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A BROAD SURVEY OF THE PAST ROLE OF THE DOLLAR IN THE INTERNATIONAL MONETARY MECHANISM AND ITS IMPACT ON THE UNITED STATES.

by

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Mouseville had a new problem. Actually, it wasn't so much new as suddenly more pressing ..... Year after year, more of Mouseville's currency ---- the rallod ---- had been flowing out of Mouseville than had been flowing in. And the sticky part of the whole business was that the rallods inthe hands of foreign mice (unlike those held by Mouseville's own citizen) were a claim against Mouseville's treasure the wheels of cheese neatly stacked in air-conditioned vaults at Fort Yonk....And the Euromice were threatening to exercise their rallod claims against Mouseville cheesehoard and wipe it out. Imagine ...a town without an official cheese reserve. How utterly devastating.

MORGAN GUARANTY SURVEY
December, 1970, p. 7.

I. INTRODUCTION

Several years ago Professor Rueff is reputed to have said that the American balance-of-payments deficit was a "deficit without tears". Presumably, he meant that the United States was able to purchase costly European resources with dollars that cost next-to-nothing to create. Also it has been pointed out by many economists that the international use of the dollar gave the United States an automatic access to credit, similar to free emergency overdraft privileges. Furthermore, the international use of the dollar meant that European countries, unlike the United States, had to earn their reserves by running balance-of-payments surpluses.

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Maybe Professor Rueff and others were right, but if the United States did not shed any tears, especially in the 1960's, it should have. In any event, President Nixon on August 15, 1971, de facto devalued the dollar. The moment he instructed Secretary of the Treasury Connally to suspend gold payments, the fixed-exchange rate system set up in 1944 at Bretton Woods became a part of history.

In this paper I seek to outline the main theoretical problems of achieving and maintaining balance of payments equilibrium in an international monetary system of fixed exchange rates. I do this by focusing attention on the United States.

In particular, I describe the role of the United States in the recently ended international monetary system, and the consequences on the U.S. economy of having assumed this role. Basically, I examine the economic policy problems associated with attempting to simultaneously maintain full employment, balance of payments equilibrium and dollar convertibility on a fixed exchange rate system. As I attempt to make clear, the U.S. would never recognize in the 1960-71 period that the payments problem was caused by a disequilibrium price. Furthermore we discuss why the system, sometimes called the gold-exchange standard, broke down. Here I am concerned with certain features of the past international monetary system, viewed as a complete monetary system.

major point that emerges from the analysis is that periodic balance of payments crises will remain an integral feature of the international economic system as long as fixed exchange rates and rigid wage and price levels prevent the international price system from fulfilling a natural role in the adjustment process. If the world monetary authorities revamp the international monetary system by once again invoking fixed exchange rates only at different parities future crises will inevitably materialize.

II. The Role of the Dollar in the International Monetary System of 1947-1971.

Rules of the System

The primary aim of the system established at Bretton Woods in 1944, in which the International Monetary Fund was created, was to help solve the short-term balance of payments problems that might arise in the world economy after World War II. Basically, the arrangements embodied in the IMF were as follows: Each country was required to specify a formal price of gold in terms of its own currency and hence, by implication, to specify official exchange rates between its currency and other currencies. It was forbidden to change these prices outside narrow limits, except with permission. The countries committed themselves to maintain these exchange rates. There was no requirement that gold serve as money.

In effect, what we had up until recently was a collection of separate currencies linked to one another at pegged rates.

At this juncture I do not want to evaluate the fixed-exchange rate system that developed from Bretton Woods, although, in my judgment, the results have been anything but happy--widespread controls over exchange transactions, restrictions on international trade in the form of quotas and direct controls as well as tariffs, repeated exchange crises and numerous changes in official rates. This latter observation is noteworthy. There occured, between the inauguration of the IMF in 1947 and the end of 1970, over 200 devaluations and five revaluations of currencies. Two more revaluations occured in May 1971. Interestingly enough, many of these devaluations occured in the so-called "more developed" countries with a majority having a depreciation in their exchange rates vis-à-vis the dollar of over 30 percent. Thus, in the 1947-1971 perio under the Bretton Woods arrangement of fixed-exchange rates we in fact used exchange rate changes as a significant part of the international adjustment mechanism. This suggests that the real question of current international economy policy is not, "Should exchange rate changes be used as an adjustment mechanism?" The real question of policy is "How do you use exchange rate changes?" Do you use them as we have been doing by permitting difficulties to accumulate until they are major and then have a big change so that there

is a crisis everytime a change occurs involving a major country? Or do we try to develop a mechanism of changing exchange rates which is smoother, more gradual, which will occur more nearly automatically, and will involve fewer crises?

Postponing any further discussion of this policy issue until later, let me assert that the real power behind the IMF under the just ended system was the dollar. In a technical sense, and in fact, the United States became the center of the international monetary system. First, the United States became the sole country pegging its currency to gold. In 1949 the United States affirmed in writing to the IMF that it was freely buying and selling gold under the provision of Article IV_{-4-b} of the Bretton Woods Charter, which exempts a country from provisions IV_{-4-a} requiring it to peg the exchange rates of other members to one per cent of par value. The United States was therefore the only country exempt from the need to interfere in the exchange markets. The U.S., up until President Nixon's proclamation, committed itself to buy all gold offered to it at $35.00 an ounce. In this sense, the dollar became the key currency. Second, (and partly because of the first reason), other countries pegged their currencies in relation to the dollar, either directly or indirectly through a secondary reserve currency like the pound franc, etc. In this sense the dollar became the primary

intervention currency. It should be mentioned here that the other reason that gave added power to the dollar as an intervention currency was a by-law change in the Bretton Woods Charter in 1959. This change formally established the key currency principle "...by which a single convertible currency can be pegged in lieu of that of every member. Naturally, the dollar was continued as the intervention currency by most countries (except those in the sterling, franc, and escudo areas) and adopted as master currency under the European Monetary Agreement."[1] It is worth noting that when the United States closed the gold window it automatically relinquished the privileges of Article IV and instead became legally required to keep exchange rates of other IMF members within one per cent of parity. The United States chose not to support the dollar according to IMF rules and the rest of the world is legally entitled to use the IMF to create a new international monetary system. The Fund, however, in the past has found ways of accomodating aberrant legal behavior -- e.g., since May, 1970 the Canadian dollar has been flexible. But, more importantly, the IMF was not used as a means of retaliating against the United States in its most recent meeting of October 1971.

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[1] R.A.Mundell, "The Dollar and the Policy Mix: 1971", Essays in International Finance, No. 85, May 1971, p. 6.

Before concluding the description of the remaining roles performed by the dollar in the previous world monetary mechanism, I should mention that actually the Bank of England, in the first instance, did the pegging of the price of gold. It supplied gold or took gold out of the market to stabilize the price of gold. But the whole burden of this was shifted onto the United States since it was committed to exchange gold for monetary purposes. In the London gold market gold was exchanged for dollars and when the price of gold in terms of dollars rose slightly above the agreed on support price the Bank of England, supplied gold onto the market, getting dollars in exchange, which it then could convert into gold in New York. The United States, therefore, at one remove pegged the private London market and thus bore the entire burden of satisfying any excess demand for gold brought to the market by the Bank of England on the account of other central banks. Thus, the United States was a residual buyer or seller of gold, and other countries acted as residual buyers and sellers of dollars.

The third function of dollars in the "old" gold exchange standard was that they became increasingly used as an international asset for central banks. In this sense, the dollar became the primary reserve currency. Fourth, the dollar was increasingly used for commercial trading operations as a currency of contract, or often called the vehicle currency.

Fifth and finally, the dollar became more and more used as the currency of quotation and became the main currency of account. The dollar, in all of these roles, became the currency that was "more equal" than any other.[2]

Even if the dollar did not possess any special status as an international currency, as is the case currently, the tremendous size of the American economy would give its balance of payments, therefore, the dollar, special significance. The United States, at least up until recently, produced financial assets the rest of the world wanted to accumulate. (Parenthetically, I might add, I think that this demand will grow, in spite of the current dollar "crisis", as long as the United States is a stable political power). Commercial banks and multinational corporations used the dollar abroad as the settlement currency for commercial transactions. Dollar deposits in Europe, in branches of American banks as well as foreign banks, grew to tens of billions of dollars serving American and other multinational corporations.

