WORLD MONETARY DISORDERS:
EXCHANGE RATE ERRATIC FLUCTUATIONS

By

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Introduction

Why do exchange rates fluctuate? Economists have answered this question by emphasising the role played either by interest rate differentials, inflation rate differentials, risk premiums, balance of payment variations, speculations, expectations or by any combination of these and other factors. Now, it is not exaggerated to claim that none of the analyses proposed to explain and predict exchange rate fluctuations have fulfilled their ambitious aim. From the balance of payment approach to the structural (asset) approach, from the speculative bubble to the random walk, we are offered a variety of highly sophisticated models that seem unable to catch the essence of the problem. In this paper we shall attempt to show why they have failed and how the problem should be tackled in order to develop a solution that guarantees an intrinsic exchange rate stability.

In the first two sections it is proved that, contrary to what is often believed, exchange rate fluctuations are caused by neither commercial nor financial transactions. The third and fourth sections are concerned with the hypothetical influence of national monetary disorders (inflation and deflation) and of interest rates on exchange rates, while the fifth deals with speculation and the sixth with the relationship between exchange rates and external debt servicing. The need to move from a system of relative exchange rates to one of *absolute* exchange rates is dealt with in the last section, where it is shown also that the anomaly of the current system of international payments lies in the fact that currencies are transformed from *means* into *objects* of payment.

Exchange rates are not influenced by commercial transactions

1. Trade balance equilibrium

Let us start with the simplest case, where commercial imports of country *A* are matched by an equivalent measure of commercial exports to country *R*.

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Country A
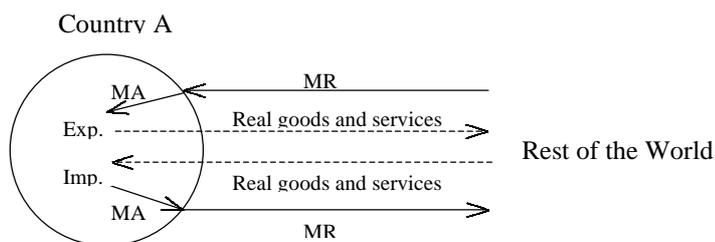
Figure 1

It is clear that in this particular case no net demand for money A (MA) is exerted in money R (MR) or vice versa. There seems to be no reasons, therefore, for a variation in the exchange rate between the two currencies. Yet, it might be objected that the equilibrium between the supply of and demand for each currency in terms of the other is reached only once the payments of *A*'s commercial exports and imports have actually taken place. It seems possible to argue, then, that in the interval between these payments a net demand for, or a net supply of, money A occurs, which provokes a fluctuation in MA's exchange rate. If this were the case, exchange rate stability would be only the temporary result of the matching of opposite disequilibria leading one to re-evaluation and the other to devaluation. In order to settle this question it is therefore necessary to analyse what happens to MA's exchange rate when country *A* pays for its net imports and gets paid for its net exports.

2. Trade balance surplus

Let us assume that country *A*'s net commercial exports are paid by the Rest of the World (*R*) in money R. As is well known, the sum paid by *R* increases *A*'s official reserves, while *A*'s exporters are paid in money A.

Country A
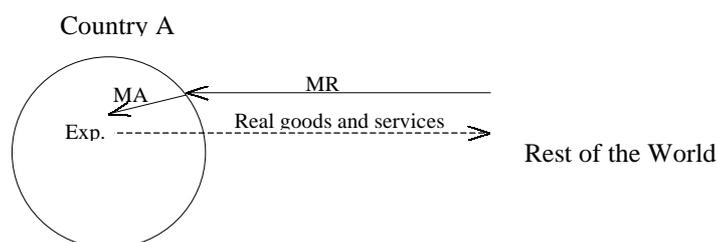
Figure 2

At first sight, it seems that the payment of *R*'s net imports increases the demand for money A and leads to a rise in MA's exchange rate relative to money R. This would indeed be the case if the supply of money A were not infinitely elastic. However, as banks' double-entry book-keeping shows, the amount of money with which country *A*'s commercial exporters are

credited is issued by their banking system as a counterpart of the amount of money R entered by banks on their assets side.

Banking system
of country *A*

Liabilities			*Assets*
Exporters	money A	Country *R*	money R

Table 1

Money A is literally 'created' on the basis of the new asset in money R earned by country *A* as a whole thanks to its net commercial exports. The credit on country *R* increases *A*'s official reserves, and the newly issued amount of money A is paid to *A*'s commercial exporters. The demand for money A exerted by *R* is thus immediately satisfied by the creation of an equivalent supply of money A by the banking system of country *A*. On these conditions, no net demand occurs that might cause a fluctuation in MA's exchange rate.

Do things change when country *A* is a net commercial importer?

