

Appendix I Chile's Experience with Controls on Capital Inflows in the 1990s

Bernard Laurens

In response to the financial crisis of the early 1980s, the Chilean authorities embarked on a comprehensive program of structural and macroeconomic reforms.⁶⁴ Chile's macroeconomic objectives were to reduce inflation, bring the fiscal accounts into balance, and contain the current account deficit through an export-oriented strategy. Within this policy framework, monetary policy was geared to limiting inflationary pressures (i.e., to close the gap between aggregate demand and supply), with real interest rates as the operating target. Exchange rate policy aimed at maintaining competitiveness, with a path for the real exchange rate serving as an indicative target.⁶⁵

The strengthening of the external sector proceeded well during 1984–88. The current account deficit was cut from 11 percent of GDP in 1984 to 1 percent at the end of 1988, and the economy grew at an average of 5.7 percent during the five-year period. However, boosted by a relaxation of the fiscal stance in 1988, strong investment, and buoyant consumption, the economy started overheating in 1989, a year during which real GDP grew by 10 percent, unemployment declined to 6 percent from 12 percent in 1985, and annual inflation increased to 26 percent. In response to overheating, monetary policy was tightened, which, combined with a fall in world interest rates, an improvement of market sentiment toward Chile, and a generalized increase in the willingness to lend to emerging markets, resulted in a surge of private capital inflows beginning in 1989.

⁶⁴Chile had already embarked on a program of economic and financial liberalization in the mid-1970s. However, the combination of a weak prudential framework and a deep recession beginning at the end of 1981 generated a sharp reduction in capital inflows and, ultimately, a crisis that spread throughout the financial system by the beginning of 1983.

⁶⁵In December 1983, a crawling peg regime replaced the fixed exchange rate. The new exchange regime aimed at maintaining a constant level of the real exchange rate against the U.S. dollar. Discrete devaluation further supported competitiveness (19 percent in September 1984; 3.6 percent in December 1984; 8.2 percent in February 1985; 7.2 percent in June 1985). Eventually, a crawling band was introduced within which the exchange rate could float freely, with the initial band set at ± 0.5 percent, then raised to ± 2 percent.

Policy Responses to the Dilemma of the Early 1990s

The most important macroeconomic dilemma faced by policymakers in the 1990s was that internal balance required domestic interest rates that were higher than those abroad, while external balance was inconsistent with the appreciation of the currency. (See Zahler, 1998.) At the same time, Chile's country risk was seen to be decreasing and markets expected a currency revaluation. This presented the authorities with a classical monetary policy dilemma, with more policy goals than independent instruments.

The level of domestic interest rates needed to control aggregate demand gave rise to incentives for interest-arbitrage capital inflows. The choice was either to accept an appreciation of the real exchange rate inconsistent with external balance or to continue appreciation, in which case the downside risks of exchange rate movements would remain small and create incentives for speculative capital inflows that would increase the vulnerability of the economy to external shocks.⁶⁶ In addition, there were limits to fiscal consolidation, which had started in 1989. The monetary policy dilemma faced by Chile was magnified by “push factors” such as the sharp increase in capital flows to most emerging economies in the 1980s and 1990s, in particular to emerging economies in the western hemisphere.

One option for policymakers was to allow the exchange rate to appreciate; another was to limit appreciation through sterilized intervention accompanied by tight fiscal policy to offset the costs associated with sterilization; and a third option involved introducing controls on capital inflows and at the

⁶⁶The experience of Chile during the 1983 financial crisis is an example of the latter scenario. The volatility of international capital flows played an important role in triggering the crisis. A large fraction of the capital inflows that entered the country in the period prior to the crisis had been intermediated by a financial system in difficulties. The resulting change in market sentiment and the external debt problems of the country caused a drastic change in the direction of capital flows, which in turn deepened the crisis of the financial system. See Le Fort and Budnevich (1996).

same time liberalizing capital outflows. Chile's strategy was a combination of these. The initial policy response involved foreign exchange intervention. While sterilization of most of the intervention helped prevent a monetary expansion, this policy was costly to the central bank at the prevailing interest rate differentials. In June 1991, the authorities introduced controls on capital inflows in the form of a 20 percent unremunerated reserve requirement (URR) on foreign borrowing. Concomitant and supporting policies included a liberalization of capital outflows starting in the early 1990s and further widening of the exchange rate band. Furthermore, the authorities maintained a strong fiscal policy.

While further fiscal consolidation may have allowed for lower domestic interest rates and therefore dampened capital inflows, it is also possible that larger fiscal surpluses would have raised investor confidence to the point of attracting even more capital. As it was, the measures adopted involved the use of capital controls. The authorities have argued that Chile, like other emerging economies, was faced with a "systemic" development: a dramatic improvement in market sentiment toward emerging economies produced capital inflows on a scale giving rise to unsustainable pressure on internal demand, which could not be contained by tight fiscal policy, strict financial supervision, deregulation of outflows, or enhanced exchange rate flexibility. Tighter monetary policy was thus unavoidable with controls on capital inflows to mitigate the adverse effects of such a policy mix, particularly when fiscal adjustments could not be made on a sufficiently timely basis.⁶⁷

Objectives and Design of the Unremunerated Reserve Requirement

The objective of the URR was "... to favor equity over debt financing and long-term financing over short-term financing [and] allow the operation of a tight monetary policy without resulting in large current account imbalances" (see Le Fort and Budnevich, 1996). From a macroeconomic point of view, the URR was expected to expand the autonomy of monetary policy, to minimize the effects on the exchange rate of the tight monetary policy needed to control aggregate demand. One could expect the URR to reduce the flow of capital into Chile and consequently to reduce upward pressure on the exchange rate.

⁶⁷From this point of view, the URR amounts to an equalization tax to compensate for the higher returns on domestic assets in Chile compared with returns in developed economies.

From a "macro-prudential" point of view, the URR was expected to discourage short-term inflows without affecting long-term foreign investments. This would in turn reduce the volatility of international capital flows into the country and subsequently could also reduce exchange rate volatility. A related concern, at least when the URR was introduced, was that the large capital inflows could imperil the institutions intermediating these flows.⁶⁸

The URR is an indirect, price-based measure that operates as an "asymmetric Tobin tax."⁶⁹ Initially the URR covered all foreign loans except for trade credits. Over time, its coverage was extended to nondebt flows, which had become a channel for short-term portfolio inflows.⁷⁰ In particular, foreign currency deposits in commercial banks were made subject to the URR in 1992, as were secondary American depository receipts (ADRs) in 1995. While foreign direct investment was generally exempted from the URR, in 1996 foreign direct investment of a potentially speculative nature was also subjected to it (Table 1).⁷¹ Data from the central bank, however, show that initially the URR covered about one-half of total gross inflows, but in the subsequent years its coverage declined to 24 percent. The share of URR-covered flows in total gross inflows increased again to 30–40 percent after the broadening of the base implemented in 1995. The rate of the URR was raised to 30 percent from 20 percent until contagion from the Asian crisis motivated a reduction of the rate. In September 1998, the URR was suspended and its rate set at zero percent.

The implicit cost of the URR falls with the maturity of the inflow, as the duration of the URR is fixed. It aims at deterring interest rate arbitrage on short-term maturities by filling all or part of the gap between domestic and international interest rates. In effect, the URR modifies the covered interest parity condition for short maturities; it allows for higher

⁶⁸In the most recent period, the authorities have emphasized the "macro-prudential" role of the URR—that is, its ability to prevent the buildup of volatile short-term external debt attracted into Chile by the large interest rate differentials, when the exchange rate was expected to appreciate.

