid claims.

DISTINCTION BETWEEN CLAIMS ON FOREIGNERS AND CLAIMS IN FOREIGN CURRENCY

Claims on foreigners comprise both claims on foreigners in foreign currency and claims on foreigners in domestic currency. There can be little doubt that claims on foreigners in foreign currency should be included in the basic data from which all three sets of statistics are compiled. It can also be argued that, in certain circumstances, the monetary system's transactions in claims on foreigners in domestic currency represent settlements (as distinct from transactions which give rise to the need for settlements) and therefore tend to reflect the net balance of payments position and the domestic monetary effects of its financing. On the other hand, statistics of reserves should include only those claims which are readily available as a means of international monetary settlement; therefore, claims on foreigners in domestic currency generally would not qualify for inclusion. In some cases, however, certain foreign assets of a central bank or commercial banks may be denominated in domestic currency to provide an exchange rate guarantee, on the understanding that they are convertible into foreign exchange. Such assets may qualify for inclusion in statistics on liquidity. An example of this kind of asset is provided by the issue of bonds by the United States to certain European central

banks in exchange for holdings of their currencies. These bonds are denominated in the domestic currencies of the holding countries and are mostly convertible into U.S. dollars.

Claims in foreign currency comprise both claims on foreigners in foreign currency and claims on residents in foreign currency. The latter group of claims do not ordinarily fit into the compilation of any of the three series of statistics because they do not represent claims which are available for international monetary settlements, and the monetary effect, if any, of changes in them does not arise from transactions with foreigners. As a result of recent changes in practice, however, it has become customary for certain countries to hold part of their official foreign exchange assets in the form of foreign currency deposits (say in Euro-dollars) with local commercial banks, which in turn keep a corresponding deposit abroad. Although the foreign assets are nominally held by the commercial banks, they appear to be as effectively controlled by the monetary authorities as the authorities' direct foreign exchange holdings, and it is a question whether they should be classified as official reserves, disregarding the commercial banks as intermediaries, or as commercial bank holdings, in statistics on reserves and balance of payments. From the standpoint of monetary analysis, it does not matter whether they are classified as one or the other.

Generally, it seems that claims on foreigners would be a satisfactory definition of foreign assets for balance of payments and monetary statistics, but that the criteria for international reserves statistics may be better satisfied by a definition which includes only claims on foreigners in foreign currency (with some exceptions as noted above). In practice, however, banks are more concerned with the currency classification of their assets than a classification according to residence. The result is that, in many cases, the only available data on foreign assets relate to claims in foreign currency.

DISTINCTION BETWEEN LIQUID AND NONLIQUID CLAIMS

The figures for foreign assets in the monetary survey are intended to show the net amount of national currency paid out (or received) by the monetary system in acquiring (or disposing of) its foreign assets. The question whether these foreign assets are liquid or non-liquid is not an important consideration. Thus, foreign assets in monetary statistics may be defined as including all claims on foreigners appearing in the balance sheets of the institutions included in the monetary survey.

The compilation of statistics of foreign assets for liquidity purposes involves more considerations than the compilation for mone-

tary purposes. Statistics of a country's international liquidity position are intended to measure the ability of the country to finance temporary deficits in its balance of payments. For this purpose, foreign exchange assets should include only those claims which are readily available as a means of international monetary settlement, i.e., only those claims on foreigners which are expressed in foreign currency (with some exceptions as already noted) and which are readily convertible into currency or deposits without risk of capital loss. Under this definition, liquidity statistics include not only short-term claims on foreign banks, but also foreign government obligations, such as treasury bills, short-dated bonds, and the readily marketable longer-term government securities of countries such as the United States or the United Kingdom, which are held by some countries as part of their reserves.

On the other hand, government or central bank obligations which have been funded and are repayable over a period of years, and long-term loans extended by central banks, are not readily convertible into liquid foreign exchange assets and should not be included in statistics of a country's international liquidity.

Fairly clear-cut decisions can be made about whether or not the kinds of assets already mentioned represent readily available means of international settlement. The decisions are more difficult for certain other kinds of foreign assets, such as holdings of inconvertible currencies and balances under bilateral payments agreements. A few years ago, only the U.S. and Canadian dollars, among the major currencies of the world, were convertible currencies. Nevertheless, the major European currencies, notably sterling, were widely accepted in international monetary settlements. At this same time, a significant proportion of international settlements was carried out under payments agreements, particularly in the European Payments Union (EPU). Since 1958, most of the major currencies of the world have become convertible, with the result that the difference between a country's holdings of convertible currencies and its holdings of inconvertible currencies has widened greatly. During these years, the EPU has been terminated and the volume of international trade conducted under payments agreements has declined substantially. In present conditions, therefore, the question arises as to whether holdings of inconvertible currencies and balances under payments agreements still represent an acceptable form of international monetary settlement, or whether they represent the outstanding position on transactions between two countries, a position which will give rise to a need for international settlement. Until recently, the *IFS* definition of reserves included holdings of inconvertible currencies and assets

held in the form of balances under active payments agreements (but not the funded balances of old accounts, such as those which arose from the termination of the EPU). However, in the July 1964 issue of *IFS*, data on international liquidity, beginning with 1959, were revised to exclude known holdings of inconvertible currencies and balances under payments agreements.

The omission of balances under payments agreements from statistics of international liquidity also eliminates a number of problems relating to the treatment of these balances, namely, whether only the sum of creditor balances should be included; or the net balance of all accounts, if positive; or the net balance of all accounts, whether positive or negative.

In general, balance of payments statistics would include in a measurement of surplus or deficit only changes in those assets which qualify for inclusion in reserves statistics. Exceptions may be made for holdings of inconvertible currencies and balances under payments agreements. Movements in these items can perhaps be best regarded as part of the financing of the over-all surplus or deficit.

The Statistical Problems Raised by Foreign Liabilities

FOREIGN LIABILITIES AS OFFSETS TO FOREIGN ASSETS

A major problem in statistics of gold and foreign exchange revolves around the question of whether the data should be shown on a gross or a net basis and the extent to which foreign liabilities are offsets to foreign assets.

The foreign liabilities of the money and banking system are clearly offsets to assets in data which are compiled to show the domestic monetary effects of international transactions. Accordingly, net data are shown in *IFS* monetary surveys, although gross data are shown in the institutional sections, for which the information may be useful.

For the purpose of measuring the surplus or deficit in the balance of payments, the treatment of liabilities varies according to their nature. If they represent reserves of foreign official institutions, movements in them can clearly be offset against those in assets. If, on the other hand, the liabilities are due to nonfinancial corporations or individuals, it is likely that movements in them represent autonomous transactions requiring monetary settlements. If so, they should not be offset against the change in reserves in the measure of balance of payments surplus or deficit. Liabilities to foreign commercial banks

may represent an intermediate case, depending on whether the banks concerned have placed the funds for commercial or similar reasons or whether the funds are held for purposes of monetary settlement only.

The treatment of foreign liabilities in reserves statistics, however, is an even more difficult problem, particularly in statistics compiled for international comparison. The problem of liabilities is inherent in such statistics, since one country's foreign exchange assets are usually the foreign liabilities of another country. It might seem, therefore, that data on foreign exchange should be reported net, with each country's foreign liabilities being deducted from its foreign exchange assets and the world total approximating zero.

However, statistics of foreign assets and liabilities for all countries are not usually presented in this way. For some years, *IFS* included a table showing the extent to which the reported foreign exchange assets of all countries could be reconciled with liabilities reported by the principal debtors, namely, the United States, the United Kingdom, France, the Bank for International Settlements, and the EPU. The reconciliation showed that reported assets tended to exceed reported liabilities partly because the former included claims on countries for which no liabilities data were shown. In addition, the development of the Euro-dollar market in recent years had the effect of inflating the figures of gross assets. This was brought about by the fact that Euro-dollar transactions involve a number of intermediaries, each of which might report its dollar deposits in its figures of gross assets. Factors working in the opposite direction in this reconciliation were the impossibility of separating out from U.K. liabilities the amounts due to foreign businesses and individuals, for which no assets data were shown, and, until recently, the inclusion in the liabilities of both the United Kingdom and the United States of amounts due to the Soviet bloc countries and Mainland China, for which no assets data were available.

Similar problems occur when considering the question of whether liabilities should be offset against assets when presenting reserves data for individual countries. For example, it was suggested earlier that reserves statistics should include only the foreign exchange holdings of the monetary authorities. If reserves statistics are to take account of foreign liabilities, the problem arises whether the foreign liabilities of the monetary authorities only should be offset, or whether the definition should be broadened to include the liabilities of the rest of the banking system or even of the economy as a whole. In addition, there are further problems of accurately defining and measuring foreign liabilities. These take two main forms.

The first is a definitional problem, i.e., whether foreign liabilities should include only liabilities to foreign official institutions or should also include liabilities to foreign banks and private individuals and institutions. There is also the practical difficulty of separating the foreign liabilities of the monetary system from its liabilities to the domestic private sector. In some countries, banks can separate liabilities to foreign governments and banks but not those to other foreign holders.

The second problem is that of interpreting certain transactions which, although related to the foreign sector, result in liabilities of the monetary system which are quite different in character from other foreign liabilities. An example of such transactions is provided by the operation of U.S. aid programs under which the country receiving aid is required to deposit in accounts owned by the United States local currency funds in payment for surplus agricultural produce sold to the country.

These local currency deposits owned by the U.S. Government should, by definition, be regarded as foreign liabilities of the country receiving aid. In this case, however, it is not so much the ownership of the deposits as their expected use which is of importance in determining the nature of the liability. The purposes for which the local currency will be used in a particular country are determined at the time the agreement for the sale of the surplus produce is signed. Part of the deposits is generally used for the benefit of the government receiving aid, through grants for economic aid and for the support of defense programs. However, some of the uses to which the deposits are put are strictly U.S. uses, e.g., for the payment of U.S. Government expenses in the recipient country, for loans to private U.S. enterprises and, in some instances, for financing triangular trade operations in which the deposits are used to purchase goods for export as grants to a third country.

The fact that most of the deposits are used within the aid-receiving country and thus do not constitute a future claim against that country's holdings of foreign exchange suggests that at least that portion of the deposits should not be regarded as a possible offset to foreign assets, despite their ownership by the United States. In practice, also, the amounts reserved for U.S. operations are small in relation to the total balance of the deposits and are difficult to report separately. For these reasons, it is perhaps best not to offset them against foreign assets in any of the three measurements of gold and foreign exchange statistics. In its monetary surveys, for instance, *IFS* records them outside other foreign liabilities under the heading, "Counterpart Funds."

Another example of the problems in interpreting foreign liabilities is provided by the treatment of prepayments for exchange in respect of import transactions. These prepayments may arise from a requirement of a government or central bank that private importers must lodge advance payments in local currency with domestic banks when applying for foreign exchange. Although the amount of these prepayments may give some indication of the future foreign exchange commitments in respect of imports, they do not represent liabilities to foreigners. At this stage, such a transaction does not involve a foreigner; it is between two residents, the importer and his bank (or the central bank), and the prepayment is a domestic liability of the banking system.

Many countries have relatively small foreign liabilities and, for them, the problem of whether reserves statistics should be shown gross or net is a relatively minor one. However, for the two major reserve currency countries, the United States and the United Kingdom, the question is more important. A consideration of their holdings of gross assets will not necessarily provide a proper measure of their reserves positions. For these countries, a balance of payments surplus may be reflected both in an increase in foreign assets and in a reduction in foreign liabilities; a deficit may be reflected both in a decrease in foreign assets and an increase in foreign liabilities. Thus it is necessary that both their assets and liabilities positions be considered. In *IFS*, data on the net sterling liabilities of the United Kingdom, by class of holder and by area, are shown in the international liquidity section on the pages of U.K. data. Similar information on U.S. dollar liabilities is also shown.

Until recently it was generally agreed that, because of the difficulties of defining and measuring foreign liabilities, the reserves of countries other than the United Kingdom and the United States were best measured by gross holdings of foreign assets. However, the development in recent years of various arrangements for the creation of reserves through the incurring of liabilities and for the exchange of assets and liabilities has tended to make the figure of gross assets a less useful measure of reserves.

FACILITIES FOR INCREASING GROSS RESERVES BY INCURRING FOREIGN LIABILITIES

IMF membership

One way in which a country can increase its gross reserves by incurring additional liabilities is through its membership in the IMF.

In discussing this possibility, it is necessary to consider the measure of liquidity arising from a country's membership in the Fund.

The amount of resources which the IMF can make available to a member country is subject to conditions set out in the Articles of Agreement. One of the provisions that governs the use of the Fund's resources is the limitation that, unless there is a waiver by the Fund, drawings by any one member in any one year may not exceed the equivalent of 25 per cent of its quota. As trade has grown and balance of payments fluctuations have widened, the Fund has increased the use of waivers in order to meet the needs of members. At the same time, it has formulated a set of principles relating to drawings in different tranches. A member's gold tranche position represents the difference (when positive) between its quota in the Fund and the Fund's holdings of its currency; for countries in a creditor position in the Fund, the gold tranche position equals, therefore, the sum of the country's contribution in gold plus the net disbursement of its currency by the Fund. In 1952, the Fund adopted its gold tranche policy, which gives members the overwhelming benefit of the doubt in relation to requests for drawings that do not raise the Fund's holdings of the member's currency beyond an amount equal to the member's quota. During the 12 years that this policy has been in operation, it has been made quite clear to member countries that these gold tranche positions are readily available whenever needed and that they are comparable to countries' holdings of gold and foreign exchange in that they represent liquid official resources available to the monetary authorities. In its Annual Report for 1963, the Fund stated its view that "members' reserves and their changes can usefully be measured as including gold tranche positions in the Fund."³ The reserves statistics of all countries as published by the Fund in its Annual Report and in *IFS* accordingly include members' gold tranche positions.

As mentioned above (p. 267), this measurement of the liquidity arising from a country's membership in the Fund is different in concept from the country's net IMF position, which is included in statistics measuring the domestic monetary effects and balance of payments effects of international transactions. Apart from some minor technicalities, the major difference is that the net IMF position can be positive or negative, but the gold tranche position can be only positive. This arises from the fact that the net IMF position represents the net asset or liability position of a country with the Fund. If a member makes a drawing on the Fund which takes it into the credit tranches, the net IMF position becomes negative. The gold tranche

³ Page 40.

position represents the amount which is readily available to a member from the Fund; but as soon as a country makes a drawing which takes it beyond the gold tranche, no further automatic liquidity is available to it.

This leads back to a consideration of the way in which a country can increase its reserves by incurring liabilities to the IMF. This potential liquidity can be activated by a member country through the use of drawing facilities beyond the gold tranche. These credit tranche drawing facilities are available to a member up to the point where the Fund's holdings of its currency reaches 200 per cent of quota, although drawings beyond this point are possible through a waiver. However, the member is required to satisfy increasingly strict criteria as the higher tranches are used. Thus, membership in the Fund enables a country to add to its gross assets by incurring an additional liability to the Fund, provided that it can satisfy the necessary criteria. A country's unused credit tranches with the Fund are also shown in *IFS* in the sections on international liquidity, to provide a measurement of the potential liquidity which may be available to member countries.

The *IFS* presentation of Fund accounts in statistics on international liquidity is followed by only a few countries. A recent review by the Fund of country practices in the compilation and presentation of gold and foreign exchange statistics showed that they include a wide variety of measures of their position in the Fund. A summary of this review is given in a later section of this paper.

"Swap" arrangements

The recent development of "swap" arrangements between groups of countries for the exchange of assets and liabilities raises further doubts about using gross assets to measure reserves positions. Drawings under these arrangements provide possibilities for creating reserves at the cost of incurring additional liabilities. If the drawing country reports its reserves on a gross basis, the drawing results in an increase in reserves. If it reports its reserves on a net basis, reserves would show no change as a result of the drawing. Apart from affecting the statistical measurement of the reserves of an individual country, these drawings under swap arrangements have implications for the measurement of gross world reserves. A drawing can result in an addition to gross reserves of even more than the amount of the drawing. This happens when the drawing country adds part or all of the amount drawn to its gross reserves and the country drawn upon considers the asset acquired as part of its gross reserves. Drawings

from the IMF may have similar results because the gold tranche position of the country whose currency is drawn is ordinarily increased by the amount of the drawing.

Thus it can be seen that developments in recent years have made it necessary to use greater caution when interpreting the significance of measurements in gross reserves, both for individual countries and for the world.

Valuation Problems

Although gold and foreign exchange statistics are derived from the accounts of the money and banking system, different methods of valuation are sometimes necessary in order to meet the specific purposes for which the data are required.

METHODS OF VALUATION

Statistics of gold and foreign exchange for reserves purposes are a measure of a country's international liquidity. For purposes of international comparison, it is most convenient to express the assets in terms of some international unit of measurement. The most commonly adopted unit of measurement is the U.S. dollar, and it is in this currency that statistics of international liquidity are expressed in *IFS*. However, individual countries may prefer to present their reserves statistics in their own currencies, in order to compare them with other domestic statistics. This is a satisfactory procedure, although it is desirable that the data also show the rate of exchange that has to be applied in order to obtain a valuation in an international standard.

