

# V Experience with the Use of Capital Controls to Limit Short-Term Capital Inflows

## Brazil (1993–97)

The macroeconomic situation in Brazil at the beginning of the 1990s was characterized by persistent inflation. Attempts to contain it, involving combinations of price and wage controls, efforts to tighten monetary policy, tax increases, freezes of bank deposits, and sequestering of financial assets, were generally unsuccessful. Inflationary expectations fueled by persistent government financing needs gave rise to a large interest rate differential, which, in turn, led to accelerating capital inflows in the context of a tightly managed exchange rate regime. These inflows were further facilitated by regulatory changes implemented in 1987–92, which amounted to a further liberalization of capital inflows (in particular, by giving foreign investors an exemption from domestic income tax on capital gains).

Starting in mid-1993, the authorities began to introduce numerous control measures to reduce short-term capital inflows, with an emphasis on fixed income securities. The controls were intended to maintain a suitable interest rate differential, while minimizing currency appreciation pressures and sterilization costs. As the Central Bank of Brazil noted in its 1994 Annual Report,

The impossibility of a more drastic reduction of the rate differential between domestic and foreign assets, which would naturally discourage the inflow of foreign financial savings, resulted in measures that would make it possible to attenuate the monetary impact of the foreign sector, without interrupting the process of integration with international financial markets.

Interest rates had to be kept at high levels to control aggregate demand in view of the lack of further fiscal adjustment. In addition to limiting the volume of inflows aimed at restricting arbitrage on short-term interest rates, the measures also aimed at changing the composition of the inflows away from fixed income toward stocks and fixed investments, and toward longer-term inflows.

The controls took the form of a number of direct and price-based measures and were continuously re-

vised and augmented as market participants found ways to circumvent the regulations through financial engineering. (See Garcia and Valpassos, 1998.) Initially, the authorities increased the minimum average amortization term for loans from 30 to 36 months and the time for reimbursement for income tax on remittances abroad from 60 to 96 months. They changed the banking regulations to reduce dollar-denominated liabilities and increase dollar-denominated assets. They prohibited funds obtained through permitted investment channels to be invested in fixed-yield bonds. When the market began to use debentures to invest in fixed income assets, the authorities prohibited inflows into debentures. A channel for fixed income investments, the Fixed Income Yield Funds (FIYF), was created, subject to an “entrance tax” on the initial exchange rate transaction (extended subsequently to financial loans). As the market adopted derivative strategies to invest into fixed income assets, investments through FIYF were banned shortly thereafter. When market participants used various derivative products to provide fixed yields, the authorities subsequently prohibited a broader range of fixed income-like securities, including investment strategies involving derivatives that lead to predetermined returns (e.g., a box).<sup>19</sup> As government securities, purchased under the permitted investment channels, were also used to obtain fixed yields, the authorities subsequently restricted these investments and extended the entrance levy to all portfolio investments in January 1994.

More restrictions on foreign capital inflows were put into place in conjunction with the Real Plan of July 1994, which was conceived as an attempt to rein in inflation by influencing inflationary expectations. These and subsequent control measures aimed at improving the quality of the capital flows to Brazil by attempting to change their composition

<sup>19</sup>A “box” strategy consists of trading four options (two calls and two puts), so that the payment at the maturity date is fixed. Since the payment is fixed at the maturity date, the “no arbitrage” argument leads to the conclusion that the return on the whole strategy must equal the riskless rate of return. In Brazil, this is the rate on the interbank funds market.

from short-term to long-term inflows, by either restricting or banning investments in certain assets, increasing the entrance tax on certain types of portfolio inflows, or using other measures to increase the maturity of permissible investments in Brazil. Restrictions were imposed on the size and maturity of export credit, which was seen as a channel to circumvent restrictions on capital inflows. Capital outflows were also further liberalized.

Following a temporary relaxation of controls on capital inflows after the Mexican crisis of early 1995, the authorities again raised the tax rates on certain inflows, extended the coverage of inflow controls, and adopted differentiated tax rates inversely related to the maturity of loans to affect the level, as well as the maturity composition, of the inflows that had returned to Brazil by the summer of 1995. Most remaining channels for short-term inflows into fixed income investments and fixed income-linked strategies, as well as foreign investors' access to derivative markets in Brazil, were forbidden outright; and minimum maturities were again raised. Additional measures were introduced in early 1996 to prohibit investments that replicated fixed-income results; to lengthen the minimum maturities for all currency loans to three years; and to impose an entrance tax on investments in privatization funds. Following a drop in the interest rate differential during 1996, the entrance tax was reduced in April 1997 and some minimum maturities were again shortened.

It seems that neither the controls on inflows nor the liberalization of capital outflows achieved their goals of reducing the volume of net inflows, as massive capital flows continued to pour into the Brazilian economy during the period.<sup>20</sup> Given the existence of well-developed financial markets, including an active currency futures market as well as other over-the-counter derivatives markets, measures intended to change the maturity and composition of flows were repeatedly circumvented through financial engineering, giving rise to a growing need for further restrictions.<sup>21</sup> Massive sterilization of a large

accumulation of reserves also led to significant fiscal costs as inflows continued and the nominal exchange rate had to be repeatedly adjusted; about one-fourth of the massive negative fiscal shift that occurred in 1995 (the operational fiscal balance moved from a surplus of 1.3 percent of GDP in 1994 to a deficit of 5 percent of GDP in 1995) was accounted for by higher net interest rate payments that were incurred in connection with the sterilization operations (Garcia and Valpassos, 1998). The real exchange rate appreciated significantly, with a corresponding deterioration in the current account balance (from close to balance in 1993–94 to a deficit of 2.6 percent of GDP in 1995 and 3 percent of GDP in 1996). However, the ratio of foreign direct investment to GDP has increased.

The main lesson from the Brazilian experience seems to be that the effectiveness of capital controls might be limited in an environment where the sophistication of the financial markets reduces the cost of circumvention relative to the incentives for circumvention. In the long run, repeated attempts by the authorities to restrict capital inflows were unsuccessful, since capital continued to find ways to enter the economy, particularly in view of the persistent incentives provided by interest rate differentials that remained high in the absence of fiscal adjustment.

### Chile (1991–98)

In response to the financial crisis of the early 1980s, the Chilean authorities embarked on a comprehensive program of structural and macroeconomic reforms, aimed at reducing inflation; bringing the fiscal accounts into balance; and containing the current account deficit through an export-oriented strategy.<sup>22</sup> Monetary policy was geared to limiting inflationary pressures, with the real interest rate as the operating target; exchange rate policy aimed at maintaining competitiveness, with a path for the real exchange rate serving as an indicative target.

The external sector strengthened during 1984–88, with the current account deficit cut from 11 percent of GDP in 1984 to 1 percent at the end of 1988, and the economy grew at an average rate of 5.7 percent during the five-year period. In response to the overheating of the economy in 1989, in part due to a relaxation of the fiscal stance in 1988, monetary policy was tightened, which, combined with a fall in world interest rates, an improvement in market sentiment toward Chile, and a generalized increase in the willingness to lend to emerging markets, resulted in a

<sup>20</sup>Monthly net private capital flows averaging \$39 million between 1988–91 rose to a monthly average net flow of \$970 million in 1992–95. During this period, the capital flows also seem to primarily consist of short-term resources (see Cordoso and Goldfajn, 1997).

<sup>21</sup>In addition to the “financial engineering” strategies mentioned above, including investments in debentures, government securities, and derivative products that replicate fixed income returns, there has also been a massive increase in direct investment in 1996, a significant part of which was attributed by the financial press to fixed income investments disguised as direct investments to avoid the restriction on capital inflows (Garcia and Valpassos, 1998).

<sup>22</sup>A more detailed case study of Chile’s experience with the use of capital controls is provided in Appendix I.

surge in private capital inflows beginning in 1989. This gave rise to a classical monetary policy dilemma, with a smaller number of independent instruments than policy goals. The conflict resulted from assigning monetary policy a domestic inflation target while assigning exchange rate policy an external current account target. When capital flows are largely deregulated, monetary and exchange rate policy cannot, of course, be set independently.

The initial policy response was sterilized foreign exchange intervention and a tightening of fiscal policy. While sterilization of most of the intervention helped prevent a monetary expansion, this policy imposed sizeable costs on the central bank, reflecting the differential between the interest cost of sterilization and the return on foreign assets (roughly 1 percent of GDP annually during the 1990s). In June 1991, the authorities introduced selective controls on capital inflows in the form of a 20 percent URR on foreign borrowing; a minimum stay requirement for direct and portfolio investments from abroad; some regulatory requirements for domestic corporations borrowing abroad; and extensive reporting requirements on banks for capital transactions. Supporting policies included a liberalization of capital outflows starting in the early 1990s, a further widening of the exchange rate band, and the continuation of a strong fiscal policy.

The URR was expected to discourage short-term inflows without affecting long-term foreign investments and to increase the autonomy of monetary policy in order to minimize the effect on the exchange rate of a tight monetary stance. The accumulation of short-term debt, as well as an excessive appreciation of the currency, would, in the authorities' view, render the economy vulnerable to shifts in market sentiment. Additionally, the URR would discourage excessive capital inflows and reduce the risks faced by institutions intermediating these flows. The authorities have also stressed the particular circumstances of small and open emerging countries, including Chile, which could not address policy dilemma they were facing with traditional policies. From this perspective, capital controls are a second-best policy response to a market failure.

The URR, an indirect or market-based capital control, was designed to indirectly tax short-term capital inflows (a form of a Tobin tax). Initially, the URR covered foreign loans (except for trade credit), but over time its coverage was extended to nondebt flows that had become a channel for short-term portfolio inflows (i.e., foreign currency deposits in commercial banks, secondary depository receipts, and foreign direct investments of a potentially speculative nature). The rate of the URR was raised from 20 percent to 30 percent, until a decline in capital inflows, reflecting contagion from the Asian crisis,

motivated a reduction of the rate. In September 1998, the URR was suspended by reducing its rate to zero percent.

When the URR was introduced, Chile had made great strides toward enhancing the prudential framework for the financial system and strengthening macroeconomic policies, in particular fiscal policy, with fiscal balance shifting from a deficit to a surplus. These policies were continued and further reinforced during the 1990s. The URR was also supported by a restrictive regulatory framework for international transactions, while the concomitant gradual liberalization of capital outflows was expected to relieve the pressure on net capital inflows. It is not clear, however, whether the latter was indeed helpful. Concerning external policies, the authorities followed a flexible exchange rate policy, which allowed for an orderly real appreciation of the currency and a gradual widening of the crawling exchange rate band. In the meantime, monetary policy continued to be restrictive.

The strengthening of the prudential framework for the financial sector was a critical component of the program of economic reforms. Over the years, Chile has developed a prudential framework for the financial sector that establishes high disclosure standards; stringent rules for loan classification and provisioning; strict limits on connected lending and on banks' exposure to foreign exchange risks; and clear procedures for the correction of liquidity or solvency problems. The sound position of the banking system is reflected in the low level of nonperforming loans (1.68 percent of total loans as of March 31, 1999); a comfortable level of provisions for bad loans (provisions are 127 percent of nonperforming loans); compliance of all banks with the Bank for International Settlements (BIS) capital adequacy ratio; and an average capital adequacy ratio for all banks of 11.5 percent.

