The International Monetary System (*)

1. Introduction

Free international trade and fixed exchange rates are generally recognized as desirable ends of international economic policy.

At the same time, most countries have internal purposes, notably full employment, a reasonable growth and a stable price level, which from time to time may endanger the former desiderata.

As these ends of economic policy cannot always, and immediately, be reached by the tools we possess up till now, as indeed the desired freedom has even diminished the number of available means of policy, the possession of reserves is an absolute necessity to tide over periods of balance of payments deficits of individual countries.

2. Technical composition of official reserves

Reserves consist of three components:

(a) gold;

(b) foreign exchange, almost exclusively key currencies, in Western Europe mostly dollars;

(c) credits, granted actually or potentially by international agreement, therefore having the character of " conditional reserves ".

(*) In the summer of 1962 the author, being a member of the Monetary Committee of the EEC, was requested by his fellow-members to put down on paper some views he had set forth in one of the meetings of the committee. This was done in a memorandum that has served as a basis for discussion in several subsequent meetings. Although the memorandum was never published some disconnected extracts and consequently not always relevant comments transpired in the press. The present article is an adapted and clarified version of the original working paper.

Although the author is a member of the Monetary Committee of the EEC and of the Managing Board of the Netherlands Bank, the views expressed in this article are strictly personal and in no way indicate the position of either the Monetary Committee or the Netherlands Bank.

These credit arrangements can be (i) multilateral and institutional, as the I.M.F. drawing rights and stand-by arrangements; they can be (ii) multilateral and incidental as the borrowing arrangements; or they can be (iii) strictly bilateral.

(a) A country can only obtain gold by production or by " buying " it by handing over a part of its national income.

(b) Foreign exchange is usually obtained by handing over part of the national income although it might be a corollary of import of foreign capital, part of which is kept in a specific liquid form.

(c) Credits and standbys can only be acquired under certain circumstances and are therefore always a " conditional " part of foreign reserves.

The desirability of a certain composition of reserves may differ according to their interpretation strictly as bankers' assets or as means to a more general economic end.

3. Reserves as bankers' assets

(a) Gold.

From a banker's point of view gold is desirable as an asset in that its holder is completely autonomous in his decisions with regard to its use. On the other hand it is a cumbersome asset, which bears no interest and even carries some cost.

(b) Foreign currency.

Again from the technical point of view, the advantages of this component of reserves are that it is easily transferable and bears interest. These advantages have to be weighed continuously against a possible risk of devaluation of the foreign currency in terms of gold. This risk may gradually or suddenly seem too heavy for the creditor to bear, in which case he will switch to gold. The foreign currency part of reserves will therefore always consist of currencies that are convertible into gold, as with the dollar, or of currencies of those countries with whom the bulk of trading is effected, as in the sterling area. Foreign currencies are " genuine " reserves in so far as the holder is autonomous in his decision with regard to their use, but since there is always an element of confidence with regard to their exchange value they are well characterized by the term " fiduciary ".

(c) Drawing rights, stand-by arrangements etc.

Potential credits are an enlargement of the reserves of debtor countries, and as such desirable. As they are either in the creditor's currency or in gold, the debtor runs the exchange risk. The debtor also loses some part of his autonomy in the sense that his economic management will be scrutinized and perhaps criticized. Finally, the fact that the debt will eventually have to be repaid makes potential credits an addition to existing reserves that is only useful under certain circumstances.

They are especially for the last two reasons essentially different from genuine reserves. They are ultimately no more than " substitutes ".

The three possible components of reserves thus have totally different aspects as to freedom of use, transferability, profitability and exchange risk.

As some of these aspects, moreover may change with changing conditions (juridical as well as economic), purely technical banking reasons may give rise to a change in the composition of assets of central banks.

At the present moment e.g. the volume of component (b), foreign currency, might for some European countries be considered too large from a banker's point of view.

The wish, on bankers' principles, to switch to another asset may however be in conflict with the general economic aspect of the function and purpose of reserves and their component parts.

4. General economic aspects of the composition of reserves

With a fixed price of gold, the volume of this component part of reserves is technically given; its increase bears no relation to a possibly necessary increase in the volume of total reserves.

This increase, if necessary, has to be met by foreign currency holdings and drawing rights, standby arrangements etc.

As these can be increased at will, their creation has ultimately to be managed with a view to their social economic function.

This can be the creation of a time lapse necessary to realise the best possible reconciliation between external and internal aims or the bridging of short term disequilibria which are intrinsically reversible.

Increases should not be so small as to force individual countries into unwarranted deflationary policies; on the other hand they should be limited to a volume that is not in itself an inducement to inflationary spending.