III. Problems of the Past International Monetary System: The Instability of a Gold Exchange Standard.

The Long-run Confidence Problem

As previously stated, the past international monetary system was a gold exchange standard. This was a system in

[2] R.A.Mundell, International Economics (New York: The MacMillan Co, 1968), p.289. Several of the papers in this book were very helpful to me in writing the previous section.

which countries maintained fixed exchange rates by means of holding international reserves that included a national currency -- the dollar -- in substitution for the basic international reserve gold -- which was (is) in short supply. Currently, the combined gold stock held by central banks is over $40 billion. The rate of growth in the world's stock of gold for holding as monetary reserves (annual gold production, which averages a little more than $1 billion, plus Russian sales minus private hoarding and other non-monetary uses) since World War II has been substantially less than the rate of growth of demand for international reserves by countries other than the United States. Up until August 15, 1971, the rest of the world has made up the difference by accumulating dollars which were convertible on demand into gold. These dollars in turn, were supplied through the medium of a sustained United States balance-of-payments deficit, as shown in Table I. Moreover, in 1971, the United States will have an adverse balance of trade on its current account for the first time since 1893.

Let us examine what has been called the long-run confidence problem of a gold exchange standard. Assume that the system is working perfectly, that is, the system is providing additional international reserves to countries other than the United States at the rate which their demand for such reserves is increasing. Such a situation is theore-

Table 1
Balance of Payments
($ Billion; Average Per Year)

Year	Balance of Current Acct.	Private Net Capital Transfer	Govt. Transfers	Over-all Surplus and Deficit (-)
1947 49	8.6	-1.4	-6.2	1.0
1951-56	4.6	-1.9	-4.6	-2.0
1958-62	5.9	-3.9	-5.3	-3.3
1963-66	8.6	-5.3	-5.8	-2.5
1969-70	2.9	-6.3	-6.4	-9.8

Source: U. S. Department of Commerce, Survey of Current Business, June 1967, pp. 22-23 and May 1971, p.2.

tically possible if all the member countries in the world's monetary system perfectly harmonize their respective fiscal-monetary policies. This harmonization has to produce an alignment of interest rates in the United States relative to the rest of the world so as to generate the needed capital outflow in the United States. The capital outflow must exceed the current account surplus by an amount sufficient to provide the rest of the world with its desired increased in dollar reserves. But even under these ideal conditions the system is inherently unstable.

This is so because the passage of time inevitably erodes the foundation of the system, which is confidence in the

convertibility of the dollar into gold. Over time there occurs a steady reduction in the ratio of the United States gold reserves to U.S. dollars held as international monetary reserves by other countries and -- at least eventually -- steadily reducing the absolute amount of gold reserves held by the United States. This is what theory suggests and this is precisely what happened in the international economy.

According to Harry Johnson, the reason is as follows:

> ... if other countries hold reserves of dollars and gold in a fixed ratio, and their demand for reserves increases more rapidly than the supply of monetary gold, their demand for additional gold reserves can only be satisfied by allowing them to absorb a disproportionate share of the new gold supplies and if their demand for additional gold is large enough its satisfaction will require not only the new gold supplied but also a drawing on the United States gold reserves. Since dollars held by other countries are increasing faster than the world stock of monetary gold, while the United States gold reserves must be increasing less fast or actually decreasing, the ratio of the United States gold reserves to U.S. dollar liabilities to the monetary authorities of other countries must be falling over time. That is, the international liquidity position of the United States must be steadily weakening thereby undermining the objective basis for confidence by the rest of the world in the unlimited convertibility of their reserve dollars into gold.[3]

Johnson's observations are prophetic because this is what happened. After awareness of the implications for

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[3]H.G.Johnson, "Theoretical Problems of the International Monetary System". Pakistan Development Review, Vol. 7, p. 18. I have benefitted immensely from reading this article.

convertibility became apparent central bankers took a close look at their respective portfolios. After 1958 many central banks converted their dollar holdings into gold; on the average about half of Western European countries surpluses were taken in gold and about half in dollars. However, many central banks held dollars merely because they did not want to embarass the United States. Such "involuntary" dollar holdings by central banks in surplus countries grew until France, in the middle of 1965, began converting her entire surpluses into gold. The French government under De Gaulle declared that it would like to see the world go back to a pure gold standard, one without reserve currencies. To move in this direction, the Franch central banks hoarded as much gold as it could. The French saw no reason not to accentuate the problem of the confidence in the dollar as a reserve currency backed by gold, in order to make the world ready to accept a reconstruction of the international monetary system a la francaise.

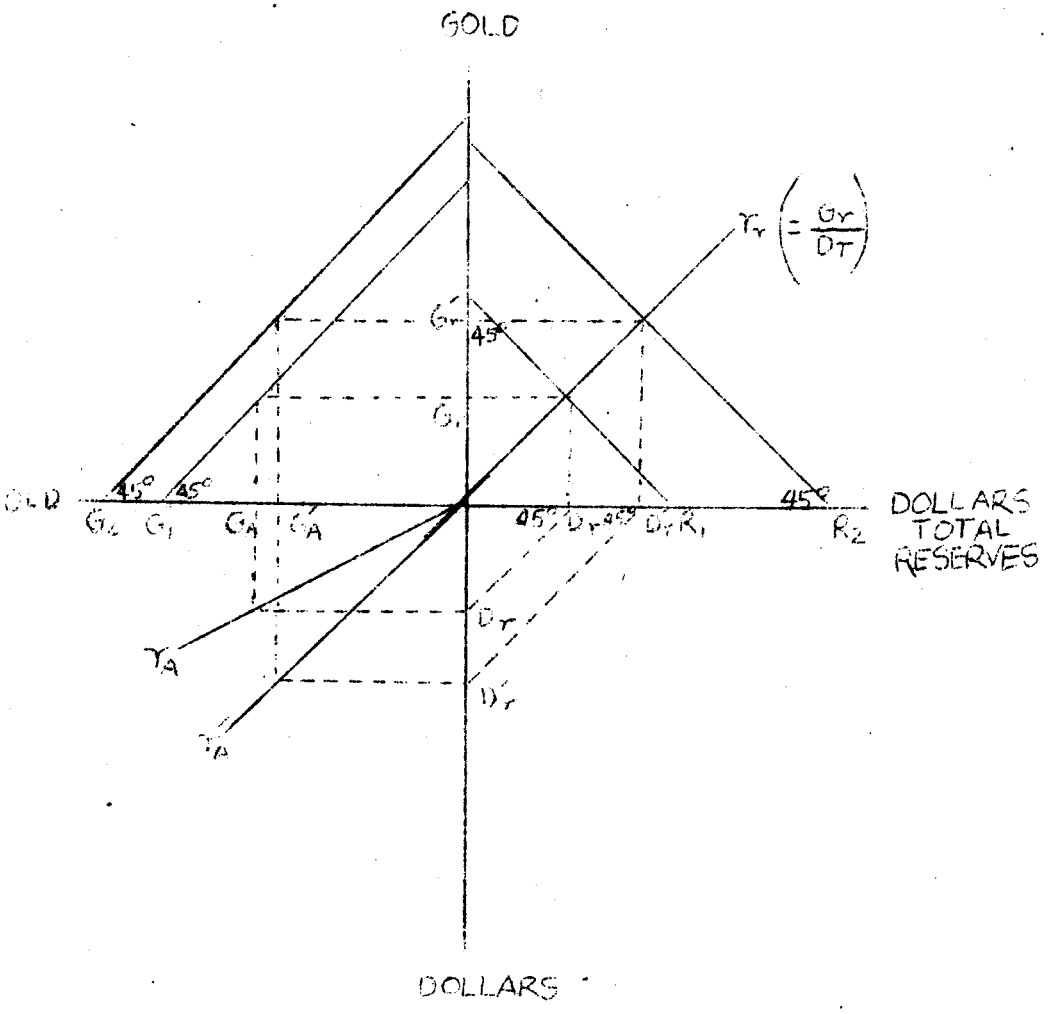
By September 1966, Switzerland held over 90 per cent of its foreign exchange reserves in the form of gold; France, South Africa, the Netherlands, 80-90 per cent; Belguim, Spain, 70-80 per cent; West Germany, Italy, Venezuela, Great Britain Portugal, 60-70 per cent; Austria, Canada 40-60 per cent; India, Mexico, Denmark, 20-40 per cent; and Japan, Australia,

Norway, 1-20 per cent. As a result of many surplus countries taking their surpluses in the form of gold, the growth of United States dollar liabilities to foreign central banks after 1964 was substantially reduced.