3. Trade balance deficit

When commercial imports exceed commercial exports, and *A*'s money is not accepted by the Rest of the World as a key-currency, the payment of *A*'s net purchases of goods and services implies the transfer of a positive amount of money R to the benefit of *R*.

Country A

Imp.

MA

Real goods and services

MR

Rest of the World

Figure 3

Does the payment of *A*'s net commercial imports imply a net demand for money R in terms of money A? If this were the case, the increased demand would devaluate the exchange rate of money A relative to money R. Yet, the necessity for country *A* to pay for its external net purchases in money R has other consequences. The payment of country *A*, in fact, can only be financed through a decrease in its official reserves or via an increase in its external debt. In both cases, *A* pays for its net commercial imports by transferring to *R* an equivalent amount of *financial claims*. When official reserves are used, the whole transaction corresponds to a monetised exchange between the goods and services imported by *A* and the claims on *R*'s bank deposits

obtained by *R*. When *A* resorts to an external loan in money R, the real payment is made up of the financial securities that *A* gives to *R* in exchange for its net commercial imports.

Whether *A* pays *R* by decreasing its credit (i.e. by a reduction in its official reserves) or by increasing its debt (i.e. through an external loan), the transaction between the two countries defines a reciprocal real exchange: goods and services against financial claims. On this condition, the money involved as a means of payment is used in a perfectly circular way, that is, with no consequences whatsoever on exchange rates.

An analogous result is obtained when it is assumed that country *A* has the possibility to pay for its net commercial imports by using its own money (which is thus accepted as a key-currency by the Rest of the World). In this particular case – in which there is obviously no need for money A to demand money R –, in exchange for its net imports of goods and services country *A* gives country *R* financial claims in the form of claims on *A*'s bank deposits.

Country A

MA

MA

Imp.

Real goods and services

Claims on *A*'s bank deposits

Rest of the World
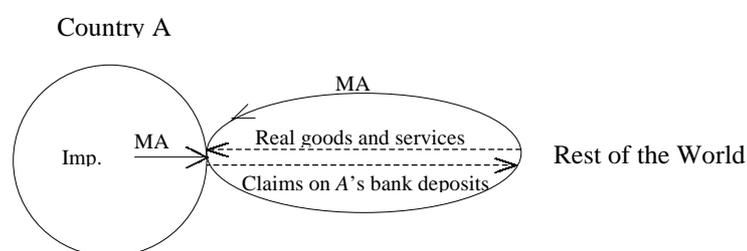
Figure 4

It is important to observe that money A is circularly used as a means of payment, the real object of the payment being the claims on *A*'s bank deposits transmitted from *A* to *R* by money A's circular flow. It is in the nature of bank money to flow instantaneously back to its point of origin. Because of double-entry book-keeping, in each payment carried out by country A using its own currency, money A is immediately recovered by *A*'s banking system. Thus, in exchange for its net commercial exports country *R* gets, not a sum of money A, but the ownership over a bank deposit formed in country *A*.

The vehicular use of money A prevents any net demand for money R, and allows for the exchange rate stability of the two currencies. It is thus proved that the monetary settlement of commercial transactions is never a cause of exchange rate fluctuations. Does the same conclusion apply also when payments concern the settlement of financial transactions?

Financial transactions leave exchange rates unchanged

As we have done before with commercial transactions, let us distinguish the case of net exports from that of net imports of financial claims.

1. Capital inflow

If *A*'s net sale of financial claims is matched by an equivalent purchase of goods and services, we revert to the case analysed in the previous section. The exchange between *A*'s financial claims and *R*'s goods and services implies the circular intervention of money A (or money R) so that no net demand occurs that could provoke a fluctuation in MA's (or MR's) exchange rate.

What happens, then, when *A*'s net exports of financial claims are not balanced by its net commercial imports? Let us assume, for example, that, in order to finance its public debt, the State of country *A* sells abroad part of its Treasury bonds, and that *A*'s commercial imports are entirely covered by its commercial exports. Does this lead to a net demand for money A in terms of money R and, therefore, to a devaluation of MR relative to MA? Once again the answer is imposed by the reciprocity of the exchanges occurring between *A* and *R*.

Country A

MR

State   MA   Claims on *R*'s bank deposits   Rest of the World
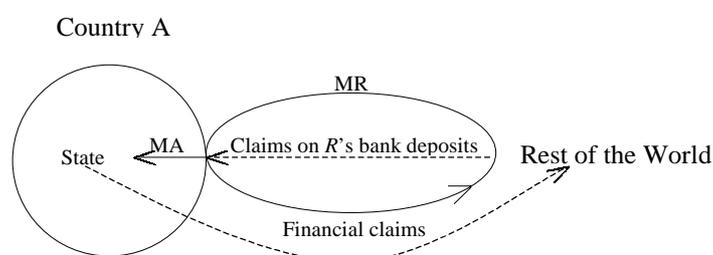
Financial claims

Figure 5

Money R, used by the Rest of the World to pay *A* for its net sale of financial claims, flows immediately back to *R*'s banking system, leaving *A* with a net credit that defines its ownership of an equivalent bank deposit formed in *R*. The terms of the reciprocal exchange between *A* and *R* are thus the financial claims exported by *A* and those exported by *R* (in the form of claims on *R*'s bank deposits). The exchange being perfectly balanced, the circular use of money R holds good, and no force intervenes to upset MR's (MA's) exchange rate.

