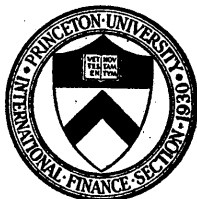


ESSAYS IN INTERNATIONAL FINANCE

No. 103, February 1974

CAPITAL FLOWS AND
EXCHANGE-RATE FLEXIBILITY
IN THE POST-BRETTON WOODS ERA

JOHN H. MAKIN



INTERNATIONAL FINANCE SECTION

DEPARTMENT OF ECONOMICS

PRINCETON UNIVERSITY

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International Finance Section

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Capital Flows and Exchange-Rate Flexibility in the Post-Bretton Woods Era

The movement of exchange rates has increased considerably in the early part of the post-Bretton Woods era. This increase does not necessarily imply increased flexibility of exchange rates, however. True flexibility of exchange rates would require that trading nations begin from a position of general balance-of-payments equilibrium and permit subsequent two-way changes in the relative prices of national monies to resolve balance-of-payments disequilibria. Exchange-rate movement from May 1971 to June 1973, a period during which the U.S. dollar was effectively devalued against other Group of Ten currencies by a weighted average of about 19 per cent, was largely one-way and did not begin with a general balance-of-payments equilibrium.

This one-way movement has resulted largely from a sharp change in U.S. international economic policy, leading the United States to take steps to improve its balance of trade. The United States considers improvement in its balance of trade necessary if it is to balance its overall payments in the presence of large and chronic net outflows of capital. An overall balance of international payments is also necessary if the reserve-currency role of the dollar is to end. Indeed, it may be that, in its quest for an improved trade balance, the United States has already gone a considerable distance toward exchanging the reserve-currency role of the dollar for the ability to alter the exchange rate of the dollar.

Yet, a sharp realignment of exchange rates may eventually prove to be unnecessary. This essay will attempt to show that the high level of long-term capital outflows from the United States that developed under the Bretton Woods system was to a large extent attributable to the long-maintained disequilibrium in exchange rates which prevailed under that system. If this is true, a realignment of the U.S. dollar against other currencies sufficient to finance a continued high level of capital outflows may instead produce a chronic overall surplus for the United States. Capital outflows would fall in response to a chronically undervalued U.S. dollar.

Such a possibility would not be cause for concern if exchange-rate flexibility were permitted, because the dollar would appreciate. Furthermore, if the current-account surplus required by the United States for overall balance-of-payments equilibrium is smaller than needed to finance invariant long-term capital outflows, the inconsistency of the

industrial countries' balance-of-payments goals (and therefore exchange-rate goals) may in fact be considerably smaller than originally believed. A major test of the current sympathy for exchange-rate flexibility will come if and when it is found that the U.S. dollar has become undervalued and should float upward against other major currencies. It would be a major policy error, after a long period of disequilibrium exchange rates, to accept only a transitional, one-way movement of exchange rates.

There are those who would welcome a chronic balance-of-payments surplus for the United States. The phrase "it's our turn for a surplus" was frequently heard in U.S. government circles shortly after August 15, 1971. There are two powerful reasons against seeking to maintain a surplus for the United States. The first is that the addition of the United States to the list of countries actively seeking balance-of-payments surpluses would exacerbate the international inconsistency of policy goals. The second is related to internal economic policy. A chronic current-account surplus is likely to produce inflationary pressure because it reduces the supply of domestic goods, since there is a net outflow of goods to foreigners. At first, some substitution toward future goods may occur in the form of purchases of domestic or foreign bonds; this would constitute a type of "forced saving" induced by a relative scarcity of current goods. Once asset stocks are increased, however, consumers will eventually come to desire more goods currently. The cases of Germany and Japan in recent years come particularly to mind. In the most recent round of worldwide inflation, the United States has fared best, while surplus countries such as Germany and Japan have poor records. Although the surpluses of these countries have by no means been solely responsible for the sharp inflations, they have undoubtedly been important causes.

