

THE MULTIPLE KEY CURRENCY GOLD-EXCHANGE STANDARD: A PROPOSAL

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I. *Tasks Ahead*

The huge trade deficit and compensating capital inflows were incurred by the United States during the first half of the 1980s primarily due to the overvaluation of the U.S. dollar, brought about by Reagan's "Strong America" policy. This policy wrongly believed that changes in exchange rates under the present float would automatically correct a trade deficit. In reality, the value of the dollar experienced a rise, not a fall (in trend), fluctuating from 200 yen per dollar in January 1981 to over 260 yen in February 1985.

Following the G5's Plaza Agreements in September of 1985, however, the dollar turned and fell sharply to 125 yen by December 1988. But here again, the change in the exchange rate did not work adequately, instead there was a further increase in both the U.S. trade deficit and foreign indebtedness.

At present, a further fall of the dollar is anticipated to be inevitable. Confidence in the dollar, the *de facto* sole international currency, has been reduced and is now in serious jeopardy. The possibility of another Black Monday (October 1987) is very real.

In light of this situation, there is an urgent need to reform the international monetary regime in two specific areas. Firstly, it is necessary to stabilize exchange rates over a fairly long time span, say at least more than one year. This will serve to promote international trade and long-term capital movements and thus foster a smooth integration of the international economy. The present float system does not work properly, and because of the volatile fluctuations in exchange rates, this system has aggravated imbalances of the balance of payments in major industrial countries. Therefore, the reinstatement of the adjustable peg system of the old I.M.F. (International Monetary Fund) regime is called for (Section II).

Secondly, in order to correct the balance of payments imbalances, it is necessary not only to set exchange rates at proper levels, but more importantly to coordinate the internal macro-economic policies of major countries. A mechanism which enforces automatically the rules of the game for international coordination should be built in the regime. At the same time, international liquidity should be adequately increased without jeopardizing confidence in key currencies. Up to the present, international liquidity (the U.S. dollar) has been supplied only through continued deficits of the American balance of payments,

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a further source of loss of confidence in the dollar. This "liquidity dilemma" will be rectified if, besides the U.S. dollar, such currencies as the Japanese yen and West German mark are backed with gold; the country with a balance of payments surplus provides international liquidity, instead of that with a deficit; and the gold/liquidity ratios of each key currency are kept equal. The gold needed for settlement will enforce the rules of the game. In essence, this is a proposal for a "Multiple Key Currency Gold-Exchange Standard" the mechanism of which will be developed in detail in Section III. The feasibility of this proposal is discussed in Section IV.

II. *The Fixed Exchange-Rate System*

The failure of the present float system mandates the reinstatement of either the fixed exchange rate or the adjustable peg system. Two reasons for implementing a new system are stressed here: (1) the float does not work properly, and (2) coordination of internal macro-economic policies is crucially needed under any international monetary regime.

A. The Flexible Exchange Rates Do Not Work Properly

During the 1985–1988 period (a similar trend was also experienced in the 1976–1978 period), despite the drastic fall of the dollar (the rise of the yen), the huge deficit of the U.S. current account (surplus of the Japanese current account) did not improve. In fact, for most of the time the trade deficit actually worsened although some sign of improvement has appeared very recently in 1988.

Why was the large appreciation of the yen ineffective in both decreasing Japanese exports and increasing imports in terms of the dollar? The J-curve effect is often cited as an important factor. Immediately after the rise of the yen, previously shipped Japanese exports contracted in terms of yen received more dollars. This is a perverse effect (which is limited to little of Japanese exports). As for new contracts, whether the dollar value of Japanese exports decreases or increases will depend upon (a) whether the dollar price is raised fully in proportion to the yen appreciation (otherwise the profit margins of Japanese exporting firms shrink or losses are incurred), and (b) the price elasticity of foreign demand is greater than 1 (so the volume of Japanese exports decreases proportionally more than the increase in the dollar price). If both (a) and (b) hold the normal effect of the yen appreciation will not be delayed and the J-curve effect does not come into play.