It is impossible to state how large they should be for the world as a whole; this depends on why and where they are accumulated. The only sensible approach is to consider whether their extension or contraction, or perhaps a change from foreign currency holdings into medium term credits or from temporarily restricted credits into some permanent reserve medium is desirable from the point of view of the internal economies of the debtors, those of the creditors, and the world economy as a whole.

This judgment is necessarily subjective, and, at the present stage of insight and knowledge, still rather controversial. In many cases it will conflict with purely technical banking principles.

5. The interplay of technical banking risks and general economic considerations

At present the holding of foreign currency is for all practical purposes restricted to non-key currency countries.

This enables the U.S. (we will in the following leave aside the U.K.) either to be more inflationary than other countries — living above their means — or to act as a banker, exporting long term capital whilst attracting short term credits.

It is obvious that only the latter of the two possibilities is in the interest of both the U.S. and the other countries.

It is also clear that this banking function can only be exercised as long as the international liquidity position of the U.S. enables them to incur these short term debts without giving rise to anxieties on the part of the short term creditors.

These anxieties arise when persisting large deficits of the U.S. throw doubt on the international competitiveness of their economy, and therefore on their soundness as a banker.

A change of dollar holdings into gold may then be considered sound banking principles.

The general economic function of the right to convert these dollar holdings is under those circumstances to be a means of pressure on the U.S., to goad them into restoring a position of equilibrium.

As an *actual* change of dollar holdings into gold might however be against the general interest not only of the U.S. but of the creditor nations as well, this leaves the creditor countries with a form of reserves that should not be turned into gold, but for the same reason bears a heavy exchange risk. In times of persistent deficits of key currency countries these foreign currency holdings therefore become a very uncomfortable asset. That is why, when during recent years additional credits to the U.S. seemed necessary, swap transactions were made, whereas recently credits were granted in the currency of the creditors.

These *ad hoc* measures were based on the following considerations. As long as the volume and time limit of the deficit position of individual countries are entirely open questions, the technical risks of foreign currency holdings may justify some creditor central banks to try to switch these holdings into gold, even when from a social economic point of view the possibly resulting deflationary move on the part of the debtor country or the ensuing speculation against its currency might be considered obnoxious not only to the debtor country but also to the rest of the world.

This danger can be minimized by choosing a form of fiducial reserves where the exchange risk is no longer borne by the creditor, as with foreign exchange holdings, but by the debtor, as with standby agreements and medium term credits in the currency of the holder.

In this way the undue interference of technical considerations with socio-economic desirabilities is largely avoided.

The removal of one of the technical brakes on unlimited credit creation may on the other hand severely endanger the international resistance to inflation.

In theory it might be possible for creditor nations to go on indefinitely accepting IOUs which bear no risk to the holder. This would remove all restrictions on the debtor, and put the creditor in the intolerable position of always living below his means or having to accept inflation. Both sides of this picture are unacceptable.

Some brake should remain, and this should preferably be a technical brake that cannot be removed without extensive negotiations. The technical brakes should however never be so stringent as to prevent a growth of reserves, necessary for an ever expanding world trade and production, or a sufficient time lapse, necessary to correct disequilibria without undue hardships.

6. Recent U. S. proposals

The U.S. propose to replace (part of) the dollar holdings of Western Europe by medium term bonds, in the currency of the holder. This would remove the threat to the U.S. of a massive and immediate switch of dollar holdings into gold, and might give them time in which they would hope to restore the balance of payments equilibrium.

This switch from component (b) to component (c) of reserves is attractive to the creditor nations in that it removes the exchange risk. It is less attractive in that it diminishes the transferability of these reserves. At the same time it alleviates the pressure on the deficit country to restore equilibrium.

The reduction of transferability seems not very important, and is in any case solved for those situations in which transferability is really needed: if the erstwhile creditor runs into a deficit position, the medium term bonds can be discounted with the Federal Reserve.

The appropriateness of giving up the right to immediate conversion into gold will depend entirely on the judgment of the effectiveness of present U.S. policies, intended to restore equilibrium. Even if there is some doubt as to their effectiveness, the present economic situation of the U.S. might be judged to make it undesirable to put too heavy a pressure on their gold reserves by converting existing claims and to reconsider this stand only in the next year (or perhaps the next two years).

7. The temporary character of the proposed agreements

The threat of conversion into gold will only be removed if there is agreement as to the time during which a U.S. deficit can be accepted, as to its size, and consequently as to the judgment regarding the effectiveness of U.S. policies.