2. Capital outflow

The case of net imports of financial claims is merely the opposite of the one just analysed. Such case applies to countries rich enough to be net exporters of capital and it may be viewed as their financing of the Rest of the World's net commercial imports. It may also result from a net flow of investment from one key-currency country to another, in which case the import of financial claims is matched by an equivalent export of claims on the investor country's bank deposits. Now, as far as exchange rates are concerned the conclusion remains unchanged: their variation cannot be due to the payment of international, commercial or financial transactions.

Exchange rates and internal anomalies

Economists have long believed that exchange rates fluctuate according to the differentials in inflation rates between countries. For example, the supporters of the asset market approach – particularly in its monetary versions of fixed and flexible prices – still maintain that exchange rates vary proportionally to inflation rates. Although numerous econometric studies have shown that there is no necessary connection between variations in inflation rates and in exchange rates, it may be of interest to investigate further the question of whether or not internal disequilibria such as inflation and deflation can determine fluctuations in exchange rates. Let us do it briefly, taking advantage of the results obtained so far.

1. Inflation

Defined as the loss of purchasing power suffered by each single monetary unit, inflation is usually identified with an increase in the general price level. As our concern is exchange rates, we shall simply observe that, although inflation raises prices, the increase in prices may not necessarily be detected at the general price level. Since the increase is relative, it may simply raise the new prices up to the level of the previous ones. What matters here is that it can consistently be claimed that inflation raises the prices of country *A* relative to those of the Rest of the World. In these conditions, can inflation provoke a variation in the exchange rate of money A? The traditional argument runs as follows: inflation pushes prices up, the rise in domestic prices decreases *A*'s commercial exports and increases its imports, the increased demand for *R*'s goods and services implies a net increase in the demand for money R in terms of money A, the increased demand for money R leads to a devaluation of money A.

Hence, the assumed relationship between inflation and exchange rates passes through the variation in commercial transactions due to the rise in prices. To dispose of it once for all, it is thus enough to recall the analysis relating to the payment of *A*'s net commercial imports. If *A* is a key-currency country, the payment of its net commercial imports defines an exchange between the imported goods and services and the claims on its bank deposits transferred to *R*. If *A* is not a key-currency country, the same payment defines either a decrease in *A*'s official reserves or an increase in its external debt. In every case, no net demand for money R is formed that might justify a devaluation of money A.

2. Deflation

Often defined as a decrease in the general level of prices, deflation seems apt to increase exports and lead, consequently, to a variation in exchange rates. This would indeed be the case if the payment of a country's net commercial exports were to provoke a net increase in the demand for its national currency, unmatched by an equivalent increase in supply. As we have seen, however,

this is not what happens. In fact, double-entry book-keeping principles are such that for any positive amount of money R entered on the assets side of country *A*'s banking system, an equivalent amount of money A is created that satisfies instantaneously its increased demand. Because of the infinite elasticity of money A's supply, the increase in demand that might result from a decrease in country *A*'s general price level would have no effect whatsoever on the exchange rate of money A.

As the reader will observe, the same result is achieved by considering the fact that the payment of *A*'s net commercial exports is perfectly consistent with the 'vehicular' use of money R. When the Rest of the World pays *A*, *R* transfers to *A* an amount of financial claims (i.e. claims on *R*'s bank deposits) equivalent to the amount of commercial goods and services exported by *A*. The reciprocity of the exchange between the two countries is the proof that the money used to carry out the transaction flows immediately back to its point of departure. Being used 'in a circle', money R does not demand money A more than money A demands money R. Supplies and demands are perfectly balanced and no variation occurs in the exchange rate between money A and money R.

Of course, the definition of deflation we have referred to is far too simple to provide a serious understanding of this anomaly and of its consequences. Yet, whatever the level reached by the analysis, it can easily be grasped that both inflation and deflation are national disorders that leave unaltered the relationship between currencies. What inflation and deflation modify is the relationship between a country's money and its corresponding national output. In no case can a variation in this relationship have an effect outside the country and provoke a fluctuation of exchange rates.

Exchange rates and interest rates

As is well known, monetary and portfolio models consider exchange rates as the relative prices of national currencies and relate the supply of and the demand for money both to real and financial transactions. The main difference between these two models of the assets approach is that, while monetary models assume that domestic and foreign financial securities are perfect substitutes, portfolio models consider them to be only partially interchangeable. From covered to uncovered interest rate parity, from rational expectations to risk premiums, a whole series of assumptions are made available to the economists endeavouring to explain exchange rates fluctuations by relating to capital movements.