Similarly, the yen value of Japanese imports will increase provided that (a) the yen price of imported goods is reduced and (b) the price elasticity of Japanese demand for foreign goods exceeds 1. But, since the yen value of Japanese imports is evaluated at the appreciated exchange rate, the dollar value increases proportionally more than the yen value.

As far as the price elasticity of foreign demand for Japanese exports is concerned, the value is not large enough (perhaps around 1). Japanese exports mainly consist of differentiated manufactured products which command a non-price competitive advantage. Trade in these goods are largely controlled one way or another and thus, Japanese exports are rather price insensitive.

The price elasticity of Japanese demands for foreign goods is also small. Since Japan

is a processing trade country, almost all its imports are direct or indirect inputs for firms. These inputs, such as fuel, raw materials or semi-processed raw materials, and capital goods (machinery and equipment) are price inelastic. Imports of agricultural products are mostly under managed trade, and price elastic imports (final consumer manufactures) are very limited.¹

M.I.T.I. [(1988), p. 48] reports that the price elasticity for Japanese manufactured exports was -1.33 for 1976–1987, whereas that for manufactured imports was -0.95 for 1982–1987. Although total imports may be less elastic, the sum of the absolute values of the two price elasticities exceeds 1, satisfying the Marshall-Lerner condition for the effectiveness of exchange rate changes.

The major problem was in the business behavior towards exchange rate changes. Firstly, when the yen rises, Japanese exporters, anticipating a reverse change, did not change their strategies immediately. Rather, they maintained a “wait and see” attitude. Secondly, Japanese exporting firms did not raise the dollar price equivalent to the rate of appreciation of the yen, even if there was a large change in the exchange rate level. They rose dollar prices gradually, and in some cases not at all, but always less than the rise in the yen. This represented a drop in yen export prices and a decline in export profits. When Oct.–Dec. 1987 is compared with Jul.–Sep. 1985, the extent to which dollar export prices covered yen appreciation was about 50 percent on average for all manufacturing firms [Economic Planning Agency (1988), Fig. 2-2-11].

Thirdly, certain factors made possible a cut in yen export prices and enabled a fall in the profitability of exports to be covered. As the prices of imported direct and indirect inputs used by exporters fell as a result of the yen appreciation, exporters experienced cost savings. And the higher the rate of use of these imported inputs in an industry, the greater the cost savings. In addition, exporting firms endeavored to rationalize their businesses by forcing down the prices of parts and other goods bought from domestic subcontractors and offshore producers.²

Paul Krugman [(1989), pp. 44–45] gives another reason for this business behavior, basing upon the sunk cost model. A firm that wants to export must invest substantial resources in adapting its product to the foreign market, developing a marketing and distribution network, and often creating a production capability specially geared to foreigners’ tastes. The costs of entering a foreign market may be regarded as *sunk* once they have been incurred. This irreversibility of investment can make trade rather unresponsive to the exchange rate—particularly when exchange rates are highly volatile. The firm will be willing to stay in a market even if it is able to cover only its variable cost.

For Japanese imports, the yen price was reduced only gradually, if at all, but not to the full extent of the yen appreciation because of the fear of a reversal in the exchange rate.

¹ It is reported that the ratio of manufactured goods among total imports rose from 30.8 percent in 1985 to 44.1 percent in 1987. But closer inspection reveals that most of the manufactured imports consisted of semi-processed raw materials or capital goods with manufactured imports for the consumer being negligible (although they increased rapidly). While the price elasticity for capital goods imports was -0.38 for 1985–87, that for consumer goods imports was -1.94 . [MITI (1988), p. 65 and p. 69].

² These business behaviors were studied for the 1976–78 period in Kiyoshi Kojima, “Halting the Rise in the Value of the Yen,” (in Japanese), *Sekai Keizai Hyoron*, December 1978. The English version is Kojima (1979).

There was also the problem of the distribution system or the lack of a competitive marketing network for foreign exporters who were also reluctant to make new decisions to enter into Japanese market for fear of further volatility in the exchange rate.

Thus, when exchange rates are volatile, firms, both export and import tend to pursue a "wait and see" attitude. This results in the trade imbalance remaining unchanged. Trade becomes desensitized to the exchange rate. Firms in Japan and abroad will make new decisions regarding entry or exit in a market only when exchange rates are set at reasonable level and fixed for long period. This assures no exchange risk.