For the time being, the agreement between creditor nations seems of a more negative character: there seems to be a more or less unanimous opinion that conversion of dollar holdings into gold at this moment might force the U.S. either into severe deflation or into devaluation, both of which would be undesirable not only to the U.S., but to Western Europe as well. The negative character of this agreement makes it imperative that the acceptance of short term bonds in lieu of dollar holdings should be temporary. Thus the immediate threat to U.S. gold reserves from accumulated dollar holdings is removed, whilst retaining the long term necessity for the U.S. to restore equilibrium. This necessity is also emphasized by a refusal to cover the current deficit by accepting medium term bonds to amounts exceeding the existing dollar holdings.

This temporary character, whilst necessary as long as there remains some doubt as to the U.S. position next year, contains a dangerous element if that position should prove in the end to be satisfactory (sic!).

The medium term bonds are not regarded as a permanent element of reserves. They will lapse and become an immediate claim on the U.S. Treasury. If the U.S. should fear a conversion of this claim into gold, they might try not only to reach equilibrium, but to create a surplus. In fact, the issue of medium term bonds obliges them formally to try to create a surplus. A speedy change of the U.S. from a deficit into a surplus country would endanger not just the *reserves* of Western Europe, which is at present perhaps not so important as they are rather large, but their *employment situation*, because of diminishing exports and increased competition in the home market, and their *rate of growth*.

As is demonstrated by the present U.S. predicament, a combination of dwindling reserves and unemployment takes quite some time to redress, and during this period the deficit remains.

It would therefore seem undesirable that the U.S., instead of just restoring equilibrium, should create a considerable surplus within a short period.

If this just happens by chance — and nobody knows how to reach a position of exact equilibrium — the problem arises whether the same kind of facilities should not in principle be extended to Western Europe.

It should be made very clear however that the U.S., though formally obliged to create a surplus by the temporary character of the medium bonds, need not fear a mass conversion of these claims into gold, once they have reached a balance of payments equilibrium. In that case the European countries will probably even prefer to renew the bonds instead of converting them into dollar holdings.

Such a situation would make bonds, expressed in the currency of the holder, a more permanent feature in world reserves.

Under these circumstances, i.e. when the present U.S. disequilibrium is removed, an institutional change in the monetary system might be indicated.

8. The composition of reserves as a long term problem

It seems reasonable to suppose that the possible rise in the mass of monetary gold will not in itself be sufficient to provide the world with adequate reserves, even under conditions of relative stability. Some rise of the fiduciary component will be permanently necessary.

This raises the following problems:

(a) what should be the rise of the fiduciary component?

(b) should the fiduciary component consist of one or two currencies, or more?

(c) how can the system remain provided with (automatic) brakes?

(d) how can actions, arising from bankers' fear about assets but undesirable from a general economic point of view, be avoided?

Sub (a) What should be the rise of the fiduciary component?

If gold is at present not sufficient to provide the world's reserves, it seems reasonable to suppose that it will not be sufficient in the future. Whether the fiduciary part should remain constant, diminish or grow depends on the desirable total volume of reserves in the future and the production, industrial use, hoarding and dehoarding of gold.

When total reserves are considered adequate at the moment, which is equivalent to saying that the present volume of the fiduciary component should be permanent, any necessary increase in world reserves that is not fully met by gold production or dehoarding, should be met by an increase in the fiduciary part. Such an increase is brought about by an individual country's deficit that is not fully covered by loss of gold (or currency foreign either to the creditor or to the deficit country).

Sub (b) Should the fiduciary component consist of one or two currencies, or more?

If next to gold, only dollars were acceptable, then only an uncovered U.S. deficit could create the additional fiduciary component of reserves. This would re-introduce the present asymmetry between key currency and non-key currency countries, where the U.S. up to a certain point, i.e. to a moment of crisis, have the possibility of running an uncovered deficit, whilst other countries always need to cover their deficit immediately by loss of gross reserves.

Up till some years ago this has resulted in the U.S. being far less vigilant about their international payments position than any other industrialized country, perhaps with the exception of the U.K. as the other key currency country.

If only from this point of view it seems unwise to reintroduce this kind of system again.

If part of countries' deficits should remain uncovered in the interest of a desirable growth of world reserves, this had perhaps better be apportioned in some way to all countries, at least to those countries with a considerable share in world trade.

It might also be possible to introduce three key currencies: the dollar, the pound sterling and a composite third one, consisting of E.E.C. currencies.

Sub (c) How can the system remain provided with (automatic) brakes?

As any fiduciary issue always entails the possibility of an oversupply of liquidities, the system should either contain some automatic brake, or should be so strongly managed as to prevent any inflationary creation of reserves.