Now, in so far as capital movements are considered as financial transactions taking place between countries, no causal relationship can be established between them and the fluctuations of exchange rates. As we have shown, net imports (or net exports) of financial securities elicit a reciprocal exchange that guarantees the vehicular use of money and thus leaves exchange rates unaltered. The result is that, to the extent that they encourage or discourage capital flows between

countries, variations in interest rates have no impact on exchange rates.

This conclusion should not come as a surprise to the reader well aware of the fact that exchange rates fluctuate irrespective of the evolution of the so-called 'economic fundamentals'. As numerous studies show, there are devaluations that are totally inconsistent with the 'fundamentals' and whose intensity has nothing to do with the lack of economic convergence between countries. Experts have long applied a pragmatic approach to the problem, theories having proved unreliable if not altogether erroneous. In particular, it is widely believed today that erratic fluctuations of the exchange rates are mainly due to speculation. In the next section we will see that, the moment we move from the analysis of real and financial transactions between countries to that of the monetary transactions on the foreign exchange market, we also grasp the reasons why exchange rates fluctuate despite the vehicular nature of bank money. It is to the increasingly widespread activity of speculation that we must turn our attention if we are to justify the belief that interest rates may influence the determination of exchange rates.

Exchange rates and speculation

While there is no need to define what speculation means, it is not self-evident why it can have such a disruptive effect on exchange rates. Does any kind of speculative transaction have this effect? Of course not, since – as we have seen – sales and purchases of either goods and services or financial claims leave exchange rates unaltered. Whatever the reasons that push residents of country *A* to purchase or sell on the commodity market or on the financial market, payments are carried out through the intermediary of banks and imply the 'vehicular' use of money A (or money R). Hence, the only possibility left for speculation to influence exchange rates is through sales and purchases taking place on the foreign exchange market. Here again, however, it is not obvious why, for example, the purchase of foreign currencies is liable to modify the exchange rate of money A. Is it not true that to purchase money R means to purchase a bank deposit of country *R*? And, in this case, is it not also true that this transaction would amount to a purchase of financial claims, which has no effect on MA's exchange rate?

Now, the previous conclusion would be unavoidable if currencies were used as *means* of payment. In reality, this is not the case. Irrespective of their banking nature (which calls for their 'vehicular' use) currencies are considered as if they were (positive) assets, *objects* of trade on the foreign exchange market. At first sight this could seem perfectly coherent. Is it not true, in fact, that as soon as it is associated with physical output money acquires a positive purchasing power and defines the net asset generated by production? Far from denying this evidence, what we want to highlight is that, precisely because it is an asset insofar as it defines physical output, money cannot become an object of exchange *per se*. Considered as a positive asset, money is a financial claim whose object is (real) output. Thus, the purchase of money R should define the

purchase of country *R*'s output in the form of a bank deposit and not the purchase of a sum of money R as such. If this is not what happens in reality, it is because money as a *form* is erroneously taken to be an asset independently of its relationship with produced output. What has still to be explained, however, is how the misconception of money can lead to a series of anomalous transactions whose consequence is the unpredictable fluctuation of exchange rates.

The problem is the following. Since double-entry book-keeping grants the 'vehicular' use of currencies both at the national and international levels, how is it possible for some of them to survive their circular flow? Each time that a bank carries out a payment, money is simultaneously created and destroyed, since it flows instantaneously from and to the bank at the very moment the latter debits the payer and credits the payee. The result of the payment is either the creation of a new bank deposit or the transfer of an old one, a stock (money-income) and not a flow (money as such). Yet, nobody could deny the fact that on the foreign exchange market currencies are sold and purchased as if they were real goods. How is it, then, that a currency – say money R – can be an object of trade on the forex market, given that every time it is used in a payment it is instantaneously destroyed by the issuing bank?

Jacques Rueff is the first economist to have solved this apparent dilemma. Analysing the way payments of a key-currency country's net commercial imports are entered on the exporting country's book-keeping, he was able to show that today's system of international payments allows for a phenomenon of monetary *duplication*. For example, when country *R* pays for its net commercial imports from country *A*, a sum of money R is entered on the assets side of *A*'s balance sheet (that is, of *A*'s banking system). Now, money R flows instantaneously back to *R*'s banking system, so that the sum entered on *A*'s banking system should be immediately replaced by an equivalent amount of financial claims. This is indeed what happens, since *A*'s banking system becomes the owner of a bank deposit formed in country *R*. However, '[e]ntering the credit system of the creditor country, but remaining in the debtor country, the claims representing the deficit are [...] doubled' (Rueff 1963: 324). Hence, the duplication arises from the fact that the same claims on *R*'s bank deposits are simultaneously at the disposal of the debtor and the creditor countries. Since the national output defining the object of these claims is not itself doubled, only the claims circulating within country *R* have a real content, the others being mere duplicates. Now, while *R*'s banking system lends within country *R* the totality of its deposits, the banking system of country *A* is free to lend its duplicates on the foreign exchange market. Known as euro-currencies (though it would be preferable to use – as suggested by Triffin – the expression 'xeno-currencies'), these duplicates are considered as positive assets on their own and become proper objects of trade.