Since balance of payments statements cover transactions only, it is necessary to omit those changes in a country's foreign assets and liabilities which arise from valuation changes. Accordingly, gold and foreign exchange statistics for balance of payments purposes are measured by converting the assets and liabilities denominated in foreign currency to domestic currency at a fixed rate appropriate to the given period rather than at the actual rates at which the individual transactions were carried out.

In order to measure the monetary impact within a country of international settlements through the monetary system, it is necessary to show the net amounts of domestic currency issued by (or withdrawn by) the monetary system in acquiring (or disposing of) foreign balances. In countries where the rate of exchange is fixed, the basis of valuation in the measurement of the domestic monetary effect of

foreign transactions will differ little from that used in measurements for other purposes.

PROBLEMS ARISING FROM MULTIPLE CURRENCY PRACTICES

However, in those countries where multiple exchange rate systems or fluctuating rates of exchange are in use, the measurement of the monetary effect of transactions in foreign assets may require a basis of valuation which is different from that used in measurements for other purposes. In such countries, the amount of national currency paid out or withdrawn as a result of transactions with foreigners will not be the same as that obtained by converting the foreign asset holdings of the monetary system at a fixed exchange rate. In order to measure the extent to which transactions with the rest of the world have contributed to the expansion or contraction of money supply, it is necessary to record the transactions in foreign exchange at their actual transaction rates, and not at an arbitrary fixed rate.

This can be done in two ways in the books of account of the banking system. One method is to record the purchases and sales of foreign exchange at a nominal rate and to carry the difference between this nominal rate and the actual rate in respect of each transaction to a separate exchange profit and loss account. In this case, the domestic monetary effect of transactions with foreigners is measured by the figure for net foreign assets at the nominal valuation, plus the loss or minus the profit on the transactions. The alternative method is to record all receipts and payments of foreign exchange at the rates at which the transactions take place.

Although these accounting methods are relatively simple, the accounts of some multiple currency countries in past years were so complicated that they failed to provide data which met the requirements of any of the three purposes which gold and foreign exchange statistics serve. However, the gradual elimination of multiple currency practices in recent years has reduced the seriousness of this problem.

The fundamental problem caused by the use of multiple or fluctuating exchange rates is, of course, the question whether the profits or losses on the exchange transactions should be regarded as part of the monetary effects of transactions in foreign assets or as part of the revenues or expenditures of the government. The answer to this question depends upon whether the responsibility for making a decision about the exchange rate is considered to be a function of the government or of the central bank. The use of multiple exchange rates could be regarded as a substitute for import duties, export

subsidies, or taxes, and to this extent the exchange rate decision may be regarded as a government function. However, both the central bank and the government usually participate in such decisions, and the division of the function between these authorities is necessarily arbitrary when statistics are being compiled for purposes of international comparison.

IFS has taken the view in its monetary surveys that the profits or losses on exchange transactions should be regarded as part of the monetary effects of transactions in foreign assets. For those countries in which the profits and losses on exchange transactions are actually transferred to the government from time to time, it may not be possible to show a figure for foreign assets which fully reflects the monetary effect of foreign transactions; when this is true, *IFS* notes that fact.

PROBLEMS ARISING FROM THE REVALUATION OF FOREIGN ASSETS

The problem of different bases of valuation is not limited to multiple and fluctuating currency situations. It also arises whenever there is a revaluation of a country's foreign assets and liabilities. Revaluation does not greatly affect the presentation of foreign exchange statistics for reserve purposes. If the series is expressed in terms of an international unit of currency, the revaluation makes no difference; if the series is expressed in domestic currency, attention needs to be drawn to the changed rate of conversion of the foreign currency.

Since changes in foreign exchange statistics arising from a revaluation merely reflect the assignment of a different valuation rate to foreign assets and liabilities, and are not the result of transactions, their influence needs to be excluded from statistics of gold and foreign exchange which purport to measure the balance of payments position or the monetary effects of its financing. This can be done in the balance of payments statement by expressing the statement in an international unit of currency or by footnoting. The problem is a little more complicated when compiling statistics which show the monetary effect of transactions with foreigners. In this case, the statistics can be expressed only in domestic currency. Furthermore, since the profit or loss on revaluation is often transferred to the government, there may also be changes in the figures for claims on government which do not reflect monetary changes. The most appropriate solution is to draw attention to the breaks in homogeneity of both series and to the need to exclude from the data the influence of the revaluation of foreign assets and liabilities.

Country Practices in the Presentation of Reserves Statistics

Earlier in this paper, references were made to an IMF review of the practices of individual countries in the compilation and presentation of their reserves statistics. This review showed that there was a wide diversity of treatment of the problems which have been raised in this paper. Of approximately 70 countries which were reviewed, 11 do not publish a table showing reserves or international liquidity. The review of the remaining countries was divided into two parts. The first part dealt with the treatment of IMF accounts in country statistics, and the second part dealt with other differences between *IFS* data on international liquidity and national data.

TREATMENT OF FUND ACCOUNTS

Of the 58 countries which publish data on reserves, 30 do not include any element of their IMF position in the calculation. The remaining 28 countries publish reserves statistics which include some part of their accounts with the Fund, but the statistics are presented in a wide variety of forms. Twenty countries include some element of their Fund accounts in reserves proper; 7 countries include them in "second-line reserves"; and 1 country includes portions of its Fund accounts under both headings.

Belgium and Italy are the only countries which include the gold tranche position in their reserves statistics. Belgium includes this measure of its Fund position in its reserves statistics proper, and Italy includes the measurement in second-line reserves. The United States records its gold tranche position in a footnote to its reserves statistics; and the United States, the United Kingdom, and Australia show their total tranche positions in the form of addenda to their statements on reserves. France includes in its second-line reserves its gold subscription to the Fund and the Fund's net sales of francs; its outstanding drawings on the Fund are shown as liabilities. Hence, net second-line reserves include the net IMF position and when France has no outstanding drawings, as has been the case in recent years, second-line assets include the gold tranche position. The Netherlands includes in its first-line reserves the Fund's net sales of guilders or, as a minus entry, the Netherlands' outstanding drawings on the Fund.

A number of countries enter their gold subscriptions to the Fund in their reserves assets, drawings outstanding in reserves liabilities, and the net IMF position in net reserves. Other countries follow variations of this procedure. Some report only the gold subscription in assets, and some report only outstanding drawings in liabilities.

Such a wide variety of treatment of Fund accounts in country statistics requires an equally wide variety of adjustments in order to present internationally comparable data in *IFS*. The problems of users and compilers of the world's statistics would be eased if there were a greater degree of comparability in the treatment of Fund accounts in national data.

OTHER DIFFERENCES BETWEEN *IFS* DATA AND NATIONAL DATA

IFS presently defines reserves as the gross gold and foreign exchange holdings of a country's monetary authorities. The definition of foreign exchange includes short-term claims on foreign banks, short-term foreign government obligations, such as treasury bills and short-dated bonds, and also the readily marketable long-term securities of such countries as the United States and the United Kingdom. Until recently, the definition also included holdings of inconvertible currencies and assets held in the form of balances under active payments agreements but, as mentioned earlier, these types of assets were omitted from data on international liquidity in the April 1964 issue of *IFS*.

For some countries, the *IFS* data do not agree with the general definition because data are not available in the form required or for other reasons. For example, both Australian data and *IFS* data on Australia include holdings of commercial banks; and both Italian data and *IFS* data on Italy exclude foreign exchange holdings of the Bank of Italy but include a number of items which the *IFS* general definition would exclude.

Differences between *IFS* and national data on reserves, other than in the treatment of Fund accounts, appear in more than 30 of the 58 countries which publish tables of reserves statistics. Differences occur for 7 countries because they include commercial bank holdings (either net or gross) within the total of reserves. Seven countries include the net, rather than gross, foreign exchange holdings of the monetary authorities, and 4 others compile data which are partly net. Two countries exclude the accounts of their central banks with correspondents, presumably on the grounds that they are working balances; 2 exclude their official gold holdings, presumably because they are constant and outside of the area of reserve policy; 1 excludes its holdings of sterling, presumably because they are working balances; and 1 includes its holdings of silver. Three countries which record subscriptions to the Fund as reserves assets extend this treatment to their subscription accounts with other international agencies. In 6 coun-

tries, there were differences between the entries for payments agreements balances which *IFS* used to include and those included in national data.

Les problèmes que présente la préparation des statistiques de l'or et des devises

Résumé

Les statistiques de l'or et des devises servent à trois fins différentes. D'abord, l'ensemble des avoirs d'un pays en or et en devises représente l'élément le plus important de la liquidité internationale de ce pays. Ensuite, la variation des avoirs d'un pays au cours d'une période déterminée traduit en gros l'excédent ou le déficit de la balance des paiements de ce pays. Enfin, la variation de la valeur en monnaie nationale des avoirs d'un pays en or et en devises au cours d'une période donnée constitue un élément d'analyse monétaire.

Les statistiques préparées à ces diverses fins ont pour origine la comptabilité du système monétaire et bancaire, parce que des chiffres précis concernant les avoirs et engagements extérieurs de ce système s'obtiennent facilement dans la plupart des pays et que les avoirs du système en question sont très proches de ceux qui répondent aux exigences de chaque calcul.

Certains problèmes de statistique se présentent du fait que, dans bien des pays, la structure institutionnelle du système monétaire et bancaire n'est pas clairement définie, le secteur monétaire dépassant le cadre du système bancaire proprement dit. Des difficultés proviennent également de la distinction entre les créances sur les étrangers et les créances en monnaie étrangère, et entre les créances liquides et non liquides, considérées comme mesures des avoirs extérieurs. D'autres difficultés résultent de l'existence d'engagements extérieurs, ce qui soulève la question de savoir dans quelle mesure les engagements constituent la contrepartie des avoirs et dans quelle mesure la possibilité de contracter de nouveaux engagements constitue un élément de liquidité internationale comparable au fait de détenir un avoir. Enfin, des difficultés naissent des pratiques de monnaies multiples, qui soulèvent des questions concernant la base d'évaluation des avoirs et engagements extérieurs.

Ces problèmes influent sur l'aptitude des données monétaires et bancaires originales à servir à chacune des trois fins auxquelles on utilise les statistiques de l'or et des devises, et produisent des

différences entre les trois séries de données, du fait des méthodes de résolution des problèmes.

Problemas al compilar las estadísticas sobre el oro y las divisas extranjeras

Resumen

Las estadísticas sobre el oro y las divisas extranjeras sirven para tres objetos. El total de las tenencias en oro y en divisas extranjeras que posea un país representa el principal elemento en su liquidez internacional. La variación en las tenencias de un país en un periodo dado refleja, en sentido amplio, el superávit o el déficit de su balanza de pagos. Finalmente, la variación en el valor, en términos de la moneda nacional, que se produzca en las tenencias en oro y divisas extranjeras de un país durante un periodo, es un elemento de análisis monetario.

Las estadísticas para estos tres propósitos se originan en las cuentas del sistema monetario y bancario, porque los datos del sistema, en cuanto a los activos y pasivos extranjeros, se adquieren fácilmente en la mayoría de los países, y porque las tenencias del sistema se aproximan a aquellas que llenan los requisitos de cada medida.

Surgen dificultades en las estadísticas porque en muchos países la estructura institucional del sistema monetario y bancario no está claramente definida, debido a la extensión del sector monetario más allá del propio sistema bancario. Surgen problemas a causa de la diferenciación entre créditos contra extranjeros y créditos en moneda extranjera, y entre activos realizables y no realizables como definición de los activos sobre el extranjero. Surgen, además, de la existencia de obligaciones sobre el exterior, lo que origina tanto la cuestión del punto hasta el cual las obligaciones compensan los activos, como la del grado hasta el cual la facultad de incurrir en obligaciones adicionales constituye un elemento de liquidez internacional comparable a la tenencia de un activo. Por último, emanan de prácticas de tipos de cambio múltiples, las que dan lugar a problemas relacionados con la base para valorar los activos y pasivos sobre el extranjero.

Estos problemas afectan a la adaptabilidad de los datos derivados de los balances del sistema monetario para servir a cada uno de los tres objetos para los cuales se usan las estadísticas sobre el oro y las divisas extranjeras, y ocasionan diferencias entre las tres series de datos debido a las maneras como los problemas son resueltos.

The Liberian Economy

By Moeen A. Qureshi, Yoshio Mizoe, and
Francis d'A. Collings*

VERY LITTLE PUBLISHED MATERIAL on recent economic developments in Liberia is available at the present time. This article is intended to fill a part of this gap by presenting a brief survey of the economy as it is today, with particular emphasis on recent developments in the areas of production and investment, government finance, banking, and international trade.¹

The Republic of Liberia, situated on the west coast of Africa just north of the equator, adjoining Sierra Leone, Guinea, and Ivory Coast, has a land area of about 43,000 square miles. Climatically, it lies in the tropical rain forest belt and receives very heavy rainfall (up to 200 inches) in the rainy season which lasts roughly from June to October each year. Low bush or forest covers most of the countryside. The topography is generally low and rolling, although there are scattered ranges of hills rising up to 4,000 feet. A population census taken in 1962 revealed a population of about one million, of which probably 90 per cent were dependent upon subsistence agriculture. The only national income estimates to have been attempted relate to the year 1960, when gross domestic product was estimated at some \$173 million, of which about one half was accounted for by the foreign concessions producing mostly rubber and iron ore.

Liberia was originally founded by the American Colonization Society as a settlement for freed slaves. It was declared an independent country in 1847. For nearly 100 years, the economy changed little. The first major step away from the subsistence economy took place in 1926, when the Government signed an agreement with the Firestone Plantations Company for the establishment of large-scale rubber plantations in Liberia. For the next 25 years, Firestone remained the

* Mr. Qureshi, Chief of the West and Middle African Division, was educated at the University of the Punjab, Lahore, and Indiana University. He was formerly Deputy Chief in the Economic Division of the Pakistan Planning Commission.

Mr. Mizoe, economist in the West and Middle African Division, is a graduate of the University of Tokyo (Faculty of Law) and studied at Yale Law School. He was formerly a member of the staff of the Bank of Japan.

Mr. Collings, economist in the West and Middle African Division, is a graduate of Queen's University (Canada) and of the Johns Hopkins University.

¹ This paper is based on information collected up to December 1963; more accurately, therefore, it surveys developments in the economy up to that time.

dominant economic enterprise in the country, providing most of the employment, income, exports, and government revenues, in addition to banking, trading, and other commercial services. However, during and after World War II, a gradual diversification of Liberia's economy began to take place. Military bases were established there in wartime, in connection with which the Robertsfield airport and other installations were constructed. A deep-water harbor at Monrovia was completed shortly after the war with lend-lease funds. Foreign interest in Liberia was quickened by the discovery of extensive iron ore deposits in the interior. The second major industry had its beginning in 1946 when the Government gave a concession to the Liberia Mining Company, a U.S.-owned concern affiliated with Republic Steel, to explore and develop iron ore deposits in Western Liberia. This company started production at Bomi Hills in 1951.

Liberia experienced rapid economic progress during the 1950's and the first years of the present decade. The indications are that real domestic product increased by approximately two and a half times during the period 1950-62, while exports increased from \$28 million in 1950 to \$67 million in 1962 and government revenues from \$3.8 million to almost ten times that amount over the same period. In the early 1950's, the development of iron ore mining facilities at Bomi Hills and the phenomenal rise in rubber prices triggered by the Korean war boom were the major factors contributing to an upward spurt in the domestic product. The rate of economic advance slowed down as rubber prices fell in the post-Korean war period, but it again picked up momentum in the mid-1950's as the result of a gradual improvement in both production and prices of rubber. Toward the later years of the decade, large amounts of foreign private investment again began to flow into the development of iron ore facilities as new concessions were granted. Foreign capital was also invested in new rubber plantations and other increasingly diverse activities. At the same time, rising public capital expenditures were directed into the creation of infrastructure, such as roads, public buildings, power facilities, etc. As a result of these developments in the late 1950's, Liberia experienced an investment boom of increasing intensity. Even though from 1961 the terms of trade turned against Liberia, the economy continued to experience a very high rate of investment and economic activity until the beginning of 1963. Liberia's continued use of the U.S. dollar as circulating currency ensured that stable monetary conditions were maintained during these years of rapid economic growth, and the Government's strong commitment to liberal trade and foreign investment policies continued to provide an attractive environment for foreign capital and enterprise.