No firm conclusions have yet been reached on the effectiveness of the Chilean controls, and particularly the URR, in achieving their intended objectives. The many quantitative studies that have attempted to assess the effectiveness of Chile's capital controls empirically have also failed to provide firm conclusions, owing partly to data deficiencies and methodological difficulties. A number of quantitative studies found some evidence that the URR had enhanced the autonomy of monetary policy by helping to maintain a wedge between domestic and external monetary conditions (the differential of real interest rates over international rates rose from 3.1 percent in 1985–91 to 5.2 percent in 1992–97), although one recent work suggests that the URR had only a small and temporary effect on interest rate behavior. Furthermore, although the broad policy mix was not much changed since the late 1980s despite

episodes of sustained capital inflows, it has been argued that other factors may have been at play in maintaining the interest rate gap. In particular, continued sterilization operations may have affected short-term interest rates (Nadal-De Simone and Sorsa, 1999). The available data, as well as the quantitative studies, provide no discernible evidence that the URR had an effect on the exchange rate path or on total capital inflows.<sup>23</sup> The effect of the URR on total inflows has been found to be mostly “on impact”—that is, when it was introduced—and the magnitude of the effect has been either small or short-lived. There is also some evidence that the URR has altered the composition of capital inflows. Official data indicate that the share of short-term inflows in total inflows declined significantly over the relevant period,<sup>24</sup> although quantitative studies are not unanimous on the effect that URR had in this development. Large discrepancies between official statistics on short-term debt and data collected by other sources (BIS/World Bank) also need to be reconciled, as the latter suggest that the ratio of short-term debt to total debt in Chile rose sharply in the 1990s after the imposition of the URR (Nadal-De Simone and Sorsa, 1999).

The earlier studies on the effectiveness of Chilean controls argue that several factors may have played a role in limiting the effectiveness of the URR. These include the partial coverage of short-term flows, in particular the exemption of trade credits; the dynamic response of optimizing agents in the context of a sophisticated financial system; and difficulties of enforcement. The Chilean authorities have also acknowledged that

... since the URR was not universally applied to all foreign capital inflows, the regulations tended to lose their effectiveness over time, as ways of circumventing them were developed channeling the inflows through exempted windows. To partly compensate this trend, the regulations were amended, and some of the identified gaps were closed and the coverage increased, others could not be fixed because of legal limitations or the strong action of the lobbies. The revisions proved to be insufficient to effectively close the loopholes, and the effectiveness deteriorated over time. (Le Fort, 1999, p. 4).

<sup>23</sup>The real effective exchange rate of the Chilean peso continued to appreciate at an average rate of 4 percent a year from 1991 to mid-1997; and average capital inflows amounted to 7.3 percent of GDP in 1990–95 and 11.3 percent in 1996–97, before falling in 1998.

<sup>24</sup>The share of medium- and long-term capital increased from about 23 percent of total inflows in 1990 to 62 percent in 1997–98 (see Le Fort, 1999).

In assessing the experience of Chile, it is important to keep in mind that the use of capital controls in Chile has been part of a broad program of economic reforms involving a coherent set of macroeconomic and structural policies implemented throughout the 1990s. A striking feature of the path followed by Chile is an early recognition of the significance of financial reforms—with a view to establishing a sound prudential framework and a strong credit culture—for the success of a program of economic reforms. The skillful coordination of structural and macroeconomic policies allowed Chile to achieve the policy objectives that had been set forth in the mid-1980s, including a gradual and steady lowering of inflation from more than 25 percent to about 4 percent a year; high output with GDP growth of more than 7 percent a year; and a much improved current account position with a deficit on average slightly above 3 percent of GDP (although deficits were higher in the period 1996–98). The immediate cost was a fairly restrictive and complex framework for international transactions, which required a strong enforcement capacity at the central bank. Whether or not the URR delayed progress in resolving the monetary policy dilemma faced by Chile is an important question that no study has attempted to analyze.

### Colombia (1993–98)

Beginning in the early 1990s, Colombia experienced a surge in private capital inflows, including debt-creating flows and foreign direct investment.<sup>25</sup> These inflows increased from 0.2 percent of GDP in 1990 to more than 7 percent of GDP in 1997, and averaged nearly 4 percent of GDP a year.<sup>26</sup> The increase in inflows followed the implementation of a comprehensive program of structural reforms, which included a wide-ranging liberalization of the exchange and trade system; the dismantling of interest rate controls; financial sector reform that allowed full foreign ownership of banks and strengthened bank supervision and regulation; a new financing strategy, with an emphasis on domestic financing for the public sector and foreign direct investment for the private sector; a tightening of credit conditions; and a reduction in the rate of crawl of the currency aimed at lowering inflation. While the inflows

<sup>25</sup>Capital flow figures used in this section are based on the official balance of payments released on the basis of the fourth edition of the IMF's *Balance of Payments Manual*.

<sup>26</sup>The GDP ratios used here refer to the old GDP series, based on a 1975 survey. Colombia has recently introduced important revisions in GDP based on a new survey year, 1994, and GDP data in the pre-1994 period have not been linked to the new series.

played an important role in financing the widening current account deficit, they also exerted upward pressure on the exchange rate and raised concerns about the loss of competitiveness. The authorities took a number of measures to limit the destabilizing effects of the capital inflows.

Initial policy responses included intervention with partial sterilization through aggressive open market operations in the form of sales of central bank securities. However, large-scale sterilization substantially weakened the position of the central bank, and prompted the adoption of alternative measures.<sup>27</sup> In addition, sterilized intervention through aggressive open market operations to mop up excess liquidity increased interest rates, which in turn attracted additional capital inflows. An expansionary fiscal policy put additional pressure on monetary policy, which was attempting to keep interest rates low. At the end of 1991 the peso was devalued, restrictions on capital outflows were eased further, and import liberalization accelerated.

In response to the sustained pressures, the authorities adopted a new strategy aimed at discouraging capital inflows, and especially short-term inflows. First, they established, in July 1992, a 10 percent withholding tax on transfers and nonfinancial private services, aimed at reducing the use of certain current account transactions for speculative purposes.<sup>28</sup> As large-scale capital inflows continued through 1993, capital controls in the form of a URR on external borrowing were introduced in September 1993. Shortly after, in early 1994, a crawling band regime was introduced (formalizing the de facto arrangement that had been maintained since late 1991), with the width of the band set at  $\pm 7$  percent and the rate of crawl (the slope) of the band based on expected inflation differentials with trading partners.

The URR is based on certificates issued by the central bank, initially denominated in foreign exchange and redeemable in domestic currency after a holding period of 18 months. In an effort to target short-term inflows, the URR was limited to loans with maturities up to 18 months. The URR was subsequently modified several times to better target short-term inflows (with higher rates applied to shorter maturities); the implied tax was adjusted to reflect changes in external and domestic conditions (including changes in the URR rate, in the maturity of foreign borrowing subject to it, and in the term of

the deposits). Certain trade credits were made subject to the URR. Following the Asian crisis, the URR was substantially reduced to contain downward real exchange rate pressures.

Despite the imposition of the deposit requirement, private capital inflows remained strong, increasing from 5 percent of GDP in 1993 to 8.4 percent of GDP in 1996. Debt-creating flows remained strong but broadly stable at 3.2 percent of GDP on average during the period 1993–96, compared with 1 percent of GDP in 1992. However, the maturity structure of the private external debt stock changed: the share of medium- and long-term debt rose to 70 percent of the total external debt stock in 1996, from 40 percent in 1993.

A number of quantitative studies examined the effectiveness of the URR in Colombia. Cárdenas and Barrera (1996) and Ocampo Gaviria and Mora (1999) arrived at conflicting conclusions about the effect of the URR on total inflows. However, they found that the URR played an important role in lengthening the maturity of Colombia's debt. At the same time, the URR may have contributed to a shift away from debt-creating inflows and toward other sources of financing that were exempt from the controls, such as foreign direct investment. Caution is also warranted in assessing the effectiveness of the URR in lengthening the maturity structure, as the imposition of the URR coincided with the introduction of the exchange rate band, which may have contributed to reducing the short-term flows. No study has attempted to assess the effect of the URR on the volatility of capital flows.

## Malaysia (1994)

From 1990 to 1993, the Malaysian economy recorded unprecedented levels of capital account surpluses, led by both long-term and short-term capital inflows.<sup>29</sup> Private net inflows of long-term capital rose from 5.7 percent of GDP in 1990 to 8.2 percent in 1993, while net short-term inflows increased from 1.2 percent of GDP to 8.9 percent during the same period. Strong underlying economic fundamentals contributed to long-term inflows, while short-term inflows (mainly in the form of external borrowing by commercial banks and increased placements of ringgit deposits by bank and nonbank foreign customers with Malaysian banks) were boosted by relatively high interest rate differentials in favor of Malaysia and market expectations of

<sup>27</sup>Losses at the central bank amounted to 0.8 percent of GDP in 1991.

<sup>28</sup>The withholding tax is a foreign exchange tax similar to the one considered by Tobin; the effective tax rate depends on the interest rate as agents can claim amounts paid against future tax payments (Cárdenas and Barrera, 1996). Under IMF jurisdiction, the measure gave rise to a multiple currency practice.

<sup>29</sup>The discussion of this experience draws on "Malaysia's Recent Experience with International Capital Flows," which appeared in IMF (1995), and on Willard Working Group 2 (1998).

ringgit appreciation in the context of a stable ringgit policy.

In managing these heavy capital inflows, the authorities were faced with a trade-off between the need to keep interest rates high to contain inflation on the one hand, and the need to discourage short-term inflows on the other hand. Such inflows were viewed as highly reversible and speculative in nature. In particular, inflows related to purchases of debt securities and increases in external liabilities of commercial banks were more problematic, to the extent that interest rate differentials remained high. Apart from the macroeconomic risks of overheating associated with the rapid expansion of bank reserves, large capital inflows also entailed certain financial sector risks, including a deterioration in asset quality.

Against this background, priority was given to dealing with the destabilizing inflows and restoring stability in the financial markets with a combination of monetary and exchange control measures. In view of the authorities' concern about the potential adverse impact on trade and investment of a sharp appreciation of the ringgit, the initial policy response was to sterilize the inflows as opposed to allowing for greater flexibility in the exchange rate. The sterilization, however, turned out to be costly, given the shortage of government paper and thus the need to issue Bank Negara Malaysia bills to conduct open market operations, as well as ineffective, as sterilization operations kept interest rates high and thus continued to attract capital inflows.<sup>30</sup> The authorities resorted to additional direct monetary instruments, including successive increases in the statutory reserve requirements as strong capital inflows persisted. Fiscal policy remained tight.

Given the persistence of inflows and concerns about a loss of control over monetary aggregates and inflation, and instability in the financial markets, the authorities introduced a number of direct and regulatory capital control measures in early 1994. The measures were specifically designed to limit short-term capital inflows in the form of bank foreign borrowing and ringgit deposits by bank or nonbank foreign customers: (1) residents were prohibited from selling Malaysian money market securities with less than one year maturity to nonresidents; (2) commercial banks were prohibited from engaging in non-

trade-related bid-side swaps or forward transactions with nonresidents;<sup>31</sup> (3) asymmetric open position limits, that is, ceilings on banks' net liability positions excluding trade-related and foreign direct investment flows, were imposed, aimed at curtailing bank foreign borrowing to engage in portfolio or nontrade transactions; and (4) commercial banks were required to place with the central bank the ringgit funds of foreign banking institutions maintained in non-interest-bearing accounts—these funds were subsequently included in the eligible liabilities base of commercial banks.<sup>32</sup> These measures were supplemented with some easing of interest rate policy and curtailing of sterilization operations, as well as with some prudential regulations to address the liquidity situation—including a redefinition of banks' eligible liability base to also include all inflows of funds from abroad (thereby making such inflows subject to reserve and liquid asset requirements).

While the effect on economic variables was not inconsistent with the objectives, the immediate market reaction to the 1994 measures was negative, resulting in a depreciation of the ringgit and a correction in the stock market. However, the controls were intended to be temporary. The authorities recognized that if the controls remained in place for too long, market distortions could emerge. Hence, by the end of 1994, most of the controls were lifted, and the authorities considered that they had achieved their objectives of containing the short-term inflows and the monetary expansion and restoring stability in the foreign exchange market. The prudential measures remained in place. Broad monetary aggregates decelerated markedly in 1994, the capital account surplus declined sharply—reflecting a marked reversal in short-term inflows in the second half of 1994 (particularly in new external liabilities of the banking system)—and long-term investment flows were comparatively unaffected. The controls were thus apparently effective in reducing the volume, as well as changing the composition of, the capital inflows. However, the narrowing interest rate differentials and the curtailment of sterilization operations may also have contributed to the slowdown in short-term inflows.<sup>33</sup>

<sup>30</sup>In 1992, the monetary authorities absorbed approximately RM 24 billion of excess liquidity from the banking system, equivalent to 90 percent of the outstanding stock of reserve money, and in 1993, about RM 40 billion of bank liquidity, equivalent to 1.5 times the stock of reserve money. According to the Annual Reports of Bank Negara Malaysia for 1993–94, the “quasi-fiscal” costs of sterilization were substantial (see IMF, 1995).