As it happens with real goods, 'xeno-currencies' are sold and purchased, and their market prices are determined through the adjustment of supply and demand. On the forex market, exchange rates become therefore the price of the currencies traded, and their variation is directly influenced by the demand exerted by investors and the offer supplied by the market.

It is true that this market is not necessarily a speculative one, transactions being carried out for various purposes, including the financing of capital increases by private firms (through the emission of xeno-bonds), and that of LDCs' external debt. Yet, sales and purchases of xeno-currencies pertain essentially to the category of speculative transactions. What has to be clearly understood is that speculation has reached such an enormous extent because the xeno-market has been increasingly fed by the process of duplication described above. Speculation is the effect and not the cause of speculative capital, and speculative capital is the direct result of currency duplication. As soon as currencies are transformed from *means* into *objects* of exchange their exchange rates vary according to their sales and purchases, and speculation arises from the possibility of capital gains resulting from these variations. As observed by Schmitt (1984), speculative transactions on the xeno-market can lead to an increasing rise or fall in the exchange rate of a given currency. For example, the inflow of foreign capitals demanding money R causes its revaluation on the foreign exchange market, while their subsequent outflow leaves money R's exchange rate unaffected since MR amount is independent of the number or volume of transactions taking place on the xeno-market.

If the system of international payments were founded on the circular use of an international currency – as suggested by Keynes in his plan for monetary reform presented at Bretton Woods –, no duplication would occur. In exchange for its net commercial imports a key-currency country would have to give up an equivalent amount of securities (shares or bonds), so that the instantaneous reflux of its currency would be explicitly recorded, thus avoiding the book-keeping duplication of financial claims taking place today. If this were the case, currencies would no longer be denatured, that is, transformed into objects of trade. Things being what they are, in the present system of international payments the process of duplication described by Rueff feeds a speculative capital market, and the transactions taking place on this market inevitably lead to fluctuations in exchange rates.

Let us suppose that residents of country *A* invest part of their income purchasing xeno-currency R. Since, in practice, no distinction is drawn between xeno-currencies and their national originals, the increased demand for xeno-currency R exerted by *A*'s residents re-evaluates money R with respect to money A. From the moment currencies are sold and purchased as if they were (real) assets, exchange rates become the expression of their (relative) prices and are made to vary according to the interaction of supply and demand. Besides the reciprocal exchanges between countries that guarantee the 'vehicular' use of money and leave exchange rates unchanged, a market is created in which transactions define net sales and net purchases of currencies pathologically transformed into net assets. In these conditions it is not surprising to observe that speculation becomes the main cause of exchange rate fluctuations. Needless to say, the variations in exchange rates caused by supply and demand do not affect only the currencies traded on the xeno-market. Any net purchase of money R in terms of money A affects both currencies, even if MR alone is a xeno-currency.

Although speculation plays a determinant role in today's unforeseeable fluctuations in exchange rates, it is not the only cause of this monetary disorder. As first shown by Bernard Schmitt in 1984, external debt servicing, too, is a source of possible variations in exchange rates. Let us devote the next section of this paper to a brief analysis of his argument.

Exchange rates and external debt servicing

Let us consider again our two countries, *A* and *R*, and let us suppose that country *A* – indebted to country *R* – benefits, in the period considered, from net commercial exports equivalent to the amount it has to pay as interest on its accumulated external debt. As shown in Figure 6, the inflow of money R leads to the payment of country *A*'s net commercial exporters by means of an equivalent amount of money A. On the other hand, the payment of interest to country *R* is carried out in money R by country *A*, while its indebted residents, external debtors ED, pay their due in money A.
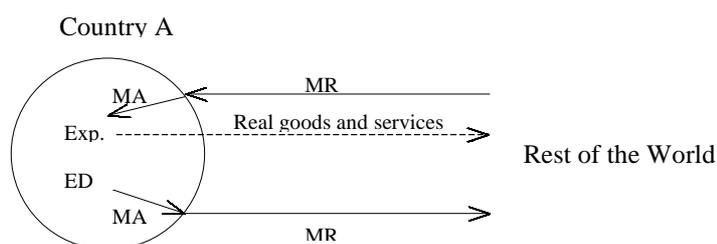
Figure 6

Apparently, the payment of interest on *A*'s accumulated external debt takes place in a perfectly orderly way. Country *A* earns a positive amount of money R through its net commercial exports and spends it to pay for the interest it owes to country *R*. Correspondingly, country *A*'s exporters are paid in money A, and country *A*'s indebted residents pay in money A. In order to pay for the interest on its external debt country *A* must earn an equivalent amount of country *R*'s bank deposits, which it does through its net sale of goods and services. Increased by the positive inflow of money R (or, more precisely, by the claims on *R*'s bank deposits), country *A*'s official reserves are then reduced by the outflow of money R (i. e. of the claims on *R*'s bank deposits) paid as interest to country *R*.

