

Factor Mobility and the International Monetary System

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This Fourth International Conference sponsored by the Institute for Monetary and Economic Studies of the Bank of Japan is designed to stimulate thinking about the future of the international monetary system in the light of recent history. That history includes the Bretton Woods system, with its successes and ultimate failure, and the flexible rate system with its unexpectedly large exchange rate fluctuations and current account imbalances. In particular, we are asked to consider the implications for the future of the international monetary system of the increasing sophistication of domestic and international financial markets, and the large scale of international capital flows — and here it is necessary to take into account not only the sizeable net flows that mirror current account imbalances, but also the phenomenal scale of gross flows that are now routine in the major financial markets.

The best-known of the proposals for reducing exchange rate and perhaps current account fluctuations are discussed in several of the papers to be presented at this conference.¹ These range from the target zone proposal of Williamson (1985) and Williamson and Miller (1987), which comes closest to describing the post-Plaza agreement relations among the major currencies, through an adjustable peg system, which exists within the EMS and between other individual currencies and some major currencies, to Richard Cooper's proposal for a world money, which is described in his paper for this conference.

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¹Particularly in the paper by Shinkai.

Certainly the most radical and intellectually most appealing is the proposal for a single world money. Of course, Cooper is not proposing or predicting that the world should or will move immediately to such a system. But he does suggest it is the logical direction in which the world is heading — and at this hopeful time at which some long-lasting international conflicts have been settled, others are moving in surprising and beneficial directions, and there is far less diversity of views about appropriate national economic policies and the necessary role of markets than in over half a century, it is easy to be sympathetic to this view.

In this paper I discuss first the requirements for the successful use of an international money, and second, the difficulty of estimating equilibrium exchange rates at a time of major international capital flows. These two topics are linked by the role in each of them of factor mobility. I will argue that the absence of sufficient factor mobility makes the use of a world money remote, but that the existing degree of capital mobility makes the restoration of an adjustable peg unlikely and the maintenance of meaningful target zones very difficult. Accordingly we have to live for some time with the imperfections of the current system.

I. Factor Mobility and a World Money

In discussing the requirements for and desirability of a world money, I shall draw extensively on the recent “Report on Economic and Monetary Union in the European Community”,² the Delors Report. I shall examine four issues: the role of fiscal policy coordination; the role of good and factor mobility; the adjustment mechanisms that would operate in a single currency world; and the desirability of a world money.

There is no difference in principle between the use of a single world money and a system in which nominal exchange rates among countries are irrevocably fixed. It may be thought that the only way to attain irrevocably fixed exchange rates is to use a single money — though even here it has to be recognized that currency unions have in the past broken down and been replaced by several national currencies. For simplicity we shall assume that we are discussing a single fiat money that is the only money in existence. We shall further assume that there are no capital controls.

The Delors Report defines three necessary conditions for a monetary union: the assurance of total and irreversible currency convertibility; the complete liberalization of capital transactions and financial markets; and the irrevocable fixing of exchange rates. It regards the creation of a single currency as a desirable further step to cement the monetary union.

Among the conditions necessary for economic union, the Commission includes the completion of the single European market, in which “persons, goods, services and capital

²Report of the Committee for the Study of Economic and Monetary Union, April 12, 1989.

can move freely”); and macroeconomic policy coordination, including binding rules for fiscal policies. The Report argues that economic union and monetary union are inextricably linked and would have to be implemented in parallel.

The key question about the use of a single money is whether the conditions described by the Commission as necessary for economic union — goods and factor mobility, and macroeconomic policy coordination — are also needed for the success of a monetary union. We discuss the issue in general, not in the specific context of the European Community.

A. Fiscal policy coordination

Consider first fiscal policy coordination. The seignorage revenue collected by the central monetary agency would still be available for distribution among the member countries. However, the adoption of a single money eliminates the independent use of seignorage as a policy instrument. This could have significant budgetary implications for countries which, whether because they grow more rapidly or inflate more rapidly, collect relatively large amounts of seignorage revenue. By removing the right of individual countries to print money to finance future budget deficits, the use of a single money would also to some extent limit the size of deficits that governments could finance by borrowing, and thereby limit divergences among aggregate fiscal policies.