Thus, beginning with 1968, American gold convertibility became a bit of a myth; then on August 15, 1971, the United States formally closed the gold window. We can see therefore that the dollar played its role in the now defunct fixed-exchange rate system so long as the central banks of the rest of the world were willing to hold dollars and to treat these holdings as a part of their international reserves. It should be perfectly clear that the inherent threat to the stability of the past gold exchange standard was the potential action of the monetary authorities themselves pouncing on one another's reserves.

This long-run confidence problem is illustrated in Figure 1[4]. The northeast quadrant shows the international reserve holdings for the rest of the world. Initially, these were R_1 of international reserves allocated between D_r of dollars and G_r of gold. This allocation is governed by the r_r function which is the desired international assets ratio. The northwest quadrant shows the stock of gold available to the world. Initially this was G_1, with the

[4]This diagram is taken from H.G.Johnson's article, op. cit., p. 19.



United States holding G_a and the rest of the world G_r. The southwest quadrant shows the international liquidity position of the United States. (The dollars held by the rest of the world are transferred by the means of a 45° line in the southeast quadrant.) Initially, the United States holds G_a of gold, has D_r of dollar liabilities outstanding to the rest of the world, and hence has a ratio of gold reserves to dollar reserve liabilities given by the slope of r_a with reference to the vertical axis.

Assume that the stock of monetary gold increases from G_1 to G_2 because of new gold production. Because of world economic growth, the total reserves demanded by the rest of the world increase by a greater proportion, from R_1 to R_2. Assuming the rest of the world's r_r function remains the same, its dollar holdings rise to D'_r, the United States gold reserves fall to G'_a and the United States ratio of gold reserve dollar liabilities fall to r'_a. The United States international liquidity position therefore necessarily deteriorates so long as the demand by countries outside the United States for reserves grows faster than world gold supplies and the rest of the world maintains its initial ratio of gold to dollars in international reserves.

Obviously, all of the above could have been avoided by foreign central banks allowing appropriate reductions in the ratio of gold to dollar reserves held, so as to enable the United States to maintain its international liquidity position intact. Basically, this would mean a substitution of the dollar for gold as the basic international reserve and eventually the United States would possess all the world's gold stock. However, countries outside the United States were not prepared to substitute the dollar for gold as the world's international reserve money.

The Short-run Confidence Problem: the Crisis Problem.

The above analysis was concerned with the long-run confidence problem of the dollar in the past gold exchange standard system, assuming that the system was functioning perfectly. Obviously, the close coordination of national economic policies between countries needed to make the system function perfectly would be difficult, if not impossible to achieve. As a matter of fact, in the last several years the monetary-fiscal policy combinations adopted by the United States and countries in Western Europe caused a short-run confidence problem in the dollar as a reserve currency. This was a result of the conflict of objectives as between governments. To understand this short-run confidence problem, which has been called the crisis problem because the method of disciplining United States policy by withdrawing gold, if carried too for, produces an international liquidity crisis, requires us first to specify the boundary conditions and the control mechanism of the former dollar exchange standard.[5]

The Boundary Conditions of the System. These were given by the United States stock of gold and the rest of the world's stock of dollars. The United States and the rest of the world, respectively, cannot supply gold or dollars they lack. The total reserves of the United States represented its constraints in performing its private role in the system.

[5] In writing this section I have drawn freely from R.A. Mundell's "The Crisis Problem" published in his book, op. cit. pp. 282-288.

Control of the System. This depended on U.S. monetary policy, on the one hand, and the rest of world's gold-dollar portfolio on the other. When the United States expands its money supply, it puts upward pressure on world income and prices. This comes about in two ways. First, directly because of interest rate effects in the U.S. and induced spending changes in the United States. Secondly, the indirect effects of U.S. expansionary policy on the monetary reserves in the rest of the world. These increase as a result of added U.S. private capital outflows and imports. Similarly, when the U.S. reduces the money supply it puts downward pressure on world prices.

The second control variable was Europe's gold-dollar portfolio. When foreign monetary authorities converted their holdings of dollar balances into gold, the U.S. reserves position was weakened. This could and did have adverse contractionary effects on U.S. monetary policy, as carefully shown subsequently. Obviously, when foreign central banks converted gold into dollars, it strengthened banks' reserve positions permitting a monetary expansion in the U.S., unless counteracted by the central bank.

The management of the gold-dollar holdings by foreign central banks therefore influenced domestic U.S. monetary policy, while the latter exerted significant influence over world prices and incomes (it still does). If central banks

in the rest-of-the world believed that U.S. monetary policy was forcing inflation upon them, they could exert pressure on the U.S. to reduce its inflationary policies by converting dollar holdings into gold. (Incidentally, this was one of the reasons given for the gold hoarding of common market central banks in the latter part of the 1960's) And if U.S. monetary policy was considered too deflationary, foreign central banks could (hopefully) entice an expansion by selling gold to the U.S. for dollars.

We can therefore describe the presumed control mechanism of the past gold-exchange standard as follows: United States was to expand or contract its money supply (monetary policy) according to whether its gold position was "excessive" or "deficient"; the rest-of-the-world, primarily Europe, would buy or sell gold according to whether U.S. policy was causing inflation or deflation. The gold exchange standard, therefore, constituted a system with certain implications for all the member countries.

However, what actually happened in the 1960s was that the monetary-fiscal mix adopted by the United States and Western Europe resulted in an outflow of dollar reserves from the United States larger than desired by the Western European countries. These countries attempted to force the United States to change its domestic economic policies to alleviate

the situation by taking a higher proportion of their reserve increments in gold rather than in dollars, thereby, aggravating the U.S. loss of gold reserves. It was felt by most European countries that the United States domestic policy of pursuing full employment generated inflation in the U.S. and hence, world inflation. Consequently, these countries reacted by converting their dollar balances into gold so as to retard the U.S. from creating world inflation. For example: The influx of dollars into central banks abroad in 1970-1971 because of America's attempt to eliminate its domestic recession by pumping the economy full of liquidity approached tolerance thresholds in some countries and forward support for the dollars was thought necessary by the Federal Reserve.

Now Mundell has shown that the short-run confidence problem resulting from the conflict of objectives as between the U.S. and European countries was a special case of the assignment problem.[6] The past system, as a policy system, was unstable. According to Mundell, rather than have Europe protect itself against U.S. inflation by reducing U.S. gold reserves, and the United States trying to protect against gold losses or gains by tight or expansive monetary policies, the member countries in the system should have reversed the control variables. The system should have been run so that

[6] Ibid., p. 286.

the United States tried to protect Europe (and itself) against inflation or depression, and Europe tried to protect the United States against excesses or shortfalls of gold.

The theoretical explanation for this is Mundell's principle of effective market classifications. European gold policy has a comparative advantage in affecting the U.S. gold stock and U.S. monetary policy has a comparative advantage in determining the levels of world prices.[7] Let us next examine the cause of the United States' balance-of-payments deficits in the 1960's. After doing this, we will examine the consequences that playing its role in the past gold exchange standard had on the U.S. economy.

IV. The Nature and Causes of the United States Disequilibrium in its Balance of Payments.

Even prior to the United States' recent decision to let the dollar float and make it non-convertible in terms of gold, the United States had initiated an extremely complicated sequence of maneuvres which, presumably, would solve its balance-of-payments difficulties. Let me name them: concealed export subsidies; informal arrangements with foreign central bankers not to convert dollar balances into gold; currency "swap" arrangements; tax reform; hidden protectionist devices; reductions in foreign aid; taxes on outward capital flows; reduction on duty-free tourist allowances; "voluntary controls" on capital exports; the lending of foreign currencies to the U.S. government so as to stabilize the foreign exchange value of the dollar; suggested restrictions on foreign travel by U.S. citizens; pleading with foreign governments to voluntarily restrict

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7 Ibid., p. 287.

their exports to the U.S.; hopeful assumptions that foreign price levels would rise more rapidly than price levels in the United States, thus restoring equilibrium in the United States balance of payments, and so on.

"The arguments advanced in favor of these policies read like an enumeration of all the partial equilibrium mercantilist fallacies that have ever been invented, asif Hume, Smith, Ricardo, Mill , Marshall, Taussig, Keynes, Viner, Haberler, and Machlup had never existed."[8] These policies reflected the wholly erroneous view that the balance-of-payments can be interpreted piece by piece, rather than as an integral part of a complete system. Also, reliance on the above measures meant that national policy, by default, was based on the premise that the price of gold in terms of dollars would continue to be the pivot for the exchange rate structure. As a result, the payments problem in the United States was not faced squarely as a problem of disequilibrium price, as explained below.

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8 Ibid., p. 290.