⁶⁹A Tobin tax is one that is a fixed percentage of the capital flow; an asymmetric Tobin tax would discriminate between outflows and inflows.

⁷⁰Le Fort and Sanhueza (1997) and Labán and Larraín (1998) note that in 1995–96, foreign direct investment became a major channel for portfolio inflows after the URR was extended to ADRs in 1995. Following the 1996 tightening, trade credits by foreign suppliers and importers started to increase gradually, indicating that markets may have found a new channel for inflows. See Soto (1997).

⁷¹The "speculative nature" of the inflows is assessed by a committee that approves foreign direct investment applications; a speculative inflow is defined as nonproductive investment.

Table I. Chile: Timetable and Motivations for Changes in Unremunerated Reserve Requirement

Although the URR was initially aimed at debt instruments, its coverage was later extended to certain portfolio and some foreign direct investment flows. Between 1991 and 1997, the coverage of the URR was widened and the rate of the URR increased. With the Asian crisis, the rate of the URR was reduced in steps to zero percent. These developments are summarized below.

Measure	Motivation
June 17, 1991: A 20 percent URR is introduced. It is to be held for up to 90 days for 90-day credits; to the maturity of the credit for 90-day to one-year credits; for one year for credits of more than one year. URR is in same currency as the foreign borrowing, is not remunerated, and is applicable to all foreign loans to banks or others, except trade credits.	Increase flexibility of monetary policy; prevent appreciation of exchange rate; allow for high domestic interest rates; discourage short-term inflows; favor equity and long-term financing.
June 27, 1991: Borrowers allowed to meet URR by entering a repurchase agreement in which the central bank sells the borrower and repurchases immediately a note equivalent to 20 percent of loan (at LIBOR).	Repurchase agreement mechanism allows the tax to be paid up-front, which facilitates enforcement and monitoring.
July 1991: Reserve requirement extended to current borrowing that is renewed.	Close a loophole.
January 1992: URR extended to foreign-currency deposits in banks.	Close a loophole.
May 1992: URR rate raised to 30 percent except for direct borrowing abroad by corporations. URR to be held for one year regardless of loan maturity.	Increase the cost of implied tax; unify duration to facilitate enforcement.
August 1992: URR raised to 30 percent for all transactions; deposit for one year regardless of loan maturity. Discount raised to LIBOR + 2.5 percent.	Close loophole and increase cost of implied tax.
October 1992: Discount raised to LIBOR + 4 percent.	Increase cost of the implied tax.
November 1994: Starting in January 1995, URR deposits in U.S. dollars only.	Prevent positions in domestic currency.
July 1995: Secondary American Depository Receipts become subject to URR.	Close a loophole.
December 1995: New borrowing to prepay other loans is exempted.	New borrowing likely to lower the cost and increase maturity.
May 1996: Potentially speculative foreign direct investment becomes subject to URR.	Close a loophole.
December 1996: Small credits excluded (less than \$200,000 or a cumulative \$500,000 in 12 months).	Reduce administrative burden of enforcing the measure.
March 1997: Small credit exemption reduced (less than \$100,000 or a cumulative \$100,000 in 12 months).	Close a loophole.
June 1998: URR reduced to 10 percent to reduce cost of external borrowing, except for short-term credit lines and foreign currency deposits.	Adjustment to international capital market environment.
September 1998: URR rate reduced to zero percent. Requirement for foreign investors to keep their money in the country for at least a year maintained.	Adjustment to international capital market environment.

Source: IMF, *Annual Report on Exchange Arrangements and Exchange Restrictions* (various issues).

domestic short-term interest rates for a given interest rate parity than without the capital controls (Box 4). The cost of the implied tax increased over the years, due to the increase of the rate of the URR from 20 percent to 30 percent in 1992 and to rising international interest rates thereafter. The country risk premium plays an important role in the way the URR operates: all other things equal, any increase (decrease) in the country risk premium will increase (decrease) the cost of funds and will need to be offset by a reduction (increase) of the URR rate if the implied tax is to be constant. In particular, the au-

thorities explained that they reduced the URR rate between June and September 1998 to offset the shift in market sentiment on the country risk premium for Chile in the aftermath of the Asian crisis.

Concurrent and Supporting Policies

When the URR was introduced, Chile had achieved great strides in strengthening macroeconomic policies—in particular, fiscal policy—and in enhancing the prudential framework for the financial

Box 4. Chile: Unremunerated Reserve Requirement

To a first approximation, the unremunerated reserve requirement (URR) tax rate, in percent of loanable funds, can be expressed as follows:

$$t = \frac{r(i^* + s)T/(1-r)}{D},$$

where t represents the implied tax rate; r , the URR rate¹; i^* , the nominal interest rate for the currency in which the URR is constituted; s , the premium applied to the investor when borrowing funds to cover the URR (i.e., country risk premium plus specific credit risks for the investor); T , the duration of the URR; and D , the duration of the foreign investment.

	Real Interest Rate Differential	Cost of URR (in percent a year)			Nominal Cost of Borrowing ¹
		3-month borrowing	6-month borrowing	1-year borrowing	
1991	3.6	1.5	1.5	1.5	6.0
1992 January–April	6.6	1.1	1.1	1.1	4.5
1992 May–December ²	6.6	7.7	3.9	1.9	4.5
1993	6.4	6.9	3.4	1.7	4.0
1994	4.1	9.4	4.7	2.4	5.5
1995	4.4	10.3	5.1	2.6	6.0
1996	5.2	9.4	4.7	2.4	5.5
1997	4.0	9.4	4.7	2.4	5.5

¹The nominal cost of borrowing abroad does not include country risk premium.

²Starting in May 1992, the duration of the URR is one year regardless of the maturity of the foreign investment (instead of 90 days for investments up to 90 days; the maturity of the investments for investments up to one year; and one year for investments above one year). The calculations from May 1992 onward reflect this change.

system. These policies were continued and further reinforced during the 1990s. The URR was also supported by a restrictive regulatory framework for international transactions. Finally, the authorities took advantage of a strong balance of payments to liberalize capital outflows.

Macroeconomic policies

As early as 1998, Chile had achieved fiscal consolidation, with the fiscal balance shifting from a deficit of 4.4 percent of GDP in 1985 to a surplus of 2.5 percent in 1988. Throughout the period 1988–97 Chile maintained a surplus of the fiscal accounts averaging 2.6 percent of GDP. The surplus helped offset the inflationary effects of sterilization and reserve accumulation. Moreover, a fiscal surplus was necessary to offset the quasi-fiscal costs for the central bank of the policy of maintaining domestic interest rates higher than international rates (see Table 2). During 1993–98, the central bank registered losses amounting to about 1 percent of GDP. They were offset by a surplus in the nonfinancial public sector,

except in 1998, when fiscal performance deteriorated.

The authorities followed a flexible exchange rate policy that allowed for an orderly appreciation of the currency. In 1992, soon after the introduction of the URR, and in response to continuing capital inflows and mounting pressure on the currency, the central bank revalued by 5 percent. In 1994, the currency was revalued by an additional 10 percent. The orderly appreciation of the currency was facilitated by a gradual widening of the exchange rate band, in 1989 from ± 3 percent to ± 5 percent, in 1992 from ± 5 percent to ± 10 percent, and in early 1997 from ± 10 percent to ± 12.5 percent. In the meantime, monetary policy remained restrictive, as evidenced by the upward trend of the differential of interest rates, in keeping with the policy mix adopted in the mid-1980s.