The latter possibility is envisaged in the well-known plans of Prof. Robert Triffin, who would have all countries hold their reserves as an account either with some supernational bank or with IMF, to be credited in case of a surplus, and debited for a deficit. The supernational institute as a bank, however, would be able to extend credits to a deficit country, crediting its account to

that amount. This amount would imply the augmentation of the fiduciary part of the world's reserves.

The total amount was coupled by Triffin to a fixed percentage of reserves but its allocation would be a matter of banking policy. This policy would be decided by the supernational bank or the IMF Board.

There is a vast literature on the subject, which we will not repeat here. It seems clear however that the transfer of immense responsibility to the supernational institute represents in fact a transfer of sovereignity which countries as yet are not willing to accept.

If no strong supra-national management is desired, the other possibility is to make sure that the system in itself contains sufficient automatic brakes.

The normal automatic brake to any deficit position is that the deficit leads to a loss of gross reserves. This has always been the case for non-key currency countries.

The unnecessary severity of the threat to the dollar resulted mainly from the asymmetric treatment meted out to key currency countries. As long as the U.S. had a reasonably small deficit, dollars were gladly recevied and held as reserves, so that no brake whatsoever was applied. When the U.S. deficit grew in magnitude, however, the whole of the accumulated dollar earnings formed a threat to the U.S. gold reserves position thereby giving rise to speculative positions many times greater than the total amount all central banks would ever have presented for conversion into gold.

The automatic brake on deficits of key currency countries therefore was up till now found in the convertible character of the foreign exchange part of reserves; they could be exchanged for gold if the creditor lost confidence in the key currency he was holding.

If, under a new system, all currencies should to some extent by agreement become reserve currencies, this lack of brakes when deficits are small, and these over-severe threats when deficits are large, should be avoided for two reasons. First of all because the threat of conversion of accumulated holdings of one currency gives rise to speculation; secondly because the conversion, if effected, would diminish world reserves which nevertheless are considered desirable.

Sub (d) How can actions, arising from bankers' fear about assets but undesirable from a general economic point of view, be avoided?

An attempt at conciliating the two conceptions that the fiduciary part of reserves should grow, without an increase of bankers' risks and that brakes should remain sufficient to dissuade any country from inflationary spending, is given in the Annex. In this scheme it is proposed that a part of any deficit should be met by providing the creditor with the currency of the deficit country.

The rest of the deficit, i.e. the greater part, should be met by loss of gold and foreign currency reserves on the part of the deficit country.

This would apply the same kind of brake as is now usual for non-reserve currency countries. All countries would be treated in the same way, but the brake would not amount to the full 100% of the current deficit, but to a lower percentage.

The ideal solution would be to fix this percentage in such a way that it would meet the desired growth of world reserves which is not provided by gold production or dehoarding.

Now nobody is very sure about the desired volume of world reserves in every single year. The fixation of this percentage will therefore always be a matter of subjective judgment and should not be changed too frequently.

If it is supposed that the additional gold, available for reserves from production and net dehoarding, will be about just as insufficient in comparison with the desired total addition to reserves as the volume of gold reserves of the main non-key currency countries is now compared with their total reserves, then the fiduciary component should remain the same percentage of total reserves.

The fiduciary part of the total reserves of European OECD countries (excl. Switzerland) + Japan amounted (medio 1962) to about 40% of total gross reserves.

In order to keep this percentage constant, U.S. deficits should be covered in gold and dollars in the proportion 60:40 as long as the U.S. does not possess European currencies, and as long as it would have to build up a fiduciary reserve component equivalent to those of the other participating countries. Any net European deficit towards the U.S. could be covered in several ways, elaborated in the Annex. Once a situation of symmetry in the composition of

monetary reserves has been established, deficits and surpluses between the U.S. and the other participating countries would have to be settled in gold, creditor currency and own currency in the ratio 60:40:40. All settlements between non-American countries reciprocally should be made in the same way, as soon as they hold each other's currencies in adequate amounts. For the way they may obtain such currencies, reference is again made to the Annex.

The above means that the brake on American deficits (viz the loss of gross reserves) will initially amount to 60%, which is more than it was in fact during the post-war period. For Europe the brake will be variable, as long as a situation of complete symmetry is not yet attained. In a situation of complete symmetry the brake will amount to at least 5/7; the brake may exceed this limit if extreme creditor positions should arise.

If the gold percentage indicated is considered to be too high, in the sense that if it should be applied world reserves would not grow enough, the percentage should be lowered (or vice versa in the opposite case).

