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Responses to Capital Inflows in Malaysia and Thailand

In recent years, the emerging economies of Asia and Latin America have been very attractive to foreign investors. But this kind of success in attracting foreign capital is problematic for these nations' monetary policymakers. Increased capital flows can push up monetary aggregates and derail inflation targets when the monetary authority tries to maintain pegged exchange rates, and they also may create difficulties if they are suddenly reversed.

This *Letter* draws on recent research (Glick and Moreno 1994) to discuss the theory of how capital flows can affect monetary policy control. It then reviews the experiences of Malaysia and Thailand, two countries that experienced large capital inflows after the late 1980s and intervened heavily to stabilize their exchange rates.

Theory

To illustrate how difficulties in monetary control may arise in a pegged exchange rate regime, suppose foreign capital flows into a country because interest rates elsewhere have fallen. As long as domestic rates remain above foreign rates, the capital flows work to strengthen the domestic currency. In order to maintain its exchange rate peg, a central bank has no choice but to intervene by purchasing the foreign currency brought in by the capital inflows. Such purchases increase the money supply, which lowers the domestic interest rates to foreign levels.

How can authorities limit the impact of capital inflows on domestic monetary controls? One way is by "sterilizing" the expansionary effects of foreign exchange intervention on the money supply by simultaneously contracting central bank credit. In developed financial markets, the contraction of domestic credit is typically accomplished through the open market sale of Treasury securities. In countries where financial markets are less developed, marketable Treasury securities are often not available so other measures may be used, including increasing reserve requirements on bank deposits, curtailing borrowing from the central bank, and shifting government deposits from commercial banks to the central bank.

Sterilization has several limitations, however. By limiting money growth, it tends to prop up domestic interest rates, which may encourage more capital inflows. In addition, sterilization can have costly effects on the government's fiscal position. If capital inflows are attracted by high domestic returns, sterilization typically means that the monetary authorities are buying low-yielding foreign assets and selling high-yielding domestic assets. The interest differential can create a significant financing burden. Furthermore, if sterilization is achieved by increasing reserve requirements, the costs of commercial banking rise, thereby promoting disintermediation over time as new financial institutions and instruments arise to bypass controls. These costs of sterilization may be excessive if capital flows are very persistent.

If sterilized intervention is too costly, a country may try other measures. One possibility is to allow the domestic currency to appreciate, which lowers the expected return on domestic assets relative to foreign assets, thus dampening the incentive for further capital inflows. While allowing the currency to appreciate enhances monetary control, it may be costly for domestic firms that compete internationally.

Another possibility is to adopt measures that make it more difficult or costly for foreigners to acquire domestic assets, such as ceilings on foreign borrowing by the domestic financial sector, prohibitions on the acquisition by foreigners of

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domestic securities, and taxes or reserve requirements on foreign deposits. These measures may be temporarily effective, but they can impede the development of the domestic financial sector.

Recent capital inflows to Malaysia and Thailand
Malaysia and Thailand provide good illustrations of the way capital inflows affect monetary policy. Capital inflows rose significantly in both economies starting in the late 1980s, but with different composition. In Malaysia, capital inflows rose steadily from 3 percent of GDP in 1989 to 21 percent in 1993. Well over half the net capital inflows were direct investment initially; more recently, other capital inflows (including foreign borrowing through the banking sector) have become increasingly important. In Thailand, the ratio of capital inflows to GDP rose from 7 percent in 1988 to over 13 percent in 1990 and 1991, but then fell to an average of less than 10 percent in 1992 and 1993. Direct investment played a less prominent role than in Malaysia.

Domestic as well as external factors contributed to capital inflows. On the domestic side, rates of return on investment in these rapidly growing economies were much higher than elsewhere. In addition, reductions in public sector deficits may have attracted foreign capital. Between 1986 and 1988, Thailand turned a deficit of 3.3 percent of GDP to a surplus of 2.0 percent, and Malaysia's fiscal deficit fell from 10.3 percent to 2.1 percent. Further, both countries initiated widespread economic reforms, including reducing or eliminating governmental controls over economic activity, privatizing state-owned firms, lowering tariffs and quantitative import barriers, and removing capital controls.

External factors also played a role. After the yen appreciated by over 50 percent against the U.S. dollar between 1985 and 1988, Malaysia and Thailand benefited as investors shifted from the more industrialized Asian economies (Japan, Taiwan, Korea, Singapore) towards lower-cost, more labor-intensive locations in Southeast Asia. In the early 1990s, low short-term interest rates in the United States and recessions in industrial countries also helped stimulate capital inflows by investors searching for better returns.

Sterilization and the money supply
Both Malaysia and Thailand responded to capital inflows by intervening heavily in foreign exchange markets, which led to large increases in official reserve assets (over 7 percent of GDP in Thailand in 1989 and over 11 percent in Malaysia in 1992). Both countries also sterilized this intervention by reducing domestic credit in order to curb the upward pressure on monetary aggregates.

The relative development of financial markets influenced the way that sterilization policies were implemented. In both cases, open market operations were limited by the absence of marketable government securities in the portfolios of the monetary authorities. As a result, the Bank of Thailand began selling its own short-term bonds to absorb excess domestic credit beginning in 1987, supplementing open market operations in government bonds. In Malaysia, transfers of government and Employee Provident Fund deposits to the central bank were arranged to sterilize the monetary effects of large net capital inflows. (The Employee Provident Fund, the government retirement program, is Malaysia's largest saver and holds 20 percent of total domestic financial assets.)

