The Dollar as an International Money (*)

Would Europeans gain or lose from the development of a single European currency? Would the world gain, or lose, as much or more than the Europeans? Or, would any gain for Europe come at the expense of the United States or its citizens? Do U.S. citizens benefit more than others because the dollar is held as reserve by foreign central banks and used as a medium of exchange by Europeans and others?

The answers to these and other questions emerging from recent research have not found their way into political discussions of future monetary arrangements. Money is treated as a "store of value", or reserve asset, not as a medium of exchange. New international "monies", such as SDRs, are designed for use in official settlements and not by non-governmental traders. Fixed exchange rates are preferred to freely floating rates on grounds that freely floating rates increase uncertainty and reduce trade. But, the implications of this argument for the role of money as a medium of exchange have been ignored.

This paper attempts a brief restatement of some recent developments in monetary theory. Then I draw some conclusions for the international monetary system. The principal conclusions can be stated here. One, a multiple-currency system is inferior to a two-currency system, so it is advantageous for Europeans to develop a single currency. Two, a two-currency system is inferior

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* An earlier version of the argument in this paper was presented at the Konstanz Conference on Monetary Theory and Policy, in June 1972. Several representatives of central bank and governments commented on the argument at the time, and I have benefitted from their comments. I wish to thank Drs. H. Boeckelman, J. H. David, J. Melitz and P. Savona without implicating them in any way. I am especially indebted to Karl Brunner, my co-author on many occasions. This paper borrows heavily from our joint work and particularly from "The Uses of Money: Money in the Theory of an Exchange Economy", *American Economic Review*, 61 (December 1971), pp. 784-805.

to a one-currency system. Three, welfare is increased if the dollar is used as a medium of exchange. The problems of seigniorage and management are discussed, briefly, at the end.[1]

Money as a Medium-of-Exchange

The theoretical term "money" has had two principal meanings in economic theory. "Money" is the asset or collection of assets that — for given tastes, anticipations, and productive opportunities — determines the price level. "Money" is also the asset (or assets) that is held as "buffer stock" or inventory if receipts and payments are not synchronized.

Neither of the definitions by function recognizes any important distinction between a money using economy and a barter economy. In current monetary theory, the first function of money can be performed by any asset, and "money" is any asset chosen for the role. The second function can be performed without "money" if there is a developed credit market in which individuals can lend or borrow and, thereby, adjust receipts and payments. Verbal promises to pay are as useful as money for adjusting the timing of payments or receipts and are used, widely, in active financial markets with developed clearing arrangements. That verbal promises are not used everywhere, or more widely, is a consequence of uncertainty. The role of money in reducing uncertainty is a main subject of recent research on money.

The point of the analysis is much simpler than the analysis. Traditional monetary theory neglects uncertainty, the opportunity to adjust payment schedules, the cost of acquiring information and most of the costs of transacting or exchanging. Nothing in standard monetary theory explains why some medium of exchange emerged at an early stage in the development of every economy. Nor, does the theory explain why there is a gross association between the spread of trade and exchange and the use of commonly accepted, recognized money. The fairs of the Middle Ages, the gold standard, and the dollar exchange system of the postwar years provide evidence of such associations. By failing to explain these

1 For a critical summary of alternative proposals, see HARRY G. JOHNSON, "International Monetary Reform and the Less Developed Countries", Chapter 10 of *Essays in Monetary Economics*, Cambridge, 1967.

associations and ignoring the failure, monetary theory neglects the principal role of money. It is unlikely that a useful plan for the future monetary system can be built on such a foundation.

The new, or emerging, theory of money recognizes that traders and transactors economize on resources by using a medium-of-exchange. The use of an asset with known properties as a medium of exchange — the main property is often called "general acceptability" — reduces costs of exchange. Those who accept the medium of exchange know that others will accept future payments made in the medium of exchange. Moreover, in any transaction, uncertainty about quality and nominal price at time of delivery are reduced if the properties of one of the assets exchanged is well-known to both transactors. Costs of exchanging fall as uncertainty is reduced. Consequently, resources devoted to exchange earn higher net returns, and it becomes profitable to specialize, to devote more resources to trade and to exchange. Trade expands.

A main point in this line of argument seems familiar to anyone who recalls Adam Smith's basic case for division of labor, trade and exchange. The new element is the development of an analysis of money that applies a similar conclusion to money. Three main consequences of the extension are the introduction into monetary analysis of uncertainty about market prices and the qualities of the goods exchanged, the implications obtained for the role of money as a medium of exchange and the differences between monetary and non-monetary exchange arrangements.