The volatility of exchange rates resulted mainly from speculative bubbles which in turn were stimulated by the instability of U.S. economic policies.

Even Krugman, who once supported the float, now advocates "an *eventual* return to some kind of adjustable-peg system" (op. cit., p. 102).

B. *The Need for International Adjustment Coordination*

Pro-float economists advocate that, since a free-flexible exchange rate always equates exports and imports, a country can pursue its internal policies for its own needs independently from external adjustment and there is no need to increase foreign exchange reserves. Perhaps believing this, the Reagan administration in 1981–1985 pursued an expansionary domestic policy with huge budget deficit. This brought about an increasing current account deficit (amounting to US\$ 141 billion in 1986). Interest rates were raised so as to create a differential higher than that of abroad. This gave an incentive to foreign private capital inflows (US\$ 108 billion in 1986) which partially accommodated the American budget deficit. The current account deficit was largely covered by the inflow of foreign private capital which pushed up, instead of down, the value of the dollar, and the remainder (US\$ 33 billion in 1986) was held by monetary authorities abroad (this being an increase in the dollar overhang). Because of this huge inflow of foreign capital, U.S. interest payments (which may amount to US\$ 100 billion a year in 1992) added a further burden to the balance of payments adjustment.

The above experience clearly indicates that an expansionary domestic policy brings about a worsening in the trade balance even with free flexible exchange rates. Thus, in order to correct a trade (or current account) imbalance, under any exchange rate regime, an accommodating domestic adjustment policy must definitely be taken both in the trade-deficit and trade-surplus countries. This must be done in a coordinated fashion according to the rules of the game.

Recently, the "target zone" scheme has been widely discussed [for example, see Williamson and Miller (1987)]. Such a scheme demands, as does our conclusion above, strict international coordination of domestic policies according to key indicators (such as exchange rate, interest rate, GNP growth rate, rate of inflation and unemployment ratio). It might also be better to build into the scheme a signal, such as the gold settlement which enforces the rules of the game. This is proposed in the next section.

Although the proposal for a target zone allows wide fluctuations of exchange rate within a certain band, a strict fixed exchange rate regime may be better in order to make the effect of monetary and fiscal policies be more certain and to make speculative attacks negligible.

Another important problem is how to steadily increase international liquidity. If a

trade deficit country provides international liquidity like the dollar overhang, confidence in the key currency is reduced, which results in the corruption of the international monetary system. Some devices to cope with this are proposed in the next section.

III. *The Multiple Key Currency Gold-Exchange Standard*

The I.M.F. regime should be revised according to the following scheme of a Multiple Key Currency (M.K.C.) Gold-Exchange Standard.

A. Fixed Gold-Parity Exchange Rates

(1) *A group of (multiple) key currencies provides official international liquidity (or international money). This is defined later.*

Up to the present, the U.S. dollar is the single key currency, and international liquidity has been provided through the deficit of U.S. basic balance of payments. But, if several major currencies, those of both deficit as well as surplus countries, form a group as key currency, it will be possible to devise a mechanism to increase international liquidity through the currency of a surplus country without jeopardizing confidence in the group key currency. The key currencies could be the U.S. dollar, Japanese yen and West German mark. (Other major currencies could also be included.)

(2) *The key currencies set up gold-parity exchange rates.*

(3) *The fixed exchange rates once set up should be kept unchanged for as long as possible (at least for a year, and hopefully for more than 10 years). Only in the case of fundamental disequilibrium (I.M.F.'s terminology), that is, when the level of fixed exchange rates diverges widely from economic realities making adjustment of balance of payments by other measures intolerably difficult, should the levels of fixed exchange rates be adjusted.*

(4) *Buying and selling rates are allowed to differ from the fixed exchange rates only by the amount of handling charges.*

To maintain fixed exchange rates makes the key currencies (though their namings differ, such as dollar, yen and mark) equivalent as international money used as the numeraire of value, reserve assets, vehicle currencies and intervention currencies.