<sup>31</sup>A ringgit bid-side swap transaction comprises all forms of forward purchases of foreign currencies against ringgit, including outright forwards and options or spot transactions that are rolled over to synthesize a forward transaction. Prohibition of commercial banks to engage in non-trade-related bid-side swap or forward transactions with nonresidents aims to curtail speculative activities of offshore agents seeking long positions in ringgit in expectation of a ringgit appreciation.

<sup>32</sup>This measure effectively resulted in a negative interest rate being imposed on these deposits, thereby further discouraging the excessive inflows of such funds.

<sup>33</sup>The interest rate differentials even became negative in 1995.

Malaysia's experience illustrates the increased complexity of monetary management in integrated financial markets. The main lessons suggested by Malaysia's experience with the use of inflow controls are (1) the importance of following a consistent monetary and exchange rate policy mix in such an environment to avoid excessive and destabilizing capital inflows; and (2) the potential effectiveness of controls on inflows when the controls are accompanied by steps to strengthen prudential regulations and an appropriate monetary policy (in this case, allowing interest rate differentials to narrow or vanish and curtailing sterilization operations, which, together with the controls, served to address the initial monetary policy dilemma that was facing the authorities).

### Thailand (1995–97)

Reflecting in part a pickup in global economic activity, the Thai economy started showing signs of overheating in mid-1993, despite the authorities' tight financial policies. Demand pressures were manifested in higher inflation and some widening of the current account deficit, prompting the authorities to tighten monetary and fiscal policies. The combination of a pegged exchange rate since 1984 and highly liberalized capital inflows,<sup>34</sup> along with large interest rate differentials, created strong incentives for interest rate arbitrage and contributed to episodes of high and volatile net capital inflows. The inflows were predominantly short-term (about 60 percent of the total in 1993), mainly in the form of short-term borrowing by banks (as the main channels for intermediating financial resources in the absence of a developed private bond market), and especially through the Bangkok International Banking Facilities (BIBF).<sup>35</sup> The latter was opened in 1993; re-

laxed regulations and various tax incentives encouraged residents to borrow through it. The remainder of the short-term inflows consisted of nonresident baht accounts held largely by foreign financial institutions, and short-term debt securities issued mainly by finance companies.

The growing size and volatility of these inflows, particularly in early 1995, not only threatened the inflation outlook, but also complicated the implementation of monetary policy in an environment with a fixed exchange rate and a paucity of indirect monetary policy instruments. Fiscal policy was relatively tight and the exchange rate peg was maintained on the grounds that it had fostered credibility and stability. The authorities also refrained from a more aggressive liberalization of capital outflows.

Given the limited policy options, the authorities attempted to cope with capital inflows through a combination of monetary, prudential, and market-based capital control measures. To slow credit growth and reduce the inflationary impact of the inflows, they raised the policy rate in March 1995; extended the coverage of the credit plan to include larger finance companies and the BIBF banks; reduced loan-deposit ratios in cases where the ratio was above average; and stepped up sterilization operations. Some measures more directly targeting capital flows were introduced in August 1995. These consisted of (1) asymmetric open position limits for short and long positions (with smaller limits on short foreign currency positions in an attempt to discourage foreign borrowing abroad); (2) a reporting requirement for banks on risk control measures in foreign exchange and derivatives trading; and (3) a 7 percent reserve requirement (held at the central bank) on nonresident baht accounts with less than one-year maturity and on finance companies' short-term foreign borrowing.<sup>36</sup> Additional constraints were imposed on banks' nonpriority lending in foreign exchange on concerns about the sectoral credit allocation, as well as a rise in banks' foreign currency exposure. The authorities also resorted to moral suasion by seeking cooperation from commercial banks and licensed the BIBF to lengthen the maturity of their borrowings, especially through the BIBF.

These measures seemed to contribute to a slowdown in economic activity initially and in bank foreign borrowing. However, inflows picked up again toward the end of the year, in part reflecting a decline in U.S. interest rates. Net total capital inflows

<sup>34</sup>Capital inflows were actively promoted at a relatively early stage (1985–86, 1990–95), while outflows were liberalized only gradually (1990–92, 1994). Inflows through portfolio and equity investments were permitted freely, while portfolio and foreign direct investment outflows were subject to restrictions. Banks' foreign borrowing was unrestricted other than by net open position limits, while that by residents could be contracted freely except that proceeds needed to be repatriated to authorized banks or placed in foreign currency accounts.

<sup>35</sup>The dominance of capital inflows by short-term flows was also a feature of the other countries in the region. In Korea, although short-term inflows were liberalized gradually and selectively, the regulations created a bias toward channeling inflows through banks, which tended to borrow short term. In Indonesia, short-term inflows rose after 1994, although the regulations did not seem to promote short-term inflows deliberately and limits were imposed in 1992–96 on foreign borrowing by banks and private and state-owned companies. In Malaysia, the share of short-term inflows in total increased sharply in 1991–93, prompting the authorities to impose controls on short-term inflows (see above).

<sup>36</sup>While the reserve requirement for resident and nonresident baht account balances with a maturity of less than one year was the same, the rule on how the reserve requirement could be met differed between these deposits, thereby affecting the relative cost of funding.

rose strongly, with the capital account surplus rising from 8.5 percent of GDP in 1994 to 13.1 percent of GDP in 1995, owing to an increase in both short-term and longer-term inflows. Private longer-term capital flows almost doubled in 1995 (to \$8.1 billion, from \$4.6 billion in 1994), mainly on account of portfolio investment. Short-term capital inflows rose strongly toward the end of 1995 (amounting to \$12.7 billion in 1995, up from \$7.4 billion in 1994), reflecting inflows through rapid growth of nonbank borrowing, as well as through growing arbitrage activity by foreign banks in the forward market with the currency basket having become increasingly transparent to traders.<sup>37</sup>

The persistent growth in net total and short-term capital inflows in 1995 prompted the authorities to introduce a second round of measures in April–June 1996, consisting of a number of reserve requirements (held at the central bank). The authorities feared that a more flexible exchange rate policy would lead to an exchange rate appreciation, a deterioration in the current account, and a weakening of the banking system, which had large unhedged foreign exchange exposures. The 7 percent reserve requirement was extended to nonresident baht borrowing with a maturity of less than one year and to new short-term offshore borrowing of maturities of less than one year by commercial and BIBF banks. As a prudential measure, the minimum capital adequacy requirement for commercial banks was also raised. Total net inflows subsequently fell, with medium- and long-term inflows continuing to rise and short-term inflows (particularly banks' foreign borrowing) falling sharply.

Overall, the regulatory controls imposed on capital inflows in 1995–96 seem to have (1) reduced net capital inflows into Thailand; (2) reduced the share of short-term net inflows from 62 percent of total capital inflows in 1995 to 32 percent in 1996;

(3) lengthened the maturity of BIBF loans (the share of long-term loans rose from 14 percent in 1995 to 34.3 percent in 1996); (4) reduced the share of short-term debt in total debt (from about 50 percent to 43 percent), and (5) marginally reduced the growth of nonresident baht accounts. It is difficult, however, to isolate the impact of the controls from those of the deterioration in investor confidence and other external factors. Moreover, the true maturity of capital inflows is often only weakly related to their maturity as measured in balance of payments statistics.

Whatever impact these controls may have had on the volume or maturity composition of capital inflows, Thailand subsequently experienced a sharp reversal of capital flows and an economic downturn. The controls also failed to discourage banks from channeling inflows to unproductive sectors with no foreign exchange earning potential. (See Wibulswadi, 1998.) Despite tighter net open position limits and constraints on banks' foreign exchange loans to nonpriority sectors in 1995–96, only about half of banks' foreign currency loans were granted to foreign exchange generating sectors.<sup>38</sup> As was observed in a number of other countries in the region, prudential regulations seem to have been violated in the absence of adequate enforcement and disclosure.

Thailand's experience with large-scale capital inflows may offer a number of useful points. First, financial sector reform lagged behind capital account liberalization. Second, liberalization of short-term flows, combined with high domestic interest rates and an implicit exchange rate guarantee, led to a substantial and unsustainable buildup of short-term liabilities by banks and nonbanks. Third, the capital controls were not an effective substitute for more fundamental policies. Fourth, reliance on capital controls may have delayed a much needed move toward greater exchange rate flexibility and the adoption of adequate indirect instruments of monetary policy.

<sup>37</sup>A possible channel for such inflows is that, in the absence of adequate indirect monetary instruments, the central bank sterilized inflows through foreign exchange swaps, which involved setting a forward exchange rate that did not deviate significantly from the spot rate. Moreover, the 1995 measures to limit short-term inflows exempted borrowing for trade financing, overdrafts, and liabilities arising from currency trading and derivatives activities.

<sup>38</sup>Net open position limits were reduced in late 1994 and the criteria for calculating net open positions were tightened in 1995–96; in particular, commercial loans to certain sectors could only be partially included as foreign assets unless borrowers fully hedged the exchange rate risk and foreign exchange loans to certain high-risk sectors were excluded from assets in calculating net positions in 1996.



## VI Experience with the Use of Capital Outflow Controls in the Context of Financial Crises

### Malaysia (1997–Present)

Malaysia is a highly open economy; and its approach to economic development has traditionally included the liberalization of capital flows.<sup>39</sup> Following the periodic reviews of exchange controls and their elimination in 1986–87 and 1994–96, the capital account was generally opened. Portfolio inflows were free of restrictions; portfolio outflows were also free except for resident corporations with domestic borrowing; and no restrictions, except for net foreign exchange open position limits, applied to banks' foreign borrowing or lending in foreign exchange. Net open positions, however, were monitored closely and residents' foreign currency borrowing was subject to limits. Borrowing in excess of these limits required approval, which was conditional on a project's foreign exchange earning potential. Cross-border activities in ringgit were also treated liberally, including the use of ringgit in trade, financial transactions with nonresidents, and offshore trading in securities listed on local exchanges. As a result, an active offshore ringgit market developed, with the bulk of ringgit cross-hedging taking place offshore. Until 1997, local banks could provide forward cover against ringgit to nonresidents, facilitating arbitrage between domestic and offshore markets.

Following the onset of the Asian crisis, the ringgit came under significant pressure in 1997, along with the other currencies in the region. The crisis revealed structural weaknesses in the region's banking systems and led to a general reassessment of regional lending risks. Offshore currency traders took short positions in ringgit in anticipation of a depreciation; and offshore ringgit rates increased relative to domestic rates, inducing an outflow of funds. The authorities temporarily broke the link between the domestic and offshore rates by imposing limits on ringgit non-trade-related swap transactions with nonresidents (August 1997), but outflows continued through various unrestricted channels to take advan-

tage of the large interest differentials created by the swap limits.<sup>40</sup> The flow of ringgit funds offshore led to an increase in domestic rates, accelerating the economic contraction and exacerbating the difficulties in the corporate and banking sectors.

Against this background, and after substantial amounts of capital outflows had already taken place, the authorities imposed a number of administrative exchange and capital control measures in September 1998, aimed specifically at containing ringgit speculation and the outflow of capital by eliminating the offshore ringgit market and at stabilizing short-term capital flows. The measures also sought to increase monetary independence and insulate the economy from the prospects of a further deterioration in the world financial environment. The authorities were concerned that, otherwise, interest rates would have to be kept high for a prolonged period, with harmful effects on economic activity and the banking system.

