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Exchange Rate Regime Choice 1/

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Abstract

Traditionally the choice of exchange rate regime has been seen as a second-best policy choice, which can be directed toward mitigating the distortionary effects of price or information rigidities. In this paradigm the optimal degree of exchange rate flexibility is found to depend of the source and nature of shocks hitting an economy. More recent literature views the exchange rate as a widely and frequently seen manifestation of government policy with careful exchange-rate management emerging as a tool that can enhance shaky policy credibility.

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1/ The views expressed here are those of the authors and do not necessarily reflect the official positions of the International Monetary Fund or Dartmouth College.

Summary

This essay considers normative aspects of policy choices for a country acting unilaterally, operating a unified exchange market free from non-market rationing in which the long-term output growth rate is exogenous. For the single developed country, exchange rate regime choice is thought to depend on policy goals, the nature of the stochastic environment, the country's structural characteristics, and the credibility of policymakers. In addition to facing these issues, the country finds that choices are complicated by balance of payments constraint and the need to protect external competitiveness.

Traditionally the choice of an exchange rate regime has been seen as a second-best policy choice, which can mitigate the distortionary effects of price or information rigidities. In this paradigm, optimal exchange rate flexibility depends on the source and nature of shocks hitting an economy. More recent literature views the exchange rate as a widely and frequently observed manifestation of government policy. Careful exchange rate management emerges as a buttress for shaky policy credibility.

There is little consensus about the choice of an appropriate exchange rate regime, perhaps because conclusions about which exchange rate regime best achieves a particular policy objective in a particular stochastic environment with a particular credibility structure are specific to the model employed. Recent empirical work on the determinants of flexible exchange rates, on the effects of exchange rate changes, and on the initiation and propagation of business cycles reveals how little is known about the empirical side of open-economy macroeconomics. While the empirical foundation for advice on exchange rate regime choice is lamentably weak, the analysis suggests not overestimating the importance of the behavior of the exchange rate for macroeconomic performance. For example, it was thought that a fluctuating exchange rate would protect a country from external disturbances but possibly at a cost of reducing the flow of trade and weakening the discipline against inflation. Early hopes and concerns now seem misplaced. Flexible rates have provided little insulation, but at the same time exchange rate flexibility seems unrelated to trade flows and inflation performance in developed countries.

Countries face wide variety of policy choices in the foreign exchange market. Among the options, a country can peg its exchange rate to a single currency, peg to a basket of currencies, let the rate crawl, conduct a managed float, break the exchange market into dual or multiple markets or float freely. The variety of exchange arrangements matches the diversity in country circumstances. Over 60 percent of all countries surveyed by the International Monetary Fund in 1990, including many small countries, operated some form of peg, while 13 percent, including the United States and Japan, floated freely. The Federal Republic of Germany and Exchange Rate Mechanism partners in the European Monetary System were classified as being part of a cooperative exchange rate arrangement. Some monetary areas, such as Belgium-Luxembourg and Brazil, operate multiple exchanges with the relevant exchange rate depending on the type of transaction.

In this essay we limit our discussion to normative aspects of policy choices for a country acting unilaterally, operating a unified exchange market that is free from non-market rationing in which the long-term output growth rate is exogenous. We thereby ignore recently developed multi-country strategic aspects of exchange-market policy; we ignore a large literature dealing with segmented and rationed exchange markets; we do not touch on attempts at a positive explanation of the evolution of countries' exchange-rate policies and we do not explore the possible interactions of the choice of exchange-rate regime with endogenous growth rates. Even with such a limited scope, the literature is deep and wide-ranging with no consensus about the optimal regime for the individual country or for the world as a whole. For the single developed country, exchange-rate regime choice is thought to depend on policy goals, the nature of the stochastic environment, on a country's structural characteristics, and on the credibility of policymakers (Argy, 1990). The single developing country faces all of the above issues and, in addition, finds that choices are complicated by the presence of the balance of payments constraint and the need to protect external competitiveness (Aghevli, Khan and Montiel, 1991).