It is most difficult to find a reasonable level of fixed exchange rates for there is no single level of equilibrium exchange rates. However, the relationship between the level of exchange rates and internal macro measures is complementary with, rather than a substitute for, each other. If a relatively higher dollar rate is set up, stronger internal measures in both deficit and surplus countries are required, while a lower dollar rate is complementary with milder internal measures. How much and how fast should the present trade imbalance be rectified is another concern to be taken into consideration. Thus, it is necessary to set up the initial levels of fixed exchange rates on a trial basis through international negotiation and agreement between the key currency countries. With those given levels of exchange rates, coordinated internal measures should be pursued so as to attain the target of trade (or current account) balance improvement.

TABLE 1. OFFICIAL HOLDINGS OF FOREIGN EXCHANGE AND

Currency	World Official Holdings of Foreign Exchange		Country	Gold Held by	
	(1) Value (US\$ million)	(2) Composition (%)		(3) Amount (million oz.)	(4) Value at US\$400 per oz. (US\$ million)
US Dollar	251,421	65.39	USA	262.04	104,816
Yen	31,149	8.10	Japan	24.23	9,692
Mark	101,903	26.51	W. Germany	95.18	38,072
Subtotal	384,473	100.00	Subtotal	381.45	152,580
World Total	444,992		World	785.66	314,264

Source: I.M.F., *International Financial Statistics: Supplement on International Liquidity*, Supplement Series

B. Gold Backing of International Liquidity

It is important to note that the gold-exchange system functioned up to 1971 on the premise that the United States Treasury would honor its promises to buy gold from, and sell gold to, official monetary institutions in other countries at the official price of US\$ 35 per ounce of pure gold. This allowed the creation of additional international liquidity in so far as other countries accepted the dollar as a means for international transactions. Such a gold settlement would still be applied to all the key currencies, but only between their monetary authorities in the M.K.C. gold-exchange standard.

(5) Let world-wide official holdings of foreign exchange in terms of each key currency (say, dollar, yen and mark) be called "official international liquidity" or "L" which is the objective of control through the new scheme.

(6) Each official international liquidity say $L_{\$}$, $L_{¥}$ and L_{M} which are expressed in terms of a common unit evaluated by the fixed exchange rates ($L=L_{\$}+L_{¥}+L_{\text{M}}$), has the backing of gold reserve held by each key currency country, or G_{a} , G_{b} and G_{c} which are also expressed in terms of a common unit ($G=G_{\text{a}}+G_{\text{b}}+G_{\text{c}}$).

(7) A G/L -ratio is to be kept equal among the key currencies (that is, $G_{\text{a}}/L_{\$}=G_{\text{b}}/L_{¥}=G_{\text{c}}/L_{\text{M}}=G/L$), through the redemption of official international liquidity in gold (i.e. gold settlement) between the monetary authorities of the key currency countries.

To see whether such a scheme is realizable, let us examine I.M.F. figures for the end of 1986. These are the most recent available. (See Table 1.)

The official international liquidity defined here amounts to US\$ 384.5 billion which consists of 65.39 percent in dollar, 8.10 percent in yen and 26.51 percent in mark.

(8) The official price of gold is revised and fixed at an appropriate level (say, US\$ 400 per ounce of pure gold).³ Since the market price of gold fluctuates, a two-tier gold price would exist.

In Table 1, the total gold held by the three countries amounts (at US\$ 400 per ounce)

GOLD AT THE END OF 1986

Monetary Authorities			References	
(5) G/L ratio (4)/(1)	(6) New Gold Allocation in Proportion to (2) (US\$ million)	(7) Required Gold Movement: (6) - (4) (US\$ million)	(8) SDR (US\$ million)	(9) Total Foreign Assets Excluding Gold (US\$ million)
0.417	99,772	-5,044	8,395	37,452
0.311	12,359	+2,667	2,218	42,257
0.374	40,449	+2,377	2,020	51,734
0.397	152,580	0	12,633	131,443
0.706			23,845	512,062

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to US\$ 152.6 billion, making possible a *G/L*-ratio of 0.4. This is good enough to keep confidence in the group international liquidity.