If this or any other percentage is accepted as adequate for the growth of the total volume of world reserves, it is still possible to fear that some countries will react less strongly to this brake than others, with a result that some will tend to be inflationary, whilst others then have to take deflationary measures to prevent their own price level from rising.

(This is what actually happens now, perhaps mainly because the brake is absent for key currencies until moments of crisis).

It should however be realised that, under whatever system with built-in automatic brakes (even under the pure gold standard), inflationary spending is an act of national sovereignty, that will remain possible till reserves are exhausted. It seems impossible to stop this kind of international phenomena entirely. Even the creation of a supranational monetary authority would not be a panacea since it could only react on developments that have already started and would not be in a position to prevent expansionary impulses of a non-autonomous monetary character.

It would seem that this can only be avoided by intensive international consultation.

If the fiduciary part of reserves is to be permanent, it should not give rise to anxieties on the part of central bankers as to the ultimate value of these foreign currency holdings.

Central banks cannot be expected to hold considerable amounts of foreign currency without being quite sure that these holdings will never devaluate in terms of either gold or their own currency.

With the recent introduction of the so-called Roosa paper such a guarantee is realized by converting dollar holdings into medium term U.S. bonds in the currency of the holder. There seems to be no reason, however, why this should not be systematised in that such a guarantee should apply reciprocally to any conventional holdings of foreign currencies in the possession of central banks.

9. Conclusions

Every monetary authority, implicitly or explicitly, takes it for granted that the internal amount of purchasing power should increase when national production increases.

It is common international practice to attach some importance to the relation between international reserves and total imports.

Total imports tend to rise with national product.

There are at least strong indications that periods during which the growth of international reserves has persistently lagged behind the growth of world production the latter has been relatively low.

The increase of world gold reserves (a) since the war has considerably lagged behind the increase of production and trade.

Total gold reserves (a) have increased since 1949 at an annual rate of only about 1.4%. The increase of foreign exchange holdings (b) during this period was 6.1%.

On top of this, " conditional reserves " (c) have been created up to twice to three times as much as the increase of total " genuine " reserves.

Although the creation of conditional reserves was partly aimed at stabilizing the increased instability of the international monetary system due to the disproportional increase of fiduciary reserves as compared with gold, the fact that they are to be reimbursed within a rather short period has added a new element of instability.

Up to 1957 the classical brakes of an international imbalance on the deficit country fortunately did not work as the U.S., with an initial percentage of more than 70% of the monetary gold stock of the world, could accept some loss of gold as a diminution of a rather extravagant surplus. But now brakes are threatening to rack the monetary structure all of a sudden.

In so far as the increased vulnerability of the world monetary system is the outcome of a need for an expansion of reserves that could only be met by persistent U.S. deficits, rather fundamental changes in the system are imposing themselves once the threat to conversion has become immanent.

ANNUAL AVERAGE INCREASE (in %) OF OFFICIAL RESERVES
1949-1962

All countries excluding Communist bloc:	
1. Gold	1.4
2. Official foreign exchange, gross (including E.P.U.-claims)	6.1
3. Gold and foreign exchange (1+2)	2.7
4. Conditional reserves (gross I.M.F.-position, swap arrangements on a stand-by basis, special U.S. Treasury securities)	6.9
5. Total unconditional and conditional reserves (3+4)	3.5
Idem excluding United States:	
1. Gold	8.1
2. Official foreign exchange, gross (including E.P.U.-claims)	6.1
3. Gold and foreign exchange (1+2)	7.0
4. Conditional reserves	10.1
5. Total unconditional and conditional reserves (3+4)	7.6

Sources: International Financial Statistics.
Monthly review, Federal Reserve Bank of New York.
European Monetary Agreement, Fourth Annual Report.

It might be considered desirable to postpone institutional changes until some kind of overall equilibrium has been reached between the U.S. and Europe. This implies the necessity to resort to stop gaps and temporary solutions by granting short term and medium term credits. These, however, should finally be incorporated into the permanent system. If not, their reimbursement would by itself create new disequilibria and contraction.

Fundamental changes in the monetary system should not lead to inflation (or a continuation of inflation). Therefore "classical" brakes should not be removed but smoothed out.

If it is accepted that an increase in world reserves should not depend on a technically determined and anyhow economically insufficient gold production but should be administered by common measures, on the basis of general economic considerations, a further creation of reserves should not remain the privilege of one or two countries whilst the other countries have to go on "buying" these reserves.