An important difference between the standard case for trade and the analysis of money should not remain hidden by the analogy. Specialization and exchange in commodity markets increases welfare by increasing opportunities and the range of choice. The use of money increases opportunities by reducing costs of exchange, thereby permitting more resources to be devoted to exchange or to leisure. The introduction or use of many different monies generally does not increase — but reduces — net benefits, according to the emerging theory of money.

Implications for the International Monetary System

A main point in the case made for fixed exchange rates is that fixed exchange rates increase certainty, and increased certainty expands trade. Proponents of fixed exchange rates have developed

a case that has persuaded central bankers, governments and many businessmen. But they have not analyzed the consequences of periodic adjustments of fixed rates, nor shown that large periodic readjustments are less costly than small, regular adjustments. I believe that a general proof of this kind is unlikely to be established.

The analysis of money as a medium af exchange implies that the case for fixed exchange rates is better stated as a case for a unique medium of exchange and unit of account, a single money. With a unique money there are no adjustments in exchange rates. A single medium of exchange has the principal benefit claimed for fixed exchange rates. Uncertainty is reduced. Unlike the case for fixed exchange rates, there is no gap in the argument. There is a single money and, therefore, no periodic readjustment of exchange rates. [2]

With a single medium of exchange, costs of information are reduced for the citizens of all countries. Individuals no longer devote resources to acquiring information about currency values, to exchanging currencies, or speculating on future exchange rates. The saving in resources is a real saving not only for individuals or firms, but also for society. The labor of skilled traders operaing on the Euro-dollar market is only a small part of the resources that can be released to other, more productive uses. The time of travellers, including tourists, devoted to exchange operations, the labor of private speculators, bankers, and central bankers adds considerably to the real cost society pays to maintain local monies.

All of the resource costs can be saved if a single money is substituted for the system of local monies and fixed exchange rates. Moreover, the benefits to individuals and societies are not offset by any loss of real opportunities. Individuals who shift from one currency to another to benefit from, or hedge against, changes in relative rates of inflation retain the equivalent opportunity of shifting between money, or claims denominated in money, and real assets, or claims denominated in real terms. The opportunity to hedge against inflation or to profit from correctly anticipating future inflation remains.

Countries lose the opportunity to independently determine the

2 The case of severe hyper-inflation may be an exception. In severe cases, hyper-inflations have reached high levels without eliminating fully the use of an existing medium of exchange.

rate of growth of domestic money. Is this loss a real loss? A main implication of monetary theory in an open economy is that countries do not possess the power to independently choose the rate of monetary expansion and the exchange rate. Countries lose the opportunity to inflate or deflate, in the short-run, at rates faster or slower, than the rate required to maintain the current exchange rate. The counterpart of this "loss" is the saving of resources from acquiring information and speculating and hedging against unanticipated changes in exchange rates. In addition, countries forego the opportunity to impose exchange restrictions or exchange controls. "Losses" of this kind must be counted as benefits, not costs, to the world economy.

The costs of introducing and maintaining a single currency are lowest if the world currency is an asset with well-known properties. The reason is that costs of acquiring information are reduced if an asset with established and known properties is chosen.

This argument rules out new and unfamiliar assets such as bancor, SDRs, or other proposed international monies. Probably the two best-known monies are gold and dollars. The properties of gold as money are perhaps most widely known, but the resource costs of using gold as money are substantially higher. The U.S. dollar would appear to have lowest costs of production, maintenance and information.

If the dollar is used as the common money, no resources are used to acquire information about exchange rates. However, the choice of the dollar, or any other asset, as world money does not assure stability of the world price level and the purchasing power of money. Asset owners would continue to devote resources to predicting, anticipating or acquiring information about current and future rates of inflation.

Suppose, instead of choosing the dollar, Europe chooses a common money, the europa, and maintains fixed exchange rates between europas and dollars. This decision increases costs of information and the resources used for exchange. If the commitment to fixed exchange rates is maintained rigidly, Europe must adapt its rate of inflation to the U.S. rate of inflation, or vice-versa. The only policy choice available to the two central banks is the choice of one monetary policy, just as in the case of a single currency. The resource costs however, are greater. Not only are

there meetings, discussions, and negotiations between the two central banks and governments, but there are problems of timing and adjustment. Any variance of the europa-dollar exchange rate that creates opportunities for speculation increases the resource cost of maintaining the system by encouraging private resources to be devoted to speculation and exchange. Costs of exchanging currencies, including the costs of operating and maintaining the exchanges, must be added. Any hint that internal political "considerations", rival nationalism, or mercantilist disposition has weakened the commitment to maintain fixity of exchange rates increases the anticipated return to currency speculation and the resource costs of the two-currency system.