The Maintainance of a Disequilibrium Price

We divide international receipts and payments into two categories: (1) Autonomous payments and receipts which are made because the underlying transactions, such as the flow of goods and services and a certain fraction of short and long-term capital movements arising from profit and interest yield differentials, are desired for reasons not related to the balance of payments. (2) Induced receipts and payments arising because of a disequilibrium between autonomous receipts and payments. Changes in government holdings of gold and foreign exchange are prime illustrations of induced flows. Autonomous receipts in the U.S. balance of payments represent a supply of foreign exchange coming onto our markets and also a demand for dollars by foreigners. Autonomous payments represent a demand for foreign exchange and supply of dollars.

Viewing the market for foreign exchange from the U.S. aide, the aggregate demand and supply functions represent demand and supply arising from autonomous transactions. The aggregate demand curve for foreign currency arises from U.S. imports and capital outflows - at any price (exchange rate) it is the sum of the quantitites of foreign exchange demanded by the n individual demanders at that price (exchange rate);

(1) $D = \sum_{i=1}^{n}$ $\qquad Di(p)_{F.E.} = a + bp_{F.E.}$

The supply curve results from U.S. exports and capital inflows - it is obtained by summing the n individual supply functions of suppliers of foreign exchange at any given pr ice (exchange rate):

(2) $S = \sum_{i=1}^{n}$ $\qquad S_i(p)_{F.E.} = A + B_p F.E.$

The equilibrium condition is

(3) $D(p)_{F.E.} - S(p)_{F.E.} = 0$; such a condition is depicted graphically in Figure 2.

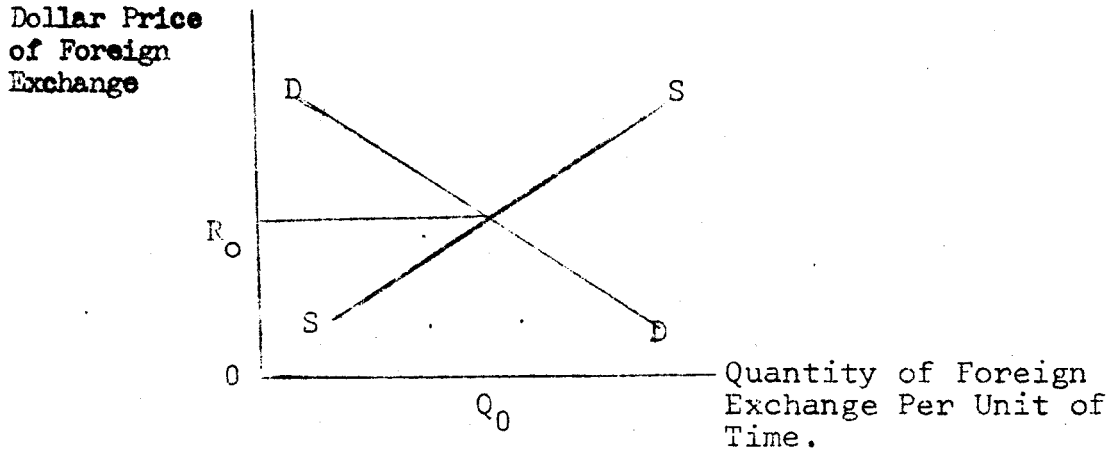


Figure 2
DOLLAR PRICE OF FOREIGN EXCHANGE

Let one of the parameters implicit in our model change so that the equilibrium situation is upset - assume, for example, an increase in demand for foreign currency by U.S. residents. Many factors could cause this - price levels abroad increasing less rapidly or falling more rapidly than ours, greater relative increases in productivity abroad, increases in foreign aid expenditures, and so on. The excess demand at the existing equilibrium price or exchange rate is:

$$(4) \quad X(p)_{F.E.} = D(p)_{F.E.} - S(p)_{F.E.} = (a-A) - (B-b)p_{F.E.}$$

and the rate of change of the exchange rate overtime is:

$$(5) \quad dp_{F.E.}/dt = F\ X(p)_{F.E.}$$

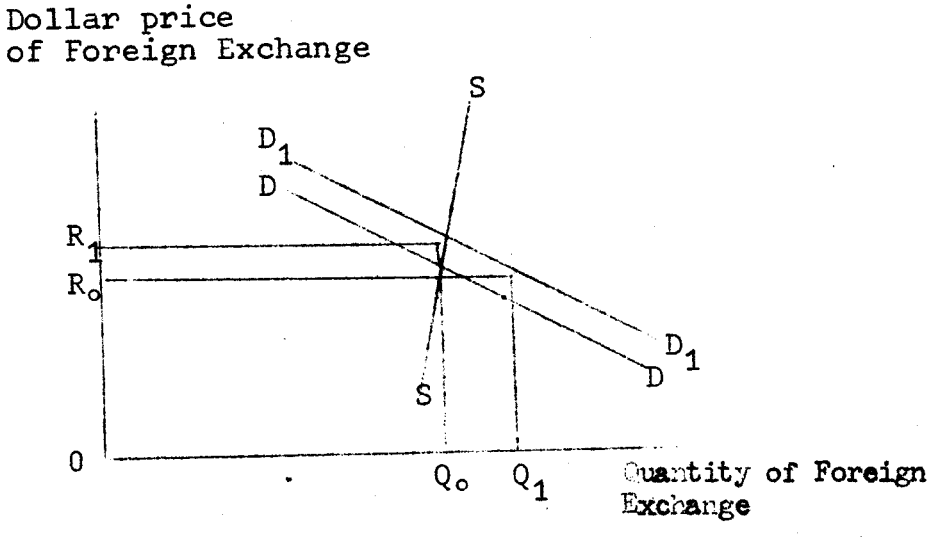
The new equilibrium exchange rate is reached when:

$$X(p)_{F.E.} = 0; \text{ i.e., } dp_{F.E.}/dt = 0.$$

Graphically, this parametric change is represented by a shift to the right in the demand for foreign exchange. Figure 3 is constructed to illustrate this shift. At a rate of exchange equal to OR_o, the United States has an ex ante deficit in its balance payments; that is, autonomous payments exceed autonomous receipts at OR_o. In a free market, the exchange rate would rise to OR_1, where $X(p)_{F.E.} = 0$.

What was the cause of the deficit in U.S. international accounts? Simply, it resulted from the overvaluation of the dollar in terms of foreign currencies; in terms of Figure 3, the the exchange rate OR_o overvalues the U.S. dollar. Excess demand for foreign exchange exists at this price, $X(p)_{F.E.} > 0$.

Figure 3
DOLLAR PRICE OF FOREIGN EXCHANGE



As a result of this overvaluation there occurred a persistent balance-of-payments deficit. When any country has a continuous deficit on its balance-of-payments, as did the United States, it is prima facie evidence that its currency is overvalued.

Thus, in order for the United States to maintain the exchange rate at OR_o, it had to sell either foreign exchange or gold on the foreign exchange market, which in practice meant

letting its stock of gold run down, since gold was convertible into foreign currencies, or borrow foreign currencies, or persuade governments to accumulate dollars.

Now it is worthwhile to note that there does exist, in principle, an adjustment process under a fixed exchange rate system that resembles that of the classical gold standard. It involves deflation in the deficit countries and inflation in the surplus countries. For example, consider a simple model of two countries, say Country B, and Country A. Let A be a proxy for the rest of the world. Each country pegs its exchange rate. Assume they are initially at full employment and balance of payments equilibrium, i.e, exports equal imports. Now let us consider what happens when this equilibrium is disturbed by a shift (reduction) in demand from the goods of Country B to the goods of Country A. Assume that money wages and prices cannot be reduced in the short run without causing unemployment.

The shift of demand from B to A causes unemployment in B and inflationary pressures in A. To the extent that prices are allowed to rise in A, the change in the terms of trade will relieve A of some of the burden of adjustment. And if A allows it price level to rise sufficiently, the disequilibrium situation in B's balance of payments could be eliminated. Assume that Figure 3 applies to country B. Given the inflation in A, the demand for foreign currency by B would shift to the

left, and the supply of foreign currency to the right sufficiently to close the ex ante deficit at an exchange rate of OR_o.