In order to equalize the *G/L*-ratio and, thus, the confidence in, each key currency, some redistribution of gold is necessary. According to simple calculations, in order to make each country's share of gold holdings to be the same as the composition ratios of official international liquidity (as shown in Table 1), US\$ 5.044 billion⁴ worth of gold is to move from the U.S. both to Japan (US\$ 2.667 billion worth) and West Germany (US\$ 2.377 billion worth).

This amount of gold drain from the U.S. will be very limited (as little as 4.8 percent of her total gold reserve), and it is hoped that this might not invite any American resistance against the present scheme. A re-distribution of gold may not be required at all or may be much smaller as official dollar holdings have increased relative to other key currencies from 1986 to present. How much re-distribution is needed depends also on the gold parity exchange rates. The relatively low *G/L*-ratio of Japan at present, for example, resulted from the fact that it has refrained from the gold-settlement under a gentlemen's agreement with America that was initiated during the 1960's. Also Japan (and West Germany) accepted greater amounts of SDRs beyond the I.M.F.'s allotment and this excess SDRs might be redeemed in gold. The I.M.F. has sold gold once or twice in the past.

C. How to Increase International Liquidity

Let us suppose that the M.K.C. gold-exchange standard begins, with fixed gold-parity

³ The official price of gold may be set up at closer to but lower than the market price so as not to invite world-wide inflation. The gold price in the London free market was between US\$ 400.5 and 492.5 in 1987. However, at what level the official gold price is set is not a primary concern of the proposed scheme. This is because setting the official gold price mainly aims at keeping the gold to international liquidity (*G/L*) ratio of each key currency the same. If the official gold price is set at US\$ 400 per ounce, the initial common *G/L* ratio is 0.4 (as obtained below), whereas, if it is set at US\$ 40 per ounce, the ratio will be 0.04.

⁴ More exactly, if the decrease of dollar holdings due to gold settlement is taken into consideration, the required gold drain becomes a little larger, i.e., US\$ 5.854 billion. This is calculated by solving the following equations: $(104.816 - m - n)/(251.421 - m - n) = (9.692 + m)/31.149 = (38.072 + n)/101.903$, where *m* and *n* are drains to Japan and West Germany, respectively.

exchange rates and a common G/L -ratio (i.e. 0.4). This is shown in Panel 1 of Table 2 which illustrates a two country case just for simplicity. It is also assumed that the total gold reserve of the group of key currencies (i.e., $G=G_a+G_b$) will not change.

(9) *When one country of the group, say country A, incurs a deficit in the basic account of its balance of payments, the surplus country (say, B) will officially lend its currency to the former. (This is different from that of the present, where the monetary authority of the surplus country accumulates the deficit country's currency.)*

Although the technicalities of doing the process should be further developed, the mechanism works in similar fashion to the General Agreements to Borrow.

Now, let us suppose, as shown in Panel 2 of Table 2, that country B lends 10 units of its currency (i.e. $\Delta L_{\$}$) to country A.⁵ The $R=G/L$ ratio becomes unequal between each country and the group ($R_a=0.4$, $R_b'=0.286$ and $R'=0.385$).

(10) *When the G/L ratio becomes unequal between key currencies, the ratio is subject to an annual review, and should be re-equalized through gold-settlements (i.e., the redemption of official international liquidity in gold).*

Let the amount of gold required for settlement be x units. In our illustration, x is calculated as follows:

$$\begin{aligned}(90-x)/(225-x) &= (10+x)/(25+10) = R^*, \\ x^2 - 250x + 900 &= 0, \\ \therefore x &= 3.65\end{aligned}$$

The results of the gold-settlements are shown in Panel 3 of Table 2⁶: (a) Country A's

⁵ The lent currency may be used to intervene in the foreign exchange market. It then shifts from country A to other monetary authorities or to private holdings, and in the latter case the increase of official international liquidity becomes smaller than the lending.

Instead of direct lending and borrowing between monetary authorities, it might be better to do that by instituting in the I.M.F. the Special Agreements to Borrow (S.A.B.), which confines the key currency countries.