Both recent and past experience with fixed exchange rate systems provides considerable evidence that central bankers prefer fixed exchange rates with currency controls and restrictions to either floating rates or changes in fixed parities. Any costs of enforcing and avoiding controls must be counted as part of the addition to the costs of a two-currency (or multi-currency) fixed exchange rate system. Costs of this kind are not negligible but are often overlooked by both theorists and practitioners.

Compared to a system of freely floating rates, a single currency system suffers a main disadvantage of a fixed rate system. All countries must accept the rate of inflation or deflation resulting from the world rate of monetary expansion. Individuals can, of course, protect themselves against the consequences of inflation or deflation by shifting their net debtor position, but to do so they incur costs of acquiring information and adjustment. Such costs cannot be avoided. The principal difference, on this dimension, between a single currency and a system of floating rates is that, in the latter, costs of information are higher and more resources are allocated to exchange.

The central point of the argument can be restated briefly. Under a two-currency system, there are two rates of inflation and one exchange rate. Resources will be used to acquire information, predict, adjust, hedge and speculate against particular currencies. Although the resources are employed differently in fixed and floating exchange rate systems, both systems absorb more resources than a single currency system. Cost of transacting and exchanging are lowest if the world uses a single currency with

well-known properties and minimal resource cost of production as a medium of exchange and unit of account. The U.S. dollar best fits the specifications.

Seigniorage and Other Issues

The two most frequent objections to this proposal are related.

(1) The proposal is said to allow the U.S. central bank and government to determine the world rate of inflation.

(2) The proposal gives the U.S. the exclusive right to print money and to use the power of money creation to acquire real assets.

Both objections are consequences of fixed exchange rates and the reluctance of debtors and creditors to revalue. Both are, therefore, part of the present system. The principal difference between the present system and the system described here is that, at present, the commitment to fixed exchange rates is revocable. A few countries have allowed their currencies to float for short periods to establish new parities, and even fewer have adopted floating rates as a permanent, or semi-permanent, policy. As a consequence of periodic changes in fixed parities, resources devoted to hedging, speculating and currency exchange operations receive sufficient return to encourage the development of markets. The present mixed system is far from optimal. Although resources devoted to exchange operations have increased, the exchange markets are probably less well developed than under a system of freely floating rates, and the social costs of maintaining the present system are larger than the costs of operating the world economy with a single currency. Most of the costs of the dollar system are imposed currently by the commitment to fixed exchange rates, but the benefits of a single currency are not realized.

Nothing in the system outlined here increases private costs by forcing foreigners to become unwilling victims of the inflationary or deflationary policies of the U.S. central bank or increases the degree to which they are victims. The opportunity to shift from debtor to creditor position remains, and even increases if, as I expect, use of a single currency reduces the frequency with which central banks and governments resort to exchange controls and

portfolio restrictions. With a common currency, costs of acquiring or selling foreign securities decline for all market participants. As long as the opportunity to change net debtor position remains, wealth owners who correctly anticipate price level changes can protect themselves and even profit from the change. By reducing costs of information and costs of exchanging, hedging and speculating, a single currency system improves the functioning of markets and increases the opportunities to hedge against, or profit from, anticipations of changes in the rate of price change.

Nothing in this proposal to use the dollar as an international currency assures that price stability will be maintained or instability lessened. The world rate of inflation or deflation is mainly a consequence of differences in the rates at which money and real output are produced. The speed with which inflation spreads and the extent to which it spreads, however, depend on monetary arrangements. Maintenance of fixed — or infrequently changed — exchange rates and a reserve currency facilitates the spread of inflation and increases the resource cost of operating the monetary system. The proposal to adopt the dollar as the world monetary unit and medium of exchange is not a panacea. It is a means of reducing the costs of providing a particular set of productive services — the services of money.

There remains the problem of seigniorage. The problem arises because the cost of producing dollars is less than the market value or, in the language of commodity money systems, the mint price is below the market price. A solution is to pay a competitive return to money holders. The payment of interest on money not only reduces the cost to money holders of managing cash balances, but also assures that money holders obtain a return consistent with the risks and opportunities they choose to undertake or forego.[3]

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3 For discussion of these issues, see MILTON FRIEDMAN, "The Optimum Quantity of Money", Chapter I of *The Optimum Quantity of Money and Other Essays*, Chicago, 1969.