Prudential Framework

Following the financial crisis of 1982–83, the Chilean authorities embarked on an ambitious program to upgrade the prudential framework for the fi-

Table 2. Chile: Public Sector Balance

	1990	1991	1992	1993	1994	1995	1996	1997	1998
	(In percent of GDP)								
Consolidated public sector	1.3	1.6	1.9	0.7	1.0	3.0	1.4	0.0	-2.4
Nonfinancial	3.6	2.5	3.0	1.7	2.0	3.6	2.1	1.0	-1.3
Central bank	-2.3	-0.9	-1.1	-1.0	-1.0	-0.6	-0.7	-1.0	-1.1

Sources: Central Bank of Chile; and IMF staff estimates.

financial system. In 1986, the General Banking Law and the Organic Law of Superintendency of Banks and Financial Institutions were revised, to strengthen prudential regulations, minimize the need for state intervention in the financial system, and facilitate market self-regulation. These changes also addressed connected lending, which had been one of the causes of past problems; required the publication of information on banks' asset quality; tightened capital requirements; and imposed strong liquidity management rules. Moreover, in 1989, Congress enacted a constitutional law establishing legal autonomy for the central bank, which received the mandate to ensure stability of the financial system. Finally, in 1997, a new banking law was enacted that increased banks' capital requirements in line with the recommendations of the Basle Committee. Over the years, Chile has developed a prudential framework for the financial sector that establishes, inter alia, 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 correction of liquidity or solvency problems. The soundness of the banking system is reflected in the low level of nonperforming loans (1.73 percent of total loans as of June 30, 1999), a comfortable level of provisions for bad loans (provisions are 127 percent of nonperforming loans as of May 31, 1999); the compliance of all banks with the BIS capital adequacy ratio; and

an average capital adequacy ratio for all banks of 11.5 percent.

Moreover, Chile introduced minimum rating requirements for domestic corporations borrowing in the international capital market. These requirements—which were strengthened over time—subjected the borrowing of domestic corporations on the international capital markets to the best-accepted international practices regarding disclosure and accounting. Moreover, banks and institutional investors are only allowed to invest in foreign securities rated investment grade with a view to preventing a deterioration in asset quality.

Overall Restrictiveness of the Regulatory Framework⁷²

The Chilean framework for capital inflows is part of a regulatory framework for international transactions that is, on average, more restrictive than in other developing countries, and considerably more restrictive than in advanced countries (Table 3).⁷³

The high level of Chile's indices reflects the imposition of the URR as well as a number of other measures including repatriation and surrender requirements, prudential measures, and minimum stay requirement for foreign direct investments and portfolio investments.⁷⁴ Chile's indices also reflect the extensive reporting requirements to the central bank

Table 3. Chile: Indices of Exchange Controls, 1996

	Chile	Mean	Industrial Countries	Developing Countries
Current account	0.22	0.13	0.05	0.18
Capital account	0.89	0.39	0.12	0.55
Overall index	0.56	0.26	0.09	0.36

Sources: IMF (1999b); and Tamirisa (1999).

⁷²The assessment is based on the regulatory framework in place in 1996 as representative of the period under study. In subsequent years the framework has been significantly deregulated (see IMF, *Annual Report on Exchange Arrangements and Exchange Restrictions* (AREAER), 1999).

⁷³A detailed description of the methodology to estimate the indices of exchange controls is provided in IMF (1999b) and Tamirisa (1999). The indices aggregate information from the AREAER.

⁷⁴Minimum stay requirements (currently one year for foreign direct investment and portfolio investments, and five years for Foreign Capital Invested Funds) were introduced to limit "in and out" financial operations by large institutional investors.

on individual capital account transactions (see Le Fort, 1999). In particular, all capital inflows and most capital outflows must be channeled through the institutions permitted to operate on the formal foreign exchange market and are subject to reporting to the central bank, which maintains a complete database on foreign exchange transactions.⁷⁵

Liberalization of Capital Outflows

Beginning in the early 1990s, the authorities took advantage of a strong balance of payments to gradually liberalize capital outflows. Outward foreign direct investment was liberalized in 1991–92, accompanied by a gradual liberalization of bank lending abroad. The ability of institutional investors to invest abroad was also expanded, although pension funds, insurance companies, and banks are still subject to quantitative limitations as follows: (1) pension funds can invest abroad up to 16 percent of their assets (of which up to 10 percent in equities); (2) life insurance companies can invest abroad up to 15 percent of their assets; other insurance companies can invest up to 20 percent; and (3) banks can invest up to 40 percent of paid capital and reserves in one country, subject to a total limit of 70 percent of paid capital for all countries (Box 5). However, the effect of these measures on net inflows is not clear. While outflow liberalization has been seen as reducing the potentially adverse macroeconomic consequences of large capital inflows, Labán and Larraín (1998) have argued that liberalization of outflows can also increase capital inflows by enhancing investor confidence and by lowering domestic asset prices. Also, as outflows are liberalized, the demand for domestic assets falls, which makes asset prices even more attractive for foreign investors. In the end, the net inflow of capital may not decrease; only the ownership of domestic assets is modified (see Laurens and Cardoso, 1998).

Effectiveness of the Unremunerated Reserve Requirement⁷⁶

The effectiveness of the URR in achieving its objectives has been the subject of an intense debate, and a number of studies have tried to assess the

⁷⁵Chile operates a dual foreign exchange market: the official market for the commercial banks and registered foreign exchange dealers through which all capital inflows and most capital outflows must be channeled; and the informal market on which all other transactions take place. Such a structure is necessary for implementing capital account regulations because the law allows the central bank to regulate only the “formal market.”

⁷⁶This section draws on Nadal-De Simone and Sorsa (1999).

Box 5. Liberalization of Capital Outflows in Chile

1991: Procedures for outward foreign direct investment are eased; banks can invest abroad 40 percent of foreign currency deposits.

January 1992: Pension funds can invest abroad 1.5 percent of assets.

March 1992: Limit on banks’ foreign exchange holdings is doubled. Export proceeds exempt from surrender requirements are increased.

March 1993: Conditions for remittance of profits are eased.

August 1994: Restrictions on remittance of profits are lifted.

September 1994: Banks can invest abroad 20 percent of capital and reserves.

November 1994: Pension funds can invest abroad 6 percent of assets. Limits are 10 percent for general insurance companies; 30 percent for mutual funds.

May 1995: Ceiling for pension funds is raised to 9 percent.

August 1995: Minimum stay for foreign direct investment is reduced to 1 year.

April 1996: Ceiling for pension funds is raised to 12 percent.

January 1998: Ceiling for banks is raised to 70 percent of capital and reserves.

June 1998: Elimination of ceiling for mutual funds.

February 1999: Ceiling is raised to 16 percent for pension funds, 15 percent for life insurance companies, and 20 percent for general insurance companies.

Source: IMF, *Annual Report on Exchange Arrangements and Exchange Restrictions* (various issues).

URR using econometric techniques. A detailed review in Nadal-De Simone and Sorsa (1999) comes to the following conclusions: there is some evidence that the URR has been successful in increasing domestic interest rates; there is also evidence, though weaker, that the URR has altered the composition of capital inflows in favor of medium- and long-term capital inflows; there is mixed and weak evidence that the URR has reduced the magnitude of capital inflows and actually no evidence that the URR affected the level of the real exchange rate. A summary of the quantitative studies is provided in Table 4.