This period of rapid growth nevertheless gave rise to severe strains in certain areas of the economy. In the area of government finance, the heavy public capital expenditures had for some years been financed almost entirely by borrowing, much of which was in the form of relatively short-term contractors' and suppliers' credits. While the burden of service on the public debt thus mounted rapidly, the fall in world prices of both rubber and iron ore after 1960 had adverse consequences for government revenues. By the beginning of 1963, the Government's financial difficulties had reached crisis proportions; this led to the institution during 1963 of a comprehensive program of financial reforms coupled with a debt rearrangement program, in support of which measures the Fund agreed to a stand-by arrangement for \$5.7 million. The exceptionally high rate of investment, which had accelerated economic activity during recent years, also declined during 1963. This was principally due to an autonomous decline in foreign investment following the completion of certain major iron ore mining projects. A contributing factor was the curtailment of public works projects; this resulted from the Government's decision to relinquish short-term and medium-term credits from which a large proportion of public investment had previously been financed. The consequent decline in construction activity created, by the end of 1963, an appreciable slackening in commercial and business activity, and led to the emergence of some unemployment in urban areas. Also, the small Liberian-owned rubber farms, which had increased greatly in number during the 1950's, were specially hard hit by the decline in rubber prices, and private incomes from this source have likewise declined since 1960.

The Liberian economy might thus be viewed as undergoing a process of adjustment at present, following several years of exceptionally rapid growth. While the Government's financial situation is likely to continue to be tight for several years to come, the long-run prospects for Liberia's economic growth are nevertheless favorable. Although the economy is still lacking in infrastructure, the large investments made in recent years for the development of roads, railways, harbors, and other communication facilities have gone a considerable way toward opening up the country and creating a base for further and more diversified development. Certain major infrastructural investments to be started in the near future with long-term foreign assistance obtained during 1963 and early 1964 will further assist this process. The two primary industries upon which the economy still depends heavily—iron ore and rubber—contain the promise of substantial future expansion in production, although the price outlook for these commodities is uncertain.

The Structure of the Economy

RUBBER AND IRON ORE PRODUCTION

Total Liberian output of *rubber* has remained approximately stable in recent years at about 95 million pounds a year (Table 1).² The bulk of this is still produced by the Firestone Plantations Company,

TABLE 1. LIBERIA: RUBBER PRODUCTION, 1958-63

(In millions of pounds, dry rubber content)

	Production Years Ended October 30					1963 Estimated
	1958	1959	1960	1961	1962	
Firestone Plantations Co.	83.9	83.0	80.1	79.6	77.2	77.7
Independent Liberians	11.3	12.6	14.4	15.8	17.0	18.5
Total	95.2	95.6	94.5	95.4	94.2	96.2

Source: Data supplied by the Firestone Plantations Co.

which now has approximately 70,000 acres under cultivation. Firestone's output reached a peak in 1958 of nearly 84 million pounds, but declined slowly to 77-78 million pounds in 1962 and 1963. The principal reason for this is that Firestone is undertaking a replanting program which involves replacing about 2,000 acres a year with new, higher-yielding trees. The new trees require about six years' growth before they are ready for the first tapping. Output is expected to remain at about the present level for the next three or four years and to rise again after 1967, when the benefits of the replanting program begin to be realized. The recent downtrend in Firestone's production has, however, been approximately offset by the rising output by private Liberian farmers, which was estimated at 18.5 million pounds in 1963. There are approximately 2,500 independent rubber farms in Liberia, although only a few of these are operations of any scale. Firestone has aided the independent producers for many years by providing seedlings and technical assistance and buying virtually all their output for processing and export. Much of the independently produced rubber is at present of inferior grade, and yields per acre on independent farms are generally much lower than on the big plantations.³ Since the daily work load of 300 trees a tapper is

² Rubber production figures in this section relate to the period ending October 30 of each year, this being the Firestone Company's production year.

³ The maximum price paid early in 1963 to independent producers for first-grade rubber was about 16-17 cents a pound, compared with an average export

standard throughout Liberia, the lower yield is reflected in a higher labor cost a pound of rubber produced on the private rubber farms. The recent increases in agricultural wages (see below), coupled with the sharp decline in world rubber prices since 1961, thus threaten the profitability of many of the private farms.

There are five other foreign companies which have planted rubber under concession agreements with the Government. Two of these (B. F. Goodrich and the African Fruit Company) started tapping on a small scale during 1963, but their output has so far been negligible. The other three are expected to start production by 1966 or 1967. By 1968 the potential output of these smaller concessions will reach about 20 million pounds a year, assuming present plans are adhered to.

Production of *iron ore* in Liberia is of more recent origin but has already exceeded rubber in value exported. Until 1962, the only mine actually in production was that of the Liberia Mining Company (LMC) at Bomi Hills, some 40 miles to the northwest of Monrovia.

TABLE 2. LIBERIA: IRON ORE PRODUCTION, 1959-63
(In millions of long tons)

	1959	1960	1961	1962	1963 Estimated
LMC ¹	2.8	2.9	3.1	3.1	3.0
NIOC ¹	—	—	—	0.6	2.3
LAMCO ¹	—	—	—	—	2.5
Total	2.8	2.9	3.1	3.7	7.8

Source: Data supplied by the Liberian authorities.

¹LMC: Liberia Mining Company. NIOC: National Iron Ore Company. LAMCO: Liberian-American-Swedish Minerals Company.

The ore is mined opencast and shipped by rail to the port of Monrovia, some of the lower grade ore being first put through a beneficiation plant to increase the concentration to shipping grade of about 65 per cent ferrum. This mine started producing in 1951 and its capacity was increased to 3-4 million tons of shipping grade ore a year in 1958 when the beneficiation plant was completed. LMC's output has subsequently remained fairly stable at about 3 million tons a year (Table 2).

The second iron ore company to be established in Liberia was the National Iron Ore Company (NIOC), which received its concession

price of about 26 cents a pound. The difference represents processing and handling charges and the rubber sales tax of 1 cent a pound. The average price paid to independents was, however, only 13 cents a pound, reflecting the low quality of most of the privately produced rubber.

from the Government in 1958. The mine is located in the Mano River area near the Sierra Leone border and is served by a branch railway line which joins that of LMC. Production was originally scheduled to have begun in 1961 but the project ran into technical difficulties due to unexpected ground conditions at the ore body and along the railway route, which necessitated delays and added costs.⁴ Production therefore did not start in any quantity until the latter half of 1962. Production in 1963 is estimated at 2.3 million tons, and the capacity of this operation is expected to rise eventually to 5 million tons a year.

The third, and largest, iron mining operation in Liberia is the Liberian-American-Swedish Minerals Company (LAMCO), which commenced production in May 1963 (the first shipment took place in July). The LAMCO mining area is situated at Mount Nimba, close to the Guinean border. The ore body is very rich (65-69 per cent ferrum) and no beneficiation is needed. Developing the project has involved the construction of a 170-mile railway to the coast and a complete new port for ocean-going ships at Buchanan. Shipments up to the end of 1963 are estimated at about 2.5 million tons, and the full capacity of the present plant (7.5 million tons a year) is expected to be reached in 1965. Plans are under consideration to increase capacity to 10 million tons a year during the period 1965-68.

A fourth mining concession now under development is that of the German-Liberian Mining Company (DELIMCO), which plans to start production in 1965. Its mining area is in the Bong Range, about 50 miles northeast of Monrovia, and a rail connection with the port is now under construction. The eventual capacity of the DELIMCO operation is expected to be 5 million tons a year.

The known reserves of ore at all of these mining sites are sufficient to sustain capacity production for many years to come. On the basis of total capacity at present installed or under construction, maximum Liberian output will rise to 20.5 million tons by 1966; if the further expansion of the LAMCO operation takes place as presently anticipated, this will increase capacity to 23 million tons by 1968. Much of the Liberian ore is sold under long-term contracts or to users having financial participation in the mining operation, which provides some measure of protection from world market fluctuations.

OTHER PRODUCTION

There are very little data available on Liberian production of commodities other than rubber and iron ore. *Diamonds*, mostly of indus-

⁴ The Company was forced during 1963 to borrow additionally to finance its operations and to renegotiate the repayment of a part of its external debt.

trial grades, are found in several parts of the country. Diamond extraction is confined mostly to small-scale surface digging operations, although there are two small concessions with foreign participation engaged in alluvial mining. The purchase and exportation of diamonds is handled privately, and no statistics on production are available. Export figures are not a reliable indication of production because of the prevalence of smuggling both into and out of the country (see section on Exports, below).

Production of *lumber* is of growing significance. Several concerns, both domestic and foreign, are engaged in the development of commercial forestry, and in 1962 nearly 16 million board feet, valued at \$1.9 million, were produced. Approximately half of this output is produced by the iron ore or rubber concessions for their own use; most of the remainder is sold locally. In spite of some small export shipments in recent years, Liberia remained a net importer of lumber up to 1962.

There are no data on the production of *agricultural crops* for domestic consumption. The principal food crops, which are raised and consumed mainly in the subsistence sector, are rice and cassava; other crops of importance are palm products and coconuts (both of which are usually harvested from trees growing wild), yams, sweet potatoes, and a variety of other tropical fruits and vegetables. Some of these food crops are marketed in Monrovia and other population centers, but imports of rice in 1962 amounted to more than \$4 million, or about one third of all food imports. A pilot project to demonstrate production of swamp rice, in place of the low-yielding upland rice usually cultivated by native farmers, has been successfully established at Gbedin with the assistance of technicians from the Republic of China; 70 native families are now being settled on 500 acres of land on a cooperative basis to commence production on a larger scale. Swamp rice cultivation in the rubber plantation areas is also being encouraged, and in 1962 a total of 1 million pounds was produced in the Harbel (Firestone) area. Poultry farming on a cooperative basis has also been successfully established and the country no longer needs to import eggs. Technical and financial assistance to farmers is provided through the Agricultural Credit Corporation (ACC), established in 1961. During 1963, funds totaling \$253,000 were made available to ACC by the United States through the Public Law 480 program,⁵ most of which has been re-lent to the Gbedin rice coopera-

⁵ The P.L. 480 program was envisioned as the principal source of working capital for the ACC. However, after P.L. 480 imports, valued at \$650,000, had been received under the 1962 program, the program came to a halt in 1963. Negotiations with the U.S. Government are now under way to get the program going again.

tive, the poultry producers' cooperative, or to small farmers on a supervised basis.

Production of agricultural crops for export is limited to palm kernels, coffee, and cocoa. The volume of these items actually exported in recent years has fluctuated considerably, but has generally shown a declining trend. The low level of these exports in the past has probably resulted as much from deficiencies in internal transportation and marketing arrangements as from the world market situation. In April 1963, the Liberian Produce Marketing Corporation (LPMC), an institution established in 1962 by the Government in partnership with the East Asiatic Company of Copenhagen (which provides the management and overseas sales facilities), started business. The purpose of LPMC is to develop and promote production and export of Liberian produce. The Corporation has the right to a monopoly of exports of palm kernels, palm oil, cocoa, coffee, and piassava, and a first option on exclusive handling of other Liberian produce that may become available for export. During most of 1963 it did not exercise its monopoly rights but in December it took over exclusive handling of palm kernels and coffee exports.

The *manufacturing* sector is in an elementary stage in Liberia and is confined to a few small plants that process local agricultural products or produce import substitutes. Some of the more important manufacturing activities are as follows (with approximate value of production in 1962): beer and soft drinks (\$760,000), tire recapping (\$253,000), bread and pastries (\$165,000), miscellaneous building materials (\$100,000), reconstituted milk (\$85,000), and soap (\$33,000). There is also a palm oil plant, which processes native palm kernels into edible oil for local consumption. Most of these small industries are either foreign-owned or involve a partnership between Liberian and foreign enterprises. The manufacturing sector, although small, has expanded rapidly and several new plants are now in active preparation or construction: a shoe factory, an explosives and chemicals plant, a building block factory, a slaughterhouse, and a canning plant. Almost all these manufacturing activities are located near Monrovia or on the major concession areas. The Liberian Industrial Development Corporation (LIDC), also established in 1961, provides technical and financial assistance to small industry, in addition to finding and promoting investment possibilities in Liberia. A statutory 1 per cent of estimated government revenues each year is set aside in the budget for LIDC, which so far has participated in the shoe factory, a printing press, and studies of various other possible industries. A development bank is in the process of formation and is expected to start operations during 1964.

In October 1963, the Government announced a program called "Operation Production," which has been given intensive publicity on the domestic scene. A national policy commission, headed by the President, was established, together with a technical commission and supporting subcommissions at the country, territorial, provincial, and district levels. The intention of this organization is to mobilize the resources of the country for a concentrated effort to increase production, with emphasis, at least to begin with, on agricultural production. The first goal is to attain self-sufficiency in rice production. "Operation Production" is intended to enlist support and enthusiasm at the local level for new productive projects on a self-help basis and no additional government expenditure for this program as such is envisioned at the present time.

ROLE OF FOREIGN CONCESSIONS

It has already been indicated that most of the productive enterprises of any size in Liberia are foreign concessions—that is, foreign companies operating in the country under the terms of individual agreements with the Liberian Government which give them special privileges and benefits. These enterprises, collectively, not only account for the bulk of production in the economy, but also are highly important as investors, taxpayers, employers, and providers of social overhead capital. The largest concessions are those engaged in rubber and iron ore production, but during the 1950's a wide variety of smaller concessions were granted for timber extraction, agricultural production and processing, diamond mining, and miscellaneous manufacturing activities.

The concessionaires, like all other foreign investors in Liberia, benefit from the Government's traditional "open-door policy," which assures them freedom to repatriate profits and capital and to conduct their business with a minimum of regulation and without threat of nationalization. Although the terms of individual concession agreements exhibit considerable variety, certain features are generally common. The plantation, mining, and lumbering concessions usually last for long periods, ranging from 40 to 99 years, and give the concessionaire the right to develop certain areas of the country reserved to it, usually on payment of a small annual rental. The terms of the agreements may be amended only by mutual consent.⁶ The concessionaire usually receives guarantees of continued exemption from

⁶ The Firestone agreement has been revised a number of times since it was originally signed in 1926; the Liberia Mining Company agreement was revised in 1952.

import duties on equipment and supplies needed for the operation of the enterprise and from export duties on the final product.⁷ Many of the agreements contain a clause whereby the Government must grant benefits to the concession equivalent to the most favorable treatment afforded subsequently to other concessions.

The provisions relating to income taxation or profit sharing are by no means standard. Generally speaking, the rubber and lumber concessions, and also the smaller industrial concessions, are subject to regular Liberian income tax (maximum 35 per cent), but tax holiday periods ranging from 5 to 16½ years from the dates of agreement are still in effect in most cases—Firestone being the only significant exception. In some instances, a special reduced rate of income tax applies for a further period when the initial exemption expires. Taxation of the iron ore concessions is even more variable. The LMC, being wholly foreign owned, agreed to pay the Government a share of its profits rising from 25 per cent at the commencement of operations to 50 per cent after about 18 years. In the three more recent iron ore concessions, the Government acquired 50 per cent of the equity and has, in principle, foregone the right to other taxation in return for dividends on this equity. However, since the Government paid cash for its equity in the NIOC, its effective rate of return from this company is lower than in the other two companies where the equity was received in return for the mineral rights. LAMCO is making payments on a royalty basis during the first two years of operation, in lieu of dividends (for details, see section on Structure of Taxation and Recent Revenue Trends, below, p. 299).

The Government has announced that it proposes shortly to introduce an Investment Code which will regularize and standardize the terms of future concession agreements.

TRENDS IN INVESTMENT ACTIVITY

New investment has accounted for a very high proportion of gross domestic product (GDP) in Liberia in recent years. This investment, financed almost entirely through inflows of foreign capital, has produced a "construction boom" which has been a major source of increasing incomes and of the recent brisk rate of growth in economic activity. The construction industry in Liberia consists mainly of a few large foreign-owned contracting firms, which employ mostly Liberian labor and sometimes also utilize Liberian-owned services, such as trucking.

⁷ This exemption has usually been of indefinite duration, although in two recent lumber concessions it expires after ten years.

In the *private sector*, recent investment activity has been heavily concentrated in the construction of iron ore facilities for the concessions in the process of development. The NIOC's original plans called for a total investment of about \$30 million over the period 1959-61; the additional investment necessitated by the difficulties mentioned earlier is not known. The LAMCO venture's total investment involved an amount of more than \$200 million, most of which was spent prior to the early part of 1963. Although a substantial part of these sums was spent for imported capital equipment and materials, both projects, and particularly the latter, have involved the construction of extensive facilities in Liberia, using local labor and, to some extent, local materials and services. Private investment has also taken place recently at a brisk pace in the development of manufacturing and service industries and in residential and office building, mostly in or near Monrovia. Much of this investment (totaling probably in the region of \$5-10 million a year) has been foreign in origin, while Liberian investors have tended to concentrate on private rubber farming, real estate, or transportation ventures, these last two activities being reserved by law for Liberian citizens. Various indications suggest that total private foreign investment may thus have averaged \$70-80 million a year over the four years prior to 1963.

