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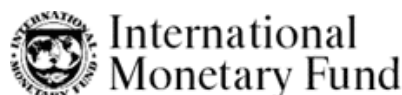
## **Capital Flow Reversals, the Exchange Rate Debate, and Dollarization**

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*More frequent and increasingly severe crises are encouraging emerging market economies to seek means to make themselves less vulnerable to sudden stops in capital flows. Capital controls have been widely discussed, but dollarization may offer a longer-term and more market-friendly solution.*

Many symptoms of impending capital market crises are common to both developed and emerging market economies, but the similarities end there. Developed countries have emerged relatively unscathed from recent currency crises, such as the exchange rate mechanism (ERM) crises of 1992-93. But emerging market economies have been buffeted by deep and protracted crises that have been characterized by sharp capital flow reversals and output collapses, and exacerbated by serious banking problems.

Given the increased severity and the frequency of these crises, it is worthwhile to ask what kinds of policies and exchange rate arrangements might make emerging markets less vulnerable to sudden stops in capital flows. The magnitude of capital flow reversals, the substantial evidence that financial sector problems have deepened and lengthened these crises, and the limited effectiveness of capital controls provide the basis for reassessing the relative merits of fixed and flexible exchange rate policies. Dollarization may offer emerging market economies a viable and more market-friendly alternative to capital controls.

#### Sudden stops

Unlike their developed country counterparts, emerging market economies routinely lose access to international capital markets during crises. Their reliance on short-term debt financing also means that their public and private sectors are asked to repay existing debts on short notice. The problem is compounded by the fact that their debts are usually denominated in a foreign currency. Abrupt reversals, or sudden stops, of capital inflows can push a country into insolvency or drastically lower the productivity of existing capital stock, resulting in large unexpected swings in relative prices and costly bankruptcy battles.

Once a crisis has erupted and access to international capital markets has been lost, the policy options available to emerging market economies are severely restricted. Expansionary policies, which could offset some of the devastating effects of capital flow reversals, are possible only under capital controls—an unappealing option for many

countries hesitant to reverse the process of financial liberalization or accept the inflationary consequences often associated with such policies.

Surges in capital inflows are often followed by sudden stops. With few exceptions, these sudden stops are involuntary and associated with a currency crisis and most often with a banking crisis as well. A comparison of recent crises suggests that their severity has intensified in the present decade. Until the recent Asian crisis, Latin America was the region most prone to large-scale capital inflow reversals. But the Thai crisis, which resulted in a 26 percentage point swing in private capital flows (from inflows of about 18 percent of GDP in 1996 to outflows of more than 8 percent in 1997), superseded the 20 percent reversal in Argentina in the early 1980s. In terms of reserve losses and the estimated costs of bailing out the banking sector, the severity of the Asian crises surpassed that of their Latin American counterparts in the 1990s, and represented a significant departure from the region's historic norm.

### **Protracted banking crises**

Sudden stops can trigger output collapses and severely damage financial sectors. Nearly all the banking crises surveyed were associated with a negative reversal in capital flows. The connection is a crucial one, because banking crises have more lingering deleterious effects on economic activity than currency crises, as is evident in the respective impact of these crises on a range of indicators, including output, imports, and bank deposits. Asset prices, for example, typically take twice as long to recover after a banking sector crisis. There are also likely to be important sectoral differences in the pace of recovery. Following the devaluations that characterize most currency crises, for instance, exports recover relatively quickly and ahead of the rest of the economy. Following the onset of the banking crises, however, exports continued to sink for nearly two years.

The protracted nature of banking crises is also evident in the average number of months that elapse between the beginning and the height of a crisis. Banking crises typically take a little over a year and a half to reach their peak, and in some instances may take over four years. Banking crises may also be protracted in the recognition and recovery phases; the Japanese banking crisis, which has spanned most of the 1990s and is ongoing, is a recent example of this sluggish recognition/admission/resolution process.

Quite clearly, banking crises are contractionary and the resulting recessions are protracted. Typically, three years following the beginning of a banking crisis, the economy will still not have returned to precrisis growth rates. Two reasons for the protracted recessions after banking crises are collapses in asset prices, which usually accompany the crises and give rise to significant negative wealth effects and depress consumer spending, and credit crunches, which may lead to a severe contraction in investment.

Devaluations are frequently viewed as expansionary in industrial countries, but recent currency crises in emerging market economies, which include successful and unsuccessful speculative attacks, highlight the staggering output losses associated with the capital flow reversal problem. Two successful defenses of currencies in Argentina and Hong Kong SAR and four successful attacks on the currencies of Indonesia, Korea, Mexico, and Thailand all produced the same result:

an output collapse in the year following the sudden stop in capital inflows that was about four times higher than the historic norm. Those countries that devalued also found their output collapse compounded by deep and costly banking crises, which also represented a significant departure from historic patterns.

### **Role for capital controls?**

In principle, the volume and composition of capital inflows should respond to the policy stance of recipient countries. In some instances, domestic policies, such as capital controls, are explicitly designed to shape the volume or composition of inflows; in others, the effects of policies, such as sterilized intervention, are largely unintended. An examination of the experiences of Brazil, Chile, Colombia, the Czech Republic, and Malaysia in the 1990s yields several key findings:

- Sterilized intervention increases the volume of total capital flows, through short-term capital movements. Sterilized intervention significantly alters the composition of capital flows, increasing the share of short-term and portfolio flows. This may argue against "a soft peg," as the capacity for sterilized intervention is limited or nonexistent under a currency board arrangement.
- Capital controls appear to alter the composition of capital flows. They reduce the share of short-term and portfolio flows, while increasing that of foreign direct investment.
- Foreign interest rates appear to have a significant effect on both the volume and the composition of flows. Specifically, total capital flows, and especially portfolio flows, respond systematically to changes in U.S. and Japanese interest rates.