The extent to which explicit fiscal policy coordination among countries would be necessary for the survival of a monetary union depends on the efficiency of markets and the rationality of governments. Suppose that one government wished to run relatively large deficits, thereby drawing disproportionately on the world's saving. It might want to do this because it has a different demographic profile than other countries, or because its citizens through the political process express a different rate of time preference than those in other countries. In principle the government would choose its deficit recognizing the intertemporal tradeoffs it faces — that a higher deficit today means a smaller deficit tomorrow³ — and the financial markets would price that government's debt appropriately.

There might nonetheless be positive externalities from fiscal policy coordination, particularly among the larger countries. Fiscal policy coordination could help regions adjust to shocks, both those that hit the entire currency area, and those that affect different regions differentially. Fiscal policy coordination can be seen as a useful complement to the other potential adjustment mechanism that we examine below, namely factor mobility and wage and price flexibility. Fiscal policy coordination is more necessary the less effective are the other adjustment mechanisms.

The use of a single money would not force or require full convergence of tax rates and government spending patterns among countries, which could continue to differ as

³Assuming that the real interest rate exceeds the economy's growth rate.

they do in many federal states. The convergence that would be required here would depend in part on the mobility of factors; full mobility of capital would mean that capital tax rates would have to be very similar, but if any factor, such as labor, were not mobile, governments could impose different tax rates. Even if all factors were fully mobile, governments could compete by producing different tax and benefit packages for their residents, as envisaged by the Tiebout (1956) hypothesis.

Thus full fiscal policy co-ordination does not seem necessary for the adoption of a single money. Rather the adoption of a single money would tend to produce some, though limited, fiscal co-ordination by limiting the independent use of seignorage. Whether it forced convergence of tax rates and government spending patterns depends on the extent of factor mobility.

B. Goods and factor mobility

The "Report on Economic and Monetary Union" describes goods and factor mobility as essential to economic union. To some extent this is true by definition. There remains though an interesting question of whether *both* goods and factor mobility are necessary to attain the benefits of an economic union. Goods mobility is indeed essential. The factor price equalization theorem implies that in some cases goods mobility alone suffices to produce factor price equalization and thus would appear to make factor mobility unnecessary (Samuelson 1949). But the conditions under which factor prices would be equalized through free trade in goods are unlikely to hold in practice. Would capital mobility plus goods mobility suffice? At the theoretical level, that depends on whether there are non-traded goods. Since there are, capital mobility plus goods mobility would not in general produce the same allocation of resources as would exist if all factors were fully mobile.

Labor is frequently immobile in practice even when it is legally free to move, for instance among regions in existing unified states. Regional problems, including persistent high unemployment in some regions, are more likely to persist in the absence of a mechanism that allows relative price adjustments. If nominal wages and prices are sticky, then a change in the exchange rate is one potential adjustment mechanism; but if it is real wages that are sticky, then exchange rate changes do not provide an additional adjustment mechanism. Where wages and prices are not sticky, adjustment can take place through differential changes in wages and the prices of non-traded goods. Such a mechanism does seem to operate in the United States, where regional price changes (particularly as reflected in housing prices) in effect allow quite significant real exchange rate changes to take place.

Thus labor mobility would be desirable in the creation of an economic union, but is not essential to it, provided relative wages and other prices can adjust across regions. If labor is not mobile, and if regional nominal wages and prices are sticky, then the creation of a monetary union would exacerbate regional problems.

Large regional disparities would place a strain on the currency union. These could be overcome by budgetary transfers and other regional policies. Certainly, sizeable regional disparities persist in existing federal states without local governments seeking to institute their own monies.

To summarize, the Commission on Economic and Monetary Union has set out conditions for economic union — namely fiscal policy coordination, and goods and factor mobility — that would be desirable in their own right, and that would certainly strengthen a monetary union. However under certain circumstances full fiscal policy coordination and complete factor mobility would not be essential for the adoption by several countries of a single currency or its equivalent.

Under what conditions might countries that have not moved as far to economic union as envisaged by the Commission agree to use a single currency? Governments that see very little to be gained by retaining the right to produce inflation rates that differ persistently from others, and who believe that adjustment mechanisms other than changes in nominal exchange rates are available, might well want to use a single currency or move towards irrevocably fixed exchange rates. Since there is little to be gained by retaining the right to create independent inflation rates, the issue comes down to one of the existence of alternative adjustment mechanisms.