Concern with the possibility and dangers of a chronic U.S. surplus may seem far-fetched in a period of continuing U.S. balance-of-payments deficits. To decide whether a foundation for such concern exists, section 1 of this essay considers the atmosphere of the early 1970s in which U.S. balance-of-payments policy was changed. Section 2 develops the hypothesis that there is a relationship between a long-maintained disequilibrium exchange rate and long-term capital flows. The major danger implied by this hypothesis is shown to be the possibility that exchange rates may be re-pegged at levels that would yield a chronic U.S. balance-of-payments surplus. Section 3 extends the case against re-pegging exchange rates by citing some of the difficulties that have already arisen from this practice. In addition, general arguments are advanced against proposals for more international liquidity that are often associated with discussions of re-pegging. Finally, flexibility of

exchange rates is defended by responding to some frequently posed objections to the policy.

1. Background for the "New Economic Policy"

Proximate and Fundamental Reasons for the "New Economic Policy" Initiatives

The internationally oriented aspects of the U.S. "New Economic Policy" initiatives of August 1971 marked an end to what had become an essential feature of the Bretton Woods system: a passive balance-of-payments policy by the United States as a reserve-currency country. This policy had led to rising purchases of foreign goods and long-term securities by U.S. residents, financed largely by an accumulation of short-term claims on the United States by the central banks of many of its trading partners. While some objections arose to the level of dollar claims some foreign central banks had to hold, the revealed preference of those central banks was to accumulate dollars.

There were at least two reasons. First, and more superficially, dollars were a relatively attractive asset. They paid interest and carried something of a goods-value guarantee by virtue of the gold-exchange guarantee. While exercise of the right to convert dollars into gold had to be limited, existence of the guarantee gave foreign dollar holders some leverage with which they could obtain other kinds of assets like Roosa Bonds (see Makin, 1971). These, in turn, could carry a local-currency guarantee. Dollar assets were also attractive because of the huge dollar financial markets in Europe and New York, which allowed very large purchases and sales of dollars with little impact on the rate of return.

The second reason why some foreign central banks were willing to accumulate large quantities of dollars is more fundamental. The exchange rates they were pegging by accumulating dollars were at levels that assured ample markets for their export industries. Throughout the 1960s, countries like Germany and Japan, in particular, experienced persistent surpluses because of dramatic growth in their export-oriented industries. High employment in such industries was an excellent way to absorb any unemployment in the domestic sector.

In addition, since an undervalued exchange rate results in some forced savings by attracting resources into the traded-goods sector and inducing a scarcity of nontraded goods, further capital formation in traded-goods industries is encouraged. Consumers find that foreign current goods are relatively expensive owing to the high price of foreign money, while domestic current goods are relatively expensive owing to the flow of resources away from domestic-goods industries into traded-

goods industries. But the demand for capital by expanding export industries keeps interest rates high (which makes future goods relatively cheap), so more is saved. The accumulation of reserves by the central bank mirrors the forced savings by the private sector. The general conclusion is that a central bank that has attracted resources into export industries, particularly in the form of highly specialized and long-lived capital equipment, cannot permit a large change in exchange rates. Such a change could produce a precipitous drop in the value of the marginal product of resources that are not easily employed elsewhere. Hence the "benign neglect" notion, which suggests that countries wishing to stop accumulating dollars can merely stop buying them, overlooks the difficulty regarding resource reallocation that may face countries that have been accumulating dollars.

Dunn (1973) has also considered the impact of chronic undervaluation on a chronic-surplus country and emphasized the resultant movement of capital into the tradable-goods sector as a "distortion of investment patterns in surplus countries." Dunn notes that, for such distortion to occur, fiscal and monetary policy must be employed to maintain the desired level of aggregate demand in the presence of continued surpluses. Dunn recognizes that prompt exchange-rate adjustments could also prevent a distortion of investment patterns. But capital is not the only resource that will move into traded-goods industries. Labor will move as well, and therein lies a significant reason for the reluctance of governments to reverse sharply a policy of undervaluation.