The efforts to sterilize in both countries met with mixed success. In Malaysia the growth rate of the monetary base (the narrowest definition of money) rose from 10 percent in 1987–1988 to almost 30 percent in 1989, and remained relatively high thereafter. Thailand appeared to be more successful in limiting monetary base growth, which fell from 16 percent in 1986–1987 to 15 percent in 1988, the first year of the capital inflow surge, and was not much higher in succeeding years.

However, Malaysia had more success than Thailand in limiting *broad* money growth. In 1989–1993, it averaged over 20 percent a year in Thailand and 17 percent a year in Malaysia. Malaysia curbed broad money growth partly by increasing reserve requirements on bank deposits. This reduced the lending capacity of commercial banks and thus the money multiplier between broad money and the monetary base.

Recent developments
The recent experience of both economies with capital flows differs significantly. Continued surges in capital inflows prompted Malaysia's central bank to discourage such inflows in early 1994 by limiting banks' holdings of foreign funds, raising the cost of holding foreign deposits, imposing ceilings on the net external liabilities of domestic banks, and prohibiting the sale of short-term financial instruments to foreigners. The withdrawal of capital from emerging market economies following the Mexican devaluation and float in December 1994, appears to have had little effect on Malaysia.

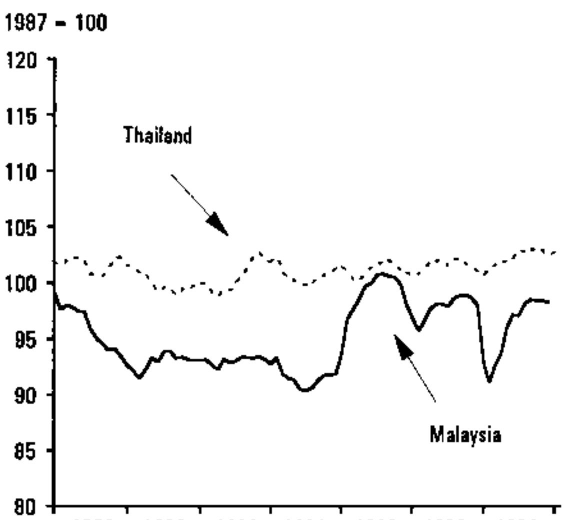
In contrast, Thailand experienced heavy incipient capital outflows in January 1995. In order to limit the pressure on the baht to depreciate, Thai monetary authorities raised domestic interest rates as high as 8 percentage points above comparable rates in the United States. The spread between Thai and U.S. rates of interest has since narrowed, but it is still above the average of about 3 percent prevailing prior to the Mexican devaluation.

Exchange rates and inflation

How successful was sterilized intervention in simultaneously maintaining exchange rate stability and curbing inflation during the period of capital inflows? Figure 1, which plots the exchange rates against the dollar, suggests that both economies successfully limited exchange rate fluctuations in spite of massive capital inflows, at least initially. The value of the Malaysian ringgit was comparatively stable between 1989 and 1991, but then appreciated 7 percent against the dollar in 1992. Thailand's baht fluctuated relatively little against the dollar. As for inflation, both economies experienced rates on the order of 4–5 percent in 1988–1993 during the capital inflow surges, similar to inflation rates averaging 3–5 percent in the five years prior to the strong capital inflow period.

A number of reasons may be offered for the relatively limited inflation. First, both economies grew at average annual rates of close to 9 percent in this period. This increased money demand and dampened inflationary pressures that might have arisen from rapid money growth. Second, capital inflows also may have been associated with increases in money demand. Asset holders counting on short-run expected gains from possible appreciation in the Malaysian and Thai currencies may have been willing to hold relatively liquid bank deposits that comprise money. Third, in contrast to some Latin American economies, capital inflows to a significant degree financed investment rather than consumption. Since much investment spending was in the form of capital goods imports, it puts less pressure on domestic production and prices than would have spending on domestic consumption. The impact of increased investment is reflected in changes in the composition of imports. Between 1989 and the first part of 1994, imports of machinery in Malaysia grew at an average annual rate of 29 percent, compared to 22 percent for total imports. In Thailand, imports of capital goods grew 18.4 percent on average, about 2 percentage points higher than total imports.

Figure 1
Malaysia and Thailand
Exchange Rate Indices
(Dollars per unit of currency)



Conclusions

The experiences of Malaysia and Thailand since the late 1980s illustrate the difficulties that may arise in conducting monetary policy when capital is internationally mobile and a country wishes to stabilize the exchange rate. Intervention to stabilize the exchange rate in the face of capital inflow surges caused strong upward pressure on the money supply, and both economies had to resort to a number of measures to limit money growth. In spite of these difficulties, both Malaysia and Thailand successfully limited inflation, suggesting that some degree of exchange rate as well as monetary stability can be maintained for a time in the face of surges in capital inflows. However, Malaysia's experience indicates that very large persistent surges may require a choice between permitting more currency appreciation and reimposing restrictions on capital inflows. And Thailand's recent experience highlights the challenge that subsequent reversals in capital inflows may pose to policymakers.

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Reference

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