First, the key currency countries A and B (the third country C as well, but is omitted for brevity of explanation) deposit the current and newly earned holdings of counterpart currency on the S.A.B. account. For example, the U.S. Federal Reserve Bank deposits all the yen it holds, while the Bank of Japan deposits all the dollar it holds.

Second, whenever country A falls into deficit in its basic balance of payments incurring a dollar-selling speculative attack in the exchange markets, it withdraws its deposited yen with which it intervenes the markets in order to cope with the attack. If the amount of yen withdrawn is not enough, the surplus country B, deposits its currency, yen, on the S.A.B. account which country A borrows to intervene the exchange markets.

In this way, the S.A.B. works as a pool of official liquidity within the group of key currency countries. The I.M.F. pays appropriate interests on deposits and charges a little higher interests on lendings.

⁶ When the scheme consists of more than two countries, the calculation becomes a little complicated. In this case the countries are divided into a deficit country group and a surplus country group. Let, for example, the first country be country A in our illustration and the second and the third country be country B. Then, the required amount of gold settlement, x , is calculated. This and the amount of lending to the first country is respectively appropriate to the second and the third country in proportion to their initial gold reserve. (It is hoped that an expert may suggest a convenient formula of calculation for the case of more than two countries.)

When all the constituent key currency countries have a surplus of basic balance of payments, they may lend official international liquidity to the deficit country (or countries) outside of the group. If this is done in proportion to the gold reserve of each key currency, the G/L ratio is kept in common and the gold settlement is of no need.

However, when all the constituent key currency countries falls in deficit, they cannot increase official international liquidity without a liquidity dilemma. It becomes necessary in such a situation to invite some other major surplus country to join in the scheme.

TABLE 2. ILLUSTRATION: MECHANISM OF INCREASING THE GROUP INTERNATIONAL LIQUIDITY

Panel 1: *Initial Situation.*

Country A	Country B	Group (A+B)
$G_a = 90$	$G_b = 10$	$G = G_a + G_b = 100$
$L_s = 225$	$L_y = 25$	$L = L_s + L_y = 250$
$R_a = G_a/L_s = 0.4$	$R_b = G_b/L_y = 0.4$	$R = G/L = 0.4$

G_a —official gold holdings of country A, G_b —official gold holdings of country B, L_s —A-currency held officially by the rest of the world (including country B), L_y —B-currency held officially by the rest of the world (including country A). All figures are shown by a common unit (say US\$ billion) evaluated by the fixed exchange rates.

Panel 2: *Transition Situation*—Country A's basic balance of payments becomes a deficit and country B lends officially 10 units of its currency (ΔL_y) to country A.

Country A	Country B	Group (A+B)
$G_a = 90$	$G_b = 10$	$G = G_a + G_b = 100$
$L_s = 225$	$L_y + \Delta L_y = 35$	$L' = L_s + L_y + \Delta L_y = 260$
$R_a = G_a/L_s = 0.4$	$R_b' = G_b/(L_y + \Delta L_y) = 0.286$	$R' = G/L' = 0.385$

Panel 3: *Post-Adjustment Situation*—when G/L ratio is re-equalized by x units of gold settlement.

Country A	Country B	Group (A+B)
$G_a^* = G_a - x = 86.35$	$G_b^* = G_b + x = 13.65$	$G^* = G_a^* + G_b^* = G = 100$
$L_s^* = L_s - x = 221.35$	$L_y^* = L_y + \Delta L_y = 35$	$L^* = L_s^* + L_y^* = 256.35$
$R_a^* = (G_a - x)/(L_s - x) = 0.39$	$R_b^* = (G_b + x)/(L_y + \Delta L_y) = 0.39$	$R^* = G^*/L^* = 0.39$

where $x=3.65$.

monetary authority reduces its gold reserve by 3.65 units and at the same time A's international liquidity held officially by the rest of world (including country B) becomes smaller by the same amount, making the new R_a^* ratio to be 0.39. (b) Country B's monetary authority increases its gold reserve by 3.65 units while its international liquidity held officially by the rest of world (including country A) increases by 10 units, making the new R_b^* ratio to be 0.39, equal to R_a^* . (c) The group as a whole increases official international liquidity by $\Delta L_y - x = 10 - 3.65 = 6.35$ units or by 2.5 percent of the initial amount.