The measures were designed to eliminate all potential avenues for taking speculative positions against ringgit. Though they excluded foreign direct investment flows and current international transactions, they closed all channels for the transfer of ringgit abroad, required repatriation of ringgit held abroad to Malaysia, blocked the repatriation of portfolio capital held by nonresidents for 12 months, and imposed restrictions on transfers of capital by residents. The controls were supported by additional measures to eliminate potential loopholes (prohibiting the trading of ringgit assets offshore, announcing demonetization of large denomination ringgit notes, and amending the Companies Act to limit dividend payments). The authorities also pegged the ringgit to

<sup>39</sup>A more detailed study of this episode is provided in Appendix III.

<sup>40</sup>These types of limits on banks' swap operations with nonresidents have been used by central banks in many other countries to curtail speculative attacks. The rationale for these limits is that the interest rate defense during a speculative attack normally imposes high interest costs on both speculators and on the rest of the economy. To mitigate this cost, a central bank may try to charge speculators higher rates. If speculators are nonresidents who engage in foreign exchange swaps with domestic banks, the central bank can try to achieve this by either banning (or limiting) such swaps, or insisting that heavy forward discounts be imposed on the forward legs of such swaps (see IMF, 1997).

the U.S. dollar (following a managed float since July 1997), further relaxed monetary and fiscal policies to support economic activity, and accelerated the financial and corporate sector reforms that had commenced in early 1998 to deal with the weak financial institutions and strengthen the banking system.

On February 4, 1999, the authorities replaced the 12-month holding restriction on repatriation of portfolio capital with a declining scale of exit levies. The levy applied to principal or profits of nonresidents' portfolio investments, depending on whether the funds were brought in before or after February 15, 1999, respectively, making it possible to withdraw funds while penalizing early withdrawals. The authorities noted that the rules were meant to "encourage existing portfolio investors to take a longer view of their investments in Malaysia, attract new funds into the country, while at the same time discouraging destabilizing short-term flows." In addition, "the rule was designed to allow smoother outflow of funds, rather than a sudden and massive outflow upon the expiry of the one year holding period" in September 1999.

The exit levy on profits from portfolio investments exempted dividends, interest earned, and proceeds related to current international transactions and foreign direct investment flows. Certain investments in growth and technology shares listed in a separate stock exchange were also exempted. Hence, the levy is expected to fall primarily on capital gains in equity investments. Other forms of portfolio capital flows (including nonresident investments in short-term instruments, bank deposits, bonds, derivatives, and property investments) will be less affected, as interest payments comprise a larger share of the return on such investments. This suggests that the profit levy may provide only limited protection from volatile flows.

It is difficult to disentangle the impact of Malaysia's capital controls from broader international and regional developments, since the pattern of Malaysia's economic performance from the onset of the crisis has in many respects been similar to that of other countries in the region. Nevertheless, preliminary evidence suggests that the controls have been effective in eliminating the offshore ringgit market, which was the locus of much of the speculative activity. In conjunction with the 12-month holding period and restrictions on resident outward investments, the suppression of the offshore ringgit market effectively constrained capital outflows.<sup>41</sup>

<sup>41</sup>While short-term capital account recorded a substantial net outflow of capital overall in 1998 (RM 21.7 billion, compared with a net outflow of RM 11.3 billion in 1997), reflecting large outflows of portfolio investment in the second and third quarters of 1998, short-term capital flows stabilized in the last quarter of

Speculative pressures on the ringgit have been absent since the controls were imposed. Thus far, there is also no sign that parallel or nondeliverable forward markets are emerging, and there have been relatively few reports of circumvention. Preliminary indications are that the exit levy may have contributed to an improvement in investor confidence, as market participants viewed the levy (a market-based control) as an improvement over an outright prohibition of repatriation of investment.<sup>42</sup> But negative investor reaction to the controls has not been fully overcome, as evidenced by a decline in new foreign direct investment and some disinvestment.

The containment of capital outflows reflects a combination of factors. The wide-ranging and strictly enforced controls in place prior to the revision of the control regime in February 1999 certainly played a role. But prudent macroeconomic policies, rapid progress in financial sector reform, improved economic prospects, the general return of confidence in the region, and the ex post undervaluation of the ringgit relative to other regional currencies were also important. Overall, the controls appear to have provided a breathing space in which to implement more fundamental policy reforms.

The results achieved so far, however, do not seem to have come without costs. Although domestic business viewed positively the relatively greater stability of the ringgit and faster cuts in interest rates that were facilitated in part by the controls, the reaction of international financial markets has been more negative. The confidence of international investors in Malaysia has weakened relative to other countries in the region. The cost of funding from foreign sources has increased,<sup>43</sup> foreign direct investment

1998, following the implementation of the one-year holding period for portfolio investment, effective from September 1998 (see Bank Negara Malaysia, 1998). Moreover, net outflows from overseas investment by Malaysian-owned companies also declined (to RM 3.1 billion in 1998 from RM 8.2 billion in 1997), reflecting the slowdown in economic activity and uncertainty in the region, as well as the government's directive to defer overseas investments that did not have direct linkages with the domestic economy and the tightening of exchange control regulations on overseas investment since September 1998. However, no information is available to gauge whether this is a possible consequence of substantial outflows of capital having already taken place before the controls were imposed in September.

<sup>42</sup>Notwithstanding some early repatriation of funds after its introduction and subdued stock market performance until early April, Malaysia has started to receive net capital inflows, the stock market picked up, accumulation of reserves resumed since March, its credit ratings were upgraded, and discussions for its reinclusion in key investment indices were initiated.

<sup>43</sup>The yield differential on the recent sovereign bond issue was somewhat larger than in Korea, Thailand, and the Philippines, whereas in previous years, sovereign bond spreads had generally been the same or lower.

continues to be relatively weak, and the strict implementation of the controls imposed significant administrative costs on investors, commercial banks, and the authorities. Spot, forward, and futures market activity fell significantly, possibly hampering appropriate hedging and risk management by market participants.

## Spain (1992)

After joining the European Community (EC) in 1986, Spain progressively liberalized its capital account in line with EC requirements, while moving forward with financial sector reform. Prior to 1986, tight controls on capital flows were maintained on concerns that free capital flows might disrupt domestic financial markets and reduce monetary policy autonomy. Following membership in the European Union, Spain gradually liberalized long-term foreign borrowing by the private sector (within certain limits), inward and outward foreign direct investment, foreign exchange operations of commercial banks, outward investment in medium- and long-term securities, forward operations, issue of foreign assets in domestic markets, and resident foreign exchange accounts.

Greater integration with international capital markets, and high interest rate differentials associated with tight monetary policy, led to a surge in capital inflows. In response, some restrictions were reimposed in the late 1980s, mainly on short-term flows: authorization requirements on all new foreign borrowing by residents with a maturity of less than one year—subsequently extended to three years—and unremunerated deposit requirements on all foreign borrowing by banks and residents. These restrictions allowed monetary policy to pursue both domestic and external objectives, while protecting domestic financial markets, which were not yet fully developed. The restrictions were abolished in 1990–91, and all remaining capital controls were lifted by February 1992, ahead of the schedule established by EC directives. The liberalization of the capital account was followed by an increase in capital flows, and by a shift from portfolio investment to credit operations. The composition of portfolio investment shifted toward investment in government securities.<sup>44</sup>

In connection with the ERM crisis of late 1992, the peseta came under significant speculative pres-

sure, reflecting not only the general tensions within the ERM, but also the weakening of the credibility of Spain's exchange rate peg (maintained within a  $\pm 6$  percent fluctuation band since 1989).<sup>45</sup> A weak fiscal position, high unemployment, and the widening of the current account deficit contributed to this loss of credibility, which in turn provided only limited room for a credible interest rate defense of the currency. The peseta was subsequently devalued within the ERM on September 17, 1992. Downward pressure on the currency continued, but further immediate realignments were difficult owing to the generally high level of tensions within the ERM, where decisions on changes in exchange rates were subject to agreement with other members of the system. In view of the authorities' desire to remain with the ERM and their commitment to EMU, they opted to introduce a number of market-based controls on short-term capital flows on September 22, 1992. Sharp interest rate increases to defend the currency at this point were seen as counterproductive in managing the speculative pressures.

The controls consisted of several compulsory non-interest-bearing deposit requirements on domestic banks. A speculative attack typically requires a speculator to establish a net short position in domestic currency. The measures adopted were designed to interfere with such position-taking by requiring banks to deposit with the central bank at zero interest a proportion of any net short position in domestic currency (or long position in foreign currency). The specific measures required domestic banks to place with the central bank a one-year non-interest-bearing deposit of an amount in pesetas, equivalent to 100 percent of (1) the increments from the September 22 same-day, next-day, and two-day value (i.e., spot) long foreign currency positions against pesetas; and (2) the increments in loans and deposits to nonresidents denominated in pesetas. The measures also included a 100 percent reserve requirement on the increments in peseta-denominated liabilities of domestic banks (national and foreign) with their branches, subsidiaries, and parent companies. These requirements were thus designed to limit capital flows by making the flows more sensitive to domestic interest rates, and thereby to discourage potential speculative activities by making it costly for Spanish banks to engage in transactions that could be used by non-

<sup>44</sup>Increased foreign holdings of public sector securities were encouraged, in part, by an exemption for nonresidents from taxes on interest and capital gains from the sale and purchase of government debt.

<sup>45</sup>Some key dates in this episode of crisis include the realignment of the Italian lira (September 13); the exit of the lira and the U.K. pound, and the first realignment of the Spanish peseta (September 17); and the second realignment of the peseta and the realignment of the Portuguese escudo (November 23).

residents to take speculative positions against the peseta.<sup>46</sup>

These controls were modified on October 5, 1992. The previous measures were replaced with a requirement for domestic banks to place with the central bank a non-interest-bearing deposit of an amount in pesetas equivalent to 100 percent of (1) the peseta sales against foreign currency to nonresidents with same-day value (to constrain peseta sales to cover overdrafts), (2) the increment in net sales of peseta against foreign exchange to nonresidents with value “next day,” and (3) the increment in the forward sale of foreign exchange against pesetas to nonresidents.<sup>47</sup> The authorities, upon reflection, determined that the earlier measure had been unnecessarily wide and not clear enough in its formulation. In effect, the revised measure was designed to penalize only swap operations of nonresidents against the peseta by effectively raising the cost to nonresidents of raising funds for speculation through the swap market (simultaneous spot purchase and forward sale of peseta by nonresidents); such transactions are costly to nonresidents because banks pass on the costs of the deposit requirement. Hence, the revision of the initial regulations sought to target the financing of foreign exchange speculation more precisely and shield nonspeculative activity. (See Eichengreen, Tobin, and Wyplosz, 1995, and Garber and Taylor, 1995). It has been argued that the wide-ranging and restrictive nature of the first set of measures had in fact paralyzed most short-term operations given the broad range of activities they covered, including the financial operations associated with foreign trade. In particular, the measure had the effect of hindering nonresident exporters’ and importers’ ability to hedge against exchange rate risk. (See Garber and Taylor, 1995.) Moreover, initial uncertainty about the precise scope of the September measures may also have dampened activity in the market in the period just after the imposition of controls.

<sup>46</sup>When there is downward pressure on the domestic currency, a one-year 100 percent deposit requirement for one-year financing operations imposed on banks would double the interest income forgone by switching from domestic currency to foreign currency (interest forgone in domestic assets liquidated to buy foreign assets and an equal amount of interest on the assets liquidated to make the required deposit with the central bank). If the banks were to impose on borrowers the implicit cost of financing a shorter-term operation, the cost for a position over a weekend would be 120 times the prevailing domestic rate. Such deposit requirements are known to be equivalent to an implicit widening of the exchange rate band; by introducing a wedge between on- and offshore interest rates, they reduce the cost to the authorities of using the interest rate to defend the peg (Eichengreen, Tobin, and Wyplosz, 1995).

<sup>47</sup>The period for which the deposit with the central bank had to be maintained was set originally at one year, but the norm was also established that the term could be modified weekly.