In order for exchange-rate policy, or any monetary policy, to be important, in theory, for the level of economic activity or many other real variables some kind of market failure is required. For example, markets for information may fail to exist because information dissemination is costly as in the information-based business cycle models or prices (wages) may be costly to change as in the wage-indexing work of Gray (1976). In such circumstances the first-best policy would be to eliminate whatever market failures plague the economy. Such sweeping reform may be practically impossible, however. Appropriate policy in the foreign exchange market is therefore a second-best policy that depends on the nature of the market failure.

There is broad theoretical agreement that the choice of exchange rate regime is not of first-order importance for the medium-term average level of variables like per capita output relative to full-employment output. The regime may be important, however, in helping to control inflation or in helping to control higher moments of other target variables, such as the

variance of per capita output relative to full-employment output. Control of such higher moments may be important to policy makers simply because minimizing variance is thought to be socially beneficial. Thinking of exchange-rate regime choice as an appropriate tool in helping to avoid inflation typically requires a failure of policy credibility while approaching such a choice as a help in output stabilization is usually based on the presence of some sort of nominal stickiness. We will first explore some issues concerning output stabilization in a credible policy environment returning later to inflation stabilization in a less than fully credible conditions. Choosing the exchange-rate regime that minimizes fluctuations in output around its full-employment level, a policy that is usually defended as being shorthand for minimizing the labor-market distortions associated with wage stickiness, depends on the shock propagation mechanisms relevant to the country and the type of disturbances affecting the economy (Marston, 1985).

The early debate on fixed versus flexible exchange rates was formalized in Friedman's (1953) support for flexible exchange rates and was built around an implicit sticky-price model of output determination. Friedman emphasized the insulating properties of market-determined exchange rates in the face of foreign nominal shocks. Changes in the foreign price level would generate offsetting exchange rate changes protecting the value of the domestic currency and thereby protecting domestic output from fluctuations in foreign demand. The message was that if foreign nominal shocks are most important, flexible exchange rates best insulate domestic output.

The early literature went on to demonstrate that when domestic shocks are important, the choice of exchange-rate regime depends on whether these shocks are monetary or real. When domestic shocks originate in the domestic money market, conventional theory indicates that a fixed exchange rate is more effective in stabilizing output. A disturbance to domestic money demand or supply would be countered by offsetting changes in international reserves under a fixed exchange rate and would not spill over to the goods market. If domestic disturbances instead originate in the goods market, a flexible exchange rate would achieve greater output stability. Shocks to domestic demand would generate offsetting changes in foreign demand via an adjustment in the exchange rate, thus moderating the impact of the domestic shock on output (Mundell, 1962). In general, since the economy is likely to be faced with both nominal and real shocks originating at home and abroad, the exchange-rate regime that best stabilizes domestic output will be characterized by some intermediate degree of flexibility .

The structural characteristics of an economy, such as its openness to international trade, its integration into world financial markets, and its degree of wage indexation may also influence the stabilizing properties of the exchange rate regime. The degree of openness per se does not lead to an unambiguous ranking of exchange-rate regimes. It has been argued that if an economy is very open, as measured by a large fraction of traded goods in total output, a flexible exchange rate, especially if it is volatile, may

reduce the role of domestic money as a medium of exchange, store of value and unit of account (McKinnon, 1963). Very open economies would be better off fixing their exchange rate. It has also been shown that in order to eliminate a trade deficit under fixed exchange rates, it is necessary to deflate the economy by an amount which is inversely related to the propensity to import. Hence more open economies, characterized by a large foreign trade sector, may find it less costly in terms of lost output to restore external balance using demand management than exchange-rate flexibility. On the other hand, to the extent that open economies are more exposed to external shocks, exchange-rate flexibility might provide the needed buffer. Hence the degree of openness does not give any clear answer about the appropriate choice of exchange-rate regime.