Now, despite appearances to the contrary, analysis shows that the total cost of country *A*'s external debt servicing is twice the amount due to country *R*. Let us consider the effect on exchange rates of both the payment of *A*'s net commercial exports and the payment of interest

on *A*'s external debt. Implying a net demand for money R in terms of money A, the payment of interest carried out by banks on behalf of *A*'s external debtors leads to a devaluation of money A. This is a devaluation that could be avoided if the payment of *A*'s net commercial exports led to an equivalent increase in money A's exchange rate due to the net demand for money A exerted in terms of money R. Unfortunately this is not what happens. As shown by today's use of double-entry book-keeping, entered on the assets side of banks' balance sheets in country *A*, money R engenders a creation of money A entered on the liabilities side to the benefit of *A*'s exporters. In other words, money R increases *A*'s official reserves and is instantaneously balanced by an equivalent amount of money A created as its counterpart. This means that the demand for money A exerted by money R is immediately satisfied by *A*'s banking system. Hence, the supply of money A being infinitely elastic, its increased demand in terms of money R leaves their exchange rate unaltered. The same cannot be said of the demand for money R exerted, in terms of money A, by the indebted residents of country *A*. The banking system of country *A* has no means to create money R. Therefore, the demand for the amount of money R required to pay for interest on *A*'s external debt puts a pressure on money A's exchange rate, which, if not neutralised, gives rise to a process of devaluation. '[T]o the extent that a country pays for [...] the interests on its external debt it engages its money, willingly or not, in a *process of depreciation* with respect to "strong" currencies' (Schmitt 1984a: 52, our translation).

As we have observed, although external debt servicing can bring about a process of devaluation, this process is not a necessary consequence of the duplication of interest payments. In fact, there are at least three possible ways for country *A* to avoid the devaluation of its national currency. The first and most obvious solution is an intervention on the foreign exchange market. Sacrificing part of its previously accumulated official reserves, country *A* can counterbalance the demand for money R exerted by its indebted residents. Devaluation would thus be avoided by cutting down country *A*'s official reserves. The second way requires country *A* to double the amount of its net commercial exports. If this came about, the increase in official reserves determined by *A*'s new net exports would define a credit of country *A* on country *R* that would balance the increase in debt caused by money A's devaluation. After compensation it appears that devaluation is once again neutralised through a decrease in *A*'s official reserves. More precisely, as shown by Schmitt in his two papers in this series, the double charge relating to the servicing of *A*'s external debt brings about a loss in the very formation of *A*'s official reserves. Thus, *A*'s net commercial exports, equal to twice the amount of interest paid on its external debt, brings no increase to country *A*'s official reserves. This same result is obtained when country *A* incurs a new debt in order to face the charge of its external debt servicing. Through the new sale of financial securities *A* obtains an amount of claims on country *R*'s bank deposits that neutralises money A's devaluation. Having obtained through a new loan the amount of money R needed to serve its external debt, country *A* can pay the interest due to country *R* avoiding the process of devaluation. Obviously, this entails the loss of the bank deposits earned through the new sale of

financial securities carried out by *A*, whose official reserves remain unchanged despite its net commercial exports. A zero increase in its official reserves is again the price country *A* has to pay because of its external debt servicing.

While the reader interested in the external debt problem should refer to Schmitt's most recent publications, we observe that the fundamental cause of the anomaly leading to the double charge of interest payments lies in the denatured role played by national currencies at the international level. It is the lack of monetary homogeneity and the asymmetry existing between key- and non-key-currencies that accounts both for duplication and for the appearance of what Keynes called the 'transfer problem'. Being forced to purchase the money necessary to convey their interest payments, indebted countries incur a second, iniquous charge that affects the increase of their official reserves. If a true system of international payments existed – like the one proposed by Keynes in 1944 – currencies would be used merely as *means* of payment (and never turned into objects of trade). Every international transaction (external debt servicing included) would imply a reciprocal exchange of goods, services or securities, and indebted countries would no longer have to pay twice for the servicing of their debt – once in order to get a positive amount of claims on *R*'s bank deposits and then in order to transfer it to the creditor countries.