But what if A does not allow its price-level to rise, or to rise only negligibly? (It is this latter policy, incidentally, which the surplus countries in Europe have followed - i.e., the surplus countries have been unable to prevent their surpluses from having some inflationary consequences on their price levels.) Thus if A imposes sufficient anti-inflation policies to prevent prices from rising appreciably, almost all the burden of adjustment is thrust onto B . What is now needed is a reduction in B's real income, and if this cannot be effected by a change in the terms of trade -- because B cannot lower, and A will not raise prices sufficiently - it must be accomplished by a decline in B's output and employment brought on by deflationary policies. The policy of surplus countries of restraining their price increases therefore imposes a recessive tendency to the world economy. Stated otherwise, the international adjustment process is asymmetrical in that the primary burden for adjustment is placed on deficit countries and less on surplus countries. There are real income and employment costs imposed on deficit countries in order to maintain a system of fixed-exchange rates.

It also should be mentioned here that in the actual functioning of the previous fixed exchange rate system, most

deficit countries were unwilling to push deflationary policies beyond the point of preventing prices from rising. Thus a significant part of the adjustment process between countries operated via differences between deficit and surplus countries in their relative rates of inflation, with an average tendency to world inflation. Interestingly enough, in 1963 there was a Brookings study in which foreign price levels were projected to 1968[9]. The projection was that foreign price levels would rise more rapidly than the price level in the United States, thus restoring equilibrium in the latter's balance of payments. Obviously, this projection was incorrect.

A Possible Dilemma Between Internal and External Equilibrium Under Fixed Rates

The deficit was not the only problem faced by the United States in the 1960s. There also was unemployment in the early 1960s; in 1961 it was equal to 6.7 percent of the labor force; in 1962 and 1963, approximately 6 per cent. Unemployment did not fall below 5.0 per cent until 1965. (It is important to note that the problem of 1971 in the United States is analogous to the problem of the early 1960s. The unemployment rate is currently about 6 per cent and the balance of payments deficit is high. But superimposed on these problems is the additional one of inflation that has persisted at a rate above 4 per cent since

[9]Walter D. Salant, Emile Despres, Lawrence B. Krause, Alice M. Rivlin, William A. Salant and Lorie Tarshis, The United States Balance of Payments in 1968 (Washington: the Brookings Institutions, 1963).

1965.) In the early 1960s, therefore, the problem was to reduce unemployment, and according to the U.S. monetary authorities, to simultaneously protect the balance of payments. In the words of the then Chairman of the Federal Reserve System, Chairman William McChesney Martin: "On the international side, to help hold down the outflow of capital and gold prompted by the continuing balance of payments deficit, the Federal Reserve has been operating to minimize drains stemming from international differentials in interest rates."[10]

What in fact happened during the early 1960s (other periods also in the 1960s) was that overvaluation hindered the adoption of sufficiently expansive monetary policies needed to achieve a fully employed economy. For example: As of 1961, the money supply was $45.5 billion (seasonally adjusted); in December 1962, it was $147.6 billion, a 1.4 per cent increase. As a matter of fact from December 1960 to December 1963 the money supply increased at annual average rate of 2.9 per cent. This rate of increase was considerably below the historical long-run rate for the economy and, more significantly, from the point of view of reducing the then prevailing levels of unemployment, the actual rate of increase in the money supply was inadequate. Furthermore in this period there actually occured at various intervals sales of government securities by the Federal Reserve so as to raise interest rates and add

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10 Statement of William McChesney Martin, Jr., Chairman, Board of Governors of the Federal Reserve System, reported in Hearings on the January 1962 Economic Report of the President, Joint Economic Committe 87th Congress, 2nd Session, 1962, pp. 174-5.

further protection to the balance of payments. Obviously, what was needed to reduce the level of unemployment was just the opposite -- i.e., sufficient increase in bank reserves so that there occurred an adequate increase in the money supply. This concern over the balance of payments deficits inhibited expansionary monetary policy throughout most of the 1960-1968 period in the U.S.

The vast economic costs of unemployment in the U.S. should not be forgotten. Mundell utilized what has been called "Okun's Law" and applied it to the current recession. Okun's Law is: $\frac{P-A}{P} = 3.2\ (W-.04)$, where P and A are potential and actual GNP respectively, W is the actual unemployment percentage. This formula shows how much the actual unemployment per cent above the "conventional" four per cent costs the economy in foregone production. In 1970, for example, unemployment was about 6 per cent; currently it is also about 6 per cent but Mundell assumed that it will average 5 per cent. Therefore the economic cost of the recessionary period of 1969-71 is about $96 billion at 1970 and current levels of GNP. Probably, this is an underestimate. The 1969-71 recession costs more in wasted resources than the cumulative economic cost of the war in Asia, and more than the entire GNP of 800 million Chinese.

The dilemma facing the United States during most of the 1960s, or for that matter any country which has simultaneously a payments deficit and domestic unemployment within a fixed-exchange rate system, was precisely that an easy money policy, although it encourages domestic demand and employment, adds to the balance of payments problem. This happens because an easy money policy decreases the demand for U.S. dollars as its interest rates have been reduced relative to foreign interest rates, and increases U.S. expenditures on foreign goods and services and private capital outflows. This results in an increased deficit and additional gold outflow. The dilemma appears to be full employment and a deficit or international balance and abnormal unemployment .

Before presenting the "formal" solution to the dilemma for a country on a fixed exchange rate, let me pursue in more depth the impact on domestic monetary policy of maintaining a fixed exchange rate. The analysis is general and applies to any country with domestic unemployment and the committment to maintain a fixed exchange rate between its currency and the rest of the world. (Obviously, the analysis applies to a country which faces a potential deficit at full employment.)

Two ways can be utilized to illustrate the above problem. The first way focuses attention primarily on the impact of fixed exchange rates on using domestic monetary policy in a continous manner and only indirectly on the

balance of payments. The second method emphasizes the latter effect. Assume that the Central Bank in a country suffering from domestic unemployment does undertake open-market purchases of sufficient magnitude to help reduce the domestic unemployment When a central bank purchases securities as part of its anti-unemployment policies, it creates excess reserves and reduces interest rates. As shown in the next section this worsens the balance of payments because of the capital outflow. Now, to prevent the exchange rate from rising the Central Bank must intervene in the market, selling foreign exchange and buying domestic money. The process would continue until the accumulated foreign exchange deficit is equal to the open market purchase and the money supply is restored to its original level.

Consider this diagrammatically. Part B depicts a simplified money market model. Given the demand for money,

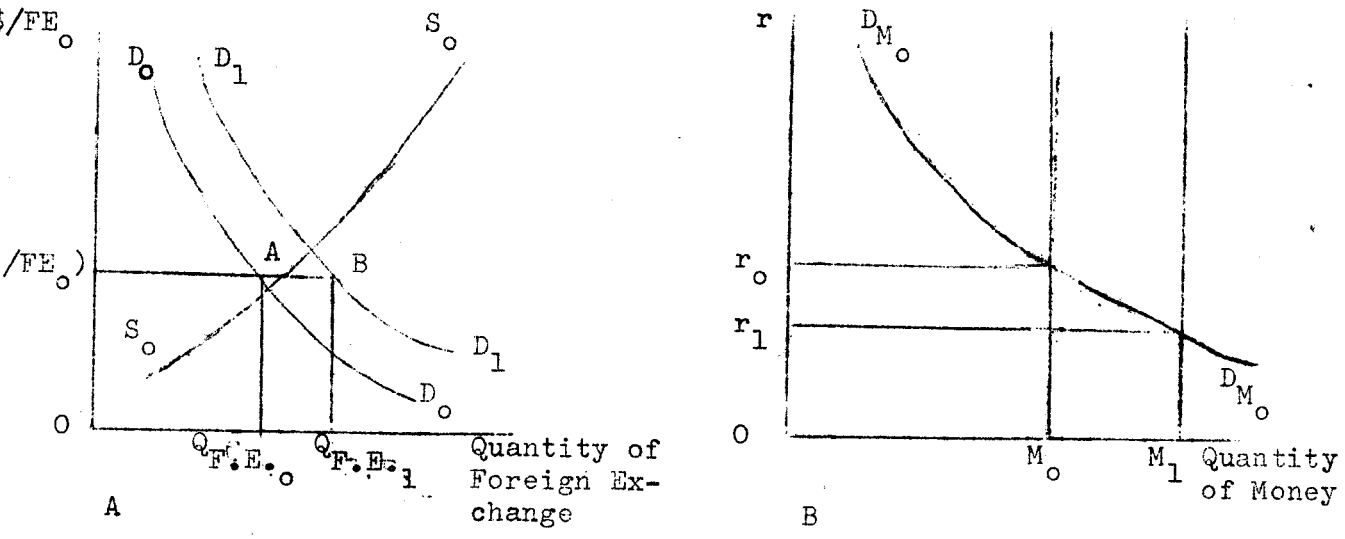

Figure 4

D_{mo} , and the money supply, M_o , we have a rate of interest equal to O_{ro} . Part A depicts the foreign exchange market. With the initial demand for foreign exchange being D_oD_o , and supply, S_oS_o , the equilibrium exchange rate is ($/F.E.$_o$), with the quantity sold $OQ_{F.E._o}$. For expositional simplicity assume that the exchange stabilization fund pegs the exchange rate at)($/F.E.$_0$). In the real world the exchange rate was allowed to vary approximately plus or minus one per cent around the support price.