C. Adjustment mechanisms

Coordination of fiscal policies, including agreement on budgetary policies to deal with regional problems, provide a source of adjustment. So do wage and price flexibility. Adoption of a single currency could help create local wage and price flexibility, by increasing the credibility of the government's commitment not to accommodate inflationary pressures, along the lines suggested by Giavazzi in his paper for this conference. But it was true during the gold standard period that commercial policy was frequently used as an alternative (to the exchange rate) adjustment mechanism, and it was also true that the collapse of the gold exchange standard in 1931 led to the use of tariffs as an alternative (and counterproductive) adjustment mechanism.

Economists would believe that it should be possible through the strengthening of GATT and of individual governments' resolve to limit the use of such trade interventions. However recent experience gives reason to fear the strength of protectionism.

D. The desirability of a monetary union

The Committee for the Study of Economic and Monetary Union was given the task of studying concrete steps to attain those goals, not asked to appraise their desirability. Would an extension of the area of use of a single currency be desirable? Closer economic integration that does not increase barriers to external trade would in general be beneficial. Such integration would be improved by the use of a single money. In the absence of such integration, the use of a single currency would remove an adjustment mechanism —

exchange rate changes — that could be useful under some circumstances. This could lead to increased use of trade restrictions.

For that reason, and because wage and price flexibility may be slow in coming, early attempts to move towards the use of a single currency could be counterproductive and undesirable. By insisting on factor mobility and coordination of fiscal policies as necessary accompaniments to monetary union, the Delors Committee seeks to put in place alternative adjustment mechanisms. However, such mechanisms require close political coordination that is not at present attainable on a larger scale. Without such coordination, it would be premature to attempt to extend the area of currency union.

II. The Adjustable Peg and Other Alternatives

The adjustable peg system is one step short of currency union, since it allows the possibility of sometimes adjusting the exchange rate. A return to that system could be a step towards a world money, in the same way as the EMS is serving as an interim step on the path to a European money.

However attractive the adjustable peg system, whether as a step towards a world money, or because it stabilizes both real and nominal exchange rates, it has to be recognized that we are in the current flexible rate system because the Bretton Woods adjustable peg system proved unworkable. Nothing that has happened since 1973, except the creation of the EMS, suggests that the major countries are willing to constrain their economic policies in a way that would make it possible to return to the adjustable peg system. Further, the increase in capital mobility since 1973 makes a return to the Bretton Woods system even more difficult.

It is common to suggest in light of the large current account imbalances during this decade that the flexible exchange rate system may encourage protectionism. A case can be made to this effect: namely, if exchange rates had been truly fixed during this period, the real appreciation of the dollar until 1985 would probably have been smaller than it was, therefore current account imbalances would have been smaller, and therefore protectionist pressures would have been less. However, it is highly doubtful that fixed exchange rates could have been maintained in the face of divergent fiscal policies in the early eighties; it is the underlying divergences in fiscal policies and saving rates that lead to the large deficits that are proximately responsible for protectionism.

A. Target zones

Exchange rates were allowed to fluctuate without official intervention for only a short period in the early part of this decade. Particularly since the 1985 Plaza agreement, shortly after the dollar had peaked, the world appears to have been operating with flexible target zones for exchange rates. From time to time the authorities appear able to keep exchange rates within the target zones, but occasionally, as in recent months, capital

movements become so strong that rates may move outside their target zones.

There may be two arguments for target zones: first, that capital movements may frequently be irrational, that is to say, not justified by the economic fundamentals; second, that capital movements are more likely to be rational if the markets have information about the authorities' intentions. The authorities apparently do not subscribe to the latter argument, for they do not make the target ranges public.

The question of whether private capital movements are at any particular time irrational can be answered only if there is a good estimate of the equilibrium exchange rate. These estimates are based almost entirely on estimates of the exchange rates needed to achieve particular current account targets, typically close to balance, over some specified horizon.

The major difficulty with such estimates is that we know relatively little of the size of long-term capital flows that may be desired by market participants. International capital flows have been severely restricted in much of the world for over fifty years. U.S. residents have been free to purchase foreign assets during this period, but the residents of other countries have suffered or continue to suffer from restrictions on the foreign assets they can buy. Estimates of optimal international portfolios suggest that individuals should diversify internationally more than they have; this may be so especially for residents of small open economies and developing economies.

Given that U.S. residents have been subject to fewer capital controls than others, it is likely that there will continue to be some pressure for a net inflow of capital into the United States⁴ as part of a stock readjustment of portfolios as international capital markets become more open.⁵ Such pressures are not independent of rates of return or the exchange rate, but their potential existence indicates the difficulty of estimating equilibrium exchange rates from the current account alone.