The notion that exchange rates may matter little owing to a low elasticity of demand for many export products might be expected to mitigate some fears about the disruptive reallocative effects of exchange-rate changes. Yet many central banks display some ambivalence on this point. When flexibility of exchange rates is suggested as a means to accomplish balance-of-payments adjustments continuously over time, central banks frequently observe that exchange rates matter little and will not accomplish adjustment without wide swings in rates. However, when confronted with an exchange-rate change as a simple means to end an accumulation of "unwanted" dollars, central banks are reluctant to stop buying dollars for fear that the subsequent increase in the prices of their currencies will harm exports.

The reasons that have been given to explain the willingness of foreign central banks to continue accumulating dollars are particularly meaningful in explaining the significance of the U.S. policy initiative when we consider in addition the reasons behind that initiative. First, consider the proximate cause for the U.S. action of August 1971. The rate at which central banks were being forced to accumulate dollars in

order to peg existing exchange rates had been rising sharply since the end of 1970. Interest rates fell sharply in the United States during 1970, and the resulting reflow of funds to the Eurodollar and European capital markets resulted in a large flow of dollars into European central banks, particularly into those supplying "strong" currencies like the mark, the Swiss franc, and the guilder. The crisis period really began in May 1971, when heavy inflows forced a float of the mark and the guilder, while the Swiss franc was revalued by 7 per cent. These developments may have been made more likely by an increase in the annual rate of expansion of the U.S. money stock from 5.7 per cent in the February 1970–January 1971 period to 11.6 per cent in the January 1971–July 1971 period. Dollar accumulation by foreign central banks rose from an annual rate of \$7.5 billion in the third quarter of 1970 to \$25.9 billion in the second quarter of 1971.

In fairness, it should be noted that the United States was trying to reabsorb the dollars that had flowed abroad. The U.S. Treasury and the Export-Import Bank conducted large borrowings in the Eurodollar market. In addition, as was noted in April of 1971 by Fritz Machlup and others, some of the large increase in recorded U.S. dollar liabilities to foreign central banks reflected double counting, because central banks were depositing dollars in the Eurodollar market.

It might seem that the massive increase in dollar liabilities to foreign central banks constituted a primary reason for an end to the convertibility of the U.S. dollar into gold. But this financial phenomenon, though it was important, as indicated by U.S. efforts to mitigate it, was only a proximate cause. The more fundamental cause, largely missed at the time in the presence of conspicuous financial symptoms, was the U.S. desire to initiate an active balance-of-payments policy, particularly with regard to its trade balance. The second quarter of 1971 showed a deficit at an annual rate of \$3.6 billion in the U.S. trade balance, the largest deficit that had been reported up to that time. This figure was seen to point up the need for U.S. government action designed to improve the competitive position of U.S. producers in domestic and foreign markets. The 10 per cent import surcharge included in the U.S. program of August 1971 was meant to dramatize the intent of the United States to pursue an active balance-of-payments policy, particularly with regard to its trade balance.

Taken as a whole, the program was designed to clear the way for a dollar devaluation. The strategy was to face the foreign central banks with a clear choice: "Either continue to accumulate dollar claims on the United States at your own risk with no option to convert into gold or allow the dollar price of your money to rise." As painful as it

apparently was, all eventually chose the latter option to some degree while continuing to accumulate large quantities of dollars to keep currency appreciation against the dollar at a minimum. In the third quarter of 1971, foreign central banks accumulated dollars at an annual rate of \$47.7 billion. By December 1971, a weighted average of the appreciation of major currencies¹ against the dollar had reached about 8.5 per cent and the annual rate of accumulation had fallen to \$23.8 billion. In effect, the Smithsonian Agreement merely re-pegged the rates at about the levels obtained during the transitional float in the fall of 1971. As it has turned out, this action was premature.