Now let the Central Bank increase the money supply from M_o to M_1 . The public is induced by the higher price of bonds to give up government securities in exchange for new demand deposits. The interest rate falls to O_{r1}. Also the demand function for foreign exchange shifts to the right, D_1D_1 , because of the induced outflow of pri ate capital. In order to keep the exchange rate from rising monetary authorities must supply AB of foreign exchange. But this is simply a swap of foreign exchange for money.

What this shows is that monetary policy under fixed exchange rates has no sustainable effect on the level of national income, given the committment to peg the exchange rate. The increase in the money supply arising from open market purchases is returned to the central bank through its exchange stabilization procedures so there is no net

increase in the money supply. What the central bank has in fact done is to purchse securities initially for money, and then buy money with foreign exchange reserves. The central bank has simply exchanged domestic assets for foreign assets.

The second way of depicting the dilemma is as follows: Consider an open economy trading with the rest of the world at a fixed exchange rate. Assume that there is price stability around the range of full employment, and on either side of full employment a rate of change in money wages and prices that we can ignore. It is also assumed that imports are a function of national income, so that, the trade surplus (deficit), given the exchange rate in the economy, will be a decreasing (increasing) function of national income. We have revised the IS curve in the IS-LM analysis of a closed economy so that it represents an $I+G+X$, $S+T+M$ curve. Exports are X, which are assumed to be constant or a decreasing function of national income; imports M, are a positive function of national income. We also employ a separate quadrant to express the trade balance as a function of national income and follow the current literature by assuming that international capital flows per unit of time are a function of the differentials between domestic and foreign interest rates.

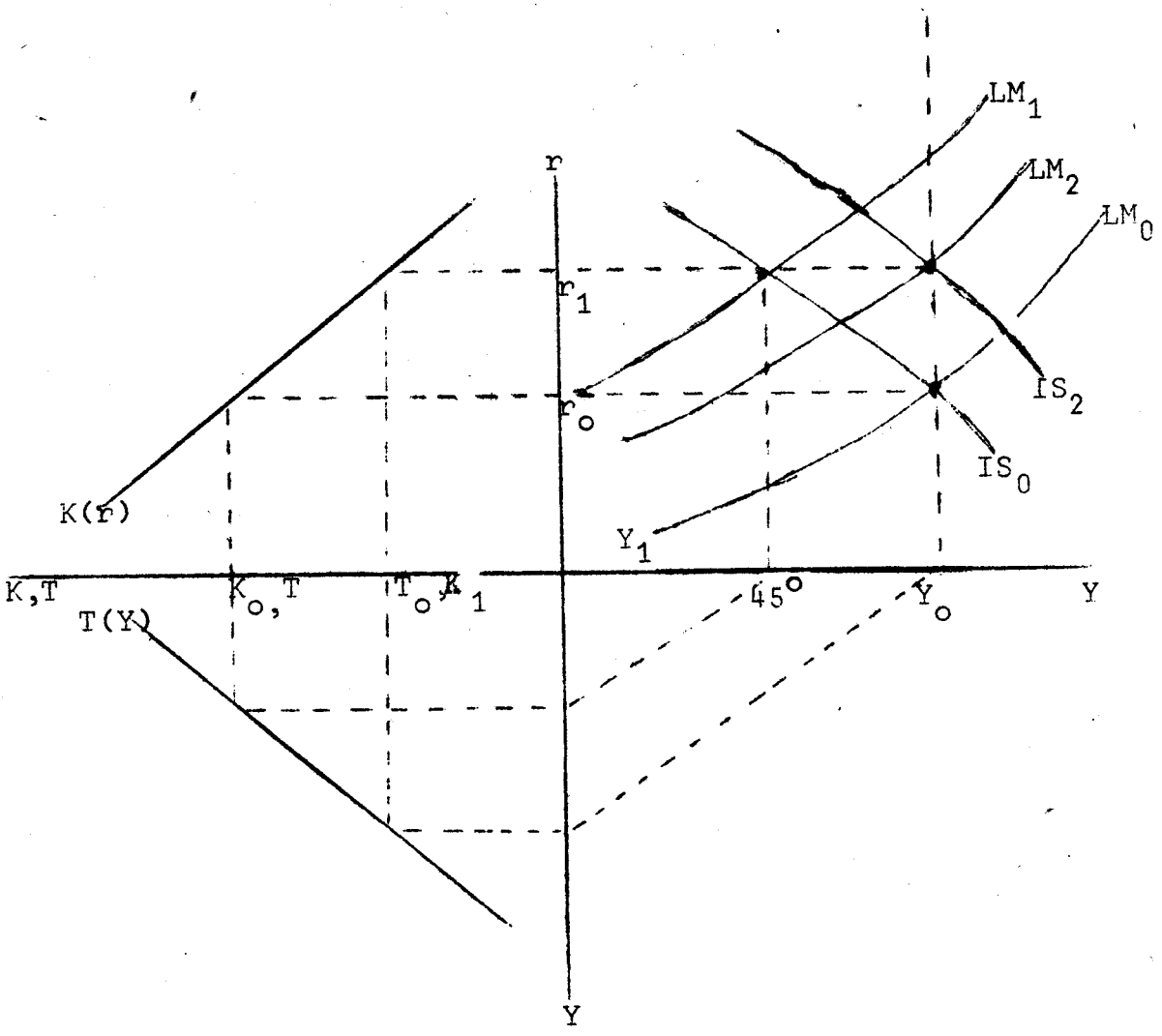

Figure 5

Consider Figure 5:[11] In this figure we illustrate the problem, its formal solution too, that faced the United States This problem was that capital outflows exceeded the current account surplus generated at the fixed exchange rate. The LM_0 and IS_0 functions depict the curves corresponding to a specific combination of monetary-fiscal mix which, if

[11] I have adapted H.G.Johnson's Figure 1 for my use here; op.cit., p.5. I have also drawn heavily from this article by Johnson.

implemented, would guarantee full employment in the U.S. as Y_0 is full employment output. But at this level of income and employment, the current account surplus, T_0, is less than the capital outflows K_0 produced by the interest rate r_0. Under these conditions the U.S. would have an overall deficit equal to $K_0 - T_0$. (Actually in the 1960s, this phenomenon occurred in the U.S. at less than full employment.)

This balance of payments deficit could be solved by reducing the money supply so that the LM function becomes LM_1. At the new higher interest rate, r_1, private capital outflows fall to K_1 and the trade balance becomes T_1, which just happens, in this case, to exceed the capital outflows of K_1. The point here is that the balance of payments deficit has been eliminated but we now have a new problem, one of unemployment. However, there is a "formal" solution to the so-called dilemma between a balance of payments deficit and abnormal unemployment.

The "Formal" Solution to Simultaneously Achieving Full Employment and External Equilibrium.

Recent work by economists have overcome the above dilemma. First off, they have examined the various determinants of a country's balance of payments. The current account, in principle, is determined by a country's level of national

income and employment and the exchange rate. However, the flow of funds on capital account depends on the level of domestic interest rates relative to those in the rest of the world. And the level of domestic interest rates is a function of the monetary-fiscal mix chosen to produce full employment. One can, therefore, choose a proper combination of monetary-fiscal policies so that the capital account adjusts to match the deficit or surplus in the current account. For example: if a country at full employment has a current account deficit larger than its normal capital inflows, or, like the U.S., a current account surplus smaller than its normal capital outflows, it can adjust the latter to the former by simply adopting a tighter monetary policy and an expansionary fiscal policy.

In terms of Figure 5, all that would have to be done is to shift the IS_0 curve to the right to IS_2 by either having the government lower taxes and/or increase its expenditures. Also the central bank should reduce the money supply so that LM_0 curve becomes LM_2. The interest rate, r_1, which now corresponds to full employment, reduces the capital flows to K_1, which just equals the current account surplus T_o. Thus, internal and external equilibrium can be achieved simultaneously under a fixed exchange rate system if a proper choice of fiscal-monetary policies is made.