This implies on the one hand that the potentiality to increase reserves should become multilateral but that on the other hand no national currencies should enter into foreign reserves without a brake, i.e. without an additional *pro rata* payment of gold and foreign currencies. The percentage would have to be decided upon by common agreement and would thereby become obligatory during a period of several years.

Those who are opposed to changes in the actual or traditional monetary system do not realise that the actual system is no longer the traditional one and, although it might look formally unchanged, is changing materially every day at a rate that is hardly realised.

Even if one wants to stick to pragmatical decisions it is useful to take them against the background of a consistent framework.

They should not be based on security considerations from a banker's point of view, though these should not be overlooked, but on considerations of a general economic character.

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ANNEX

Objective.

It is envisaged that monetary authorities of the principal countries (1) will attain an understanding in respect of the composition of their official reserves, aimed at strengthening the international monetary system by:

(a) eliminating the risks of massive conversion of dollars into gold;

(b) securing the creation of international fiduciary reserves, in as far as the lagging behind of the gold production as compared with the growth of world trade makes such desirable, not only in case of U.S. balance of payments deficits, but also in case of U.S. surpluses.

The arrangements would in practice work out as follows: On the one hand the right of non-American participating countries

(1) *e.g.* the participants of the Paris agreement.

to convert dollars into gold would be limited; on the other hand the currencies of these countries would, under appropriate agreements, to a limited extent partly obtain the function of reserve currency.

Parts I, II and III of this Annex deal with a closed system without "leaks", i.e. without non-official foreign exchange, without "third countries" and without newly mined gold; these complications will be discussed in part IV.

In part I it will be assumed that non-American countries will not hold each other's currencies, and will not pay each other in their own currencies. Thus their currencies will only be used as reserve currencies in respect of the U.S. In part II these limitations will be withdrawn.

Part I

Sub (*a*). The risk of a massive conversion of dollars into gold will be eliminated, if the non-American countries as a whole will be prepared to stabilize the present gold-dollar ratio of their gross official reserves. Present dollar holders will only be inclined to renounce their right to convert, if:

(i) the present rate of their dollar holdings is guaranteed, and

(ii) the possible additional risks are apportioned in a reasonable way.

(ii) implies a general redistribution of official reserves of the non-American participants and the bringing about of a uniform gold-dollar ratio.

In the following the ratio 60:40 will be handled. The ratio to be accepted eventually will depend (a) on the actual ratio of gold and foreign exchange in the participating countries at the moment of the reshuffling; (b) on what countries will participate; and (c) on what dollar claims will ultimately be assigned the character of foreign exchange in this respect. The agreed ratio may be reviewed periodically.

A uniform ratio between gold and dollars in the gross official reserves of non-American participants, once it is brought about, can only be *maintained* if the countries concerned henceforth pay each other with gold and dollars in the same ratio. Payments and transfers *vis-à-vis* the United States should be effected in the same ratio. In case of further deficits the U.S. could consequently

settle up to 40% of her deficit in dollars; the balance should be settled in gold.

Sub (*b*). In case of future American deficits further creation of international fiduciary reserves will be secured by the above system. In case of American surpluses, however, creation of international reserves will only be secured if the U.S. is prepared to accept payment of its surplus partly or fully in the currencies of the non-American countries the rate of which being guaranteed in the same way as the dollar holdings of the non-American countries (*vide* (a)-i).

If it is agreed that such payments will be effected fully in the currencies of the other participants — at any rate until the currency component of the American reserves also amounts to 40% of the aggregate reserves — the question arises: in which composition? The following possibilities i.a. present themselves:

(i) Any non-American deficit country pays in its own currency that part of its deficit which is deemed to be the counterpart of the American surplus (2). Important objections to such an arrangement are, (a) that the composition of the American foreign exchange resources might become lopsided in case of large and prolonged deficits of certain countries, and (b) that some additional brake on the deficit countries in using this facility might be necessary, e.g. by introducing certain maxima per annum.

(ii) These objections will be avoided if the United States will receive a "bouquet" of all currencies of non-American participants, apportioned in accordance with the ratio of gross reserves of these countries at a certain moment (3). The deficit countries may then pay in their own currency only the amount fitting into the "bouquet" to be received by the U.S. The remainder of their deficit, deemed to be the counterpart of the American surplus, will have to be paid in the remaining non-American currencies, to be purchased from the various countries against gold and dollars.

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(2) The part of the deficit of any country which is deemed to be the counterpart of the American surplus corresponds with the share of the American surplus in the sum of all surpluses. It is, therefore, *not* meant as the actual bilateral deficit in respect of the United States. If, *e.g.* the U.S. has a surplus of 50 and the other surplus countries together a surplus of 100, a share of one third of any country's deficit is deemed to be the counterpart of the American surplus.