Daily data on onshore-offshore interest rate differentials and the movements of the peseta within its ERM band suggest that the controls were initially effective in preventing speculation against the peseta, but provided only temporary relief (see Eichengreen, Tobin, and Wyplosz, 1995). Between September 22 (when the controls were first imposed) and mid-October, interbank interest rates declined, with a subsequent widening of the onshore-offshore interest rate differentials. The peseta stabilized close to the more depreciated margin of the fluctuation band, and the reserve loss slowed to \$2 billion in October, compared with a decline of \$13 billion in September (the largest one-month reserve loss ever). From mid-October 1992, however, the interest rate differential fell close to zero and increased only modestly when the peseta again came under pressure in November, reflecting market expectations of another realignment. The reserve loss accelerated to \$9 billion in November. On November 23, the peseta was devalued for the second time, all the controls imposed since September 1992 were removed, and the authorities moved to raise interest rates. No further speculative attacks occurred until May 1993, when the peseta was devalued for the third time, followed by the general widening of the ERM fluctuation margins to  $\pm 15$  percent in August 1993.

It is difficult to determine whether the reduction in the onshore-offshore interest differential from mid-October and the need for large interventions in November to defend the rate reflected limiting of the scope of the controls or growing circumvention.<sup>48</sup> There is some support for both views. It has been argued that Spanish banks sent pesetas to their London subsidiaries to circumvent the deposit requirement (see Eichengreen, Tobin, and Wyplosz, 1995). Also, it appears that nonbanks may have been used to channel domestic currency offshore in response to the imposition of a deposit requirement on bank lending operations (for example, through the transfer of resident deposits to foreign branches of domestic banks, or leads and lags in the operations of exporters and importers). And, certainly, focusing the controls on only one method of financing from early October to avoid penalizing desirable transactions

<sup>48</sup>Of course, it is possible to attribute these developments to changes in the effectiveness of capital control measures. The Spanish authorities believe that the effectiveness of the measures remained largely intact until mid-November, when, approaching weekends, the higher expectation of an imminent devaluation provoked an increase in speculation against the peseta. That, in their view, translated into a higher offshore demand for pesetas in the offshore markets, which led to rewidening of onshore-offshore differentials, sales on the foreign exchange markets, and consequently, higher volumes of intervention. See, for example, Linde (1993) and Linde and Alonso (1995).

restored additional avenues for speculation, which appear to have been exploited given persistent expectations of further exchange rate depreciation.

Spain's experience with the use of temporary controls on capital outflows may suggest that (1) to be effective, controls need to be wide-ranging, and limiting the measures to the most widely used speculative instruments may not suffice as currency traders will quickly shift to other instruments; and (2) though capital controls may have provided the authorities a temporary breathing space until a second realignment was negotiated within the ERM, they did not provide lasting protection when there were strong incentives for circumvention, notably expectations of exchange rate depreciation.

### Thailand (1997–98)

After more than a decade of exchange rate stability and impressive economic growth, the Thai baht came under severe speculative pressure in May 1997. There were growing signs of overheating in the economy as early as 1993, reflected in persistent inflation and a significant widening of the current account deficit (with the latter in part reflecting a loss of competitiveness associated with the baht's close link with the appreciating U.S. dollar). Although the current account deficit was more than financed by inflows of capital in 1994–95, a growing component of these inflows was short term, increasing vulnerability to a sudden change in market sentiment. As discussed above, the inflows were encouraged by interest rate differentials and the belief that the peg of the baht provided an implicit exchange rate guarantee.

Growing domestic and external imbalances and the emergence of banking problems since late 1996 raised questions about the sustainability of the peg and induced speculative attacks on the baht. Speculative pressures had emerged periodically during 1997 in the belief that the prevailing high interest rates would eventually have to be lowered on concerns about the state of the economy and the banking system, and that the baht would have to be devalued. The attacks were facilitated by the relatively open foreign exchange system of Thailand at the time,<sup>49</sup> the presence of well-developed spot and swap markets, and freedom of nonresidents to obtain baht

credit from domestic banks. Speculation against the baht took the form of direct position-taking in the forward market, which created downward pressure on the forward rate, and use of explicit baht credits, which, when converted into foreign currency, created a short position on the baht. The conversion of baht credit into foreign currency represented a capital outflow, placing downward pressure on the spot exchange rate. To the extent pressures were offset by the central bank, they resulted in a decline in reserves and/or increase in the central bank's forward commitment.

The authorities imposed capital controls on May 15, 1997, to stabilize the foreign exchange market and stem speculative attacks on the baht. These measures were adopted against the background of a sharp decline in free international reserves, and the potential adverse effects of an interest rate defense on economic activity and the banking system. The measures attempted to close the channels for speculation identified above. First, financial institutions were asked to refrain from, and then suspend (June 1997), transactions with nonresidents that could facilitate a buildup of baht positions in the offshore market (including baht lending through swaps, outright forward transactions in baht, and sales of baht against foreign currencies). Second, any purchase before maturity of baht-denominated bills of exchange and other debt instruments required payment in U.S. dollars. Third, foreign equity investors were prohibited from repatriating funds in baht (but were free to repatriate funds in foreign currencies). Finally, nonresidents were required to use the onshore exchange rate to convert baht proceeds from sales of stocks. These measures gave rise to a two-tier currency market, with separate exchange rates for investors who buy baht in domestic and overseas markets. Financial institutions were also required to submit daily reports of foreign exchange transactions with nonresidents.

The 1997 measures were clearly targeted at decoupling the onshore and offshore markets. The two-tier system attempted to deny nonresidents without bona fide commercial or investment transactions in Thailand (identified as "speculators") access to domestic credit needed to establish a net short domestic currency position (particularly through the first three measures), and inflict punitive costs on speculators (through the first and last measure), while allowing nonspeculative credit demand to be satisfied at normal market rates. The controls exempted genuine underlying business related to current international transactions, foreign direct investment flows, and various portfolio investments. Banks were asked, however, to maintain documentary evidence supporting such transactions for auditing and inspection.

<sup>49</sup>Before 1997, the capital account had been almost fully liberalized on the inflow side, except for the reserve requirements on short-term foreign borrowing, while outflows were liberalized only gradually. There were no controls on the repatriation of investment funds, dividends, and interest earned, after settlement of relevant taxes, but restrictions existed on outward portfolio and foreign direct investments.

The measures seem to have reduced sharply the volume of trading in Thailand's swap market, where foreign investors often buy and sell to hedge currency risks for investments in Thailand. They also temporarily ended speculative attacks on the baht, by causing large losses for speculators (reportedly about \$1 billion to \$1½ billion), as both onshore and offshore banks, in response to official pressures, segmented the two markets by refusing to provide short-term credit to speculators. (See IMF, 1997, pp. 33–35.) In particular, banks' refusal to provide baht credit imposed a severe squeeze on offshore players who had acquired short baht positions during the speculative attacks and had to close their forward positions. As a result of the squeeze, offshore swap interest rates rose sharply relative to onshore rates, and induced speculators to settle their forward positions through the spot market, putting upward pressure on the spot exchange rate. This forced investors who had taken positions against the baht in expectation of a devaluation to unwind their forward positions at a loss. Thus, in the absence of extensive liquidation by domestic holders of baht positions, the authorities were able to withstand the pressures on the baht by relying on extensive application of the selective capital controls until early July.

Controls did not prevent outflows through alternative channels, however, as the sharp rise in the spread between the onshore and offshore interest rates (from about 2.5 percent in mid-May to 7.6 percent at the end of the first trading week in June and to 12.9 percent by June 13 before dropping to 9.8 percent on June 18, 1997) created arbitrage opportunities, and thus incentives for circumventing the controls. With the persistent expectations of baht devaluation driving capital outflows, foreign exchange reserves remained under pressure, and the authorities eventually abandoned their pegged exchange rate regime and floated the baht on July 2, 1997, in view of the high cost of defending it. The swap pre-

mium in onshore and offshore markets started to converge after end-August 1997, suggesting further diminishing of the effect of controls. The baht continued to depreciate until a comprehensive stabilization package with the needed structural reforms was seen as being firmly implemented, including the strengthening of weak financial institutions.

Thailand's capital controls provided very short-lived relief. There is no solid evidence on the reasons for the erosion in the effectiveness of the controls, nor on the channels used to circumvent the controls. Circumvention was, however, facilitated by the fact that the controls were not very wide ranging and did not eliminate the offshore market, which continued to provide arbitrage opportunities, particularly in view of continuing problems in the financial sector and macroeconomic imbalances. Notably, fiscal policy became loose in 1996–97, with a fiscal impulse amounting to some 4–5 percent of GDP. The controls, in addition to the weak economic fundamentals, undermined investor confidence, and discouraged foreign capital inflows, resulting in a decline in net private inflows of capital to Thailand during this period (from more than 5 percent of GDP in 1996 to an average of about –12 percent in 1997–98). Once the economic environment showed signs of improvement and the Bank of Thailand lifted the controls on January 30, 1998, the baht appreciated, stock market prices increased, and sovereign yield differentials narrowed.<sup>50</sup>

<sup>50</sup>Despite the initial announcement on June 11, 1997, that the controls would be maintained permanently or at least until the ailing economy recovered, the authorities lifted most of the control measures introduced in May–June 1997, unifying the two-tier market, and replacing the prohibition of baht lending to nonresidents with a maximum outstanding limit of B 50 million on baht credit facilities (loans, currency and interest swaps, options, forward rate agreements) per counterparty without an underlying current and capital account transaction.

## VII Experience with the Use of Extensive Controls During Financial Crises

### Romania (1996–97)

The Romanian authorities imposed exchange controls in March 1996 in the context of heavy foreign exchange market pressures. These pressures stemmed from a relaxation of monetary policy associated with central bank liquidity support to private banks and a pre-electoral easing of fiscal policy. The 12-month rate of depreciation of the leu rose from 20 percent in September 1995 to 60 percent in March 1996, while foreign exchange reserves declined sharply.

To limit exchange rate depreciation, the authorities imposed an overnight cash limit on foreign exchange bureaus, and withdrew foreign exchange dealer licenses from all but four state-controlled banks. These measures served to further tighten the existing capital controls, which were pervasive, quantity based, and discretionary. Most capital account transactions required central bank approval and endorsement by the Ministry of Finance, with some types of transactions subject to outright prohibitions (for example, real estate). Current account restrictions were also maintained under the transitional arrangements of the IMF's Article XIV. In addition to the new controls, the authorities decided to fix the exchange rate during the run-up to local elections in June.

The exchange controls segmented the foreign exchange markets and contributed to the emergence of considerable private external arrears. The rate of depreciation in the interbank market stabilized at about 60 percent. However, a parallel exchange market between enterprises emerged, and the bureau-interbank market spread widened increasingly over time, particularly after monetary policy was significantly relaxed in November. By end-1996, the volume of transactions in the interbank market had dwindled to one-tenth of the volume during the previous year. Net capital inflows, as measured by a positive financial account balance, actually increased despite a sharp slowdown in inward foreign direct investment relative to other transition countries.<sup>51</sup> Errors and

omissions in the balance of payments remained about the same as in 1995.

The authorities reinstated foreign exchange dealer licenses and committed to a market-determined exchange rate in February 1997 as a prior action under Romania's 1997 stand-by arrangement with the IMF. An exchange rate depreciation in the interbank market began in January 1997 and accelerated when the controls were removed. The surplus in the financial account, and in particular foreign direct investment, increased sharply, and errors and omissions tripled in 1997, indicating that capital inflows may have been even higher.

The adoption of an IMF program shortly after the removal of controls makes it difficult to assess their effectiveness. Notwithstanding the emergence of parallel markets, the overshooting of the exchange rate when exchange controls were removed suggests that the controls may have been partly effective in containing pressures in the foreign exchange market. Both exchange rate developments and capital flows were also affected by political uncertainty during the electoral period.

### Russian Federation (1998–Present)

The Russian Federation (Russia) started to slowly liberalize its capital account in the early 1990s, while reforming its banking system and foreign exchange and securities markets. Capital account liberalization started with foreign direct investment under strict rules that were eased over time. Limited nonresident portfolio investment started in 1994. Restrictions on portfolio investments by nonresidents were further relaxed in 1996, shortly after the country achieved current account convertibility. However, capital controls remained pervasive, and

<sup>51</sup>Romania obtained its first non-investment-grade rating in early 1996 based on the resumption of economic growth, decline

in inflation, and relatively low indebtedness. The inauguration of the Bucharest stock exchange attracted portfolio flows, and the launching of Eurobond and Samurai issues by the National Bank of Romania opened the way for public commercial banks and public enterprises to tap international capital markets.

largely quantity based and discretionary. Most capital account transactions required prior approval from the central bank.