One can therefore see why the United States, with a chronic balance of payments deficit, was not able, and did

not, during most of the 1960-1968 period, use monetary policy for purely domestic purposes. Instead, monetary policy was governed primarily by the requirements of the balance of payments, and especially by the need to control international capital movements.

The above is an important fact that should be made clear to all countries whether or not their respective currencies are reserve-currencies. A country cannot have a monetary policy devoted exclusively to domestic objectives and simultaneously peg its exchange rate with other currencies. Therefore, as time proceeds under a fixed exchange rate system, all countries will find it necessary to put increasing emphasis on fiscal policy as the primary instrument for accomplishing domestic objectives.

Several Problems with the "Formal" Solution

First let us ignore any problem associated with substituting fiscal policy for monetary policy -- e.g., the political problem of implementation, or whether we can meaningfully consider fiscal policy independently of monetary policy. We shall just assume that the substitution has taken place and we have achieved just the proper combination of monetary tightness and fiscal ease which produces simultaneously full employment and balance of payments equilibrium.

But such a solution only shows that policy makers in the deficit country, through an appropriate fiscal-monetary mix, are able to finance the defict. The same observation holds true for the surplus countries. Yet this solution does not yield any mechanism of international adjustment. The model does not indicate how the system will produce the needed changes in domestic and foreign price levels so that the policy makers, say, in the deficit country, will be relieved of the necessity of adopting the given fiscal monetary policy mix. As a matter of fact, as Johnson states, there may be the opposite of an adjustment mechanism. "....presumably a country that would be in deficit at full employment gets that way because in fact at full employment its prices and wages rise faster than those of its competitors; hence if it succeeds by proper fiscal-monetary policy mix in maintaining full employment its current account will tend to worsen overtime and therefore it will be drawn further into mixing fiscal expansion and monetary contraction, thereby piling up international debts (if it is a capital importer) at an increasing rate."[12]

Another implication of a policy of monetary stringency and fiscal ease is that it will reduce real investment

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[12] Ibid., p. 6.

expenditures and thus alter the mix of total output in favor of current consumption. Such a change results in a reduced level of future economic growth. The real cost to a deficit country which plays this game of enticing private capital to stay "at home" by making the market rate of interest higher than it otherwise would be, appears excessive even at a second-or-third best level.

Let me next consider the problem of actually using fiscal policy for internal and monetary policy for external goals. I consider only the Unites States. There are two problems. One a problem of implementation and the other economic. I consider the former first.

In 1962, President Kennedy proposed a personal income tax cut so as to increase the levels of unemployment and output. It was not until 1964 that President Johnson got the the tax cut through Congress. In 1962, President Kennedy was taking an awful lambasting from almost everyone regarding his proposed tax cut --- Congressmen, businessmen, the newspapers etc. At the end of one especially, painful day, he is reported to have turned to Professor Paul Samuelson, who was an adviser to President Kennedy, and inquired, "where are all those students, who have learned about fiscal policy from your textbook ?" And then, after a poignant pause : " In fact I sometimes wonder, where are even the teachers."

By-passing the pedagogical implications of the above remarks, the point I want to make from the above quote is that it is one thing to get Congress and the public to finally agree to a tax cut after years of preaching by a conservative press that taxes are too high and to do so after paying appropriate lip service to the need for economy in government spending. But it is quite another to set up machinery allowing the administration to cut taxes without a gesture in the direction of cutting spending, and to allow the administration to do so on the basis of its own judgement of what the economy requires. This is what is neede if fiscal policy will be the major tool for domestic economic stabilization. Furthermore, it would be a still more demanding political accomplishment to empower the administration to raise taxes when it felt that fiscal restraint was necessary to prevent inflationary developments.

A more telling criticism of the economic policy of taking something as god-given, i.e., the exchange rate, and then devising a "proper" mix of fiscal-monetary policy so that full employment and external equilibrium can be simultaneously achieved, is that stringent monetary policy will reduce, if not completely offset, the expansionary fiscal policy. The manner in which budgetary deficits are financed is crucial in determining the expansionary effects of fiscal actions. Furthermore, there are few fiscal actions which may be regarded as pure, except for the balanced change in taxes and expenditures. Most types of fiscal actions lead either to borrowing from the non-bank sector or to new money creation. Borrowing changes the supply of bonds, and these changes,

given the size of the government operation, are huge. If left uncompensated, they would introduce external instability into the market for private and government bonds. The Federal Reserve System conceives that one of its functions is to maintain "an orderly bond market". Thus, if there is an increase in governmental borrowing, i.e., an increase in the supply of government bonds, the Federal Reserve System usually dilutes the shock by buying some of them. It produces high-powered money. Thus, fiscal policy in the U.S. is usually accompanied by monetary measures. This is called the "even-keel" policy.

Borrowing and Monetary Stringency

Let us assume that the above is not the case, that is to say, there is no increase in the money supply accompanying a fiscal action. Let us examine, first, on theoretical grounds whether "...fiscal policy in which tax reduction is financed by sales of government securities . . . . is certainly stimulating to demand in the short run. . . ."[13] Rather than having a reduction in the money supply, which the formal model of the open economy calls for, we will assume it is constant. This is done solely for expositional ease. The results of our analysis are intensified by considering money supply reductions. It is assumed that the economy is at less than full employment.

[13] R. A. Mundell, op. cit., p. 26.

Assume that the amount of unemployment depends on the level of aggregate demand, therefore, ie amenable to monetary-fiscal policies. Assume, also, a simple Keynesian world in which the determinant of total consumer spending is absolute current disposable income, not relative or permanent income; that investment simply depends on "the" rate of interest. It should be noted that the assumption/that consumption is solely a function of current disposable income prejudices the case favorably for the expansionary effect of a tax reduction. If one assumes that consumption is a function of permanent income, then it is by no means obvious that there will occur an increase in current spending. It all depends/on whether individuals believe that the increase in current disposable income will be permament, if not they will save and/or pay off past debts. In any event, the model, which is in real terms, is drawn in Figure 6.

All the elements in this figure are traditional. Part A is the Keynesian investment-demand function which includes a constant amount of government expenditure; part B is the Keynesian demand for money where the speculative demand for money is subtracted from the total supply of money giving the curve ($M-M_s$), the supply of transaction balances; part D is explained by the quantity theory. Part C is the Keynesian saving-investment diagram with the axes reversed