In the *public sector*, the Government has recently undertaken a variety of public works projects, including the construction of roads, communications facilities, buildings, schools, power facilities, harbors, etc. Most of this has been financed by short-term and medium-term credits provided by contractors and suppliers. The utilization of contractors' and suppliers' credits has probably provided for total new public investment (gross) of about \$15-20 million a year during the last few years, while utilization of credits from the Export-Import Bank of Washington (Eximbank) for power and road projects has added a further \$3-4 million a year.

Total investment, both public and private, may, therefore, have averaged very roughly about \$100 million a year in the last few years. In 1963, however, there was evidence of a marked slackening in the rate of investment. A major factor was the completion of the LAMCO facilities during the early part of the year. Other private investment was affected by the reduced profitability of the housing market and by a gathering climate of financial stringency. In the public sector, construction under prefinancing contracts continued throughout most of 1963, though at a somewhat diminishing pace, but no new prefinanced projects were started after the early part of the year, and work on several major projects then under way (including roads and public buildings) was completed before the end of the year.

Construction activity in Liberia usually exhibits considerable seasonability, with a slowdown during the rainy season (roughly June-October) and an acceleration around the year-end. The normal year-end upswing in construction activity was considerably dampened at the end of 1963.

For the future, certain new public investment projects are due to commence during 1964 as the result of new loan agreements signed recently. The largest new project is the Mount Coffee hydroelectric project near Monrovia, which is financed by funds from the U.S. Agency for International Development (AID); it will be constructed over the years 1964-66 at a total cost of about \$26.5 million. The Kreditanstalt has offered credits totaling \$12.5 million for roads and other projects to be agreed upon. AID has also agreed to assist in the construction of a teaching hospital and two schools in the Monrovia area, the total cost of which will be about \$8.7 million. The International Bank for Reconstruction and Development (IBRD) agreed in January 1964 to a loan for the construction of two roads and for provision of highway maintenance equipment for the Department of Public Works, costing in all about \$4.2 million. The expectation at present is that total expenditures during 1964 on the AID-assisted projects will be \$8.82 million and on the IBRD road project, \$0.93 million (including the Government's contributions). Certain other smaller foreign-financed investments are in prospect, but the total investment during 1964 still seems likely to fall considerably short of the \$18-24 million suggested earlier as the probable magnitude of public investment spending in recent years. The only major privately financed construction project presently in prospect is the DELIMCO project, whose total estimated investment of \$100 million is to be spread over the three years 1963-65. This contrasts with the estimated \$70-80 million a year of private investment in recent years.

PRICES AND WAGES

There is virtually no information on *price* trends in Liberia. The retail price of rice, a basic item of diet of the native population, is controlled at \$9.50 a hundredweight and this price has not changed recently. No other prices are controlled. Retail prices of certain food items are known to have dropped recently as local production replaced imports, e.g., eggs and fish. On the other hand, the prices of many imported products have increased in the wake of recent increases in import duties.

No information is domestically collected on the cost of living. However, living costs for foreigners and the more wealthy Liberians appear to be extremely high. A recent United Nations report has indicated

that Monrovia is the most expensive city in the world in which it has personnel stationed, with a cost of living index of 115 compared with the base of 100 for New York City.

Some partial information is available on movements in *wage rates*; this suggests that average wage rates in private employment have increased recently. In May 1963, the Legislature approved an increase in the legal minimum wage from 6 cents an hour (agricultural workers) and 10 cents an hour (industrial workers), to 8 cents and 15 cents, respectively, with effect from July 1, 1963. This increase affected principally the rubber plantations, since industrial and construction workers are generally paid more than the new legal minimum. Wages on the concession plantations and all major private rubber farms were increased accordingly, although on some smaller or more remote rubber farms money wages are believed to be still below the new legal minimum.

A major development in the field of labor relations in 1963 was the strike at Harbel (Firestone's largest plantation), which occurred from July 2-14, 1963. This was virtually the first organized strike in Liberia's history, and it occurred without prior warning. The entire work force at Harbel, numbering about 18,000, was idled. The nature of the dispute also suggests the difficulties in assessing movements in real wages. In accordance with the new minimum wage legislation, Firestone proposed an increase in the minimum daily wage to 64 cents (from 50 cents).⁸ But, at the same time, the company proposed to reduce the subsidies on rice and palm oil sold through company stores, and to revise the "turnout bonus" paid for regular attendance. According to Firestone calculations, these proposals would have raised the average cost a tapper a day (including subsidies and bonuses) from \$1.07, prior to July 1, to \$1.15. The strike was eventually settled by granting the wage increase without the subsidy and bonus adjustments, which, again according to Firestone calculations, resulted in an increase in the average cost a tapper to \$1.21 a day. This figure, it will be noted, is almost twice the new nominal daily wage. Labor costs on the private plantations are probably much closer to the nominal daily wage.

EMPLOYMENT

Data on employment and on those seeking work are also fragmentary. Very rough approximations of the numbers of workers employed by certain major employers at around the end of 1962 are as follows:

⁸ This wage applies to performance of a daily "standard task," i.e., tapping and caring for 300 trees.

Firestone Plantations	21,000
Government (excluding armed forces and students on government scholarships)	13,300
LAMCO project (including contractors)	12,000
Other contractors	9,000-10,000

Estimates of the work force employed for money wages in Liberia range between 60,000 and 100,000; the above groups, therefore, accounted for at least one half, possibly three quarters, of the total.

During 1963, a major event affecting employment was the completion of the LAMCO facilities during the first half of the year. LAMCO's operating requirements are for about 2,200 employees; this suggests, therefore, that nearly 10,000 workers, or at least 10 per cent of the country's paid labor force, were laid off this project during the year. In other construction work there are believed to have been further reductions in the work force during the latter half of the year as prefinanced construction projects were completed. It is believed that only a relatively small proportion of these displaced workers have found work with the DELIMCO project now under construction, or have been absorbed by the rubber plantations. (Paradoxically, there continues to be a shortage of labor on the rubber plantations; this may reflect the fact that wages there are lower and the kind of work less attractive to those who have recently entered the money economy. One of the smaller concessions has been employing women as tappers, with satisfactory results.) There has thus been evidence of the development in this period of some open unemployment in and around Monrovia. The actual numbers of the unemployed are not known, but there are reports of unusually large numbers of applicants for vacant jobs, at a time of year when employment opportunities for unskilled labor normally take a seasonal upswing.

Government Finance

INTRODUCTION

The Liberian Government encountered increasing financial difficulties early in the present decade. Total revenues, which had expanded very rapidly in the late 1950's, increased much more slowly after 1960 as the result mainly of reduced payments by Firestone and LMC, the two largest taxpayers, following the fall in rubber and iron ore prices. Nevertheless, revenues have exceeded ordinary non-debt expenditures of the Government by fairly comfortable, although declining, margins during this period. However, for several years

past large extrabudgetary expenditures for public works projects have been undertaken and financed directly by short-term and medium-term credits provided by contractors and suppliers (i.e., so-called prefinancing arrangements). This has been reflected in a rapidly increasing burden of debt service as the credits became payable. The Government has also borrowed from the commercial banks to finance its over-all deficits, giving rise to further relatively short-term debt obligations. Toward the end of 1962, it became apparent that a financial crisis was imminent, since the prospective burden of debt service for 1963 was far beyond any reasonable estimate of the Government's capacity to pay.

The year 1963 saw some fundamental changes take place in the area of public finance. These included the introduction of a new budgetary system, the adoption of a comprehensive financial program designed to make available additional resources for meeting debt service obligations, the introduction of new expenditure control measures, the decision not to undertake any new projects based on prefinancing arrangements, and the renegotiation of repayment obligations on virtually all Liberia's existing external debt. The stand-by arrangement with the Fund for \$5.7 million, which came into effect on June 1, 1963, was agreed to in support of these measures taken by the Liberian Government.

STRUCTURE OF TAXATION AND RECENT REVENUE TRENDS

The revenues of the Liberian Government have expanded very rapidly over the last 12-13 years. In 1950, current revenues were about \$3.9 million: by 1963, they had increased almost tenfold, to \$37.2 million. This impressive rise occurred without any major revision of tax rates, which remained broadly unchanged from 1951, when the income tax was introduced, until 1963. Most of the increase until the fiscal year 1960/61 was due to "profit sharing" payments made by LMC and to income tax payments made by Firestone; thereafter, income tax payments by individuals and enterprises other than Firestone and taxation of imports became increasingly important. In the fiscal year 1962/63, taxes on foreign trade accounted for 44 per cent, income taxes for 22 per cent, and "profit sharing" for 13 per cent of total government revenues. These three sources together have consistently provided more than three quarters of total revenues. Income from the registration of shipping under the Liberian flag, which once provided a major portion of the Government's revenues, has now been reduced to relatively minor significance as the result of increases in other revenues.

Liberian income tax rates are moderately progressive, the maximum rate being 35 per cent on incomes over \$100,000 for both individuals and corporations. Taxation of the iron ore enterprises varies with concession agreements with the Government. The LMC, in which the Government has no equity, agreed to pay 25 per cent of its net profits until the end of 1959, 35 per cent until the end of 1969, and 50 per cent thereafter. In the other iron ore concessions, the Government owns 50 per cent of the stock, and receives dividends on this equity in lieu of other forms of taxation. Exceptionally, LAMCO agreed to pay royalties of 50 cents a ton on its output in its first two calendar years of production (1963 and 1964) in lieu of dividends. NIOC, in production since 1962, has not thus far declared any dividend, and therefore has made no payments to the Government. Taxation of imports is applied through a number of different taxes or charges. Import duties range from zero (for essentials) to 40 per cent (for luxuries) of the c.i.f. value (this was changed from f.o.b. in May 1963, see below), a few commodities such as foodstuffs, textiles, beverages, petroleum being subject to specific duties. A surcharge of 15 per cent of the normal duty is added, and a further tax of 5 per cent ad valorem (known as the "public highway levy") is assessed on all imports. There is also a "luxury tax" on liquor, beverages, cosmetics, cigarettes, cigars, and jewelry, which is collected by customs at the time of entry, in addition to the other customs charges. Export taxation is of relatively minor importance, applying only to precious metals and stones, and unmanufactured ivory (10 or 15 per cent ad valorem for the former, 10 cents a pound for the latter). There is a "stumpage fee" (3 and 5 cents a board foot for lumber and logs, respectively) on all commercial timber sales, including those for export, and a "rubber sales tax" (varying from 1 to 2 cents a pound depending upon price) on privately produced rubber sold to Firestone for export. As noted earlier, most of the concessions claim and receive exemption from taxation affecting imports and exports connected with the operation of their enterprises under the terms of their concession agreements with the Government. Taxation of Liberian-registered shipping is at the rate of \$1.20 a ton for initial registration, 10 cents a ton a year thereafter.

The revenues collected by the Government in recent years are shown in Table 3. Because the accounting for government expenditures was until late in 1962 done on a fiscal-year (October 1-September 30) basis, the analysis of revenues is presented here on a comparable basis. Total revenue collections increased in each of the fiscal years shown, rising from \$28.9 million in 1959/60 to \$36.2 million in 1962/63. Receipts from Firestone and iron ore profit sharing reached their

TABLE 3. LIBERIA: GOVERNMENT REVENUES, FISCAL YEARS, 1959/60-1962/63
(In millions of U.S. dollars)

	Fiscal Years, October 1-September 30			
	1959/60	1960/61	1961/62	1962/63
Total revenues	28.93	32.72	35.49	36.15
Direct levies on income and profits				
Income tax	7.30	8.51	7.73	7.85
Firestone	6.42	7.00	5.40	4.64
Other	0.88	1.51	2.33	3.21
Iron ore profit sharing	4.90	5.74	5.35	4.52
Total	12.20	14.25	13.08	12.37
Taxes on external trade				
Import duty	5.84	6.88	8.29	8.71
Surtax	0.86	1.00	1.19	1.21
Luxury tax	1.24	1.69	2.03	2.23
Public highway levy	1.37	1.60	2.08	2.12
Export duties	0.37	0.37	0.64	0.64
Consular fees	0.82	0.95	1.10	0.76
Other customs revenues	0.12	0.15	0.16	0.40 ¹
Total	10.62	12.64	15.49	16.07
Other revenues				
Public utilities	0.38	0.49	0.57	0.44
Vessel taxes and fees	1.49	1.08	0.85	1.31
License fees	0.81	0.85	0.87	1.14
Other ²	3.43	3.41	4.63	4.81
Total	6.11	5.83	6.92	7.70

Source: Bureau of Internal Revenue.

¹ Includes petroleum entry charge in 1962/63 (\$0.28 million).

² Includes receipts from the Bank of Monrovia of profits from the issue of coinage of \$75,000, \$25,000, and \$400,000, respectively, in the first three fiscal years shown.

peak in 1960/61 and since then have declined quite markedly under the influence of declining rubber and iron ore prices. Receipts from these two sources in 1962/63, at \$9.2 million, were about \$3.5 million less than in 1960/61. However, income tax receipts from sources other than Firestone increased steadily, from \$0.9 million in 1959/60 to \$3.2 million in 1962/63, reflecting improved enforcement and a widening taxable income base. Receipts from taxes on imports also increased year by year, although the increase has been much less than the increase in total imports since the latter has included in recent years large amounts of capital equipment and supplies brought in free of duty for construction projects. Among the "other revenues" shown in Table 3, receipts from shipping declined from 1959/60 to 1961/62 as the result of a reduction in new tonnage registered under the Liber-

ian flag, but in 1962/63 showed a substantial recovery. This sudden improvement was due to several external factors, including a decision of the U.S. Supreme Court in March 1963 to the effect that U.S. labor laws could not be applied to flag-of-convenience ships engaged in commerce regularly with U.S. ports, and the expiration of certain concessions given by the Greek Government some years ago to shipowners registering under the Greek flag.

EXPENDITURES AND FINANCING

On the expenditure side, it is more difficult to present an accurate and comprehensive picture of developments over the past few years because accounting of actual expenditures has been very inadequate. Estimates of the Government's financial operations in the last four fiscal years, made on the basis of information supplied by the Government, are shown in Table 4.

TABLE 4. LIBERIA: FISCAL OPERATIONS OF THE GOVERNMENT,
1959/60-1962/63

(In millions of U.S. dollars)

	Fiscal Years, October 1-September 30			
	1959/60	1960/61	1961/62	1962/63
Current revenues ¹	28.93	32.72	35.49	36.15
Expenditures				
Budgeted nondebt expenditures	30.67	28.89	32.56	33.70
Debt service	5.55	9.69	11.70	8.95
"Prefinanced" expenditures outside the budget ²	12.51	17.06	14.39	20.35
Total	48.73	55.64	58.65	63.00
Over-all deficit or surplus	-19.80	-22.92	-23.16	-26.85
Financing				
Eximbank loans	3.24	5.78	2.27	3.95
Prefinancing credits ²	12.51	17.06	14.39	20.35
Commercial bank credit (net)	4.00	0.53	6.63	-0.47
Purchases from IMF	—	—	—	2.50
Other, including use of cash balances ³	0.05	-0.45	-0.13	0.52

Sources: Bureau of Audits/General Accounting, and Fund staff estimates.

¹ From Table 3.

² Estimated on the basis of utilization of credits.

³ Arrived at as a balancing item.

Budgeted expenditures other than for debt service declined slightly in 1960/61 to \$28.9 million, but increased in each of the two succeeding fiscal years, reaching \$33.7 million in 1962/63. During 1962/63 these expenditures in fact took place at a considerably higher rate during the first half of the fiscal year than during the second because of the adoption of austerity measures during the latter period (see below). The total expenditures referred to above include certain capital expenditures financed either from Liberian resources or by utilization of long-term development loans, some of which were shown, until the beginning of 1963, in the separate budget of the Joint Commission.⁹ They do not include the programs financed by foreign grants, most of which were in the form of technical assistance provided directly (see below).

Debt service expenditures increased sharply from \$5.5 million in 1959/60 to \$11.7 million in 1961/62, mainly as the result of the rapidly increasing burden of repayment of short-term and medium-term credits. The drop in debt service in 1962/63 (to \$8.9 million) is due to the fact that, during a part of this fiscal year, many debt repayments were held up pending the renegotiation of the debt obligations of the Government.

The figures of budgeted nondebt service expenditures mentioned above do not include expenditures financed directly by short-term and medium-term contractors' and suppliers' credits. There are no adequate records of these, but estimates based upon the utilization of credits are included in Table 4. In 1962/63 these so-called prefinanced expenditures exceeded \$20 million, or more than one half of the Government's entire fiscal revenues during that period. Most of these expenditures in 1962/63 were in respect of contracts arranged prior to the beginning of the fiscal year, and no new prefinanced contracts have been entered into since early 1963.