Of course, the intertemporal budget constraint limits the potential paths of the current account: the constraint is that the present value of a country's future primary external surpluses has to be equal to the current value of its net external debt. One implication is that a country that is currently a net debtor has to look forward to running trade surpluses in future; another is that a debtor country that continues to receive net capital inflows has to look forward to having to increase its net transfers to foreigners in future years above the levels that would otherwise have been needed.

But this constraint places very few restrictions on justifiable sizes of current account deficits or net ownership of foreign assets. Net asset positions have been far larger in the past than they are currently: Britain in 1914 had external assets equal to about 125% of her GNP (Platt 1986), and about 15% of world GNP. Japan currently holds external assets worth about 15% of her GNP and less than 2% of world GNP. Canada's current

⁴This pressure is of course not independent of expected rates of return on alternative assets.

⁵There will also be flows from the countries that have not had capital controls to those now opening up to foreign investment.

net indebtedness as a share of GNP is about 40%, and there has not been any concern about her inability to service the debt. The plain fact is that although economists can easily agree that current account deficits on a significant scale cannot continue forever, we have little idea of how long they can continue.⁶ Although concentration on the current account in estimating equilibrium exchange rates is ultimately justified, it is difficult to know what these rates should be at a particular moment of time.

The difficulty of knowing the equilibrium exchange rate at any given time, a difficulty that is heightened by the remarkable international mobility of capital, means that both an adjustable peg system and a meaningful target zone system are unlikely to become effective anytime soon. Of course, a target zone system with sufficient flexibility is always possible, but the question then is whether the target zones are meaningful, both as constraints on national policies and as constraints on the ability of capital flows to move exchange rates significantly.

III. Concluding Comments

The conclusion is that exchange rates among the major economic blocs are likely to continue to be set as at present, by the markets, with periodic periods of intense intervention by the authorities. If countries were willing to coordinate their fiscal policies much more closely, exchange rate movements could be reduced; and if there were fewer obstacles to the movements of goods and services — for instance if the Uruguay Round attains its ambitious goals — exchange rate movements could be further attenuated. While the notion of a world money is intriguing, it is still, as Richard Cooper argues, a remote possibility. It will take increased political integration among the major blocs to bring a world money closer. In the meantime, we will be able to study the costs and benefits of closer monetary and economic integration by watching the progress of economic and monetary union in the European Community.

How then can efficiency and stability be attained? Efficiency in the sense of low transaction costs in the flow of international capital has increased remarkably in the last two decades. But low transaction costs do not necessarily produce an efficient allocation of resources. The efficiency of resource allocation can be improved by adopting policies that encourage the mobility of goods and factors and removing policy-related impediments to goods and factor mobility, and by providing a stable macroeconomic framework. Stability can be enhanced in the first instance by each country following sustainable and consistent macroeconomic policies, and in the second and less important instance, through the international coordination of policies. However, it has to be recognized that efficiency does not imply stability, but rather the ability to deal appropriately with inevitable economic shocks.

⁶This is an application of a law due to Herbert Stein of the American Enterprise Institute.

REFERENCES

- Cooper, Richard N., "What Future for the International Monetary System", presented at the Fourth International Conference Sponsored by Institute for Monetary and Economic Studies, Bank of Japan, 1989.
- Giavazzi, Francisco, "The EMS Experience", presented at the Fourth International Conference Sponsored by Institute for Monetary and Economic Studies, Bank of Japan, 1989.
- Platt, Desmond C. M., *Britain's Investment Overseas on the Eve of the First World War*, New York: St. Martin's Press, 1986.
- Samuelson, Paul A., "International Factor-Price Equalisation Once Again", *Economic Journal* 58, June 1949, pp. 181-197.
- Shinkai, Yoichi, "Evaluation of the Bretton-Woods Regime and Floating Exchange Rate System", at the Fourth International Conference Sponsored by Institute for Monetary and Economic Studies, Bank of Japan, 1989.
- Tiebout, Charles M., "A Pure Theory of Local Expenditures", *Journal of Political Economy* 62 (5), 1956, pp. 416-424.
- Williamson, John, *The Exchange Rate System*, Washington, DC: Institute for International Economics, 1985.
- and Miller, Marcus H., *Targets and Indicators: A Blueprint for the Coordination of Economic Policy*, Washington, DC: Institute for International Economics, 1987.