Problems Resulting from Inconsistent Balance-of-Payments Goals

The negotiations between August and December 1971 were difficult and discordant because the parties involved had fundamentally inconsistent goals; consequently, they focused upon less relevant problems to avoid facing these inconsistencies. The inconsistency of goals was basically due to the widespread desire for balance-of-trade surpluses. The United States' trading partners had already emphasized their concern about U.S. policy by accumulating dollars to peg their exchange rates. Their real concern was to maintain an exchange rate consistent with large exports. The United States was primarily interested in a set of exchange rates that would afford a sizable turnaround in the trade balance (some put the figure as high as \$13.0 billion). Thus, nearly all parties wanted a set of exchange rates giving them a surplus (or smaller deficit). It was as if the United States, which in its passive stance had permitted the Bretton Woods system to function, had suddenly caught the fever for surpluses that had possessed its trading partners for some time. This may have seemed odd in view of the fact that the United States was enjoying extra consumption, given the bargain prices of foreign money, while able to borrow at quite reasonable rates to finance a consumption boom. But while U.S. consumers were benefiting, U.S. producers in the tradable-goods industries were facing an effective tax that made it difficult to compete with foreign producers. A danger existed, however: The desires of U.S. producers of tradable goods and of U.S. policy makers seeking a trade surplus sufficient to finance large capital outflows could coincide to push the United States to seek an excessive dollar devaluation from the standpoint of balance-of-payments equilibrium. To see the reason, it is necessary to consider the impact upon resource allocation of a long-maintained disequilibrium exchange rate, such as had existed for the United States up to August 1971.

¹ Canadian dollar, Japanese yen, German mark, British pound sterling, Italian lira, French commercial franc, Dutch guilder, Belgium convertible franc, Swiss franc, and Swedish crown.

2. Capital Flows and Disequilibrium Exchange Rates

Impact of Overvaluation upon Foreign Direct Investment

Consider a country that has been in balance-of-payments equilibrium (defined as a condition under which the value of goods and bonds sold abroad is equal, at the fixed exchange rate, to the value of goods and bonds purchased abroad) but is now subject to an exogenous shock and finds itself with an overpriced money. A balance-of-payments deficit ensues. Let the disequilibrium exchange rate be maintained over a long enough period for resources to move in response to the relative-price message implied by the disequilibrium price for foreign exchange.² What are the resource-allocation costs of a disequilibrium exchange rate maintained for a long period, and what effects will there be on the domestic (and foreign) economies?

First, consider the implications for traded *goods*. Traded goods include import substitutes and exports. They must compete with foreign goods either in the home market (import substitutes) or abroad (exports). For traded goods, an overvaluation of domestic money implies a subsidy to foreign competition and/or a tax on domestic producers. The effect of overvaluation will be to reduce the size of the markets available to producers of traded goods, reducing the demand for factors employed by firms in the traded-goods industries, particularly the demand for factors employed intensively by these firms. Direct investment abroad may result from chronic overvaluation if highly durable capital that is mobile only within an industry is part of the redundant capital of the traded-goods industries. In effect, the economic life of such specialized capital may exceed the interval of time over which access can be had to world markets at fixed exchange rates.

The connection between foreign direct investment and chronic overvaluation can be seen by considering the behavior of a firm in the traded-goods industries.³ Suppose that the level of investment by firms in the traded-goods industries has been geared to the larger markets available at home and abroad under an equilibrium exchange rate. Suppose also that the typical firm employs, along with raw labor and raw capital, highly specialized managerial capital and technology. Technology is a

² The costs in terms of distorted relative prices of current goods arising from disequilibrium exchange rates have been examined by Hause (1966), Krueger (1966), and Johnson (1966). It is possible that a disequilibrium exchange rate may be maintained for some time without causing resources to move enough to imply large resource-misallocation costs. This suggests that a fruitful line of research may involve identification of an optimum degree of exchange-rate flexibility over time. I have examined this question in Makin (1972a) and Makin (1973b). See also Grubel (1973).

³ No attempt is made here to present a complete theory of foreign direct investment. Many studies are available. The most complete listing can be found in Stevens (1973).

durable and very mobile form of capital, as is the managerial expertise that is embodied not so much in particular managers as in the firm's ability continually to train effective managers.