Effect on Macroeconomic Variables

Throughout the 1990s, Chile maintained domestic real interest rates above international levels. Also, the differential of real interest rates increased after

Table 4. Chile: Summary of Selective Quantitative Studies on the Effects of the URR on Capital Inflows¹

Author	Data	Capital Flow Measure Used	Interest Rate Differential ²	Magnitude of Capital Flows ³	Real Exchange Rate ⁴	Maturity Structure of Capital Inflows ⁵
Eyzaguirre & - Schmidt-Hebbel (1997)	Monthly January 1991–June 1996	Changes in central bank reserves less cumulated net foreign liabilities of capital account Ratio of short-term to medium- and long-term gross foreign liabilities	...	Positive (indirect)	...	Negative
Herrera & Valdés (1999)	Monthly January 1991–August 1996	...	Positive	...	...	...
Valdés-Prieto & Soto (1998)	Quarterly April 1987–April 1996	Net short-term credit inflows to the private sector plus errors/omissions	...	...	...	Negative ⁶
Soto (1997)	Monthly January 1991–June 1996	a) Total net flows b) Ratio of short-term net debt to medium- and long-term net debt	Positive (in medium term)	Positive (on impact) Negative (in short term)	0 (level) Negative (volatility)	Negative (in medium term)
Edwards (1998b)	Quarterly January 1981–June 1996	Changes in reserves of the central bank	Positive (in short term)		0	
Laurens & Cardoso (1998)	Quarterly January 1985–April 1994	Net short-term and medium- and long-term capital inflows	...	Negative ⁶ (in short term)	...	Negative ⁶ (in short term) Positive ⁶ (in medium term) Negative ⁷ (in medium term)

Source: Nadal-De Simone and Sorsa (1999).

¹This table reports only those results that the authors consider to be robust.

²"Positive" means the URR helped increase interest rates.

³"Negative"/"positive" means the URR helped decrease/increase total flows.

⁴"Negative" refers to a reduction.

⁵"Negative"/"positive" means the URR helped reduce/increase short-term flows.

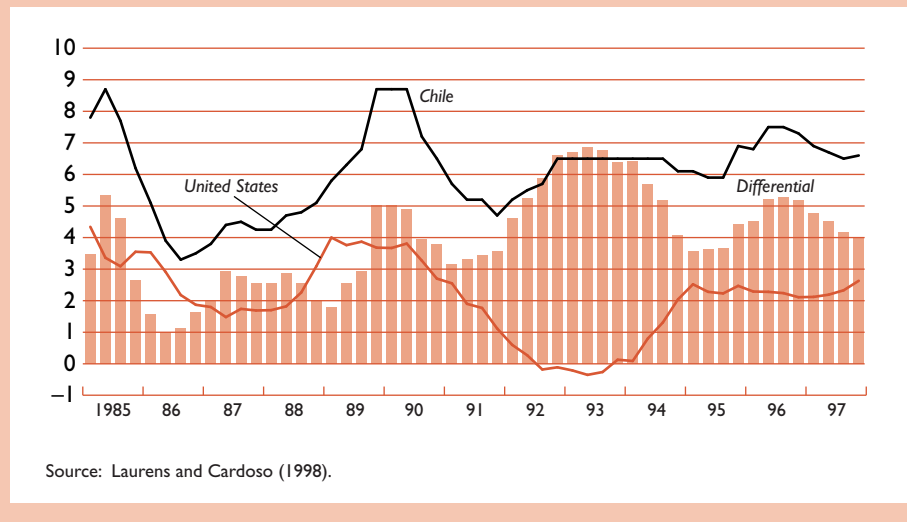
⁶The variable used is short-term capital inflows.

⁷The variable used is medium- and long-term capital inflows.

the URR was introduced, from 3.1 percent during 1985–91 to 5.2 percent during 1992–97, with only part of the increase attributable to a fall in international rates (Figure 19) (see Laurens and Cardoso, 1998). The quantitative studies reviewed by Nadal-De Simone and Sorsa (1999) found some evidence that the URR may have played a role in these developments and increased the scope for an autonomous monetary policy. However, results of a more recent study by Edwards (1999) "suggest that the restric-

tions on capital inflows imposed in 1991 had a small and temporary effect on interest rate behavior in Chile." Moreover, none of the studies has attempted to measure whether the sterilization operations of the central bank increased domestic interest rates.

After the URR was introduced, capital inflows continued: in 1990–95, average inflows amounted to 7.3 percent of GDP, and in 1996–97 they increased to 11.7 percent of GDP before falling in 1998, reflecting the Asian crisis (see Le Fort, 1999).

Figure 19. Chile: Differential of Interest Rates, 1985–97

The apparently limited effectiveness of the URR in moderating capital inflows is confirmed by quantitative studies. The effect of the URR on total inflows is mostly on impact (when it was introduced); and the magnitude of the effect is either small⁷⁷ or short-lived.⁷⁸

Chile's real exchange rate has appreciated on average by 4 percent a year during 1991–97 (Figure 20). Work by Edwards (1998a, 1998b, and 1999) and Soto (1997) concludes that the URR had no effect on the path of the real exchange rate. By contrast, Soto (1997) found that the URR slightly reduced the volatility of the exchange rate, with a 30 percent URR reducing the volatility of the real exchange rate by about 20 percent. This result suggests that the URR may have facilitated an orderly appreciation of the exchange rate.

Effect on Prudential Variables

Official data indicate that short-term debt as a proportion of total debt declined from 25 percent in 1990 to 12 percent in 1998 (Figure 21), which sug-

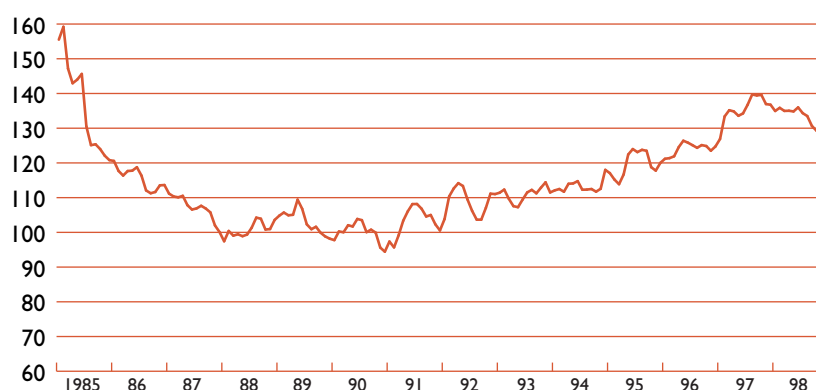
gests that the URR contributed to lengthening the average maturity of Chile's external debt. Quantitative studies, however, obtain conflicting results: some find that the URR reduced short-term inflows only briefly, while others conclude that the effect was longer-lived. Eyzaguirre and Schmidt-Hebbel (1997) found that the URR had a long-term effect on the composition of capital flows to Chile in favor of longer maturities, with a lag of about a year. Valdés-Prieto and Soto (1998) found that the URR was ineffective in altering the composition of capital inflows during the period 1991–94. While they found that the URR had the expected effect of diminishing short-term flows following the increase of the tax in early 1995, they recognized that the results might be biased because they did not take into account the effect of circumvention, which may have resulted in short-term flows not classified as such in official data. The authors concluded that it is unclear what the effect of the URR on the composition of capital inflows was. Depending on the technique used, Soto (1997) found a small or a significant diminution of short-term capital flows. Finally, Laurens and Cardoso (1998) found that the URR reduced short-term flows over periods of less than a year.

Is There Strong Empirical Evidence?

As noted by Nadal-De Simone and Sorsa (1999), the quantitative studies have to be interpreted cautiously as most of the reviewed papers suffer from serious methodological shortcomings. In particular,

⁷⁷Soto finds that the impact effect is positive. The URR increases capital inflows on impact, but it reverses itself after two months, and after six months it is statistically insignificant. The magnitude of the effect is always small. For example, the introduction of a 30 percent tax reduces net capital inflows by approximately \$400 million in total. See Soto (1997).