The deficits on government accounts during the last four fiscal years have been financed almost entirely by borrowing. Excluding certain capital expenditures which were essentially self-financing at the time they were incurred (i.e., those financed by utilization of Eximbank loans and contractors' and suppliers' credits), the deficits have varied between almost nil in 1960/61 and about \$6.5 million in 1961/62. These residual deficits were financed during the fiscal years 1959/60 to 1961/62 by credits obtained from the commercial banks, the total amount of which during the three-year period amounted to

⁹ The Joint Liberian-United States Commission for Economic Development was set up in 1950, under a technical cooperation agreement between the two governments, to supervise mainly U.S.-financed development expenditures. In 1963 its budget was merged into the over-all government budget.

over \$10 million. In 1962/63, in which the residual deficit on this basis was about \$2.5 million, the deficit was covered by drawings under the Fund stand-by arrangement, which were used for debt service in accordance with the Government's agreement with the Fund.

The principal source of foreign official long-term loan assistance to Liberia in recent years has been the Eximbank, which extended a series of five loans, totaling \$34.7 million, over the period 1951-61 for road, water and sewage, and electrification projects. Expenditures for these projects, which were until 1963 included in the Joint Commission budget, are included in the estimates of budgeted expenditures given above. Apart from these loans, very little other official loan assistance of significance was received in the decade prior to 1963. During 1963, certain important new long-term loan agreements were signed with Kreditanstalt, AID, and IBRD (for details see section, Trends in Investment Activity, pp. 294-96), but utilization of these loans had barely begun by the end of 1963.

In addition to loans, Liberia has received a variety of grants from foreign governments or UN agencies, most of which have taken the form of technical assistance and are not included in budgetary expenditure figures. Such grants, however, are not usually costless to the Liberian Government which is, in most cases, called upon to provide—from its budget—housing, transportation, and other facilities for the foreign technicians stationed in Liberia, and sometimes must also contribute matching funds.

There is no estimate available of the over-all amount of grants received in recent years. The largest donor has been the United States, whose assistance totaled \$8.6 million in 1962/63.¹⁰ Since 1950/51, about 36 per cent of U.S. grants have been devoted to education and about 18 per cent to public administration. Additional direct governmental assistance on a smaller scale has been provided by certain other foreign governments and by the United Nations and its agencies.

FINANCIAL MEASURES IN 1963

The budget for the calendar year 1963 was the first to be formulated in accordance with a new budgetary system devised for Liberia by the Special Commission on Government Operations (SCOGO).¹¹ The

¹⁰ According to Liberian sources. In earlier years U.S. grants totaled as follows: 1959/60, \$5.5 million; 1960/61, \$6.3 million; 1961/62, \$10.6 million, according to the same sources.

¹¹ SCOGO consists of a group of senior Liberian officials appointed by the President, assisted by members of a U.S. consulting team financed by AID. It is responsible for advising the President on a wide range of public administration problems, including budget management.

intention was that the new national budget should, unlike the budgets of previous years, be as comprehensive as possible of all government receipts and expenditures, including those formerly included in the Joint Commission budget. In the course of preparation for this budget, a detailed review was undertaken of the comprehensiveness of each department's or agency's estimates, so that the supplementary appropriations common in the past could be avoided. At the same time, a vigorous effort was made to trim the 1963 budget allocations to a minimum consistent with the orderly functioning of government. The only source of additional departmental appropriations foreseen was a "contingency reserve" of \$1.5 million included in the budget (slightly under 5 per cent of total budgeted expenditures other than for debt service), which was intended to provide for expenditures that could not be properly estimated by government agencies at the beginning of the budget year and therefore had not been provided in their appropriations. Budgetary transfers were to be allowed only in exceptional circumstances and then only by authority of the President.

The budget drawn up for 1963 in accordance with this new system was already considered an "austerity" budget. Total revenue was estimated at \$38.5 million, total expenditures at \$50.5 million, of which \$17.2 million was for debt service and \$33.3 million for other expenditures.¹² The amount set aside for debt service was only about one half of the actual debt obligations falling due during the year (see below) because it was assumed that certain major obligations could be postponed into the following years. The nondebt expenditures had been subject to severe pruning in the budget formulation stage, and specific economy measures incorporated in the budgetary appropriations for 1963 included reduced Liberian representation at international conferences, reductions in travel and entertainment allowances, reductions in gasoline allowances for public officials, discharging surplus personnel, etc. Because of differences in coverage, it is not possible to compare the 1963 budget estimates with earlier budgets, but compared with *actual* expenditures in earlier *fiscal* years, as described in the preceding section, the new budget showed only a small increase in ordinary expenditures over the preceding year (\$33.3 million in the new budget, compared with \$32.6 million actual expenditures in the fiscal year 1961/62). It should be noted that the 1963 budget included a number of expenditures for items such as road maintenance which formerly were financed by contractors' credits and therefore did not appear in the ordinary expenditure figures. The 1963

¹² These amounts include as nondebt expenditures certain payments shown in the Liberian budget as debt service.

budget made no provision for financing the over-all expected deficit of \$12 million.

In April 1963, in conjunction with the decision to implement the Debt Rearrangement Plan, the Government decided that further austerity measures had to be implemented. A new, comprehensive, financial program was announced by President Tubman in a special broadcast to the nation on April 15, 1963. This involved specific measures both to raise new revenues and to reduce government expenditures, with the objective of reducing the deficit by about \$3.8 million on an annual basis.

On the *revenue* side, the principal measures were as follows: (1) a change in the basis of valuation of ad valorem import duties to c.i.f. rather than f.o.b. as formerly (this change also affected receipts from the customs surcharge, which is assessed at 15 per cent of the duty paid); (2) selective increases in import duties on certain nonessential items; (3) increased luxury tax on liquors; and (4) imposition of an airport tax of \$1 per capita on all passenger departures. These revenue measures were expected to produce an additional \$1.5 million a year. The Government also arranged with the major taxpaying concessionaires to alter the dates upon which their tax payments were normally made, so as to spread the flow of revenues from the concessions as evenly as possible throughout the year.

In addition, the Government continued and intensified the campaign against tax evasion that was already under way. The number of income tax returns filed by March 31, 1963 (closing date for 1962 returns) was approximately 6,500, compared with approximately 4,500 for the preceding year and less than 1,000 for the year before that. These increases resulted from the Government's vigorous educational and enforcement efforts during these years. In 1963 a special tax court was established to facilitate enforcement of the tax laws. A foreign auditing firm was also engaged to review the tax returns of the largest businesses and enterprises. The most dramatic indication of the government enforcement effort was the padlocking of one of Monrovia's leading retail stores for a period of 22 days in March 1963 for refusal to comply with income tax requirements.

On the *expenditure* side, cuts amounting to \$2.3 million were made in the already approved budget appropriations for 1963, with the objective of holding total expenditures other than for debt service down to \$31 million during the calendar year. To achieve these cuts the appropriations for all agencies and departments were reduced by 10 per cent for supplies and equipment and 15 per cent for administrative services. A freeze was instituted on government salaries and

on the filling of vacant positions, except in cases of real hardship or emergency. A regime of the utmost economy was instituted for all other expenditures, including drawings upon the contingency allowance.

In order to enforce these expenditure reductions, a "Special Committee on Budget Allotment," consisting of the Secretary of the Treasury or his representative, the Auditor General, and the Director of the Budget Bureau, was established under the direct authority of the President. The task of this Committee was to determine for each calendar quarter an over-all expenditure ceiling within the limitations imposed by the projected availability of revenues and the budgetary targets described above. The detailed application of this over-all allotment, by agencies and purposes, was entrusted to the Bureau of the Budget. A special "debt service account" was also established to facilitate the making of debt service payments.

As part of the financial and debt rearrangement programs, the Government also took the decision not to enter into any further "pre-financing arrangements" for public works projects. This policy was adopted early in 1963, and, while work to complete certain pre-financed projects that were already under way at that time has continued, no new prefinancing arrangements have been entered into since then.

CURRENT FINANCIAL PICTURE

The measures of financial reform taken in 1963, coupled with the debt rearrangement measures to be described shortly, were broadly successful in bringing the Government's finances into balance during 1963 without recourse to further short-term borrowing. This result, however, depended upon purchases from the Fund, totaling \$3.6 million, which had been made by the end of 1963. The revenue and expenditure figures presented earlier for the fiscal year ended September 30, 1963 reflect only partially the changes introduced during the latter half of that fiscal year. It is difficult at this time to present a detailed picture of the outcome of government financial operations in the period since the financial reforms, because a number of administrative changes in the expenditure accounting and control systems occurred during the year which rendered official expenditure figures unreliable. On the basis of the available information, it is estimated that total budgeted expenditures other than for debt service during 1963 were in the region of \$30-31 million; i.e., just within the target of \$31 million aimed for when expenditures were cut in May, and

\$2.3-3.3 million lower than originally provided for in the 1963 budget. Debt service payments during 1963 totaled about \$10.5 million, of which about \$7.0 million was provided from Liberian resources and the remainder from drawings upon the Fund. Total current revenues during 1963 were \$37.25 million, or approximately equal to the total expenditures financed from Liberian resources.

The 1964 budget estimates put revenues during the calendar year at \$39.0 million, i.e., an increase of \$1.75 million over the amount collected in 1963. Income tax from Firestone is estimated to be \$4.0 million, compared with \$4.7 million actually received in the calendar year 1963. Other income tax receipts are expected to increase to \$3.75 million (compared with actual collections in the calendar year 1963 of \$3.3 million). Payments from iron ore mining concessions are estimated at \$6.5 million, an increase of \$1.5 million over 1963, on the basis of anticipated total production in 1964 of 11.5 million tons (LMC, 3 million; LAMCO, 6 million; NIOC, 2.5 million). No payment from the NIOC is included in this amount. Customs revenues are estimated at \$17.25 million (compared with \$16.5 million in the calendar year 1963) and receipts from shipping at \$1.3 million (compared with \$2 million in the calendar year 1963).

Expenditure estimates included in the 1964 budget are as follows:

Current expenditures	\$29.59 million
Capital expenditures	\$ 1.82 million
Debt service	\$10.35 million
Bills payable	\$ 0.70 million
Total	<u>\$42.46 million</u>

Current expenditures budgeted for 1964 are thus below the estimated actual outcome in 1963. The capital expenditures shown above consist of the Liberian Government's contributions during the year to AID and IBRD financed projects, totaling approximately \$1 million, its capital contributions to the Liberian Development Bank and the African Development Bank, and the statutory contribution of 1 per cent estimated revenues to the Liberian Development Corporation. "Bills payable" represents arrears due, principally to airlines for mail-carrying contracts, which are to be settled in 1964.

The budget thus envisions a deficit of about \$3.5 million during the calendar year 1964. Further drawings under the current Fund stand-by arrangement for meeting debt service payments are anticipated; if the full amount available at the beginning of the year (\$2.1 million) is drawn, the remaining uncovered deficit will be \$1.4 million.

Public Debt

DEBT PROBLEM IN EARLY 1963

In conjunction with the program of financial reforms described above, the Liberian Government commenced in May 1963 to negotiate with its creditors a major rearrangement of debt repayment obligations falling due during the coming years.

The situation which necessitated this rearrangement was broadly as follows. As the result of heavy government borrowing over recent years, the amount of the public debt had increased very rapidly. The total amount of principal at March 1963 was about \$122.6 million, with an additional \$31.2 million due in interest payments to maturity. The total principal includes amounts under certain loan agreements which had not been fully utilized—most importantly, the total amount (\$12.5 million) of the German Government's loan for roads and other projects, and \$14.0 million of unutilized contractors' credits relating mostly to projects already under way. Of the total principal due, about \$47.5 million was owed to foreign governments or their official agencies (mainly in the United States and Germany) and was mostly long-term in nature; \$15.4 million represented credit obtained from commercial banks mostly in Liberia, much of which was due in 1963 and all of which was due within four years; and almost all the remaining \$59.7 million (or slightly under half of the total) consisted of short-term and medium-term credits obtained from contractors and their associates, or suppliers. Virtually all the public debt was owed to foreigners or foreign-owned institutions.

Because of the preponderance of relatively short-term and medium-term debt, the burden of repayment was heavily concentrated in the next few years. The over-all schedule of repayments at March 31, 1963, according to the original contracts with these creditors, is shown in part A of Table 5. About \$86.7 million of principal, or nearly three quarters of the total, and \$25.6 million in interest was due during the six years 1963-68, which implies an average debt service burden during these six years of about \$19 million a year. In fact, the prospective burden was much heavier in the immediate future. In 1963 alone, total debt obligations due (principal plus interest) would have amounted to \$33.6 million if no postponements were obtained—an amount not much less than the entire estimated government revenue for that year.

TABLE 5. LIBERIA: SCHEDULES OF REPAYMENTS ON PUBLIC DEBT¹*(In millions of U.S. dollars; includes payment on utilized and unutilized portions of loans)*

		1963	1964	1965	1966	1967	1968
A. Repayments as originally scheduled							
1. Commercial banks:	Principal	7.9 ²	1.0	3.0	3.5	—	—
	Interest	0.6	0.4	0.5	0.2	—	—
2. Official and semiofficial:	Principal	2.9	3.0	2.9	2.9	2.9	4.1
	Interest	1.5	2.0	1.9	1.7	1.6	1.3
3. Private credits:	Principal	16.2	9.2	8.1	7.2	7.3	4.6
	Interest	4.4	2.7	2.7	1.7	1.7	0.6
4 Totals:	Principal	27.0	13.2	14.0	13.6	10.2	8.7
	Interest	6.5	5.1	5.1	3.6	3.3	1.9
		33.5 ²	18.3	19.1	17.2	13.5	10.6
B. Repayments in rearranged schedules³							
1. Commercial banks:	Principal	—	—	—	—	—	0.9
	Interest	0.8	0.8	0.8	0.8	0.8	0.7
2. Official and semiofficial:	Principal	0.3	0.3	0.3	0.3	0.3	0.6
	Interest	1.8	2.0	2.0	2.0	2.0	2.0
3. Private credits: ⁵	Principal	3.5	2.8	3.2	2.8	2.8	3.2
	Interest	3.4	3.3	3.1	2.9	2.9	2.8
4. Totals:	Principal	3.8	3.1	3.5	3.1	3.1	4.7
	Interest	6.0	6.1	5.9	5.7	5.7	5.5
		9.8	9.2	9.4	8.8	8.8	10.2

Source: Data obtained from the Liberian authorities.

¹ This table refers to repayments on the public debt as it was at March 31, 1963, except that it does not include repayment of credits received from the United States under Public Law 480.² Includes repayment of \$4.0 million overdraft from a commercial bank.³ Figures in this section represent new repayment schedules agreed with the creditors down to September 1, 1963. A few creditors had agreed to a new repayment schedule only for a few years and undertook to negotiate again at the end of that**DEBT REARRANGEMENT PLAN**

A comprehensive Debt Rearrangement Plan was prepared by the Government in March-April 1963 with assistance from members of the staff of the Fund. The objective in formulating the Plan was to provide a scheme for stretching out repayments on the existing debt, which would be viable in terms of Liberia's estimated future debt service capacity and which would affect all existing creditors on a broadly equal basis. The Plan was designed to be presented to the creditors as the basis for negotiations with each one individually.

The estimates of future debt service capacity, which were at the heart of the Plan, were based upon careful projections of revenues

TABLE 5 (concluded). LIBERIA: SCHEDULES OF REPAYMENTS ON PUBLIC DEBT¹
(In millions of U.S. dollars; includes payment on utilized and unutilized portions of loans)

1969	1970	1971	1972	1973	1974	1975	1976	1977	After 1977	Totals	
<i>From 1963</i>											
—	—	—	—	—	—	—	—	—	—	15.4	A.
—	—	—	—	—	—	—	—	—	—	1.7	1.
3.1	3.1	3.1	3.0	2.9	2.5	2.2	1.9	1.7	5.6	47.8	2.
1.2	1.1	0.9	0.8	0.7	0.5	0.4	0.3	0.3	0.5	16.7	
4.0	2.4	1.3	1.2	—	—	—	—	—	—	61.5	3.
0.4	0.2	0.1	0.5	—	—	—	—	—	—	15.0	
7.1	5.5	4.4	4.2	2.9	2.5	2.2	1.9	1.7	5.6	124.7	4.
1.6	1.3	1.0	1.3	0.7	0.5	0.4	0.3	0.3	0.5	33.4	
8.7	6.8	5.4	5.5	3.6	3.0	2.6	2.2	2.0	6.1	158.1	
<i>From 1964</i>											
1.8	1.8	1.9	5.0 ⁴	1.4	2.4	—	—	—	—	15.2	B.
0.6	0.5	0.4	0.2	0.2	0.1	—	—	—	—	5.9	1.
4.6	4.6	4.6	4.5	4.6	4.3	4.0	3.7	3.5	6.9	47.1	2.
2.0	1.9	1.6	1.4	1.1	0.9	0.8	0.5	0.4	0.5	20.9	
4.2	3.9	3.8	3.4	3.2	4.0	4.1	4.1	3.7	—	49.9	3.
2.5	2.1	1.9	1.7	1.5	1.3	0.8	0.6	0.2	—	28.1	
10.6	10.3	10.3	12.9	9.2	10.7	8.1	7.8	7.2	6.9	112.2	4.
5.1	4.5	3.9	3.3	2.8	2.3	1.6	1.1	0.6	0.5	54.9	
15.7	14.8	14.2	16.2 ⁴	12.0	13.0	9.7	8.9	7.8	7.4	167.1	

period; in these cases, subsequent payments are shown in accordance with the Liberian Government's original debt rearrangement proposals. Repayments to creditors who had not agreed to rescheduling by September 1, 1963 are also shown in accordance with the Liberian proposals.