The gradual liberalization of restrictions on non-resident portfolio investment was completed in early 1998. From February through mid-September 1996, nonresidents were allowed to engage in foreign exchange swaps with the Central Bank of Russia. From September 1996 through January 1998, local Russian banks became the counterparties in the swap operations. Nonresidents were allowed to open special ruble-denominated bank accounts with which to buy government securities in either the primary or secondary markets. However, they were required to engage in forward contracts with these banks at a rate set by the central bank. The maturity and dollar return implicit in these forward rates were progressively reduced until they were liberalized in January 1998. From then on, foreign investors could freely repatriate their profits the day after they liquidated their investment in short-term treasury bills (GKOs). Local banks were allowed to sell foreign exchange forward contracts at freely negotiated rates.

Starting in late 1997, Russia experienced increasing foreign exchange market pressures, reflecting growing concern about the fiscal situation. The pressure on the ruble began with a run from the Russian stock exchange shortly after the beginning of the Asian crisis, and was initially contained by massive foreign exchange intervention, which was partially sterilized. The drain on central bank net foreign assets, however, seemed to have been contained between January and June 1998. Nevertheless, the fiscal situation remained fragile, with a continuing large deficit and a relatively large stock of GKOs to roll over. A shift in investor sentiment made it difficult to place new issues, and net financing from these securities became negative in May, when interest rates rose sharply.<sup>52</sup>

In August 1998, Russia introduced a series of emergency measures, including a reintensification of capital controls and the announcement of a selective debt moratorium. After an unsuccessful attempt to ease the government debt burden in July, including a

<sup>52</sup>BIS statistics suggest that the first investors whose sentiment changed were residents. Nonresident investors increased their holdings of government securities from \$6 billion to \$11 billion in the first half of 1998 (about two-thirds of the GKOs maturing in 1998, however, were owned by the central bank and the Russian Savings Bank, and GKOs account for a small fraction of total Russian debt). However, since BIS statistics account for only bank claims, and thus exclude other nonresident investors, the total stock of nonresident holdings of GKOs may involve a larger amount. Although only a minor part was subject to exchange rate risk, nonresidents seem to have actively hedged their currency exposure, since activity in the forward markets increased significantly, both locally and abroad.

voluntary debt conversion program and a Fund program, speculative attacks ensued. The Central Bank of Russia defended the exchange rate band, and net foreign assets became negative. The government froze secondary trading of GKOs and tightened the range of existing capital controls. By mid-August, the government compulsorily lengthened the maturities of federal domestic debt instruments due by end-1999, including all outstanding GKOs, but stated its intention to honor its sovereign external debt. In addition, the government declared a unilateral 90-day moratorium on private sector external obligations (including forward contracts) with maturity over 180 days. This action was taken primarily to protect official reserves in the face of an acute balance of payments crisis and to aid the domestic banking sector, whose liquidity position was sharply diminished on account of the unilateral conversion of GKOs-OFZs (Russian long-term federal bonds) and the suspension of trade in these instruments. In principle, the moratorium did not affect transfers in foreign currency into and out of Russia by nonresidents, but in practice nonresidents faced restrictions on transfers of funds from their S-accounts (special nonresident bank accounts used for GKO-OFZ transactions), as these transfers required a forward transaction of three days, which was covered by the moratorium. (See IMF, 1999c.)

The authorities also terminated the fixing of the exchange rate in the Moscow Interbank Currency Exchange (MICEX) auctions and temporarily closed the foreign exchange market. However, after mounting pressures in the foreign exchange markets, the authorities in September 1998 abolished the horizontal exchange rate band that had been adjusted upward and widened in mid-August, and established two trading sessions per day in early October 1998 with a view to limiting the use of export proceeds to payments for imports and reserve accumulation.<sup>53</sup> These arrangements gave rise to several restrictions and potential multiple currency practices subject to IMF jurisdiction under Article VIII of the IMF's Articles of Agreement.<sup>54</sup>

The events of August were followed by a full-blown financial crisis. In September, the exchange rate depreciated by about 50 percent, and monthly inflation rose to 40 percent. A large expansion of central bank financing to the budget and support to ailing banks later validated the sharp exchange rate

<sup>53</sup>In the first session only importers and the Central Bank of Russia were allowed to purchase foreign exchange from the exporters, who had an export surrender requirement of 50 percent (increased to 75 percent in January 1999).

<sup>54</sup>The trading sessions were unified by end-June 1999 as part of the conditions for further IMF lending.



depreciation. There was large-scale support to commercial banks, including a reduction in reserve requirements, outright credit to banks, and central bank purchases of government securities from banks. Large foreign exchange losses had accumulated in the banking system with the sharp depreciation of the currency, as banks had acquired large unhedged foreign exchange positions on the false assumption that the exchange rate would remain stable. Liquidity problems in the banking system (which had invested heavily in government securities) temporarily paralyzed the payment system.

Despite the default and the adoption of the controls, international reserves remained under pressure and the exchange rate continued to depreciate until early 1999. In 1998, the curtailment of government borrowing from private external sources, accompanied by an acceleration of capital flight, resulted in a swing in the capital account of some \$16 billion (from a surplus of \$6.3 billion to a deficit of \$9.7 billion, mainly reflecting the capital outflows of \$17.1 billion in the second half of the year, compared with a capital account surplus of \$7.4 billion in the first half of the year). This was reflected in the abandonment of the exchange rate band and a subsequent sharp depreciation of the ruble (which led to a more than 45 percent depreciation of the real effective exchange rate between July 1998 and January 1999); a sharp import contraction; a fall in net international reserves of about \$10 billion; and an accumulation of external official and private sector arrears.

Despite their comprehensiveness, therefore, the August measures do not appear to have achieved their intended objectives against the background of continued economic and structural imbalances in the economy. The post-August 1998 pattern of capital outflows continued until the first quarter of 1999. At this point the tightening of monetary policy, possibly reinforced by the imposition of a number of capital outflow controls, was reflected in a decline and then stabilization in net private capital outflows, followed by a resumption of growth in the level of reserves, and a broad stabilization of the nominal effective exchange rate between January and June 1999 (IMF, 1999c). From April 1999 onward, there were also signs that the causes of the August 1998 crisis were being addressed, including efforts to correct the underlying fiscal imbalance through several new revenue enhancing tax measures, unification of the interbank currency markets, and passing of legislation to facilitate bank restructuring. Recent reviews of the exchange control regulations in Russia also suggest that there were some difficulties in enforcing the controls. In particular, there is no legal basis for banks to stop suspicious transactions, if the accompanying documents appear to be legitimate. Moreover, it is difficult for the authorities to prosecute in-

dividuals for violations of the foreign exchange regulations, since there are few provisions in the penal code punishing such acts.

The imposition of the August measures, in particular the moratorium, also involved some costs, though it may have provided some breathing space for Russian banks and nonbank corporations in meeting their external obligations (see IMF, 1999c). Some Russian debtors reportedly circumvented the moratorium and serviced their external obligations. There is also anecdotal evidence that a number of other Russian bank and nonbank corporations used the debt moratorium as a cover for asset stripping and as an excuse for not settling their domestic obligations to other Russian creditors, with adverse implications for the banking and payment systems. Moreover, there was an adverse international response to the unilateral debt restructuring and moratorium, evidenced by a sharp rise in the yield differential on Russian securities until early March, a downgrading of Russia's sovereign credit ratings in February 1999, and a complete halt in access to international capital markets. Foreign direct investment inflows also declined sharply, from \$3.6 billion in 1997 to \$1.2 billion in 1998. Finally, several of the August measures, which restricted certain current international transactions (including the establishment of the two trading sessions in the foreign exchange market and restrictions on nonresidents' ability to transfer funds from their S-accounts) gave rise to exchange restrictions under IMF jurisdiction, representing a reversal of current account convertibility that had been achieved prior to the crisis.

The Russian experience illustrates how closely related a government default can be to a devaluation and the adoption of capital controls. In principle, devaluation or capital controls can be used instead of government default. Both devaluation and government default can reduce the dollar value of outstanding domestic currency-denominated debt; and both capital controls and government default can limit the capital outflows directly associated with servicing short-term government debt. Of course, default would involve a breach of contract, while neither devaluation nor the adoption of capital controls would. The Russian experience shows, however, that a default does not necessarily eliminate the need for devaluation or capital controls.

### Venezuela (1994–96)

To limit the severe pressures on the bolívar resulting from the efforts to cope with the banking crisis, Venezuela imposed price controls, fixed the exchange rate, and adopted exchange control measures on June 27, 1994. (The exchange controls remained

in place until April 1996.) In the first half of 1994, the central bank, through the deposit insurance agency (FOGADE), began to finance the recapitalization of several banks in financial difficulty (9.5 percent of GDP, reaching 13 percent of GDP for 1994 as a whole). This large injection of liquidity complicated monetary management and led to a noticeable widening of the overall fiscal deficit. In the event, the central bank lost \$3.7 billion or 45 percent of its foreign exchange reserves, and it let the bolívar depreciate by 70 percent against the U.S. dollar between April and June 1994, abandoning the de facto crawling peg vis-à-vis the U.S. dollar that had been in place since 1993.

The exchange and capital controls were comprehensive and comprised restrictions on both current and capital account transactions to reduce the scope for circumvention. The controls were quantity based, and included direct prohibitions limits, and surrender requirements. The regulations restricted the availability of foreign exchange for import payments and established surrender requirements on foreign exchange receipts from exports of goods and services (exporters were allowed to retain up to 10 percent of their export proceeds to meet commitments abroad). Capital outflows not related to the amortization of external debt and the repatriation of capital by foreigners were prohibited, and surrender requirements were imposed on capital inflows. Foreign direct investment in the petroleum and iron ore sectors continued to be subject to specific regulations. Substantial penalties were imposed for black market trading.

Despite the introduction of the exchange controls, short-term private capital registered outflows in 1994 and 1995. Short-term capital shifted from an inflow of 2 percent of GDP in 1993 to an outflow of 2.2 percent in 1994 and 3 percent in 1995, suggesting that despite efforts to make the controls comprehensive, there were still loopholes in the regulations that were exploited by the well-developed offshore market. (See García-Herrero, 1997.) The controls also created a de facto dual exchange rate market, with the parallel market premium fluctuating around 40 percent before rising to 100 percent by end-1995.

The controls may have given the central bank some room for maneuver on monetary policy in the context of a fixed exchange rate regime. The controls supported financial repression without depleting central bank reserves: real interest rates were

significantly negative over the period, and the central bank was able to reconstitute, albeit temporarily, some of the foreign exchange reserves that it lost in the defense of the currency.

The effect of the controls and the associated financial repression on the ultimate cost of the banking crisis is ambiguous. Financial repression may have reduced the fiscal cost of the banking crisis, with disintermediation almost halving the real value of the assets and liabilities of the troubled banking sector as well as the real value of the government's deposit insurance liabilities. On the other hand, financial repression may have delayed an effective resolution of the banking crisis, contributing to an increased cost of bank restructuring.

The controls may also have curtailed Venezuela's access to international financial markets. Venezuela's share in total foreign direct investment to Latin America was systematically lower in 1995 than in the five years preceding the financial crisis (1989–93). It is difficult to determine whether this decline reflects foreign investors' concern about the health of the banking system and political turmoil, or about the exchange controls themselves.<sup>55</sup>

Capital controls might have contributed to the increase in the cost of servicing Venezuela's floating-interest rate external debt and rolling over maturing external debt; secondary market yields on Venezuelan Brady bonds were higher than those of other important Latin American countries, and this differential was eliminated shortly after the controls were removed. These developments may, however, have also reflected a market assessment that Venezuela's general economic problems were relatively more severe than elsewhere in Latin America; and the narrowing of the differential coincides in time not only with the elimination of the controls, but with the adoption of an IMF program in April 1996 and intensified macroeconomic and structural adjustment.