Some caveats are in order, however. Taxes or reserve requirements targeting short-term inflows do have a significant effect on the maturity profile of the flows, but it is not clear whether these measures simply encourage a substitution of domestic short-term for foreign short-term debt. To the extent that domestic short-term debt is also an implicit claim on central bank reserves, such a substitution would not normally ameliorate the liquidity problems that arise during a capital flow reversal.

If part of the general problem of the reversal is short-term debt, then emerging market governments should adopt more conservative debt-management strategies and lengthen debt maturities. A tax on all short-term borrowing may be preferable to taxing foreign short-term borrowing. But governments that pursue capital controls will have to cast a wide net to cover all financial intermediaries and even nonfinancial corporations, and countries that succeed in this task may find themselves deeply immersed in central planning. At best, therefore, capital controls offer a short-term response to capital inflows or outflows.

Sterilized intervention policies during the capital inflow period should be discouraged, because these open market operations typically place more short-term debt in the hands of the private sector. In several episodes, sterilization led central banks to complement the stock of public sector debt with debt of their own, adding an important quasi-fiscal dimension to a short-term debt problem. This would be no major problem if central banks held sterilized reserves as a backup for associated short-term obligations of central banks. In practice, however, there is a strong temptation to use those reserves for other purposes.

### **To fix or not to fix . . .**

Because all recent crises took place against a background of soft-pegged exchange rates, many analysts have concluded that "the peg did it." Clearly, if the exchange rate had been allowed to float freely, some international reserve loss would have been prevented. But in many crisis episodes, either the government or the private sector, or both, had relatively large foreign-exchange-denominated short-term debt obligations that far exceeded the stock of international reserves. In those circumstances, balance of payments crises would likely have taken place under more flexible exchange rate arrangements as well as under fixed-rate arrangements.

At a deeper level, however, it could be argued that liability dollarization is partly a result of pegging, magnified by the overconfidence and moral hazard problems that pegging may bring about. If the exchange rate were free to float, the argument goes, domestic investors, especially those in the nontradable sector, would shy away from foreign-exchange-denominated loans because they would then face a larger currency risk than under a fixed rate. This position may sound convincing, but it misses two important points: most emerging market countries start from a situation of partial dollarization (at the very least, liability dollarization) and they rarely ignore exchange rate volatility completely.

These points reinforce each other. Partial dollarization increases the cost of exchange rate volatility, which, in turn, induces the central bank to intervene in the foreign exchange markets to prevent fluctuations in the nominal exchange rate. In fact, as the cases of El Salvador, the Philippines, and Venezuela attest, this "fear of floating" may be so severe that the exchange rate spends long stretches of time at a fixed level, making it observationally equivalent to a soft peg. Fear of floating, however, also induces more liability dollarization, creating a vicious circle from which it is very hard to exit.

In addition, fear of floating arises whenever domestic firms use foreign raw materials. In this case, floating is less destructive than in the previous example, but it can still cause financial difficulties in the medium term. Fear of floating and the lack of discipline that underlies fixed exchange rates may drive authorities to adopt additional control measures, like dual exchange rates and controls on capital mobility.

Even when fear of floating does not lead to capital controls and countries adopt "market-friendly" ways of stabilizing the exchange rate through open market operations, such policies have significant costs in terms of the interest rate and volatility associated with them and their procyclical nature. Thus, contrary to the view that floating provides authorities with an extra degree of freedom to guarantee a market-friendly environment, the opposite may happen.

To be fair, defenders of floating exchange rates make other arguments, notably that floating exchange rates make it less costly to react to shocks that require a fall in relative domestic prices. Under fixed rates, the latter requires a fall in nominal prices that may be costly in terms of output and employment. But the exchange rate is only one instrument, and price/wage stickiness is a multidimensional issue. Devaluation is not a silver bullet; in practice, it is an exercise in political compromise and will make no group in the economy totally happy. And fiscal policy can serve as a substitute for devaluation. If

the real exchange rate is overappreciated, for example, labor subsidies can be put in place to replicate, in a more controlled way, the desired real depreciation. What, then, is the great benefit of the float over the fixed rate?

Finally, traditional theory teaches that the choice of a foreign exchange regime ought to be a function of the nature of shocks. The basic lesson is: If the shocks are mostly real, float; otherwise, fix. In recent crisis episodes, though, the shocks have come notably through the capital account and thus contain both real and nominal components, making the choice of the exchange rate system on that basis more difficult. In addition, while theory views shocks as fully exogenous, all available evidence suggests credibility and reputation are critical in determining how hard an emerging market economy is hit by financial turmoil and, thus, how large the shocks will be. Argentina's dollarization proposal is, in fact, an attempt to make policymaking more credible and, thus, lower country risk differentials.

From the perspective of the emerging market economy, dollarization has traditionally been criticized because use of a foreign money may entail loss of seigniorage and a situation in which the dollarized country is left without a lender of last resort. But the emerging market economy that pursues dollarization and the country whose currency is used could share the seigniorage, as Argentina has proposed. And under dollarization and such a seigniorage-sharing arrangement, a large portion of international reserves could be used to provide lender-of-last-resort services. This would, of course, require the holding of a large enough stock of reserves or the creation of a "stabilization fund" by foreign donors.

In summary, much of the glitter of flexible exchange rates disappears upon closer examination. The extra degrees of freedom provided by exchange rate flexibility are fallacious or can be achieved through fiscal policy. Strong pegs like dollarization can help to reduce the incidence of external shocks, especially those that filter through the capital account. While full dollarization will not eliminate banking sector problems, it may ameliorate them if it reduces the problems that stem from currency and maturity mismatches, and it will do away with speculative attacks on the currency.

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