⁷⁸Laurens and Cardoso (1998) find that the URR affects net private capital inflows only temporarily (i.e., for two quarters).

Figure 20. Chile: Real Effective Exchange Rate, 1985–98

Source: IMF's *International Financial Statistics*.

measures of net and short-term capital inflows into Chile are distorted, and short-term flows may have been underestimated. The studies focus on short-term debt, excluding other short-term capital flows and short-term portfolio flows. However, official statistics on short-term debt exclude trade credits, which have increased, especially in recent years when other short-term debt has declined. The large discrepancies between official statistics on short-term debt and data collected by the BIS further complicate the debate.⁷⁹ The authorities are currently discussing this issue with a view to clarifying the origin of the discrepancies. These observations cast additional doubts on the robustness of the conclusions regarding effectiveness of the URR in lengthening the maturity of Chile's external debt.

Moreover, the studies suffer from econometric problems that may have biased the estimates either in favor or against the hypothesis that controls have been effective. Finally, no study has examined the effect of sterilization operations on domestic interest rates, and few of the studies have attempted to measure the impact of the URR on the volatility of capital flows in Chile. On the basis of current evidence, it is therefore not possible to draw firm conclusions regarding the effectiveness of the URR—or lack of it—in Chile.

⁷⁹In particular, the BIS estimates that short-term debt owed to commercial banks alone (on a residency basis) is significantly higher than official short-term debt. Discrepancies exist also with regard to data collected by the World Bank.

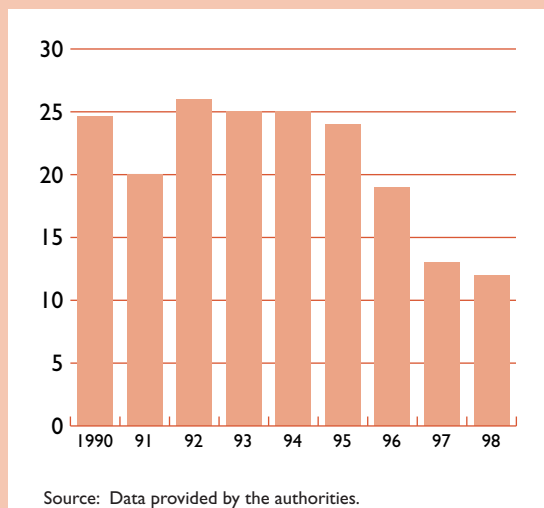
Conclusions

Chile's gradual approach to opening its capital account was influenced by macroeconomic policy concerns in a small, open, developing economy. Chile's first unhappy experience with rapidly opening the capital account in the mid-1970s illustrated the great vulnerability of such economies to the volatility of international financial markets. Inflows may be larger than the economy can absorb smoothly. The liberalization strategy of the mid-1980s aimed at avoiding the recurrence of similar problems.

Original Macroeconomic Policy Mix Maintained

Policies to deal with the surge in capital inflows during the 1990s did not involve a fundamental modification of the interest and exchange rate mix in place since the mid-1980s. Monetary policy continued to play a central role in limiting inflation, and the real interest rate remained the operating target. Exchange rate policy, while implemented with some flexibility, continued to support external balance. Capital controls were used to release pressure whenever fiscal adjustment could not be used to support the desired mix of interest and exchange rates. The URR was also used to address concerns that economic agents, and banks in particular, would not be able to adequately control risks when faced with large capital inflows, particularly of a short-term nature. No study has attempted to analyze whether the URR delayed

Figure 21. Chile: Short-Term Debt in Percent of Total Debt



progress in addressing the conflict between internal and external balance.

Capital Controls Part of a Broad Economic Reform Program

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 consistently throughout the period. The skillful coordination of these policies has allowed Chile to achieve the objectives set forth in the mid-1980s, including a gradual and steady lowering of inflation from 30 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 showing an increasing trend since the mid-1990s.

The use of capital controls in Chile since 1990 has been influenced by Chile's particular circumstances. One of these was the adoption of a gradual approach to liberalizing the capital account, which involved the use of a wide range of measures including quantitative limits, price-based instruments, and prudential measures. This has resulted in a regulatory framework for international transactions that is fairly restrictive and complex.⁸⁰

⁸⁰See Table 5 for a summary of the regulations on capital flows as of March 1999.

Among the policy instruments used in Chile, the URR has received a lot of attention and has been subject to an intense debate. While the measure was an important policy instrument, one should resist the temptation to identify Chile's experience with capital account liberalization with the use of a tax on short-term inflows. Strong macroeconomic policies and a solid prudential framework also played an important role in enhancing risk management in cross-border transactions. A striking feature of Chile's approach is an early recognition of the importance of financial sector reform—with a view to establishing a sound prudential framework and a strong credit culture. Some observers have even attributed Chile's performance to its strong banking system (see Edwards, 1998b).

No Firm Conclusions on the Effectiveness of the URR

It is useful at this juncture to report the views of the authorities on the effectiveness of the URR, as they were expressed in a paper prepared for the Working Group on Foreign Capital Flows of the Financial Stability Forum (see Le Fort, 1999, p. 4):

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.

However, the authorities contend that “. . . without the URR and other regulations, the size of net capital flows could have been larger and the same monetary policy could not have been applied.”

The review of quantitative studies on the effectiveness of the URR shows that several factors may have played a role in limiting the effectiveness of the URR, including the partial coverage of short-term flows, in particular the exemption for trade credits; the dynamic response of optimizing agents in the context of a sophisticated financial system; and difficulties of enforcement. As acknowledged by the Chilean authorities, the URR is a complex policy instrument that requires a strong enforcement capacity at the central bank (see Le Fort, 1999).

It would appear that the URR was somewhat effective in providing limited monetary policy autonomy to the authorities. It is particularly striking that Chile was able to maintain the interest and exchange rate

Table 5. Chile: Summary of Regulations on Capital Inflows*(As of April 1999)*

Restrictions on Inflows	URR	Minimum Amount	Minimum Rating	Minimum Stay Maturity
Foreign direct investment				
Special incentives	No	\$1 million	...	1 year
Other	Yes at 0 percent	\$10,000		1 year
Foreign investment funds	No	\$1 million		5 years
American Depository Receipts				
Primary	No	...	BBB- for banks BB- for enterprises	...
Secondary	Yes at 0 percent			
Borrowing abroad		...	...	...
Official, multilateral	No			
Supplier credits	No			
Banks	Yes at 10 percent on average balances (remunerated)			
Public sector	No			
Linked to foreign direct investment	Yes at 0 percent			
Bond issues abroad		...	...
Banks	Yes at 0 percent		A/B	4 years
Nonfinancial institutions	Yes at 0 percent		BB BB-	≥ 4 years ≥ 4 years
Short-term credit lines	Yes at 10 percent on average balances (remunerated)	...	...	...
Trade credits	No			
Foreign currency deposits	Yes at 10 percent on average balances (remunerated)	...	...	...

Source: IMF, *Annual Report on Exchange Arrangements and Exchange Restrictions* (1999).

mix in place since the mid-1980s despite episodes of strong capital inflows, and was even able to increase the differential between Chilean and foreign interest rates.⁸¹ However, other factors may have been at play in this, and no study has attempted to assess the effect of the sterilization operations of the central bank on the behavior of short-term interest rates.

The URR also aimed at addressing “macro-prudential” concerns, that is, discouraging potentially

volatile inflows—while maintaining a liberal environment for foreign direct investment—and thus enhancing the stability of the financial system and reducing external vulnerability. To arrive at firm conclusions on the effectiveness of the URR in reducing short-term external debt, one would have to reconcile differences between official debt data and BIS/World Bank data.⁸²

⁸¹Tests by Edwards indicate that after the introduction of the URR, interest rate differentials tended to disappear more slowly than during the free capital mobility period. See Edwards (1998b).