Overvaluation of the domestic currency shrinks the size of the domestic and foreign markets available to the firm, resulting in some redundancy of the firm's productive capacity. The raw labor and capital might possibly be employed at home in the production of nontraded goods. However, the managerial and technological capital represents a fixed or "sunk" cost that cannot readily be reduced by employment in other industries at home. Unit costs may be reduced by moving the redundant portion of that capital abroad in order to set up production facilities and thereby restore the size of the market area that can be reached by the firm. In effect, the highly specialized capital moves more easily over distances than across industries. It is worth noting that the association suggested here between foreign direct investment and employment of sophisticated capital is supported by empirical evidence produced by Severn and Laurence (1973) which strongly suggests that firms engaged in foreign direct investment tend to be in research-intensive industries.

What is being suggested here is that an increase in foreign direct investment in response to overvaluation represents a second-best alternative for the firms involved. The first-best situation existed when original investments were undertaken on the basis of an equilibrium exchange rate and involved domestic production and sales in domestic and foreign markets. The second-best alternative arises when the firm must preserve its markets by producing abroad in order to spread the fixed costs associated with investment in specialized technological and managerial capital.

How far from optimality the second-best situation will be depends upon the ease with which the redundant factors of production can be transferred to alternative employment. In the ideal situation, the firm will transfer its redundant specialized capital abroad, sell its redundant raw capital at home to producers of nontraded goods (whose markets are likely to be expanding), and then purchase raw capital abroad with the proceeds. To the extent that raw capital at home cannot be transformed efficiently into raw capital abroad (owing, say, to the necessity to sell some redundant raw capital at a loss), the firm will employ the most efficient available capital market to borrow the funds required to purchase raw capital abroad. Either way, direct investment abroad will rise.

U.S. policies have in some cases compounded the costs associated with overvaluation. Attempts by U.S. firms to finance foreign direct

investment in U.S. capital markets have been hampered by the Foreign Direct Investment Program. This program, designed to limit access to U.S. capital markets for U.S. firms with foreign operations, was begun in 1965 and administered by the Department of Commerce, first on a voluntary basis and then on a mandatory basis beginning in January 1968. It is ironic to note that when some countries are faced with a balance-of-payments deficit as a result of an overpriced money, they attempt to deal with it by restricting foreign direct investment. The Foreign Direct Investment Program accomplishes this by forcing U.S. firms to employ second-best financial intermediaries to finance what may in some cases be second-best projects that have been made necessary by chronic overvaluation.

The case for fixed exchange rates rests on the supposition that they will encourage the free flow of capital and goods. Yet when private capital tries to move in response to a persistently maintained disequilibrium exchange rate, the view appears to be that its movement must be prevented or at least hampered. In addition, the deficit on current account caused by an overvalued currency often produces a call for taxes on imports in the form of quotas, tariffs, or export subsidies. Surely this seems odd, for an overvalued currency implies a subsidy to imports and a tax on exports. Such proposals amount then to a tax on a subsidy and a subsidy to a tax. The financial authorities are forced into this absurd position by attempting to maintain a disequilibrium rate of exchange. The entire problem could have been avoided by permitting the exchange rate to move in the first place.

The attempt to rationalize an increase in direct investment abroad associated with overvaluation has relied thus far entirely upon the deterministic, neoclassical theory of a firm's constrained profit-maximizing behavior. The reasoning therefore predicts a once-for-all reallocation of capital by a single firm. However, the process may continue over some time owing to different levels and rates of change of overvaluation with respect to the different foreign markets confronted by different firms in different industries.

A continuing increase in foreign direct investment in the face of chronic overvaluation may also be rationalized by some of the extensions of neoclassical theory in which the firm's objective is taken to be something other than strict profit maximization. As domestic firms identify overvaluation with respect to one currency or group of currencies, expectations may develop regarding the appreciation of other foreign currencies against the home currency. In such a case, the acquisition of physical capital abroad may be expected to yield capital gains in terms of the currency in which the investor denominates his assets. In addition,