<sup>55</sup>Venezuela's share in total foreign direct investment received by Latin American countries fell to 3 percent of the total in 1995, compared with about 6 percent in 1989–93, and 9 percent in 1997. Mexico's share in total foreign direct investment declined only slightly in 1995 despite its currency crisis. However, Mexico lost a significant market share in portfolio investment, to the benefit mainly of Brazil, which had launched its debt and debt service restructuring plan under the Brady scheme in 1994. Because of this decline in Mexico, Venezuela did actually gain some market share in portfolio flows in 1995 (source: IMF, *International Financial Statistics*).

## VIII Experience with Long-Standing and Extensive Capital Controls and Their Liberalization

### China (1994–99)

During 1994–97, China’s international reserves increased sharply from 5.8 to 11 months of imports, owing to a strong balance of payments and large-scale intervention to keep stable the nominal exchange rate of the currency against the U.S. dollar. The balance of payments weakened in the aftermath of the Asian crisis, but China was able to maintain the stability of the currency.

These developments occurred in the context of a financial system that has serious weaknesses,<sup>56</sup> and of a regulatory framework for international transactions that remains substantially restrictive, though significant progress has been made since the mid-1990s in liberalizing current account transactions (China accepted the obligations of the IMF’s Article VIII in December 1996). The authorities plan to liberalize the capital account over the medium term. China’s relatively closed capital account has been considered by some commentators as an important element in its success in maintaining its commitment to a stable exchange rate in the difficult international environment of 1997–98.

Capital controls in China have generally favored longer-term over shorter-term inflows. Foreign direct investment accounted for 98 percent of the cumulative net inflows recorded in the financial account between 1990 and 1996. On the basis of BIS data, short-term external debt (on a remaining maturity basis) stood at about 35 percent of international reserves at end-1998. The bias toward longer-term flows may have helped to reduce the vulnerability of the economy to external shocks, such as the recent regional crisis. A combination of structural and economic factors is also believed to have reduced China’s vulnerability, including the larger size of the domestic market, the relatively earlier stage of financial sector development (which limits opportuni-

<sup>56</sup>Despite a number of steps taken by the authorities to develop a credit culture, the institutional framework for the financial sector is deficient. Classification, provisioning, and accounting standards are all relatively weak, as are internal controls and risk management systems. The central bank faces daunting challenges in strengthening its supervisory functions.

ties for speculative activities), and a strong external position.

While China was able to maintain the stability of the currency throughout the Asian crisis, capital outflows became an increasing problem in late 1997 and early 1998, driven by concerns of a devaluation of the renminbi, the falling differential between domestic and foreign interest rates, and increasing circumvention.<sup>57</sup> The current account remained in surplus and foreign direct investment remained strong, but the capital account deteriorated sharply and errors and omissions in the balance of payments remained high. As a result, the overall balance of payments surplus fell sharply, from \$36 billion in 1997 to \$6 billion in 1998.

In response to these developments, the authorities significantly intensified enforcement of exchange and capital controls, and moved to reduce circumvention. These measures involved enhanced screening of capital account transactions and increased documentation and verification requirements on current transactions to demonstrate that the transactions are in fact legitimate current transactions rather than disguised capital transactions. The measures were implemented with a view to safeguarding current account convertibility, and respecting the obligations under Article VIII of the IMF’s Articles of Agreement, which were accepted by China in December 1996. The measures aimed at preventing illegal capital outflows and, ultimately, maintaining a stable exchange rate. While the measures have reduced illegal activities, there were widespread reports that legitimate transactions have also been adversely affected.<sup>58</sup> In addition, in June 1999

<sup>57</sup>In particular, the authorities found that during the first half of 1998, capital flight through illegitimate current transactions accounted for \$11.9 billion. The finding followed a review of documentation associated with 51,900 current international payments made during the first half of 1998, of which 13,900 could not be demonstrated to be legitimate.

<sup>58</sup>A survey of multinational firms by the U.S.-China Business Council (an organization of mostly U.S.-based multinational firms operating in China) conducted in November 1998 reported widespread adverse effects of the new exchange control measures. A similar survey sent to European-based multinationals through their national embassies in January and February 1999 reported similar results.

the authorities restricted overseas yuan transactions by prohibiting domestic banks from accepting inward remittances in domestic currency.<sup>59</sup> The authorities motivated the measures by the need to facilitate the compilation of balance of payments statistics. Some observers noted that the move might also help prevent the illegal movement of yuan out of China and might have been part of an effort to clamp down on offshore trading of the yuan by Chinese financial institutions.

In an effort to reduce financial risks and support the development of a sound business environment, the authorities also took measures to facilitate the more efficient operation of exchange controls. These included steps to increase the transparency of the regulatory framework; the introduction of a rating system for foreign trade companies; the establishment of a computer network to speed up screening of documentation for imports; and severe penalties for fraudulent behavior. These measures are expected to reduce the burden on foreign trade enterprises of the stricter enforcement of exchange controls, and of the laws and regulations for underlying transactions. While in the short run these measures had adverse consequences for foreign investors' sentiments, the authorities expect that in the long run they will help enhance the business environment for legitimate transactions. By limiting the scope for smuggling, the measures are also expected to boost fiscal performance.

Following the introduction of the measures, transactions reported as imports in the balance of payments showed an increasing trend in January 1999. Possibly owing to a substitution of recorded for unrecorded imports, foreign exchange reserves showed small increases in the second half of 1998; and the authorities reported stronger fiscal performance in the most recent period. It is, however, too early to draw firm conclusions regarding the effectiveness of the measures.

### India (1991–99)

Since the external crisis of 1991, India has undertaken economic reforms, including partial capital account liberalization, to begin reversing several decades of inward-looking and interventionist policies. These reforms included the virtual abolition of

the industrial licensing system, a marked reduction in trade barriers, and a wide-ranging liberalization of current international payments (with the acceptance of Article VIII status in 1994). Capital account policy was reoriented toward reducing reliance on short-term and debt-creating flows (such as foreign currency deposits by nonresident Indians), while encouraging foreign direct investment and portfolio equity flows. Restrictions on these inflows were loosened first, followed by a partial liberalization of debt-creating flows, derivative transactions, and capital outflows.

Capital account liberalization has thus been part of a broad-based program of economic reform. Prudential regulation and supervision of the banking system have been strengthened and in many respects now conform to international standards; the regulation of securities markets has been thoroughly modernized; the government's reliance on central bank financing has been curbed; and the central bank is making greater use of indirect instruments of monetary policy. However, a number of problems remain, including state ownership and control of most of the banking system, some shortcomings in prudential regulation and supervision, and government-directed credit policies.

For the most part, capital controls in India have been quantity based rather than market based, and administratively enforced. They appear to have been largely effective in limiting measured capital flows. The extensive controls that still remained in force during the Asian emerging markets crisis, particularly the limits on short-term external debt, may have helped to protect India from financial contagion; and their orientation toward limiting the country's external debt was presumably significant. Other factors probably played a role as well: notably, a flexible exchange rate policy, ample foreign exchange reserves, and the fact that international trade and financial linkages are comparatively limited (reflecting the size of the country and the legacy of the economic controls that were long in place). However, the capital controls in force during the 1970s and 1980s did not protect India from a marked buildup of external official debt and severe balance of payments crises in 1980 and 1990–91. With the reorientation of capital account policy toward non-debt-creating inflows and foreign direct investment since 1991, however, external indebtedness has declined markedly, from a peak of 38 percent of GDP in 1992 to less than 25 percent of GDP in 1998.

There are indications that India's wide-ranging capital and other economic controls may have reduced economic growth compared with other Asian economies with a more open economic system. It is difficult to demonstrate this rigorously, though the economic liberalization program begun in 1991 has been followed by probably the most robust growth India has enjoyed since independence.

<sup>59</sup>In the middle of 1998, the authorities had introduced a modest experiment in liberalization by permitting foreign banks to buy yuan from offshore branches of the Bank of China. The measure allowed remitters to convert foreign currency into domestic currency in overseas banks before remitting it into China. The announcement, in June 1999, in effect ended that experiment by requiring that overseas banks directly remit foreign currency into China and leave the decision to domestic beneficiaries to convert into domestic currency or to keep foreign exchange.

## IX Experience with Rapid Liberalization

### Argentina (1991)

Following bouts of hyperinflation in the 1970s and 1980s, Argentina experienced an almost complete loss of monetary policy credibility and a collapse in demand for domestic money and banking services. Stability was reestablished in 1991 with the adoption of the Convertibility Plan, which created a currency board; this ruled out monetization of the fiscal deficit and completed the process of eliminating restrictions on international current and capital payments and transfers that began in late 1989. This monetary and exchange rate regime has been in place ever since, with only minor changes. The adoption of the new regime was accompanied by wide-ranging trade liberalization, deregulation, privatization of public enterprises, fiscal consolidation, and a first round of measures to strengthen prudential regulation and supervision of the financial system.

The adoption of the currency board was followed by a marked increase in capital inflows in 1991–94, reflecting the removal of legal restrictions, the privatization program, the regularization of relations with external creditors through the Paris Club and Brady operations, and the general renewal of access of developing countries to international capital markets. Foreign direct investment and portfolio inflows reached 11 percent of GDP in 1993, compared with less than 1 percent in 1990. Under the currency board and in the absence of capital controls, the scope for countervailing policy action was limited; in any event, the authorities saw no pressing need for such action. There was an impressive recovery in economic activity, with the increase in real GDP averaging more than 7 percent a year in 1991–94, following the virtual stagnation of the 1980s. At the same time, consumer price inflation declined markedly, from over 80 percent in 1991 to about 4 percent in 1994, and a substantial remonetization of the economy began.

This liberalized and stability-oriented framework for policymaking faced its first serious test during the Mexican crisis of 1994–95. Argentina's access to international capital markets was substantially curtailed in early 1995 and there was a large outflow of

short-term capital. Under a currency board, outflows of foreign exchange are broadly matched by a contraction in the domestic monetary base, with concomitant effects on wider monetary aggregates, the domestic banking system, and economic activity. During the first half of 1995, the central bank lost about one-third of its international reserves; bank deposits declined by about 20 percent; and interest rates on both domestic currency and U.S. dollar deposits increased by more than 12 percentage points. Many smaller and provincial banks suffered deposit losses of up to 50 percent, nonperforming loans rose sharply, and regulators were forced to suspend and liquidate some institutions.

The policy response to these developments did not include a reimposition of capital controls. Instead, the authorities adjusted macroeconomic policies (including a marked tightening of fiscal policy under an IMF program adopted in March) and initiated a second generation of reforms to further strengthen the banking system to make it more resilient to future shocks. These reforms included heightening capital adequacy requirements beyond the minimums established by the Basel Committee, improving risk classification, substantially increasing the liquidity of the system, fostering transparency and market-based restructuring, and increasing foreign participation. During the Mexican crisis, the authorities also temporarily provided additional liquidity to the domestic financial system within the narrow confines of the currency board arrangement.<sup>60</sup> A concerted effort was also made to improve public debt management, by lengthening the maturity of the public debt,<sup>61</sup>

<sup>60</sup>Reserve requirements on demand and savings deposits were lowered in stages from 43 percent to 30 percent, and those on time deposits from 3 percent to 1 percent. In March 1995, banks also were allowed to count up to half of cash-in-vault toward reserve requirements, as well as resources used to purchase assets from banks in difficulty. The central bank created a facility for assisting distressed banks and facilitated interbank transactions by allowing the trading of excess reserve positions among banks. The central bank law was modified in early 1995 to permit the central bank to provide long-term liquidity assistance for amounts in excess of the banks' capital.

<sup>61</sup>New issues averaged three to four years' maturity in 1995, and close to 15 years in 1998.

avoiding floating rate instruments, and pre-borrowing in good market conditions to create a cushion.