⁸²The central bank is now including trade credit in its external debt data.

Appendix II India's Experience with the Liberalization of Capital Flows Since 1991

Karl Habermeier

Since the external crisis of 1991, India has undertaken economic reforms that revived and intensified efforts begun in the 1980s to reverse several decades of inward-looking and interventionist policies. These market-opening policies included the virtual abolition of the industrial licensing system, a substantial reduction in trade barriers, extensive liberalization of current international payments, and a more limited liberalization of international capital flows. Although these reforms were followed by an increase in the shares of trade and capital flows in GDP, the economy remains closed by international standards (Figures 22–24).⁸³

Capital account liberalization has emphasized opening up the economy to foreign direct investment and portfolio equity investment, while at the same time limiting India's vulnerability to external crises by reducing reliance on volatile short-term debt flows that had characterized the 1980s. This approach to capital account liberalization may account in part for the relative ease with which India has weathered the crisis affecting many other developing countries since mid-1997. Other factors that may have contributed to insulating India from contagion during the recent crisis include a flexible exchange rate policy, an adequate stock of foreign exchange reserves, and the fact that international trade and financial linkages are still comparatively limited. Unlike some other countries, India did not find it necessary to impose additional capital controls in response to the crisis, and India has come through the crisis almost unscathed.

This appendix provides an overview of the changes in capital controls in India since 1991, with a particular emphasis on the sequencing of supporting reforms in the exchange system, international trade restrictions, the implementation of monetary policy, the prudential regulation and supervision of the banking system, and other areas. Finally, the appendix examines issues in the design of the capital

controls and the extent to which the authorities' approach to capital account liberalization has been successful in limiting volatile flows; whether this has provided additional scope for independent macroeconomic policies and limited financial contagion; and whether India's restrictive regulatory regime has dampened long-run economic growth or increased the year-to-year variability of output.

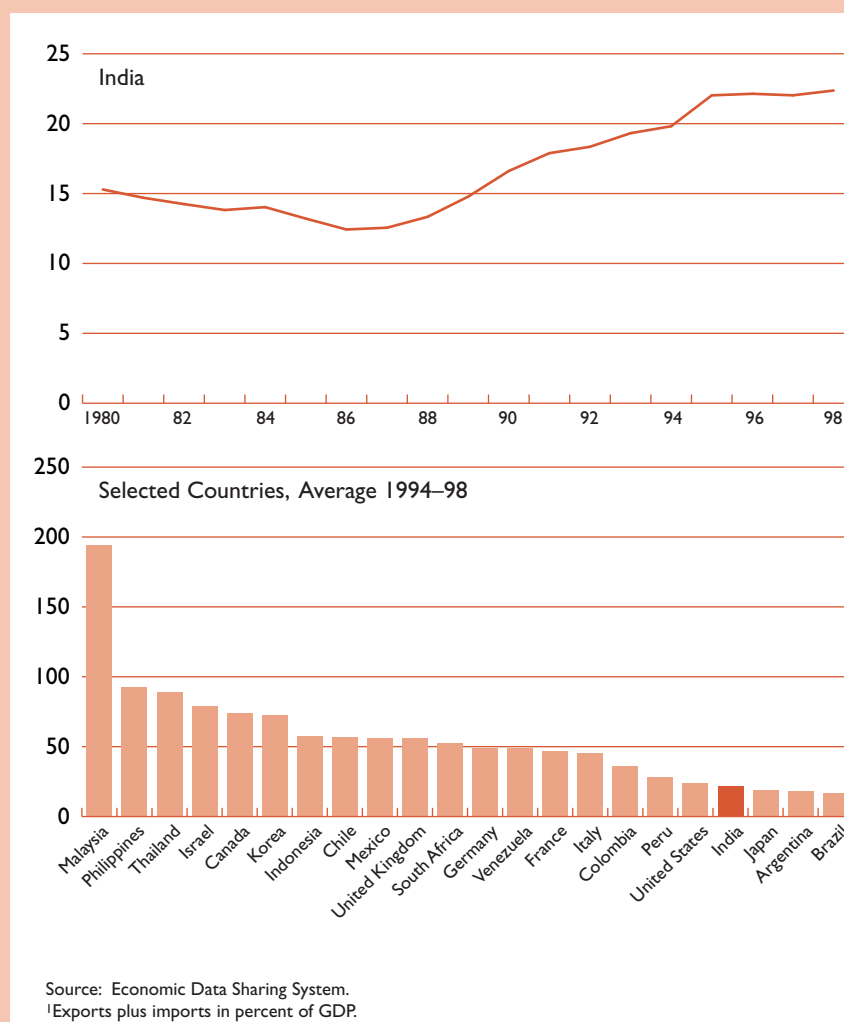
Changes in Capital Account Regulations

Most categories of private capital transactions were subject to restrictions prior to 1991, including foreign direct investment, portfolio equity investment, external commercial borrowing, nonresident deposits, short-term credit, and outward investment (Box 6). These controls were generally strictly enforced.

The liberalization and reorientation of capital controls that took place in 1991 was an integral part of the program to address the balance of payments crisis of the early 1990s. This liberalization was accompanied by exchange market reform, which led to India's acceptance of IMF Article VIII status in August 1994, and was part of a broader package of measures in the areas of trade liberalization, monetary policy, securities markets, and the banking system.

A key component of capital account reform was the liberalization of foreign direct investment and portfolio equity investment. Under the new regime announced in 1991, foreign direct investment up to 51 percent of equity in 35 priority industries became eligible for automatic approval by the Reserve Bank of India. Other proposals were still referred to the Foreign Investment Promotion Board, but the approval criteria were substantially broadened and the approval process was streamlined. Additional steps to make foreign direct investment more attractive included the termination of dividend balancing requirements except for a number of industries in the consumer goods sector, and liberalization of treatment of investment by nonresident Indians (NRIs) and overseas commercial bod-

⁸³This is true even once allowance is made for the absolute size of the economy (all other things equal, larger economies tend to be less open than smaller ones).

Figure 22. India: External Openness¹

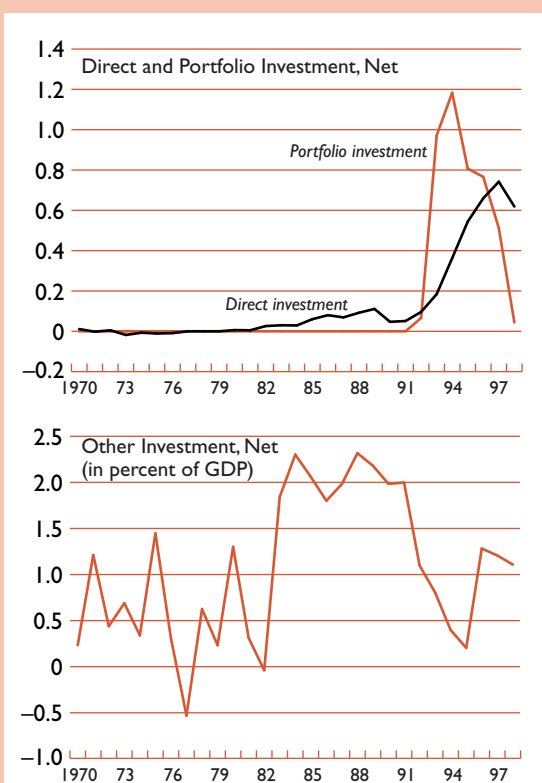
ies.⁸⁴ Foreign direct investment has been further liberalized in recent years; and the regulations have been frequently fine-tuned. In particular, NRIs were given greater scope to invest in India on a repatriable basis in 1996; in the same year, the Ministry of Power adopted automatic approval procedures for foreign equity of up to 100 percent for certain energy-related projects. The list of industries open to foreign direct investment was expanded in 1997,

⁸⁴Under a dividend balancing requirement, dividends remitted abroad needed to be balanced by other foreign exchange inflows (notably, export earnings).

with foreign equity up to 74 percent in nine industries. In addition, more transparent procedures were adopted for the approval of foreign direct investment proposals.⁸⁵

Indian capital markets have also been opened to portfolio investment, with an emphasis on equity investment; and portfolio inflows have generally been

⁸⁵This paragraph, and much of the discussion in this section, provides only a broad description of the most important features of the system. For example, a more detailed exposition of the extent of foreign equity permitted to be held by various types of nonresident investors may be found in Box 7.3 of the government's 1996–97 *Economic Survey*.