(3) *e.g.* at the beginning of the period of settlement.

Further details.

During a period of settlement (4) central banks intervene — as up till now — in dollars in the foreign exchange market. At the close of the period a settlement agent establishes *on the basis of the mutations in official dollar balances*:

(i) the deficit or surplus of the U.S.;

(ii) the individual deficits and surpluses of the non-American countries.

In case of an *American deficit*, settlement is effected all along the line uniformly in gold and dollars at the ratio 60:40.

Technically this means that the surplus countries offer 60% of their dollar inflow to the settlement centre for conversion into gold. The settlement centre uses the dollars thus received for purchasing gold from the Federal Reserve System.

In case of an American *surplus*, the periodic settlement will be effected along the following lines:

(i) On the basis of the ratio of the gross reserves of the non-American participants at the beginning of the period (*vide* footnote 3) the composition is ascertained of the "bouquet" of non-American currencies which should be received by the United States.

(ii) Each deficit country may finance its deficit in its own currency, up to the amount of the share of that currency in the "bouquet".

(iii) Each deficit country pays the remainder of its deficit in gold and dollars in the ratio 60:40.

(iv) The settlement centre uses the gold and dollars received for paying the non-American surplus countries and further for purchasing the currencies missing from the "bouquet" to be presented to the United States.

Part II

If it is desired that the non-American participants shall also hold each other's currencies, additional stipulations should be made.

(4) The period of settlement might *e.g.* last three months.

When at the starting point these countries have no other currencies than dollars they cannot, once they have realized the fixed ratio gold/currency and are bound to maintain this ratio, subsequently procure each other's currency without further provisions. For thereby the 60:40 ratio would be upset.

Explanation: Suppose that the Netherlands has a deficit of 100 in respect of France. If it should settle this amount fully in guilders, France would receive currencies but no gold, so that the ratio 60:40 in that country would be upset. Should the Netherlands settle for 40 in guilders and for 60 in gold, the ratio would not be upset in France but it would be upset in the Netherlands, as this country surrenders gold but no currency.

A possibility to provide non-American countries with each other's currency arises in case of American surpluses. The deficit countries should, in that case, not pay their deficit in respect of the United States — as described in part I, sub (b) ii — in a "bouquet" of non-American currencies, to be purchased with gold and dollars. They should purchase *dollars* from the other non-American countries with *their own currency*, and pay the United States with these dollars. In this way the currencies of the deficit countries would be spread out over the reserves of the non-American countries.

Technically, the above means that the deficits of the individual deficit countries are split up into two parts. The amount which is deemed to be the counterpart of non-American surpluses is settled in gold and dollars at the ratio 60:40; the remaining part is paid by the deficit countries in their own currency. The settlement centre transfers the gold and dollars to the non-American surplus countries and purchases, with the received debtor currency, dollars from all non-American countries with the exception of the deficit country(ies). Finally the United States are paid with the dollars thus acquired. It would be simple and logical to take the relative amounts of the gross reserves of the various countries as a criterion for purchasing dollars.

Observation. It would not be advisable to apply this method of settlement to the *total* surplus of the United States as this would allow deficit countries to settle their deficits fully in their own currency. Part of these deficits should always be settled in a

" bouquet " of European currencies, to be purchased with gold and dollars.

As soon as the non-American countries have adequate holdings of each other's currency, the latter would be the only method of settlement for American surpluses.

When the non-American countries are holding each other's currencies to sufficient amounts they are able to pay each other in their own currencies without disturbing the proportion between gold and foreign currencies of their reserves. The condition has then however to be fulfilled that equal amounts in debtor — and creditor — currencies be paid. If, besides in gold, payments are only effected in these two currencies, payment should be settled in gold, debtor and creditor currencies in the proportion 60:40:40.

Further elaboration:

(1) Surpluses and deficits of non-American countries are to be fixed in accordance with the changes in the official dollar balances.

(2) Then it will be determined which part of the deficit of each non-American country is deemed to correspond with a possible American surplus (*vide* further elaboration Part I); the remaining part is considered to correspond with non-American surpluses.

(3) For the settlement of an American deficit or surplus reference may also be made to the further elaboration of Part I.

(4) The deficits of each non-American country are set off against non-American surpluses and accounted to each surplus-country in proportion of the surpluses (which are thus used as a key to the distribution).

(5) Finally the segments are bilaterally settled in gold debtor and creditor currencies in the proportion 60:40:40, or when a deficit country does not dispose of the required creditor currency, in gold or " third " currencies (that means currencies of either non-debtor or creditor countries) in the proportion 60:40 (a mixed form of these two ways of settlements is possible).