From relative to absolute exchange rates

What we want to show in this last section is that the system of international payments adopted since Bretton Woods has been based on a regime of relative exchange rates and that the change from disorder to order requires its replacement with a regime of absolute exchange rates.

In a regime of relative exchange rates, currencies are exchanged one against the other and exchange rates are defined as the ratio of this very exchange. The assumption common to the neoclassical theory of relative prices and to the monetary theory of relative exchange rates is that economic assets (whether real or monetary) can be measured directly through exchange. Thus, as in the case of relative prices, it is taken for granted that the exchange rate of a given currency, say money A, can be determined in terms of another, money R, with which it is exchanged. Since in a regime of relative exchange rates currencies are considered as real goods, it is not surprising that exchange rates are taken to define the prices of the currency-goods traded on the foreign exchange market. It is also easy to understand that, in this case, currencies are actually transformed from *means* into *objects* of payment. It is through a duplication that this transformation becomes effective and that the regime of relative exchange rates has its full impact. Erratic fluctuations in exchange rates are one of the negative consequences of this regime. The double charge of external debt servicing is another.

To reach exchange rate stability and find an effective solution to the external debt problem we will have to change radically the way we look at money and use it in international trade. It is

highly important to understand fully Keynes's message as to the nature of bank money and the logical rules a monetary system has to comply with. In particular, the time has come to abandon the 'materialist' conception of money and to work out a system of payments in which money is used only 'vehicularly'. When this is done, the present regime of relative exchange rates will be replaced by a regime of absolute exchange rates in which each currency is exchanged against itself. Whereas in a regime of relative exchange rates money A is exchanged against money R in a process where MA takes the place of MR and vice versa, in a regime of absolute exchange rates money A is exchanged against money R only to be instantaneously changed back into money A.

Relative exchange   Absolute exchange
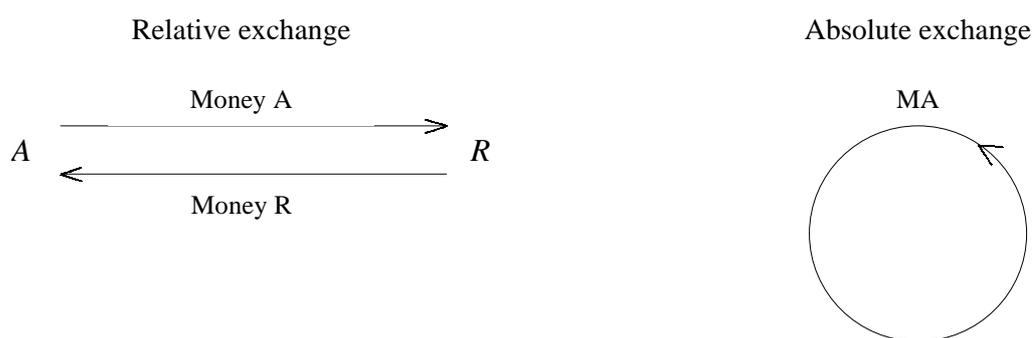
Figure 7

The transition from relative to absolute exchange rates is therefore that from a system in which money is an *object* of payment to one in which money is a *means* of payment; from a system in which money is itself an asset to one in which real and financial assets are 'circulated' by money. It is the circular use of money that, as in Keynes's plan of reform, allows for the stability of exchange rates. It is obvious, in fact, that if every time money R is demanded by money A, money A is demanded by money R, no net demand can ever be exerted that may lead to a fluctuation of MA's or MR's exchange rate.

The circular use of money requires international payments to be carried out in such a way that no foreign currency is ever entered on the assets side of a net exporting country's balance sheet as the final counterpart of its net commercial exports. As suggested by Keynes, this can be done by matching up the rules of double-entry book-keeping with the principle of international clearing. Of course, this is not to say that in order to reach exchange rate stability countries must balance their commercial transactions. Trade balance equilibrium is neither a necessary nor a desirable requirement of international transactions. On the contrary, a sound monetary system should allow industrialised countries to increase their commercial exports (thus exploiting fully their productive capacity) and less developed countries to increase their imports (which they so

terribly need to do in order to increase the material standard of living of their population and speed up their economic growth). Applied to international payments, the principle of clearing implies the balancing of the transactions occuring *on the commodity and on the financial markets.* This means that a net commercial surplus must be counterbalanced by an equivalent net purchase of securities, the country whose balance of trade is in surplus being a net importer on the financial market. Hence, instead of entering a sum of foreign currencies on the assets side of its banks' balance sheet – the first step towards duplication –, the surplus country spends it immediately to purchase an equivalent amount of foreign securities. Whatever currency is chosen as the international means of payment (money A, money R or a new international unit like Keynes's *bancor*), the circular flow of money is thus guaranteed by the necessary equality between the balance of trade and that of financial transactions.