The degree to which domestic asset markets are integrated with world financial markets also influences the choice of exchange-rate regime (Mundell, 1962, Mathieson and Rojas-Suarez 1990). When asset markets are highly integrated, domestic and foreign interest rates are linked through the interest parity relation. A high degree of asset substitutability in turn affects the choice of exchange-rate regime depending on the source and nature of shocks. For example, positive foreign monetary shocks lower foreign interest rates and trigger a domestic capital inflow. Under fixed exchange rates, international reserves would expand and reinforce the destabilizing effect of higher foreign demand operating through the current account. Under a flexible exchange rate, the rate would appreciate and help stabilize domestic output. In contrast, a flexible exchange rate might exacerbate the destabilizing effect of a foreign real shock. For example, a positive shock to foreign government expenditures that spills over to the domestic goods market may also raise foreign interest rates. With highly integrated asset markets, the rise in foreign interest rates triggers a incipient domestic capital outflow, depreciates the domestic currency and further destabilizes domestic output. Under a fixed exchange rate, the capital outflow would push up domestic interest rates and dampen the impact of higher external demand on domestic output.

When the degree of wage indexation to the general consumer price level is high and the economy is open, the effect of a change in the nominal exchange rate on the real wage, and thus on output, will be small. Hence the effects of wage indexation on the choice of exchange-rate regime can be important (Aizenman and Frenkel, 1985). Furthermore, the literature recognizes that the degree of wage indexation is itself dependent on the choice of exchange-rate regime (Flood and Marion, 1982). Hence structural characteristics that are generally taken as exogenous may, in fact, be endogenous with respect to the choice of exchange-rate regime. Indeed, with a government that changes the exchange rate regime as the stochastic environment evolves the choice of exchange rate regime and many broad aspect of private behavior are jointly determined.

Much of the literature on exchange rate regime choice takes for granted that the economically appropriate geographical region for use of a

single currency coincides with the political region that typically uses one currency. Mundell (1961) suggested, on an abstract level, that for output stabilization, the optimum currency area over which there would be a single currency or a set of currencies joined by immutably fixed exchange rates need not correspond to the boundaries of the nation state. Rather, the area might be one where there was high factor mobility. In fact, there have been important examples of countries giving up monetary autonomy for economic and political reasons. A group of European countries who share relatively high factor mobility and trade flows have joined the European Monetary System, giving up important aspects of independent monetary policy by adopting a joint peg. The Bretton Woods System, while not initially satisfying Mundell's factor mobility criterion for an optimal currency area, also illustrates that economic and political considerations can persuade countries to give up some monetary autonomy by pegging to a dominant currency. It should be noted, however, that while both cases illustrate the willingness of some countries to sacrifice monetary autonomy, they also show the reluctance to give up long-run monetary sovereignty by abandoning national currencies.

In recent years, the theoretical literature on the choice of exchange-rate regime has relaxed the assumption that the domestic policy-maker's actions are fully credible. Exchange rate policy, therefore, becomes a highly visible manifestation of policymakers' intentions, which can be used to enhance shaky credibility. In this literature all of the previous structural and stochastic factors retain their importance but the exchange regime becomes, in addition, a signaling device through which policymakers can convince a skeptical private sector of policy intentions (Giavazzi and Giovannini, 1988 and Fischer, 1988). It is through this mechanism that exchange rate policy can influence long-run inflation. If a policymaker can achieve increased credibility through exchange rate policy, the private sector may become convinced of policy intentions thereby lessening an inflation bias, which might exist when stated policy is not fully credible.

There is little consensus among policymakers or economists about the appropriate exchange rate regime choice. Perhaps this is because conclusions about which exchange-rate regime best achieves a particular policy objective in a particular stochastic environment with a particular credibility structure are, unsurprisingly, model specific. Recent empirical work on the determinants of flexible exchange rates, on the effects of exchange rate changes and on the initiation and propagation of business cycles reveals how little is known about the empirical side of open-economy macroeconomics. While our empirical foundation for advice on exchange rate regime choice is lamentably weak we have learned not to overestimate the importance of the behavior of the exchange rate for macroeconomic performance. For example, it was thought that a fluctuating exchange rate would protect a country from external disturbances but possibly at a cost of reducing the flow of trade and weakening the discipline against inflation. The early hopes and concerns now seem misplaced. Flexible rates have

provided little insulation, but at the same time exchange rate flexibility seems unrelated to trade flows and inflation performance in developed countries (Goldstein, 1984).

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