⁴ Includes repayment of \$4.0 million overdraft with a commercial bank.

⁵ Total principal due lowered by \$4.8 million through agreement with two contractors to reduce unutilized portions of credits.

and expenditures during the coming years. For revenues, the projections took into account the prospects for each major source of revenue. Revenues to be derived from rubber and iron ore exports were estimated on the basis of the existing plans of each major enterprise for its productive capacity in the future, assumptions being made when necessary regarding future trends in world market prices and other variables affecting profits. The estimates of revenues from other sources took into account the effects of the new revenue measures introduced in 1963, and also made allowance for some gradual increase in tax receipts in line with the growth of the economy. The expenditures of the Government for all purposes other than debt service were assumed to rise by only 5 per cent a year from the

anticipated 1963 level, which included the effects of the financial reforms and economies introduced in 1963. An allowance was made for the service of new long-term loans which Liberia might expect to receive during the next few years, but the assumption was that any new loans that were obtained would have relatively long maturity periods (more than 15 years) and a moratorium on principal payments for at least the next 5 years. Thus, the approach to expenditure projections assumed that firm and continued financial discipline would be exercised in future years. The Plan proposed that the entire surplus of revenues over expenditures plus service on new debt thus arrived at should be considered available for service of the existing debt.

These calculations indicated that a period of close to 15 years would be needed to amortize fully all the existing debt. Revenues were expected to increase only moderately (i.e., at an annual rate of about 7 per cent) until 1969, and the surplus that would be available for service of the existing debt during the 6-year period 1963-68 was estimated at about \$60 million, or enough to amortize only 25 per cent of the principal after interest payments had been met. In 1969 a fairly substantial jump in revenues was expected to result from two factors: an increase in the rate of profit-sharing payments by LMC from 35 per cent of net profits to 50 per cent, in accordance with that company's existing agreement with the Government, and an increase in LAMCO dividends following the completion of the building-up of its reserve.¹³ These two factors were expected to add about \$6 million a year to government revenues from 1969. Nevertheless, the projections indicated that in the following 5-year period 1969-73, the Government would have resources to amortize only a further 35 per cent of the present debt, while the remaining 40 per cent could not be fully paid off for a further 4 years, i.e., until 1977.

The Plan included, on a tentative basis, an allocation of the projected resources available for debt service among all the existing major creditors on an equitable basis. It was assumed that interest would be paid in full on all amounts outstanding; and where loans originally envisioned as short-term or medium-term were being converted to relatively long-term, allowance was made for an increase in the interest rate. The Plan allowed for somewhat different treatment of the banks, on the one hand, and the contractors and suppliers, on the other, in view of their differing capacities to hold longer-term debt. To the banks it was suggested that they should grant a complete moratorium on principal payments for the first 5-6 years and

¹³ LAMCO is required to build up a reserve of \$25 million under the terms of its arrangements with its major creditors.

then be repaid at an accelerated rate relative to the other creditors during the next 5-year period. This would allow faster repayments during the earlier years to the contractors and suppliers. On this basis a tentative schedule was drawn up for each major creditor as the basis for negotiation.

OUTCOME OF THE DEBT REARRANGEMENT

The Liberian Government presented its Debt Rearrangement Plan to the creditors in a series of letters sent out during April 1963. Protracted negotiations with all the major creditors took place during the summer and fall. Some of these negotiations presented especially complicated problems, because the Liberian Government notes were no longer held by the original creditors but had been discounted with commercial banks and financial institutions in many countries. Many creditors wished to be assured, before assenting to the Plan, that others would not receive more favorable treatment, which caused additional delays and difficulties.

Nevertheless, by September 1, 1963 broad agreement had been reached with virtually all the creditors concerned. The rearranged schedule of repayments on the original debt as agreed by September 1, 1963 is shown in part B of Table 5. In most instances the repayments shown in this table represent new schedules agreed upon for the whole amounts of the loans. In some, the creditors would not formally agree to revise repayment schedules beyond a limited period (e.g., 5 years), taking the position that after this period elapsed they would negotiate again with the Liberian Government: in these instances the subsequent repayments shown are those contained in the original Liberian proposal to the creditors concerned, in accordance with the Liberian position that no individual creditor could be given more favorable treatment than the others, either then or in the future. Only in a few minor instances, representing 2-3 per cent of the original debt, had the negotiations failed to produce agreement at least in principle. The unutilized amounts under the original credit agreements with some of the major contractors were reduced by a total of \$4.8 million through agreements to curtail the extent of construction projects originally contracted.

Table 5 shows that the total service burden on the rearranged debt can be expected to remain between \$9 million and \$10 million a year until 1968,¹⁴ after which it increases to a new higher figure of about

¹⁴ The 1964 budget includes debt service payments of \$10.3 million, i.e., about \$0.5 million higher than shown in the table. This is due to a number of small revisions made subsequent to September 1, 1963, and to interest payments on new long-term loans contracted during 1963.

\$16 million in 1969, thereafter declining more or less regularly. This corresponds broadly with the anticipated flow of revenues in these years, with allowance being made after 1969 for an increasing burden of service on anticipated new long-term debt. It will be observed that the cost of the debt rearrangement to Liberia in terms of added interest payments on the rearranged debt is substantial; total interest payments due in the period from 1964 onward have doubled, from \$27.0 million prior to the rearrangement, to \$54.8 million after. In the first 5-year period (1964-68), interest payments will in fact exceed principal payments by a substantial margin.

The revised debt service schedule given above refers to service only on debt commitments (either utilized or unutilized) at March 31, 1963. Subsequent to that date, the Liberian Government entered into certain new long-term loan agreements with AID and IBRD, as noted earlier, which will increase the principal due by a total of \$34.7 million. Repayments on these new loans do not start until after 1968 (although interest payments will commence as and when they are utilized), and the burden of service on them falls within the allowance made in the Debt Rearrangement Plan for such new loans.

In conjunction with the debt rearrangement, the Government entered into an agreement with the First National City Bank of New York (whose subsidiary in Liberia, the Bank of Monrovia, is the official depository of the Government) to handle technical arrangements relating to the rearrangement of much of the externally held debt. The Paris office of this bank was given responsibility for the exchange of government notes of indebtedness and for effecting future payments to the holders of the new notes, in accordance with the revised repayment schedules.

Money and Banking

THE CURRENCY

The monetary unit of Liberia is the Liberian dollar, established by legislation with a gold content equivalent to that of the U.S. dollar. The official par value of the Liberian dollar (i.e., one Liberian dollar equals one U.S. dollar) was established with the Fund on March 13, 1963. However, the principal currency in circulation is the U.S. dollar, which replaced the pound sterling as legal tender in 1943.¹⁵ No currency notes in Liberian dollars have so far been issued, but the Treasury has minted \$2.5 million in Liberian coins and the bulk of these

¹⁵ However, U.S. notes in denominations above \$20 are not legal tender.

are in circulation. Liberian and U.S. currencies are freely interchangeable in Liberia. No information is available as to the amount of U.S. currency in circulation in Liberia nor, consequently, as to the total money supply.

THE BANKING SYSTEM

Liberia has no central bank; the banking system consists of seven commercial banks: the Bank of Monrovia, the Liberian Trading and Development Company (Tradevco), the Bank of Liberia, the Chase Manhattan Bank, the International Trust Company, the Commercial Bank of Liberia, and the Union National Bank. Of these banks, the four last-named started operations only during the last three years. Only a few commercial banks have any Liberian interest in their ownership; the other commercial banks are entirely foreign-owned.

The Bank of Monrovia, a wholly-owned subsidiary of the First National City Bank of New York, is by far the most important banking institution in the country. Its deposits and credits accounted for more than one half of the total deposits and credits of the entire commercial banking system at the end of September 1963 (latest figure available). In addition to its commercial banking operations, the Bank of Monrovia performs certain functions for the Government analogous to those of a central bank. Under an agreement with the Government of Liberia, it acts as the official depository of the Government and, in this capacity, receives government revenues and makes disbursements on government account. It handles the issuance of Liberian currency on behalf of the Government. It also provides overdraft facilities to the Government up to a specified limit.

At present, the operations of commercial banks in Liberia are governed only by the General Business Law. A draft banking law is under consideration by the authorities.

RECENT TRENDS IN COMMERCIAL BANK OPERATIONS

There are no officially compiled statistics of commercial bank operations in Liberia; the series shown in Table 6 have been prepared from balance sheets obtained from individual banks.

In recent years there has been a considerable expansion of commercial bank operations in Liberia. Since 1958 bank credit has increased more than threefold and bank deposits have nearly doubled. Detailed statistics of commercial bank operations prior to 1961 are lacking and the figures presented for those years should be considered as indicative only of the broad magnitudes and trends in bank operations.

TABLE 6. LIBERIA: OPERATIONS OF COMMERCIAL BANKS, 1958-63

(In millions of U.S. dollars)

	End of Calendar Year					Sept. 30 1963
	1958	1959	1960	1961	1962	
ASSETS						
Cash and balances abroad						
Cash	...	...	...	2.9	3.2	3.2
Balances abroad	...	...	...	1.2	0.6	0.5
Total	3.2	4.7	3.2	4.1	3.9	3.7
Loans and advances						
Government (net)	3.7	4.2	7.0	12.8	15.4	14.7
Credit to the private sector	8.2	17.5	11.6	14.9	20.9	21.6
Domestic	...	...	...	13.2	15.7	19.7
Foreign	...	...	...	1.7	5.1	1.9
Total	11.9	21.7	18.6	27.8	36.3	36.3
Other assets (net)	0.9	1.0	1.1	0.6	0.1	2.2
TOTAL	16.0	27.4	22.9	32.5	40.3	42.2
LIABILITIES						
Capital and reserves	2.3	3.0	3.7	5.0	4.5	5.8
Borrowing from abroad	—	0.5	0.5	3.8	12.6	11.2
Deposits						
Demand	...	...	...	...	13.7	13.8
Time and savings	...	...	...	...	9.5	11.3
Total	13.7	23.9	18.8	23.7	23.2	25.2

Source: Compiled from data obtained from the commercial banks.

In interpreting the data on operations of commercial banks in Liberia given in Table 6, it is important to note that the banks in Liberia customarily have extensive banking operations with foreign banks and nonresidents, frequently involving large transfers of funds. While in certain respects the distinction between domestic and foreign banking transactions for Liberia is not too meaningful since the U.S. dollar is effectively the currency of Liberia, it is nonetheless useful to separate the figures of total credit operations between their domestic and foreign components, because the foreign transfers are

frequently so large and sporadic that they completely obscure the banks' domestic transactions. Such a separation has been attempted in the credit figures shown only since 1961, but for the earlier years a general indication is given on the basis of partial data.

The most important of these foreign banking transactions in the past related to the so-called offshore deposits; these are deposits maintained with Liberian banks by foreign shipowners, reportedly for tax and other considerations. The importance of these deposits has diminished greatly since 1960; but until that time the swings in the level of offshore deposits, as these funds were periodically shifted in and out of Liberia, were the major explanation of the sharp fluctuations in the figures of bank deposits and credit to the private sector. The bulk of these offshore deposits were loaned or invested abroad by Liberian banks. It is believed that there was a large outflow of offshore deposits in 1958 and this is the main reason for the low level of the figures of deposits and credits for that year compared to 1959, when there occurred a very large inflow of offshore funds. In 1960 there was again an outflow of offshore deposits with Liberian banks and, correspondingly, a reduction in their foreign loans and investments. Since then, the importance of these deposits has been declining, and it is believed that offshore deposits at the end of September 1963 amounted to only about 5-6 per cent of total private deposits.

Since 1961 the salient aspect of the foreign operations of banks is the large increase in borrowing from abroad, which rose from \$3.8 million at the end of 1961 to \$11.2 million on September 30, 1963. Except during the last quarter of 1962, the increase in foreign borrowing was designed almost entirely to support the increase in the domestic credit operations of commercial banks. The increase in foreign borrowing during the fourth quarter of 1962, some \$3.6 million, was the result of special transactions, essentially for the purpose of providing loans to certain foreign companies outside Liberia. At times the head offices of foreign banks with branches or affiliates in Liberia prefer, for reasons of taxation and other considerations, to channel loans to their customers through their Liberian branch offices or affiliates. The increase in foreign borrowing and lending of commercial banks during the last quarter of 1962 reflected transactions of this nature.

The share of total bank credit extended to the Government has increased substantially during the last five years. Until 1960, bank credit to the Government was provided largely in connection with the payment of Government's equity in the National Iron Ore Company and in the form of periodic "ways and means" advances. But thereafter the continuing recourse of the Government to commercial bank financing is explained by the growing burden of public debt

repayments and the widening over-all gap in budgetary accounts. The position changed in mid-1963 when the Government decided, in line with its program of financial reform, to restrict further short-term borrowing from commercial banks. At the end of September 1963, net commercial bank credit to the Government was in fact some \$0.7 million lower than at the end of 1962.

Separate figures of domestic credit to the private sector in Liberia are available only since 1961, but the indications are that there has been a steady increase in the level of such advances during the last several years. During the period 1958-62, the stepped-up activity of foreign iron ore concessions plus the high level of public sector investment appears to have stimulated commercial activity and to have created demands for additional credit. During this period there was also considerable building construction, and a large proportion of it was financed through medium-term advances obtained from commercial banks.

As already indicated, movements in the figures of bank deposits until 1960 reflect primarily the effects of incoming and outgoing off-shore deposits. The level of total deposits was stable during 1961 and 1962 and increased slightly during 1963, owing almost entirely to an increase in time and savings deposits. The fact that the deposits of Liberian banks have shown relative stability while credit has been rapidly expanding is the major explanation for the heavy reliance by Liberian banks on foreign borrowing in recent years. The Liberian commercial banking system has changed over the last five years or so from the position of being a substantial net capital-exporting system to that of a substantial net capital-importing system.

Capital and reserves of the commercial banks have increased substantially in recent years, reflecting largely the increase in the number of operating banks. The small decline in the level of capital and reserves during 1962 was due to the fact that one of the major banks disbursed \$1 million as profits from its accumulated reserves.

BANK CREDIT DEVELOPMENTS IN 1963

The most significant development in the field of commercial bank credit during the period January 1-September 30, 1963 (the latest date for which information is available) was the further increase in domestic credit to the private sector by about one fourth, offset by a sharp reduction in the foreign loans of commercial banks and a slight reduction in credit to the Government. Thus, total credit extended by commercial banks remained broadly unchanged during the first three quarters of 1963 (Table 6). Since bank deposits rose by about

9 per cent during this period, the Liberian banks' borrowing from abroad showed a small decline.

The large further expansion in domestic credit to the private sector occurred despite some slackening of economic activity, which became noticeable particularly during the second half of the year. Although a detailed analysis of credit to the private sector by destination is not available, it is believed that there was a significant change in the pattern of commercial bank lending during the first three quarters of 1963. The increase in private credit during this period reflected largely additional lending to commercial firms for the financing of imports and inventories, which is believed to have been particularly high in the earlier part of the year. Loans to contractors, previously a major element in the total credit extended by commercial banks, declined.

Foreign lending by Liberian banks, which had increased to \$5.1 million during the last quarter of 1962 owing to certain special transactions undertaken by the banks on behalf of their head offices (see above), reverted to a relatively more normal level of \$1.9 million by the end of September 1963. Despite this development and the increase in bank deposits mentioned above, the level of commercial banks' foreign borrowing at the end of September 1963 was close to about one third of the total outstanding amount of domestic credit.

External Trade and Payments

RECENT BALANCE OF PAYMENTS TRENDS

Discussion of the balance of payments of Liberia is necessarily conjectural because of the unreliability of existing data and the absence of reporting on invisibles and on capital transactions. The latest official estimates of the balance of payments relate to the year 1959. The estimates for the years 1956-59¹⁶ showed a large annual surplus on the balance of trade, ranging from \$14 million to \$29 million, an inflow of foreign investment rising to about \$14 million a year in 1958 and 1959, and a large and continued outflow of investment income in the range of \$17-24 million annually. The latter represented mainly net profits of the concessions, which customarily transfer or retain abroad all earnings in excess of their local cash requirements.