In this way, group international liquidity as a whole (or, perhaps better to say, international money) is increased properly without jeopardizing confidence⁷ and, at the same time, equal confidence in the constituent key currencies is maintained.

⁷ The G/L ratio of the group declines gradually as the official international liquidity of the group as a whole is increased (in our illustration, from 0.40 to 0.39). However, if the international liquidity is increased with moderate rates appropriate to support the steady growth of world trade and investment, with neither inflation nor deflation, confidence will not be hurt. How to control the increase in international liquidity, however, will be the most important task for the international monetary regime. When the G/L ratio becomes too low, perhaps in ten to twenty years time, the official price of gold may be raised if so desirable.

The scheme brings out for the deficit country such merit as the ability to not only rid itself of the liquidity dilemma but also to get over the temporal deficit (10 units in our illustration) with a much smaller drain of gold (3.65 units).⁸ A country cannot continue deficits for a long time and the gold drain will act as an automatic signal to enforce the country to take internal measures to correct its basic balance of payments.

In contrast, the surplus country should pursue an expansionary domestic policy by taking the inflow of gold as a signal to do so.

(11) *The outflow and inflow of gold is a signal to coordinate domestic policies in both deficit and surplus countries.*

(12) *As a result of mutual borrowing, each monetary authority holds the other countries' currencies which are used to intervene in exchange markets. This will help to cope against speculative attacks, thus maintaining the fixed exchange rates.*

The Japanese monetary authority holds, at the end of 1988, US\$ 100 billion worth of foreign exchange assets (largely in terms of U.S. dollars). The American monetary authority may hold, it is hoped, equally large amount of yen and mark assets in the near future.

We have been concerned so far with how to increase and control the official international liquidity. This may not be sufficient enough for the key currencies, since the dollar, yen and mark are used and held widely for private transactions. Japan should further liberalize the Tokyo financial market. However, how widely each currency is used for private purposes depends upon the value of, and the confidence in, each key currency, and, therefore, proper control of official international liquidity is most important.

D. *The Role of Gold*

It may be thought to be anachronistic to use gold as a backing for official international liquidity (or international money). In every modern national economy of today, "managed currency" is used, and its backing is not gold but the huge productivity, assets and resources of each national economy with which the currency can buy. People have confidence in their economy's currency as far as the monetary authority controls carefully the volume of money to support steady economic growth, and keeps stability in the purchasing power of goods and services. This principle of managed currency is equally applicable to the international money. In the float, there is no trigger to stop excessive increase in the dollar overhang.

In the proposed scheme, the gold reserves and the gold-settlement serve as a signal to enforce monetary and balance of payments discipline upon both deficit and surplus countries. This increases international liquidity steadily without jeopardizing confidence in the system.

Since the major function of assets-settlement is to work as a signal for the rules of the game, the assets used for settlement do not necessarily have to be gold. Other assets such as SDRs⁹ or a bundle of gold, primary commodities and tradable goods¹⁰ could be con-

⁸ Alternatively, when country B, a smaller key currency country, falls in deficit and borrows the same 10 units of A currency, the required amount of gold settlement is much smaller, merely 0.59 units.

⁹ The Japanese government proposed a wider use of SDRs before the 43rd Annual Meetings of I.M.F. and World Bank Group held in Berlin on September 27-29, 1988. See Sumita (1988).

¹⁰ McKinnon, for example, proposes to use the price index of the bundle of gold, primary commodities and tradable goods, as the reference of purchasing power parity. See, McKinnon (1984).

sidered. It is, however, obvious that gold is the most convenient tool to use in the international society, and the monetary authorities hold sufficiently large amount of gold which should not remain unused. Compared to gold, SDRs are not only limited in volume¹¹ but also lacking such assurances as by which country and by what means will it be paid back. If the SDRs increase in huge amounts, the confidence in them would certainly be jeopardized.

Although gold is not the real backing for the official international liquidity and its redemption is confined to the monetary authorities of the key currencies, the gold backing may still be a source of confidence in the official international liquidity. If this is true, it is of no need to hesitate to utilize this subsidiary function of gold.