Figure 23. India: Capital Flows*(In percent of GDP)*

Source: Economic Data Sharing System.

stronger than foreign direct investment during the 1990s. In September 1992, foreign institutional investors were permitted to invest in primary and secondary markets for listed securities; and foreign brokerage firms were permitted to operate in India the following fiscal year.⁸⁶ While there is no restriction on the total volume of inflows, there are limits on both the total holdings of all foreign institutional investors, overseas corporate bodies, and NRIs in a company (initially 24 percent, liberalized further in 1998 to allow separate ceilings for foreign institutional investors and other types of nonresident investors) and on the holdings of a single foreign insti-

⁸⁶Foreign institutional investors initially included mutual funds, asset management companies, pension funds, and investment trusts. The list was subsequently expanded. Notably, in 1995, endowment funds, university funds, and foundations and charitable trusts were included.

tutional investor (initially 5 percent, increased to 10 percent in 1996, and to as much as 24 percent for listed companies in 1998). Foreign institutional investors were also permitted to invest in debentures, up to a maximum of 30 percent of total investments, but not in government securities. The 30 percent limit was eliminated in 1996; and foreign institutional investors were permitted to invest in Indian government dated securities from March 1997 and in treasury bills from April 1998. From mid-1998, foreign institutional investor transactions in Indian stocks were no longer subject to post facto confirmation by the Reserve Bank of India.

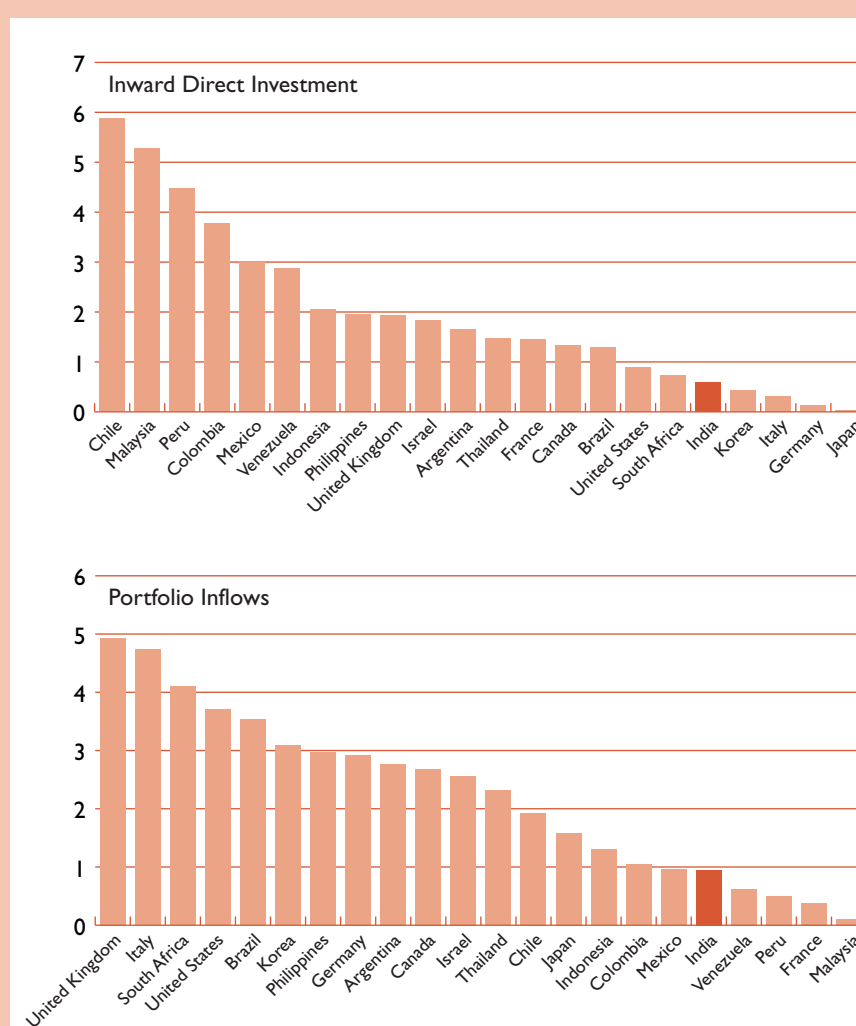
In February 1992, Indian companies were also permitted to issue equity abroad in the form of global depository receipts (GDRs) on approval from the Ministry of Finance, subject to rules for repatriation and end use of funds. These rules were tightened in 1994 and 1995 in response to a surge in GDR issues, but relaxed again in June 1996. In particular, the requirement of a three-year track record was dropped for investments in infrastructure projects; restrictions on the number of issues per year were lifted; and end-use requirements were eased (notably, the percentage of proceeds that can be used for rupee financing or general restructuring was raised). Approval procedures were streamlined in August 1997, and end-use requirements were further eased in May 1998.

There has also been a gradual liberalization of international credit operations since 1991. At the same time, incentives to borrow at longer maturities have been strengthened. Three areas have received particular attention at various times: NRI deposits, external commercial borrowing, and the operations of banks and authorized foreign exchange dealers.

In the early and mid-1990s, terms on NRI deposits were made significantly less attractive, by reducing the spread between the (regulated) rates paid on these deposits and international rates, and through the elimination of exchange rate guarantees on such deposits, leaving banks to cover their own positions.⁸⁷ The marked decline in such deposits during the 1991 crisis had fostered the view that such deposits were a costly and volatile source of external financing. Subsequently, interest rates on such deposits were liberalized and steps were taken to harmonize the statutory liquidity ratio and cash reserve requirement on such deposits with those on other deposits (with the harmonization essentially complete by 1996).

Limits on external commercial borrowing were fine-tuned after 1991 to avoid the reemergence of

⁸⁷Some of these deposits still have tax advantages, however.

Figure 24. India: International Comparison of Capital Flows¹*(In percent of GDP)*

Source: Economic Data Sharing System.
¹Averages 1994–97.

the excessive borrowing that contributed to the 1991 crisis. Liberalization entailed easing the detailed regulatory restrictions while adjusting the overall ceiling on such borrowing in accordance with the financing requirements of the economy. In March 1997, the list of eligible sectors was expanded, quantitative limits on individual borrowers were raised, interest rate limits were relaxed, and end-use restrictions were largely eliminated (stock market and real estate investment are still subject to certain limita-

tions). From June 1998, external commercial borrowing of an average maturity of 10 years and greater was no longer counted toward the overall ceiling.