In 1960 imports began to rise rapidly, and in 1961 exports fell sharply in value (see below). This brought about a reversal of the

¹⁶ See International Monetary Fund, *Balance of Payments Yearbook*, Vol. 12.

traditional trade surplus. In 1961 a deficit of about \$29 million emerged on trade account, and in 1962 it increased to \$64 million, the value of imports being nearly double that of exports. This was possible only because a large part of the rapid increase in imports consisted of materials and capital goods brought in by private companies for development of the iron ore facilities and financed directly by these companies. There is no indication of the precise magnitude of other transactions entering into the current account of the balance of payments during these two years, but it is safe to assume that the over-all deficit on current account during these years was considerably larger than that on trade account. The current deficit was presumably financed almost entirely through net capital inflow. Indications cited elsewhere suggest that the average annual capital inflow during this period was about \$85-100 million a year (public and private). The available banking data also suggest that the banking system as a whole was a net borrower from abroad (and therefore a net importer of capital) during this period.

For 1963, only preliminary export figures for the first half of the year are available, and no import figures. The indications are, however, that during 1963 the trade deficit and the capital inflow were both substantially reduced, as the result of the transition from the investment to the production phase of the two new iron ore projects, and the reduction in foreign-financed public works expenditures. The structure of the balance of payments thus appears to be reverting to a pattern similar to that of the 1950's, although at substantially higher levels. The large trade surplus that may be expected to result from increased iron ore exports in future will be paralleled by sharply increased capital repayments and profit remittances by the mining companies as they begin to amortize their heavy foreign indebtedness.

EXPORTS

The recorded value of total exports rose to \$67.6 million in 1962, an increase of about 10 per cent over the 1961 level, which was the lowest since 1958. Exports in 1962 were, however, still substantially below the record \$82.6 million of 1960. As in previous years, the export outcome depended largely on the yield of iron ore and rubber shipments, which together accounted for 86 per cent of the value of total exports in 1962.

Exports of major commodities by volume and value are shown in Table 7. Exports of both *rubber* and *iron ore* have experienced substantial drops in unit value since 1960. The annual value of rubber exports appears to have stabilized at about \$25 million in the period

TABLE 7. LIBERIA: EXPORTS, 1959—FIRST HALF 1963

					First Half	
	1959	1960	1961	1962	1962	1963 ¹
Value, f.o.b. (million dollars)						
Rubber	30.7	39.1	25.5	25.7	12.9	12.1
Iron ore	28.2	34.6	29.4	32.4	17.5	19.8 ²
Diamonds ³	2.1	2.3	2.2	4.5	1.9	2.0
Palm kernels	2.3	2.0	1.1	0.8	0.5	0.4
Cocoa	0.5	0.5	0.2	0.2	0.1	0.1
Coffee	0.6	0.5	0.4	0.6	0.4	0.1
Other ⁴	2.5	3.6	3.1	3.4	1.8	3.2
Total	66.9	82.6	61.9	67.6	35.1	37.7 ²
Volume						
Rubber (million lbs.)	97.9	106.7	90.8	100.1	48.8	45.8
Iron ore (million long tons)	2.6	2.9	2.8	3.7	2.0	2.7
Diamonds (thousand carats) ³	638.0	967.0	1,095.0	854.0	360.0	360.0
Palm kernels (million lbs.)	42.6	33.6	28.4	18.9	11.5	8.2
Cocoa (million lbs.)	1.7	2.2	1.5	1.8	0.9	0.8
Coffee (million lbs.)	2.2	2.0	2.2	4.2	2.5	0.4
Unit price						
Rubber (cents per lb.)	0.31	0.37	0.28	0.26	0.26	0.26
Iron ore (dollars per ton)	9.20	11.90	10.50	8.66	8.66	7.32 ²
Diamonds (dollars per carat) ³	—	—	—	—	—	—
Palm kernels (cents per lb.)	0.53	0.58	0.40	0.42	0.46	0.46
Cocoa (cents per lb.)	0.31	0.23	0.15	0.15	0.16	0.14
Coffee (cents per lb.)	0.29	0.27	0.16	0.14	0.16	0.14

Source: Liberian Office of National Planning.

¹ Preliminary

² See footnote 17 in text.

³ Diamond export statistics are of doubtful accuracy, because of the prevalence of smuggling. Figures shown above include both industrial and gem diamonds; hence unit values fluctuate erratically and are not shown.

⁴ Consisting mostly of re-exports.

from 1961 up to mid-1963. Iron ore exports increased sharply in volume, but less sharply in value, in 1962 as the result of shipments from the new NIOC mine; in the second half of 1963 there was a further sharp increase in volume as LAMCO shipments began. It should be noted that the valuation placed on iron ore exports is, however, somewhat arbitrary as the shipments consist of several different grades of ore which command different prices, and a part of the output is sold to users having financial participation in the mining companies at essentially bookkeeping valuations. In the absence of reasonable official estimates of value of these shipments for the first half of 1963, they have been valued in Table 7 at \$7.32 a ton,¹⁷ giving a total value of \$19.8 million for the first half of the year.

Among the minor exports, recorded *diamond* exports more than doubled in value in 1962 (to \$4.5 million) and appear to have con-

¹⁷ This assumes that the decline in the average unit price of iron ore between 1962 and 1963 is in the same ratio as the decline in profit-sharing payments made by LMC to the Government between the fiscal years 1961/62 and 1962/63.

tinued at a similar rate in the first six months of 1963. However, official figures relating to diamond exports are exceptionally unreliable because of the pervasiveness of smuggling, and export figures thus give an unreliable estimate of Liberia's earnings from diamond production. Agricultural exports other than rubber account for a very small proportion of total exports, but are of significance in that they represent virtually the only foreign earnings generated by the native population of the hinterland. Exports of *palm kernels*, the most important of these minor exports, declined steadily over a number of years up to mid-1963, both in value and volume. Palm kernels are a wild crop in Liberia, and the decline in exports may be partly explained by falling prices and/or improved alternative employment opportunities, both of which discourage the tribal people from gathering the kernels. There has also been an increase in local consumption of edible palm oil. *Cocoa* exports, which earned \$0.5 million in 1959, fell to less than half that amount in 1962, in spite of a fairly steady price since 1961. Cocoa is grown almost entirely by tribal farmers. *Coffee* exports actually increased in volume in 1960-62, but the sharp decline in prices during this period kept the total value at about \$0.5 million each year. The preliminary figures for the first half of 1963 show a particularly sharp deterioration in the volume of coffee exported compared with the same period in the previous year. The export figures for the first half of 1963 reflect only marginally the operations of the LPMC which, as mentioned earlier, commenced buying in April.

Regarding the direction of exports, the largest single buyer in 1962 remained the United States, which took about 43 per cent of the total value exported. About 86 per cent of the rubber exported was shipped to the United States. Iron ore shipments went to more varied destinations, the Federal Republic of Germany accounting for 23 per cent of the total, the Netherlands and the United Kingdom about 20 per cent each, and the United States 18 per cent. Among the minor agricultural exports, palm kernels and cocoa went principally to the Netherlands, coffee principally to the United States.

IMPORTS

The latest import figures available are those for 1962. These show total imports in that year of about \$132 million (Table 8), a continuation of the massive increase that has occurred since 1959 when imports were valued at only \$43 million. All the broad categories of imports registered increases in 1962, but the bulk of the total increase was accounted for in the machinery and vehicles and manufac-

TABLE 8. LIBERIA: IMPORTS, 1959-62¹*(In millions of U.S. dollars)*

	1959	1960	1961	1962
Food, beverages, tobacco	7.8	11.0	14.1	17.0
Machinery and vehicles	10.4	23.3	35.0	53.7
Manufactured goods	18.7	26.2	31.5	47.1
Chemicals	2.7	4.7	4.3	5.8
Fuels and lubricants	2.8	2.9	3.4	4.3
Other	0.5	1.1	2.4	3.7
Total	42.9	69.2	90.7	131.6

Source: Liberian Office of National Planning.

¹ Excludes imports for re-exportation.

tured goods categories. Imports in these two categories increased by \$34 million in 1962 and were more than 50 per cent higher than in 1961. A large part of the imports in these categories has been destined for the new iron ore facilities, particularly those of LAMCO. Of the \$53.7 million worth of machinery and transport equipment imported in 1962, \$15.7 million consisted of mining, construction, and other industrial equipment, \$14.8 million was power generating and other electrical equipment, \$9.2 million was road vehicles, and \$7.7 million was railway equipment.

Liberia's tariff arrangements involve no preferences for imports from particular countries. In 1961, about 40 per cent of total imports came from the United States and about 35 per cent from Western Europe and the United Kingdom.

EXCHANGE AND TRADE REGULATIONS

Liberia has no restrictions on foreign payments or receipts, and transfers in and out of the country may be made freely for any purpose and in any amount. Most transactions with other countries take place in U.S. dollars, although the banks will handle transactions in other convertible currencies on the basis of exchange rates in world markets. Currency notes and coins may be taken freely in and out of the country. In keeping with the "open-door policy" first announced in 1944, capital is free to enter or leave the country at will, and there are no limitations on remittances of profits or repatriation of capital.

Import restrictions are minimal. Permits are required only for imports of firearms and ammunition, explosives, used clothing, and pharmaceuticals. These permits must be obtained from the appropriate government departments and presented to customs officers at the

time of clearance of the goods. Imports of rice, formerly subject to permits issued by the Department of Agriculture and Commerce, were freed of this requirement during 1963. Imports of a few goods (e.g., obscene literature, narcotics for other than medicinal purposes) and all imports from South Africa are prohibited. All other imports may be effected freely. Liberia's tariff schedule does not correspond with international classifications and a revision is under consideration. Liberia is not a member of the General Agreement on Tariffs and Trade.

Export permits are required for most exports other than those made directly by the large concessions. Exports of produce handled by the LPMC may be restricted when exported by other than that corporation, but permits for other exports are issued without restriction, provided that taxes or duties, where applicable, have been paid.

Liberia has trade agreements with a number of neighboring countries, among them Guinea, Mali, and the Ivory Coast, but these do not contain restrictive provisions. They generally include indicative commodity lists and "most-favored-nation" clauses—which for imports into Liberia mean little, as there is a uniform tariff. Some of the agreements (e.g., that with Guinea) specify that payment for Liberian exports must be in acceptable (i.e., convertible) currencies, but there are no bilateral payments accounts.

L'économie libérienne

Résumé

Cet article présente une courte description des principales caractéristiques de l'économie libérienne et fournit des indications sur les tendances économiques récentes et les perspectives d'avenir.

Le Libéria, situé sur la côte occidentale de l'Afrique, est indépendant depuis 1847. Sa population est d'environ 1 million d'habitants, dont la grande majorité se consacre à l'agriculture de subsistance. Les exportations majeures, le minerai de fer et le caoutchouc, sont produites principalement par quelques grosses sociétés étrangères dont les activités sont régies par des accords de concession à long terme conclus avec le gouvernement. Le pays exporte également des diamants et des produits agricoles. Le développement industriel en est encore à ses débuts, et l'infrastructure reste insuffisante dans de nombreux domaines, en dépit des progrès rapides récemment réalisés

dans la construction de routes, de ports, de l'équipement hydraulique et électrique, etc.

Le développement économique a été très rapide au cours des dernières années, le taux de croissance ayant atteint en moyenne 10 à 15 pour-cent par an, grâce surtout à l'ampleur des investissements privés étrangers consacrés au développement des exploitations de minerai de fer, et à l'importance des dépenses publiques en capital financées surtout par des emprunts à l'étranger. En 1963, cependant, on nota un déclin du taux d'investissement, dû à l'achèvement de certains travaux importants d'exploitation du minerai de fer et à une réduction des dépenses publiques d'investissement. Au cours des dernières années, les finances de l'Etat ont été de plus en plus lourdement grevées par l'accumulation rapide de dettes à court et à moyen terme. Le gouvernement a maintenant procédé avec succès à de nouvelles négociations qui ont abouti à la prolongation des délais de remboursement, et met actuellement en œuvre un large programme destiné à renforcer les finances de l'Etat. Le Libéria a bénéficié d'une assistance financière et technique du Fonds pour soutenir ce programme.

L'économie libérienne est complètement ouverte: le dollar E.U. est la principale monnaie en circulation, et il n'existe pas de restrictions sur les paiements internationaux. Le gouvernement suit traditionnellement une "politique de porte ouverte" en ce qui concerne les investissements étrangers, et il a adopté une politique libérale dans le domaine des échanges et du commerce.

La economía de Liberia

Resumen

Este artículo ofrece una breve descripción de los principales aspectos de la economía de Liberia y algunas nociones sobre las tendencias económicas recientes y las perspectivas para el futuro.

Liberia, situada en la costa occidental del Africa, ha sido nación independiente desde el año 1847. El número de sus habitantes se aproxima a un millón, y la gran mayoría de éstos se ocupan en la agricultura de subsistencia. Las exportaciones principales, a saber, mineral de hierro y caucho, son producidas mayormente por unas pocas grandes compañías extranjeras que realizan sus operaciones al amparo de concesiones a largo plazo otorgadas por el Gobierno.

También exporta algunos diamantes y frutos agrícolas. El desarrollo industrial está aún en su infancia; y continúan siendo deficientes los elementos de infraestructura en muchas zonas, a pesar del progreso acelerado logrado últimamente en la construcción de carreteras, puertos, servicios de agua y de energía, etc.

En años recientes el crecimiento económico ha sido muy rápido, habiendo alcanzado un promedio de un 10 a un 15 por ciento anual, debido principalmente a muy fuertes inversiones privadas extranjeras en el fomento de instalaciones para la extracción de mineral de hierro, así como a sustanciales erogaciones públicas de capital financiadas en su mayor parte mediante préstamos extranjeros. En 1963 se produjo, sin embargo, una disminución del ritmo de las inversiones, en razón de que se completaron determinados proyectos importantes para la extracción de mineral de hierro, y a causa de la reducción de las inversiones públicas. En los últimos años las finanzas estatales han tenido que soportar una carga cada vez mayor con motivo de la rápida acumulación de deudas a corto y a mediano plazo. El Gobierno ya ha renegociado con éxito una ampliación de los plazos para el pago de sus deudas, y tiene en ejecución un extenso programa cuyo propósito es fortalecer las finanzas estatales. Liberia ha recibido del Fondo asistencia técnica y financiera en apoyo de este programa.

La economía de Liberia es una economía enteramente libre: el dólar de EE.UU. es la principal moneda en circulación, y no existen restricciones para los pagos internacionales. El Gobierno sigue por tradición una "política de puertas abiertas" en materia de inversiones extranjeras, y sus políticas comercial y mercantil son liberales.

Foreign Issues in Europe

Jean O. M. van der Mensbrugghe*

ISSUES OF SECURITIES on the capital markets of the various countries of Western Europe were extremely low in the years immediately following the end of World War II, but since then they have increased markedly, especially after 1958. However, the total amount of savings collected through new issues on the European capital markets remains rather small. According to a study made by the Bank of England,¹ the ratio of the net proceeds of new issues to gross fixed capital formation varied from some 10 per cent in the Netherlands (in 1961) to between 12 per cent and 15 per cent in France (in 1961), the Federal Republic of Germany (in 1962), and Switzerland (in 1962), and to about 25 per cent in Belgium (in 1961), Italy (in 1961), and the United Kingdom (in 1962).

According to the Economic Commission for Europe,² the financing of investment through retained earnings has been quantitatively more important in Europe since the war than it was before. The demand for long-term capital has also been met, to a much greater extent than before the war, by public funds, long-term credits from banks or special financial agencies, and nonmarketable loans. Since about 1958 the part of corporate investment financed out of plowed-back profits has in general declined and, to sustain a high rate of investment, enterprises have increased their recourse to sources of external finance, and more especially to capital market issues.³

The resulting increase in activity on European capital markets has mostly been reflected in higher issues of domestic securities, but there has also been an increase in foreign issues. Nevertheless, between 1959 and 1962 such issues remained a marginal part of total new issues, except in Switzerland and, in 1961, in the Netherlands. In 1961 the

* Mr. van der Mensbrugghe, economist in the IMF Institute, is a graduate of the University of Louvain. He was formerly on the staff of the Royal Institute for International Affairs, Brussels. He has published "Les Unions Economiques: Réalisations et Perspectives" (Brussels, 1950), as well as several articles.

¹ "International Investment: The Role of Security Markets," Bank of England, *Quarterly Bulletin*, June 1963, pp. 106-17.

² *Economic Survey of Europe in 1955* (Geneva, 1956), p. 94. See also United Nations, Department of Economic and Social Affairs, *World Economic Survey, 1960* (New York, 1961), pp. 52-53.

³ "European Capital Markets," *Report on Western Europe* (Chase Manhattan Bank, New York), April-May 1963.

proportion of foreign gross issues to total gross issues amounted to 44 per cent in Switzerland and to 33 per cent in the Netherlands; in the same year it was 6 per cent in the United Kingdom and less than 1 per cent in Belgium.

The relatively slow increase in foreign issues in Europe resulted mostly from restrictions by the authorities and from the fact that the costs of public issues, including long-term interest rates, were generally higher than in New York.