IV. *Prospects for the M.K.C. Gold-Exchange Standard*

The old I.M.F. regime is well thought out and up to 1971 had an accumulated experience of nearly 30 years. Although it was much superior to the present float, it did have two defects. Firstly, since the increasing need for international liquidity was unexpectedly large and liquidity was mostly increased by the U.S. dollar provided by deficits of the U.S. basic balance of payments, a "liquidity dilemma" resulted. This occurred despite the I.M.F.'s efforts of increased total fund quotas, relaxed conditions for general drawings, and the creation of the S.D.R. Secondly, since the U.S. dollar was the sole international money and there was no other intervention currencies, the monetary authorities of all countries, including the U.S., could not cope with huge speculative attacks in the foreign exchange market.

The present proposal for the M.K.C. Gold-Exchange Standard is designed to rectify these defects. This is done by re-instituting the adjustable peg exchange rates, making multiple key currencies to be the official international liquidity, and increasing steadily the liquidity by the surplus key currencies through the gold settlement mechanism.

In this system, it is imperative to establish and follow the rules of the game for macro-economic policy coordination in accordance with the signal of gold settlement.

The prospects for the proposal depend largely on the attitude of the United States.

Firstly, according to the proposed scheme, a country with a surplus in its current account, like Japan at present, will be able to raise the importance both in value and confidence of its currency¹² as international money equivalent to the U.S. dollar. Through such a process, yen will supplement and share the burden with the U.S. dollar in its role as international money. This will increase international liquidity steadily and prevent corruption of the international monetary system. One problem that may arise is that the United States might suspect that the scheme is intended to let the yen (and mark) take over the role of the U.S. dollar, now sole international money. It is hoped, however, that the United States will look at the present realities of unstable international monetary system more seriously and lets the scheme be implemented.

¹¹ As shown in Table 1, SDR holdings of all countries in the world at the end of 1986 were US\$ 23.8 billion as compared to US\$ 445.0 billion of monetary authorities' total foreign assets excluding gold.

¹² In our illustration in Table 2, the share of L_v in the group total L rises from 10 percent to 13.7 percent.

Secondly, the United States may prefer to continue its "benign neglect" policy as far as the dollar overhang is concerned, enjoying the privilege of "seigniorage." The new U.S. administration would not like to take strong domestic demand-contraction policies required, but rather seem to want to continue to live on the foreign capital inflow and foreign monetary authorities' acceptance of dollar overhang. This is not a solution, but rather a postponement and aggravation of difficulties of the international monetary system. To reform the international monetary system is unavoidable sooner or later. It is urgent to do this sooner, before the American international indebtedness becomes unmanageable.

Thirdly, there may be a fear that the use of gold as a backing for official international liquidity may raise its price and inspire world-wide inflation. We do not think so, for the major function of gold is to be an indicator to enforce the adjustment mechanism within the group of key currencies. The group may set up the official price of gold at a low and reasonable level in order to prevent such fears. The group does not need to buy gold from outside. A member country of the group which receives gold inflows should undertake an expansionary policy, whereas another country out of which gold drains should pursue a contractionary policy. Countries outside the group, too, would not, under managed monetary systems, increase the volumes of currency circulations in accordance with the rise of official gold price.

Lastly, what would be the possible impacts of this proposal on other countries outside the key currency group? They may continue with managed flexible exchange rates by maintaining sound domestic economic policies. Or instead, they may choose to peg their exchange rates to one of the three key currencies, US dollar, Japanese yen or West German mark. It does not matter to which one of the three an outside currency is pegged, for the key currencies are maintained equal in value and in confidence with each other. However, the outside countries are given a freedom to switch their holdings of key currencies, official as well as private, from one key currency to another according to their preferences. In this sense, the key currencies are under a pressure of market choice which takes gold settlement as a signal, and this demands sound domestic policies for each key currency country. It is beneficial for all countries in the world that the cross exchange rates between the key currencies are kept stable and international liquidity is adequately provided by the key currency of the country with sounder domestic policies and economic conditions.

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