Although real GDP declined by nearly 3 percent in 1995, inflation remained broadly stable, owing to the currency board arrangement. Confidence was rapidly reestablished. By the end of August, more than half of the deposit outflow had been reversed; and by December, deposits had reached their precrisis levels. The recession also bottomed out by the end of the year and real GDP grew by an average of about 7 percent during 1996–97. Partly reflecting a large-scale drive for structural reforms and delays in addressing some labor market rigidities, the unemployment rate showed considerable persistence and did not return to its precrisis level until end-1998. Efficiency gains, on the other hand, helped to contain unit labor costs and maintain external competitiveness.

The principal lesson of the Argentine experience with capital account liberalization is that sound macroeconomic policies, combined with ongoing efforts to create a sound and well-capitalized banking system, and steps to lengthen the maturity of external debt, have allowed the economy to withstand even severe external shocks and the associated temporary loss of confidence and large-scale capital outflows.

### Kenya (1991–95)

Following a collapse of tea and coffee prices in 1987, Kenya was left with a budget deficit of 6.4 percent of GDP, a rapidly deteriorating current account position, and a severe shortage of foreign exchange. Real GDP growth slowed from 7.1 percent in 1986 to about 6 percent annually in both 1987 and 1988. Inflation increased from 4.8 percent in 1986 to 8.3 percent in 1987 and 13 percent in 1988, despite extensive price controls. By 1989, it became evident that without foreign financing and structural reforms, Kenya would experience a severe economic downturn.

The Kenyan economy, however, was characterized by a highly regulated financial sector and exchange and trade system in the late 1980s. The central bank relied on differentiated credit ceilings and interest rate controls to manage liquidity in the financial system. The imbalances in the financial sector were further accentuated by ineffective banking supervision and political pressures to grant credit to connected financial institutions.

To avoid a severe recession, the government embarked on a wide-ranging liberalization program aimed at attracting foreign savings. The program intended to remove rigidities in the real and financial sectors by freeing prices, liberalizing foreign trade and foreign currency transactions, and relaxing and

then dismantling credit ceilings and interest rate controls. Liberalization of the financial sector began in 1989 with measures intended to harmonize interest rate regulations for banks and nonbank financial institutions (NBFIs). Interest rate ceilings were raised for both the banks and the NBFIs and most of the disparity between them was eliminated. Interest rate liberalization was completed in 1991, following the liberalization of the treasury bill market.

A significant step toward liberalization of current and capital account transactions was made in 1991 with the introduction of foreign exchange bearer certificates of deposit (FEBCs), which were available to residents and nonresidents alike, traded in the secondary market with no need for license or registration, redeemed at the central bank at face value at a prevailing official exchange rate, and used for any current and capital account international transactions without restriction.<sup>62</sup> At the same time, some enterprises were permitted to hold foreign currency-denominated accounts abroad or with authorized banks domestically. Consequently, banks were allowed to conduct business directly in foreign currency, buy and sell foreign currency from their clients, and offer forward foreign exchange contracts at market-determined rates without any restriction on the amount or the period covered.

In 1994 the Kenyan shilling became fully convertible and Kenya accepted the obligations of Article VIII. Finally, in 1995 all remaining foreign exchange controls were eliminated and the powers to license and regulate foreign exchange transactions were transferred to the central bank. In the course of 1995, restrictions on investment by foreigners in shares and government securities were eliminated. All remaining restrictions on capital account transactions were removed with a few exceptions: a ceiling on purchases of equity by nonresidents (40 percent on aggregate, 5 percent for an individual investor); approval from the Capital Markets Authority prior to the issuance of securities locally by nonresidents or abroad by residents as well as derivative securities; and government prior approval for the purchase of real estate.

Despite the introduction of these liberalization measures, the economy experienced a sharp economic downturn from late 1991 onward. Economic growth decelerated from 4.7 percent in 1990 to –0.8 percent in 1992, while inflation increased from 21.8 percent to 53.5 percent during the same period. Inconsistent economic policies in the run-up to the first democratic elections in December 1992, includ-

<sup>62</sup>The central bank declared that, as of April 30, 1999, the FEBCs ceased to be a financial instrument in Kenya owing to abuses. No new FEBCs will be issued and maturing certificates are to be converted into deposits.

ing the misappropriation of public funds, led to a further deterioration of economic conditions, and by early 1993 the economy was in crisis. The money supply continued to increase throughout the period, inflation accelerated further, and external payments arrears emerged for the first time in late 1992. Furthermore, unsound practices in the financial system contributed to economic instability. Several commercial banks were allowed to maintain overdrafts with the central bank, obtain export preshipment financing facilities, draw checks against insufficient funds, abuse the clearing system, and delay payment. Prudential supervision and enforcement were weak. A number of banks persistently violated the statutory cash and average reserve ratios. Following their liberalization, interest rates increased and became positive in real terms. Finally, the shilling depreciated rapidly.

The authorities responded to the emerging pressures by tightening monetary and fiscal policies, closing down four banks while replacing management in two other banks, and reintroducing an export retention mechanism. The macroeconomic stabilization measures were supported by an Enhanced Structural Adjustment Facility (ESAF) arrangement, approved in April 1996. The first and only disbursement under the arrangement was made in 1996, after which the arrangement expired without completion of the review in mid-1997 because of the failure to tackle outstanding governance issues.

The main lesson from Kenya's experience seems to be that rapid and wide-ranging liberalization in the context of continued major macroeconomic imbalances may have increased the country's vulnerability to capital flows by providing legal channels for capital flight (the latter reflecting both a deterioration in private sector confidence and corruption). Therefore, rapid and wide-ranging liberalization of the financial system and capital account is a necessary, but not sufficient, condition for economic recovery and growth. Only consistent macroeconomic and structural policies are able to eliminate existing economic imbalances. It is difficult to determine whether in the absence of capital account liberalization, the recession would have been even more severe, or whether capital account liberalization contributed to instability given the inadequacy of supporting reforms, especially in the financial sector.

## Peru (1990–91)

From the early 1970s to the mid-1980s, Peru experienced recurring balance of payments crises accompanied by increasingly sluggish growth, accelerating inflation, large fiscal imbalances, and rapidly accumulating debt. Adjustment programs in 1984

and early 1985 reduced the fiscal deficit, but economic activity remained subdued and inflation accelerated further. Following a temporary boom in 1986–87 with higher wages, easier credit, lower taxes, and price and interest rate controls, real GDP fell by a cumulative 20 percent in 1988–89, investment collapsed, inflation rose to over 1,700 percent in 1988 and nearly 2,800 percent in 1989, and the stock of international reserves was virtually depleted. Upon taking office in 1990, the new Peruvian administration implemented a wide-ranging program aimed at liberalizing most sectors of the economy, reducing inflation, and creating conditions for sustained growth. The program included liberalization of the financial sector and the capital account; the elimination of price controls followed by large increases in fuel, water, and electricity prices; greater restraint in public sector wage increases; improvements in tax administration; and a comprehensive privatization program.

In the financial sector, the reform package of 1990–93 abolished interest rate controls on domestic currency loans and deposits and government intervention in credit allocation. The interest rate ceilings on foreign currency loans were raised to nonbinding levels, subsidized lending through the Agricultural Bank was eliminated, and all development banks were closed. The supervisory and regulatory framework was extended to include nonbank financial intermediaries, and a system of deposit insurance was initiated. A tight monetary policy was followed to curb inflation, while the domestic financing requirement of the public sector was eliminated. In the real sector, all remaining price controls were abolished in 1990, while wages in the private sector were permitted to be determined freely. To increase labor market flexibility, procedures to ease the dismissal of workers were approved, and the scope for retroactive wage increases was limited. On the external front, the multiple exchange rate that had been put in place in the mid-1980s to protect the balance of payments was unified in 1990. The exchange rate was allowed to float, quantitative import restrictions were lifted, the previously complex tariff system was consolidated, and export subsidies were eliminated.

The official objective of the liberalization was to promote the mobilization and efficient allocation of resources, including foreign capital through various incentives. New legislation on foreign investment was subsequently introduced in August and November 1991 as part of the liberalization program. These changes were made part of the new constitution enacted in January 1994. The constitution subjected national and foreign investors to the same terms, although foreign investment was required to be registered with the National Commission on Foreign Investment and Technology. Foreign investors were

allowed to freely remit profits or dividends (the previous system established a ceiling on remittance of profits equal to 20 percent of the investment, with exceptions granted to some sectors); freely reexport capital; access domestic credit; acquire shares owned by nationals; and contract insurance for their investment abroad. Exporters and importers were permitted to undertake foreign exchange transactions in the market without intermediation by the central bank, and full convertibility of the currency (the “sol”) was guaranteed by the constitution. Residents and nonresidents were permitted to open foreign currency–denominated accounts in any financial institution offering such accounts, although differentiated (higher) reserve requirements on foreign currency deposits have been maintained throughout. In subsequent years, foreign investment increased substantially, with a stock of foreign direct investment rising from US\$1.3 billion in 1990 to US\$6.0 billion in 1995.

Capital account liberalization in Peru was undertaken when U.S. interest rates were declining and domestic interest rates were high, reflecting an anti-inflationary monetary policy. These circumstances, together with a significant improvement in fundamentals resulted in sustained capital inflows and, with the adoption of the floating exchange regime, in a sharp appreciation of the currency: between 1990 and 1995 the real effective exchange rate appreciated by 25 percent. The current account deficit increased significantly from 3.8 percent of GDP in 1990 to 7.3 percent in 1995, before declining somewhat thereafter (between 5 and 6 percent of GDP during the period 1996–98). Even so, strong private capital inflows helped to largely finance this deficit.<sup>63</sup> Moreover, fiscal restraint and the imposition of high reserve requirements on dollar deposits allowed for a substantial increase in net international reserves. Concerns about the current account deterioration led some academics to criticize the timing and sequencing of capital account liberalization in Peru, arguing that the real appreciation of the currency had exacerbated the contractionary effects of strict monetary and fiscal policies in an economy where export-oriented industries were key to growth. In their view, it would have been preferable

either to retain some control over the exchange rate, or else to have maintained some controls to restrain capital inflows. (For more details, see Sheahan, 1994.) Others have held a more sanguine view, noting that the current account was primarily driven by the demand for imports of capital goods and inputs for the mining sector and in the newly privatized sectors of the economy, and was largely financed by the strong foreign investments.

Following the liberalization of the capital account and subsequent improvements in market sentiment, financial institutions regained access to foreign lines of credit, starting with short-term credit, making them potentially vulnerable to sudden reversals of flows. Some small and medium-sized institutions experienced difficulties in 1998 following the turmoil in international financial markets, and the authorities stepped up liquidity support to the banking system. This episode notwithstanding, tighter prudential regulation and enforcement coupled with increased foreign participation have increased the banking system’s resilience. Moreover, the overall vulnerability of the economy has been limited, as a large increase in reserves more than offset the increase in short-term debt, with the coverage of net international reserves to short-term debt (due in 12 months and less) currently exceeding 100 percent.

Capital account liberalization has contributed to higher foreign direct investment, increased competition, and more favorable relations with the international community. Some progress has also been made in developing the financial markets following the liberalization of the capital account: the assets managed by the new private pension funds system increased from US\$29 million in 1993 to US\$1.5 billion in 1997, while the stock of mutual funds rose from US\$3 million to US\$736 million over the same period. Foreign funds accounted for two-thirds of all equities trading in 1994, compared with virtually none five years earlier. Growth picked up substantially, from 2.9 percent in 1991 (–5.2 percent in 1988–91) to an average of 6 percent a year in 1992–98, and inflation continued to fall, from above 100 percent in 1991 to 6 percent in 1998. Peru also weathered the international financial turmoil of 1995 and 1997–98 without significant damage to its economy. Overall, therefore, Peru’s experience with a fast and wide-ranging capital account liberalization, accompanied by prudent fiscal and monetary policies, a flexible exchange rate system, and strengthening of the financial system, seems to have been beneficial.

<sup>63</sup>In particular, the ratio of long-term financing to the private sector to the current account deficit increased from 0.9 percent in 1990 to more than 50 percent after 1993, rising to above 100 percent in 1996.