Both forms of settlement leave the 60:40 ratio between gold and currencies of the reserves of the debtor and the creditor country intact: they respectively lose or acquire gold and foreign currencies in the same proportion; the choice in the ways of settlement of one

segment does not have a bearing on the settlement of the other segments by the same debtor, no more than the settlement by other debtors is affected by it.

For the purpose of completeness it may be indicated that in accordance with the foregoing the possibility of settling a deficit also in their own currency is limited to the extent to which creditor currency is available and to the fact that a country is never permitted to pay more than $\frac{40}{140}$ of its reserves in its own currency.

PART III

In the system described above the U.S.A., when running a deficit, should settle part of it (60%) in gold; and when having a surplus — in contrast with the other countries — it would receive no gold. This unequal treatment is justified by the fact that the non-American countries hold part of their reserves (40%) in foreign currencies; the U.S.A. practically hold no foreign currencies. In the long run after a period of American surpluses, the situation could change. When the U.S.A. are also holding 40 per cent of their gross official reserves in foreign currencies and are willing to maintain this percentage, the settlement of American surpluses and deficits has to be effectuated on the same footing, that is in gold, debtor and creditor currencies in the proportion 60:40:40. This is thus the same way of settlement that prevails in the mutual trade relations between non-American countries when holding each others currencies (*vide* Part II).

If in the long run as the result of gold production lagging behind the growth of world trade the need might be felt to effect international payments to larger amounts in currency, a change in the initial proportion between gold and foreign currencies can be taken into consideration at that time.

Technically, several ways of realisation are conceivable. One possibility is to fix a new percentage for *settlements* only. However, the uniformity of the proportion between gold and foreign currencies in the *reserves* of participating countries would disappear.

Another possibility is temporarily to permit participating countries rather to settle deficits to larger amounts in their own currency than in creditor currencies, till the proportion gold/foreign cur-

rencies in the system as a whole is in accordance with the revised percentage.

Finally the possibility may be mentioned that through a series of swap transactions the proportion in the reserves of all participating countries is at once revised.

Part IV

In the foregoing it has been assumed that the system was a closed one without "leaks", that is without "third countries", without non-official foreign reserves and newly mined gold.

(i) The existence of non-official foreign currencies and of countries outside the system does not necessarily imply difficulties that might upset the working of the system provided that the conceptions "surplus" and "deficit" as defined in the foregoing retain the same contents. One has to bear in mind that these conceptions are identical with changes in the official dollar balances of participating countries (esp. where the U.S. is concerned with changes in dollar liabilities to public institutions in the participating countries). When using these conceptions a net increase in official dollar reserves of non-American participants is settled as an American deficit, even if these dollars actually originate from commercial banks in the non-American countries concerned or from countries outside the system.

Another possibility would be to apply the proportion 60 : 40 to the total of official and non-official reserves.

(ii) With regard to the acquisition of new gold by the participating countries the following observations may be made.

a. As long as the U.S. has not established a fixed proportion between gold and foreign currencies the acquisition of new gold by the U.S. does not result in disturbances.

b. Only when the non-American countries, who do have to observe a fixed proportion between gold and foreign currencies, receive gold from third countries, a disturbance comes into being. An increase in gold reserves of a participating country between two settlement dates can easily be established and has to be considered as resulting from trade relations with third countries. The resulting disturbance can be eliminated when the gold-receiving participating country buys for part of it dollars, thus restoring the disrupted proportion.

If a non-American participant obtains gold from third countries, this, therefore, implies an "advantage" for the U.S.; receiving *dollars* by a non-American country from third countries means a "disadvantage" for the U.S., since — as was stated above — this has to be settled as an American deficit.

c. In a situation, as described in Part III, where all participating countries have to observe a fixed proportion between gold and foreign currencies, new gold would be allowed to enter into the system only through an institution such as the gold fund that can see to a proportional allocation.

Concluding remarks:

(1) In the first place an agent for settlements should be appointed giving periodical (e.g. quarterly) instructions to the participating countries to do all required selling and purchasing of gold and foreign currencies. This function could be entrusted to B.I.S.

(2) In the second place a gold fund would be required for the distribution of newly produced gold: in this respect the functions of the already existing European gold fund could be somewhat extended.

(3) All transactions with I.M.F. could normally be carried on, provided that the resulting payments be effected in the same way as all other payments.

(4) The composition of the foreign currency part in the reserves of the countries separately is not established in the system elaborated in Part II. This might necessitate a joint guarantee in case of default.

S. P.