In all European countries, except the Federal Republic of Germany, foreign issues are subject to licensing by the Ministry of Finance or by the central bank. In a number of countries, notably France,⁴ Denmark, and Norway, no foreign issue has been authorized by the authorities, who feared that such issues might disrupt the domestic capital market and deprive domestic borrowers of needed capital. In some other countries, Austria and Italy, the only foreign issues authorized were effected by international public institutions. In Belgium, most foreign issues until 1960 were issues of Congolese companies or of the Congolese colonial government. In the United Kingdom, until 1962, new issues were largely reserved to Commonwealth borrowers; in 1963 the British Government agreed to allow access to the London capital market by all member countries of the European Free Trade Association, and also authorized issues by Belgium and Japan. In Switzerland and the Netherlands, the monetary authorities have authorized foreign issues when in their judgment subscription to those issues would not unduly tighten the domestic capital market and the transfer abroad of the proceeds from the issue would not exert pressure on the country's gold and exchange reserves. In Switzerland, few foreign issues were allowed by the authorities between July 1956 and June 1958. In the Netherlands, a number of foreign issues were authorized during 1954 and 1955, but practically no issue was allowed to take place between September 1955 and March 1961; in 1961 and 1962 licenses for foreign issues were granted up to a global ceiling set by the Netherlands Bank. In 1963 no foreign issue was authorized by the authorities in the Netherlands.

No precise data are available on the costs of foreign issues in European countries. However, it is certain that, in general, costs are high compared with New York, and that in most countries issues on foreign account are more expensive than domestic issues, owing mostly to higher interest rates but also to higher underwriting charges and

⁴ However, in November 1963, the French Minister of Finance announced his intention to authorize foreign issues on the French capital market. See below, page 330.

in some cases to taxes.⁵ In Germany, although access to the capital market by foreign borrowers has been free since 1958, foreign issues have been scarce, totaling only \$143 million between 1958 and 1962.

In the five years 1958-62, gross foreign public issues amounted to \$2,077 million in European countries and to \$3,029 million in the United States (Table 1). The largest part of the foreign issues in

TABLE 1. FOREIGN ISSUES IN EUROPEAN COUNTRIES AND THE UNITED STATES, 1955-62¹

(In millions of U.S. dollars)

	1955	1956	1957	1958	1959	1960	1961	1962	Total
1. EEC countries									
Belgium	89	80	36	113	39	11	11	14	393
Germany, Federal									
Republic of	13	1	5	23	82	11	3	25	163
Italy	—	—	—	—	—	—	24	48	72
Luxembourg	—	—	2	—	—	—	9	11	22
Netherlands	73	—	—	—	10	3	148	64	298
Total	175	81	43	135	131	24	195	162	946
2. EFTA countries									
Austria	—	—	—	—	—	—	—	5	5
Sweden	—	—	—	6	—	12	7	2	27
Switzerland	100	66	1	36	126	154	235	164	882
United Kingdom	118	88	175	172	127	118	155	111	1,064
Total	217	154	176	214	252	284	397	282	1,976
3. European countries (1 + 2)	392	235	219	349	384	308	592	444	2,923
4. United States	200	403	539	1,144	568	440	290	587	4,171

Sources: Based on data in Tables 2-7.

¹ The figures are foreign gross issues, based generally on prices of issue. Private placements are excluded.

European countries was placed in the United Kingdom and Switzerland. Foreign issues in countries belonging to the European Economic Community in 1958-62 amounted to 31 per cent of the total issued in the whole of Europe. Changes in the total amount of foreign issues from year to year in part reflect the decisions of the monetary authorities in the various countries to adjust the restrictions over

⁵ See "International Investment: The Role of Security Markets" (cited in footnote 1), pp. 115-17, and *The United States Balance of Payments: Part I, Current Problems and Policies*, Hearings Before the Joint Economic Committee of the Congress of the United States (88th Congress, First Session, July 8 and 9, 1963), pp. 138-44.

foreign issues to the domestic position; in part they also result from fluctuations in the offer of foreign issues.

Foreign security issues in any given country are not necessarily taken up entirely by residents of that country, and in fact part of some issues was subscribed by nonresidents. Furthermore, foreign security issues have been only a part of the capital transfers from country to country. In recent years, these transfers have largely been effected through direct investment or through transactions between residents and nonresidents in securities already issued, or through private placements. The latter have been particularly important in the United States (Table 7) and in the Netherlands.

In France, no foreign issues have been authorized since the end of World War II, but on November 14, 1963 the Minister of Finance announced his intention to authorize a reopening of the French capital market to foreign borrowers. Initially, issues by international public institutions would be licensed. According to press reports, the French Ministry of Finance authorized the European Investment Bank to place, on December 20, 1963, a \$12 million bond issue with French insurance companies and other institutional investors.

In the period April 1955-September 1956, and again since April 1962, French residents have been free to buy on the official Paris exchange market the foreign exchange needed to subscribe to increases in the capital of foreign companies; the annual reports of the National Credit Council indicate that such subscriptions amounted to 4 billion old francs (\$11.4 million) in 1955 and to 7 billion old francs (\$20 million) in 1956.

Since the end of World War II, there have been on the Paris capital market no bond issues by governments of countries in the outer franc area. Issues by companies operating in the outer franc area—mainly petroleum companies—are generally not distinguished in French statistics from issues by French companies. The annual reports of the National Credit Council have mentioned only one issue by a company in the outer franc area: the bond issue by the *Electricité et Gaz d'Algérie* (a nationalized enterprise) in 1960 for F 130 million (\$26.3 million).

Details of the figures for most countries included in Table 1 are given in Tables 2-7.

TABLE 2. BELGIUM: FOREIGN ISSUES, 1952-62¹
(In millions of U.S. dollars)

	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962
A. Companies											
Shares issued	23.2	18.3	30.2	42.7	38.2	35.3	32.9	24.9	10.8	8.6	6.0
Congolese companies	22.1	5.1	10.7	14.7	16.6	10.2	4.1	8.0	—	—	—
Other foreign companies	—	—	—	1.0	5.0	10.4	7.5	0.7	0.4	1.8	0.7
Investment trusts	1.1	13.2	19.5	27.0	16.6	14.8	21.3	16.2	10.4	6.7	5.3
Bonds ²	—	—	—	—	—	1.1	—	3.9	—	2.0	2.0
Total	23.2	18.3	30.2	42.7	38.2	36.4	32.9	28.8	10.8	10.6	8.0
B. Foreign governments ³	—	—	44.4	42.0	42.0	—	80.0	—	—	—	—
C. International institutions	—	—	—	4.4	—	—	—	10.0	—	—	6.0
D. Total	23.2	18.3	74.6	89.1	80.2	36.4	112.9	38.8	10.8	10.6	14.0

Sources: For issues by companies, Commission Bancaire, *Rapport Annuel*. For issues by foreign governments, Banque Nationale de Belgique, *Statistiques Economiques Belges, 1950-60*, and *Bulletin d'Information et de Documentation*.

¹ Gross issues based on nominal value.

² Excluding private placements.

³ Belgian Congo and Ruanda Urundi.

TABLE 3. FEDERAL REPUBLIC OF GERMANY: FOREIGN ISSUES, 1957-62¹
(In millions of U.S. dollars)

	1957	1958	1959	1960	1961	1962
Companies and governments	5.0	22.5	34.4	10.7	3.0	25.0
International institutions	—	—	47.6	—	—	—
Total	5.0	22.5	82.0	10.7	3.0	25.0

Sources: Deutsche Bundesbank, Annual Reports.

¹ Gross issues of bonds. Figures are based on nominal amounts.

TABLE 4. NETHERLANDS: FOREIGN ISSUES, 1954-62¹
(In millions of U.S. dollars)

	1954	1955	1956	1957	1958	1959	1960	1961	1962
Companies	2.6	13.7	—	—	—	—	0.3	50.0	23.5
Governments	17.6	48.7	—	—	—	10.0	2.6	48.3	13.8
Netherlands									
Antilles	—	—	—	—	—	10.0	2.6	—	13.8
Other foreign governments	17.6	48.7	—	—	—	—	—	48.3	—
International institutions	10.5	10.5	—	—	—	—	—	49.7	26.2
Total	30.8	72.9	—	—	—	10.0	2.9	148.0	63.5

Sources: De Nederlandsche Bank, N.V., Annual Reports.

¹ Gross issues of bonds, excluding private placements. Figures are based on nominal amounts.

TABLE 5. SWITZERLAND: FOREIGN ISSUES, 1951-62¹
(In millions of U.S. dollars)

	1951	1952	1953	1954	1955	1956
Companies	—	}46.0	}28.8	}80.7	}87.9	40.7
Foreign governments	—					
International institutions	11.6	11.6	23.3	11.6	11.6	11.6
Total	11.6	57.6	52.1	92.3	99.5	66.3

	1957	1958	1959	1960	1961	1962
Companies	1.2	35.6	90.7	76.7	198.1	41.9
Foreign governments	—	—	11.6	48.9	14.0	84.9
International institutions	—	—	23.3	27.9	23.3	37.2
Total	1.2	35.6	125.6	153.5	235.3	164.0

Sources: Banque Nationale Suisse, Annual Reports; Département Fédéral de l'Economie Publique, *La Vie Economique*; and Société de Banque Suisse, *Bulletin*, January 1962, pp. 20-21.

¹ Gross issues of bonds, excluding private placements. Figures are based on prices of issue.

TABLE 6. UNITED KINGDOM: FOREIGN ISSUES, 1951-62¹
(In millions of U.S. dollars)

	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962
I. Total gross issues												
A. Companies												
Commonwealth ²	23.0	35.6	49.8	54.0	62.7	49.3	134.1 ³	32.2 ⁴	60.8	51.8	81.8	50.7
Other foreign countries	1.9	3.6	—	4.5	6.2	—	3.9	3.4	0.5	23.8	17.6	24.4
Total	24.9	39.2	49.8	58.5	68.9	49.3	138.0	35.6	61.3	75.6	99.4	75.3
B. Governments												
Commonwealth ²	83.4	93.5	114.5	98.3	49.0	38.6	36.4	136.4	38.1	42.6	55.2	30.5
Other foreign countries	14.0	—	—	—	—	—	—	—	—	—	—	5.6
Total	97.4	93.5	114.5	98.3	49.0	38.6	36.4	136.4	38.1	42.6	55.2	36.1
C. International institutions	14.0	—	—	14.0	—	—	—	—	26.9	—	—	—
D. Total (A + B + C)	136.4	132.7	164.3	171.0	117.9	87.6	174.7	171.9	126.6	118.4	154.6	111.4
II. Total issues less redemption	.....	.....	.....	132.4	9.5	28.8	20.4	44.2	15.1	15.7	23.8	-5.6

Sources: Series I, *Midland Bank Review*. Series II, Bank of England, *Quarterly Bulletin*. The main differences between the series are explained in Bank of England, *Quarterly Bulletin*, December 1961, pp. 36-37.

¹ The figures are based on prices of issue.

² Including South Africa.

³ Excluding an issue of \$114.8 million by British Petroleum.

⁴ Excluding an issue of \$120.4 million by Shell Transport and Trading.

TABLE 7. UNITED STATES: FOREIGN ISSUES, 1955-62¹

(In millions of U.S. dollars)

	1955	1956	1957	1958	1959	1960	1961	1962
Publicly offered issues	200	403	539	1,144	568	440	290	587
By European countries ²	45	—	65	221	119	35	43	214
Privately offered issues	68	295	174	106	226	221	333	687
By European countries ²	—	—	—	10	44	15	41	59
Total	268	698	713	1,250	794	661	623	1,274
By European countries ²	45	—	65	231	163	50	84	273

Sources: 1955-56, data provided by the U.S. Department of Commerce; 1957-62, *Survey of Current Business*, August 1963, p. 21.

¹ Gross amount offered.

² Including international institutions in Europe.

Emissions étrangères en Europe

Résumé

Le volume des émissions sur les marchés des capitaux européens, qui était extrêmement bas dans l'immédiat après-guerre, s'est considérablement accru depuis, spécialement après 1958. Toutefois la part de l'épargne nationale qui s'investit sur les marchés de capitaux reste dans l'ensemble relativement faible. De plus, le regain d'activité s'est traduit principalement par une augmentation des émissions d'actions et obligations intérieures, et le volume des émissions étrangères est resté mince, sauf toutefois en Suisse et, en 1961, aux Pays-Bas.

Les émissions étrangères ont été freinées principalement par les restrictions de divers ordres que la plupart des pays européens ont appliquées et aussi par le fait que le coût des émissions publiques (taux d'intérêt, commissions, impôts) est généralement plus élevé en Europe qu'à New York.

Du rassemblement des statistiques nationales, il ressort que le volume brut des émissions publiques étrangères au cours de la période 1958-62 s'est élevé à 2.077 millions de dollars en Europe et à 3.029 millions de dollars aux Etats-Unis. Les émissions étrangères en Europe furent surtout placées au Royaume-Uni et en Suisse. Durant la période 1958-62, les émissions étrangères dans les pays membres de la Communauté économique européenne ont représenté 31 pour-cent des émissions étrangères en Europe.

Emisiones extranjeras en Europa

Resumen

Las emisiones de valores en los mercados europeos de capital, que fueron extremadamente bajas en los años inmediatos a la terminación de la Segunda Guerra Mundial, han aumentado notablemente desde entonces, en especial desde 1958. Sin embargo, el monto total de los ahorros recogidos mediante las nuevas emisiones en los mercados de capital en Europa permanece, en conjunto, bastante reducido. Además, el aumento de la actividad se ha reflejado mayormente en un aumento en las emisiones de títulos internos; el total de las emisiones extranjeras se ha mantenido bajo, excepto en Suiza y, en 1961, en Holanda.

Las emisiones extranjeras en Europa han sido limitadas principalmente por las diversas restricciones establecidas por la mayoría de los países, y por el hecho de que el costo de las emisiones públicas (tipos de interés, comisiones por garantía de emisión, e impuestos) ha sido generalmente más alto que en Nueva York.

Una compilación de las estadísticas nacionales muestra que, en los cinco años de 1958-62, el total bruto de las emisiones públicas extranjeras ascendió a US\$2.077 millones en los países europeos y a US\$3.029 millones en Estados Unidos. La mayor parte de las emisiones extranjeras en los países europeos fueron colocadas en el Reino Unido y en Suiza. Las emisiones extranjeras en los países pertenecientes a la Comunidad Económica Europea en 1958-62 ascendieron al 31 por ciento del total emitido en toda Europa.

This page intentionally left blank

In the tables throughout this issue, and in the English text of the papers

Dots (. . .) indicate that data are not available;

A dash (—) indicates that the figure is zero or less than half the final digit shown, or that the item does not exist;

A single dot (.) indicates decimals;

A comma (,) separates thousands and millions;

“Billion” means a thousand million;

A hyphen (–) is used between years or months (e.g., 1955–58 or January–October) to indicate a total of the years or months inclusive of the beginning and ending years or months;

A stroke (/) is used between years (e.g., 1962/63) to indicate a fiscal year or a crop year.

Monographs Published by the Fund

International Monetary Problems, 1957-63

Selected Speeches of Per Jacobsson

This is a collection of 24 speeches delivered by Mr. Jacobsson while he was Managing Director of the Fund. The volume includes his six addresses to the Board of Governors of the Fund, presenting the Annual Reports of the Executive Directors, and his yearly speeches to the Economic and Social Council of the United Nations. They therefore enable the reader to re-create the changing economic environment of the years 1957-63 as they appeared to an exceptionally acute observer with unusual facilities for seeing behind the scenes. Pp. xiv + 368. Price: \$2.50.

Central Banking Legislation

A collection of central bank, monetary, and banking laws. This publication contains the complete texts, in English, of central banking and monetary laws of 21 countries. It also contains summaries of general banking laws and selected provisions of these laws which are of special significance in the relationship of the central bank to the banking sector. The statutes and related materials were selected by Hans Aufricht of the Fund's Legal Department. Pp. xxii + 1012. Price: \$10.00.

The Fund Agreement in the Courts

Contains a series of papers discussing cases, considered by international and national courts, in which the Articles of Agreement of the International Monetary Fund have had a bearing on issues before the courts. The papers, by Joseph Gold, General Counsel of the Fund, were first published in *Staff Papers*. Pp. xiv + 159. Price: \$3.50.

Other Publications by the Fund

International Financial Statistics, monthly, and annual supplement: \$10.00 a volume.

Balance of Payments Yearbook, issued monthly in loose-leaf sections: \$7.50 a volume.

Available free of charge: Annual Reports of the Executive Directors; Summary Proceedings of the Annual Meetings; Annual Reports on Exchange Restrictions; Selected Decisions of the Executive Directors; By-Laws and Rules and Regulations; Schedule of Par Values; International Financial News Survey (weekly).

Published Jointly with IBRD

Direction of Trade (11 monthly issues and one annual issue, US\$10 a year); Fund and Bank Review: Finance and Development (issued quarterly, free of charge).

* * * * *

Subscriptions are quoted in U.S. dollars; schedules of equivalents in other currencies will be furnished on request.

THE SECRETARY

INTERNATIONAL MONETARY FUND

19TH AND H STREETS, N.W., WASHINGTON, D.C. 20431