Absolute exchange rates define a regime in which the international monetary flow is kept separate from the flow of national currencies that takes place within each country. In this regime, currencies will no longer be exchanged one against the other and none of them will become the object of net sales or purchases. At the national level the role of money is to allow the circulation of real goods and services (financial claims included). A task that money fulfils by lending its form to physical output. At the international level, money is also required to transfer goods, services and financial claims, although this time the objects to be circulated have already been monetised in their countries of production. Now, a regime of absolute exchange rates is one in which, by taking the place of national currencies, the money chosen as the international means of payment lends its form to the goods, services and financial claims exchanged between countries. Under this regime, each national currency is *changed into* the international money and not *exchanged against it* or against another national currency. Through the intermediary of the international money, a part of present and future output of a country (say country *A*) is thus transferred from a (national) monetary form to another, where it replaces the goods and services (present or future) given in exchange by country *R*.

Before international transactions actually take place, national outputs of countries *A* and *R* are monetised in money A and in money R respectively. In other words, country *A*'s output is 'lodged' into money A while country *R*'s output is the 'real content' of money R. Let us now suppose that country *A* exports a part of its real goods and services to country *R*. International clearing calls for an equivalent transfer of output from country *R* to country *A*. Let us also suppose that, in exchange for its commercial imports, country *R* gives *A* an equivalent amount of its future output (in the form of financial bonds). The reciprocal exchange between the two countries is 'vehiculated' by the circular flow of an international money issued, for example, by the International Clearing Union (ICU). Given the regime of absolute exchange rates, both money A and money R are converted into the international money issued by the ICU, through a circular process that allows each of them to recover its original form immediately. Although it does not last more than an instant, the absolute exchange of money A (against itself) and money R (against itself) is enough to transfer the real goods and services exported by *A* from money A to money R,

and the financial bonds exported by *R* from money R to money A. Through its absolute exchange, money A gives up its real content to the international money (the goods and services exported by country *A*) and replaces it with the financial bonds exported by country *R* and transferred from money R to the international money through the absolute exchange of money R. Thus, because of the exchange between the two countries, goods and services exported by *A* take the form of money R, while the financial bonds sold by *R* take the form of money A. This substitution takes place through the intermediary of the international money with which both currencies are exchanged, and that disappears as soon as the reciprocal payment between the two countries has been carried out by the ICU.

In today's system of relative exchange rates the payment of *R*'s net commercial imports does not necessarily entail an equivalent export of securities, since key-currencies are given the status of net assets. In particular, when money R is a reserve currency, country *R* pays for its net purchases of goods and services by transferring to *A* an equivalent amount of claims on its bank deposits. Now, even though this payment does not alter the exchange rate between money A and money R (the payment being reciprocal, money R is used in a circular flow), it leads to a duplication that transforms money R (its duplicate) into an object of trade and its exchange rate into its (relative) price. If, heeding Keynes's and Schmitt's advice, we were to replace the present system with one founded on absolute exchange rates and on the use of a genuine international money, national currencies would circulate only within their countries and would no longer be transformed into objects of trade.

Conclusion

What we have attempted to show in this paper is that exchange rate fluctuations are not essentially due to fluctuations in economic factors, but to the anomalous working of our monetary systems. Based upon the principles of double-entry book-keeping, the laws of bank money are such that no currency can ever leave the banking system from where it is issued. The totality of money A is necessarily deposited with the banking system of country *A*, the totality of money R with that of country *R*, and so on. If the present system of international payments were so structured as to comply with this law, monetary order would reign and exchange rate stability would be the rule.

Unfortunately, this is not the case. International payments are carried out as if currencies could leave their banking systems to be transferred into those of the creditor countries. Now, the law is categorical: national currencies cannot be transferred from one banking system to another since they are necessarily deposited in the banking system where they originated. Hence, what is entered on the assets side of the net exporting countries' balance sheets as a monetary counterpart of their commercial exports is a mere duplicate of the currencies deposited with the banks of the importing countries.

It is the lack of correspondence between logical laws and practice that causes the duplication

of those currencies used as net reserve assets and leads to the pathological formation of the foreign exchange market. On this market, transactions have unilateral effects on exchange rates, whose fluctuation becomes the erratic result of speculative decisions.

To go from disorder to order is to shift from relative to absolute exchange rates. Thus, currencies will have to be taken for what they actually are, i.e. mere means of payment, and not for what we would like them to be, that is, positive assets. Used in a circular flow, currencies will then be placed in a system of absolute exchange rates, none of them being the term of a relative exchange between net assets. To fully grasp the reasons to move from a regime of relative to one of absolute exchange rates we need to analyse afresh the laws governing bank money. Because of the growing instability of the foreign exchange and stock markets this analysis becomes a must. Let us hope that more economists will soon follow the examples of Keynes, Rueff and Schmitt and work together on this urgent task.

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