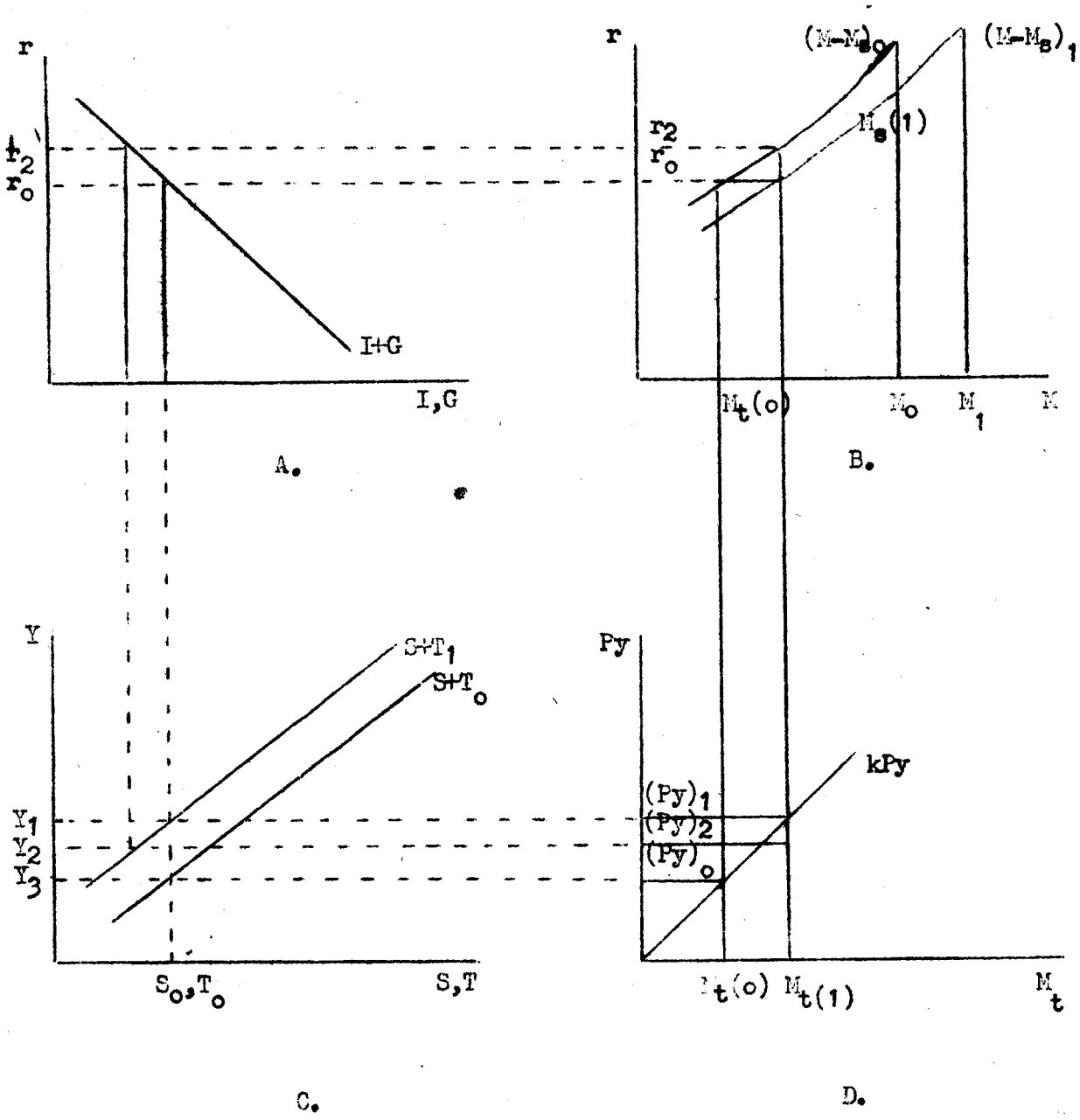

Figure 6

Effects of a Tax Reduction

and the income scale compressed so that an equal distance on it represents more dollars than the same distance on the horizontal axis; the tax function is incorporated within the savings function. The zero subscripts depict an initial equilibrium situation.

Let there be an identical percentage reduction in the tax rate for all levels of personal income recipients - i.e., a downward shift in the tax function so that the consumption function shift upward or, in our model, a reduction in the savings function. The new savings function is $(S+T)_1$. Income goes from Y_0 to Y_I, via the multiplier. This means an enlarged transactions demand from $M_t(0)$ to $M_{t(1)}$. If the money supply is increased to M_1, this chain of events can happen as "the" interest rate stays at r_0 so th that investment spending does not fall! But assume the money supply remains unchanged at M_0. Such an income expansion (presumably employment too) could not occur. Higher interest rates retard the increase in spending resulting from the tax cut. The new equilibrium level lies between Y_0 and Y_1; it is less than would be predicted from the multiplier effect alone. The high interest rate needed to produce external equilibrium reduces considerably the expansionary impact of the fiscal action.

This simplified model shows that the manner in which budgetary deficits are financed -- new money creation vs. no money creation -- is critical in determining the expansionary effects of fiscal policies, whether tax reductions or increases in government spending. Obviously, one can play games and get different reductions in the multiplier when the money supply is held constant by appropriately changing the slopes of the demands for money and investment functions. But the order of magnitude is, of course, an empirical question. Some indirect evidence on this is available from Friedman and Meiselman's study.[14] In this study they found that when the money supply is held constant, the partial correlation between autonomous expenditures and consumption - the former defined as net private domestic investment, government deficit on income and product account, plus the foreign balance - is negative for the period under study, 1897-1958. In fifteen subperiods in the 1897-1958 interval , eight of the fifteen values for the partial correlation coefficient were negative.[15] Not only was there no positive fiscal multiplier, the values were negative.

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[14] Milton Friedman and David Meiselman, "The Relative Stability of Monetary Velocity and the Investment Multiplier in the United States, 1897-1958", in Stabilization Policies Commission on Money and Credit, Prentice-Hall, 1963.

[15] Ibid., p. 208.

Another bit of empirical evidence regarding the use of fiscal policy as a tool to achieve internal equilibrium is shown below in Table I.[16] The fiscal multipliers in the St. Louis world are virtually zero. At no point do these multipliers rise above unity and after a few quarters they return essentially to zero.

Our purpose here, however, is not to open-up "Pandora's Box" by examining whether monetary policy is a better stabilization tool than fiscal policy. But we do want to stress

Table I
The Fiscal Multipliers in the
St. Louis Models

Elapsed Time	Spending	Taxes
After 1 quarter	0.4	0.2
After 2 quarters	0.9	0.2
After 4 quarters	0.1	0.2
After 12 quarters	0.1	0.2

that monetary policy becomes significant in influencing the degree of success of discretionary fiscal policy. The expansionary effect of the tax cut in the U.S. in 1964, coupled with the previous investment credit and favorable

[16]Data in Table I are taken directly from the Federal Reserve Bank of St. Louis' equation. See: "Monetary and Fiscal Actions: A Test of their Relative Importance in Economic Stabilization," Fderal Reserve Bank of St. Louis, Review (November, 1968), pp. 11-24.

expectations of future expansion, did materialize because in fact the budgetary deficits were financed by new money creation. Thus, whether or not an income expansion initiated by fiscal policy will continue or be brought to a halt is influenced considerably by the method employed to finance the deficit. What is crucial is to recognize that if expansionary fiscal policy cannot be supported by an increase in the money supply because of external constraints, the greater must be the reliance on fiscal policy. This itself will cause a drastic change in approach to domestic economic policy, a change that still appears to be unappreciated by many professional economists as well as policy makers. The "formal" solution to the problem of simultaneously achieving internal and external equilibrium on a fixed exchange rate system appears to be more apparent than real.

IV. SUMMARY

In summary, then, it is perfectly clear that the United States could have solved its international monetary deficits and without any exchange-rate adjustment. The requirements for this solution were that it have a sufficient supply of gold, that foreigners continue to accumulate dollar balances, that there continue to be high levels of economic activity abroad, and a tendency for foreign price levels to increase more (fall less) than ours.

It had become quite common to assert that all the United States had to do in adjusting its domestic prices to meet the requirements of international balance was to maintain price stability. The problem, however, was much too complicated to be solved by such a simple prescription of price stability. If the United States wanted to combine full employment with equilibrium in its international accounts it had to be prepared to expect sharp upward and downward changes in its price level, depending upon the level of incomes and prices existing externally. Stated otherwise, the price-level policy required to attain balance-of-payments equilibrium for a fully employed and growing economy is a complicated matter as it depends upon the nature and growth rate of this country and others as well as upon price level changes in other countries. To state the solution as simply requiring price level stability boarders on being ludicrous for it assumes that payments problems will be solved by some other method.

Furthermore, the continuous use of palliative and/or selective measures to eliminate the U.S. deficit resulted in the same adverse consequences which were presumed to be associated with a devaluation of the dollar in terms of gold. The argument is that if there exists any indication that dollars (or any other reserve currency) may not serve satisfactorily as a liquidity reserve because of possible devaluation, a shift to other sources of liquidity would occur, causing a breakdown of the international monetary

mechanism since foreign governments and central banks find it advantageous to convert an increasing proportion of their already high levels of dollar holdings into gold. This did occur in the absence of devaluation. But what was not recognized was that this could occur without the positive benefits of devaluation. When the foreign owners of dollar balances in the United States interpreted the ad hoc measures undertaken as only forerunners of more stringent measures if needed - moves toward inconvertibility, for example - then the same set of expectations were generated regarding the disutility of holding dollar balances as was said would prevail if the dollar were expected to devalue..

In conclusion, we can say that by and large in the 1960s de facto domestic economic policy was conducted as if the United States were on a classical gold standard in which gold flows dominated internal monetary policy. More specifically, the money supply was in many periods a dependent variable, determined by external forces. Many times it behaved as if a classical gold standard were in operation. In the process of subverting internal monetary policy to the needs of external consideration, fiscal policy was also hamstrung by balance of payments considerations as well a not being able to be implemented adequately because of political reasons. In my judgement, the continual deficits from 1960-71 that occured in the U.S. were not without tears.

There is, in my opinion, only one effective balance of payments mechanism to take care of disturbances of the kind that have been experienced in the last decade throughout the world - namely, to disturbances arising primarily out of differential monetary behavior. That adjustment mechanism i exchange rate changes. And, as I pointed out earlier, the real question of policy is how shall we use such changes. Shall we use them as we have under the Bretton Woods Agreemnt, or shall we adopt a mechanism of exchange rate changes which is smoother, more gradual, which occurs more nearly automatically, and will involve fewer crisis? The adoption of a system of flexible exchange rates would achieve the latter.

DWJ:abg