There has also been some liberalization in the last two to three years in the regulations governing the international credit operations of authorized foreign exchange dealers, which comprise mainly domestic banks and mutual funds. In a series of steps taken in 1996 and especially 1997, authorized foreign ex-

Box 6. The Pre-1991 Capital Account Regime in India

Foreign direct investment was seen primarily as a vehicle for the transfer of technology that would be too costly or difficult to develop domestically. A selective policy of case-by-case approvals was designed to channel foreign direct investment into areas that required sophisticated technology; where critical production gaps existed; or where there were prospects for substantial export potential. Foreign collaboration was also regulated—for example, requiring that Indian firms obtain permission to engage foreign technicians. The normal ceiling for foreign direct investment was 40 percent of the paid-up equity capital, although a higher percentage of foreign equity could be approved for priority industries, and up to 100 percent for wholly export-oriented industries. Under this regime, foreign direct investment averaged only \$150 million annually over 1980–91.

Portfolio equity investment was generally not permitted. However, to promote investment in India by oil-exporting countries, such countries were permitted to acquire up to 40 percent of equity in selected companies, even if the technology requirements for foreign direct investment were not met (the maximum varied depending on whether the holdings were diffused or concentrated).

External commercial borrowing required prior approval by the Indian government. Applications were

considered on a case-by-case basis, taking account of the purpose of the borrowing; the export potential of projects; and the capacity to generate foreign exchange to meet debt service and other payments. Despite these restrictions, public sector enterprises undertook considerable external borrowing during the late 1980s, contributing to the 1991 balance of payments crisis.

Nonresident Indian (NRI) deposits were permitted under a variety of defined schemes to allow NRIs and Indian-owned overseas corporate bodies to repatriate earnings from abroad, in the form of either foreign or domestic currency bank deposits. As a means of bolstering reserves, some of these schemes were further enhanced by offering interest rates above international levels; providing exchange rate guarantees from the central bank; and offering certain tax advantages. Inflows under these provisions also proved to be quite volatile and played some role in the 1991 crisis.

Short-term credit was in general permitted for trade financing only, and required approval by the Reserve Bank of India. However, use of short-term credit expanded during the late 1980s as the external current account deficit widened.

Outward investment of all sorts was strictly controlled with the goal of channeling domestic savings into domestic investment.

change dealers were allowed to use derivative transactions, including interest rate swaps, currency swaps, options, and forward contracts to hedge their positions. However, these transactions remain subject to certain restrictions; for example, booking forward cover requires documentary evidence of underlying transactions/positions; and net inflows of option premiums are not permitted. Also, in April 1997, authorized foreign exchange dealers were allowed to lend and borrow up to \$10 million in the overseas money markets; and in October 1997, banks were permitted to borrow or invest up to a maximum of 15 percent of their unimpaired Tier 1 capital in the overseas money markets, while fund managers were allowed to invest up to \$50 million in overseas markets (subject to an aggregate limit of \$500 million).

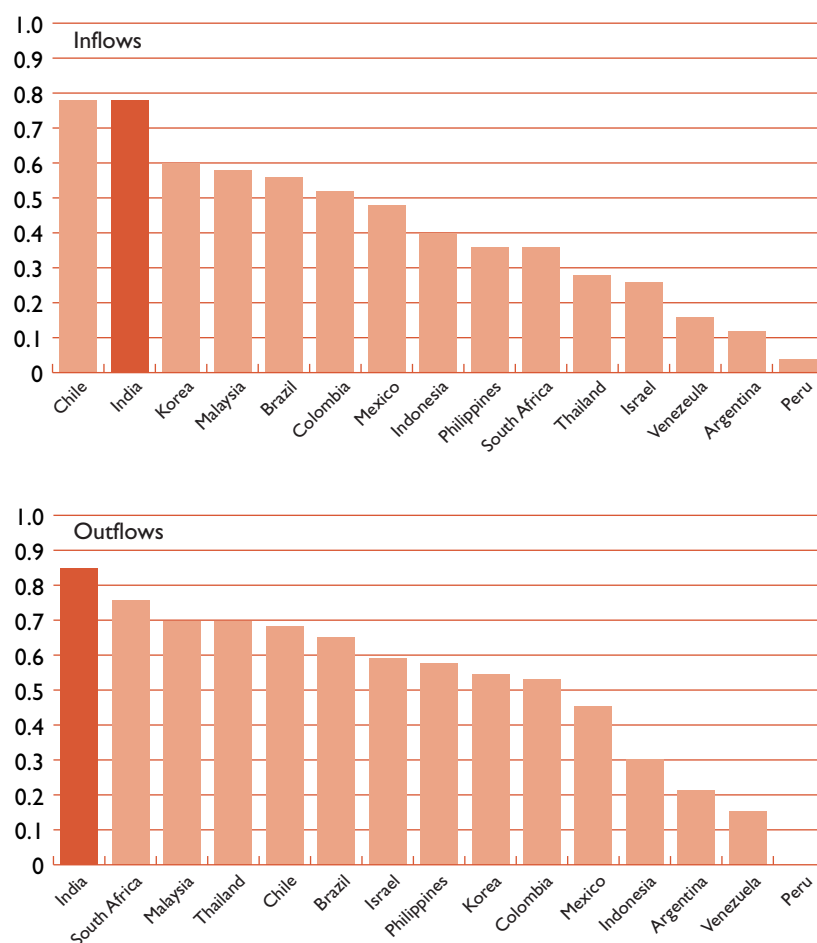
In sum, capital account transactions were gradually and carefully liberalized during the 1990s. Restrictions on inflows were loosened first, with an emphasis on encouraging foreign direct investment and portfolio equity investment and discouraging short-term and debt-creating inflows. In recent years, debt-creating flows and derivative transactions have been partially liberalized. There has also been a modest loosening of restrictions on capital outflows.

Even so, many restrictions on capital flows remain. An index measuring the presence or absence of controls on individual categories of capital inflows or outflows suggests that India's system remains relatively restrictive (Figure 25). These data need to be interpreted with some care. First, the index weights all types of controls equally; no attempt is made to measure their relative economic importance. Second, it registers only the existence or nonexistence of controls. This is problematic in India as there is a paucity of outright permissions—many if not most categories of capital flows are subject to the discretionary approval or disapproval of the authorities, and the criteria applied by the authorities in granting or withholding permission are complex and subject to frequent change.

Further Steps Toward Liberalization

In 1997, a committee of experts (the Committee on Capital Account Convertibility, or “Tarapore Committee”) was appointed to undertake preparatory work toward full capital account convertibility. The report of the Committee establishes a number of preconditions for liberalization. Fiscal consolidation, lower inflation, and a stronger financial system were seen as crucial (Box 7).

Figure 25. India: International Comparison of Controls on Capital Flows in 1997¹



Sources: *Annual Report on Exchange Arrangements and Exchange Restrictions*; and staff calculations.

¹Index scaled from 0 to 1. An index value of 0 would denote no restrictions on any category of capital flows, and a value of 1 the existence of restrictions on every category of capital flows.

The Committee set out a timetable of measures to achieve greater but not full capital account convertibility, while emphasizing that the pace of liberalization would need to be adjusted to reflect the extent to which the preconditions had been met. With regard to the sequencing of capital account liberalization, the Committee recommended that those items that had already been partially liberalized be further liberalized, and that in addition a start be made in allowing capital outflows, which continue to be subject to considerable restrictions. The Committee argued that such outflows could contribute to stabil-

ity by relieving some of the upward pressure on the real exchange rate that would be associated with larger inflows. In this connection, the Committee also proposed giving greater scope to banks to borrow and lend overseas, as a means of arbitraging between domestic and overseas markets. Such lending would of course need to be subject to prudential limits, given that large-scale short-term borrowing can be destabilizing.

The government has implemented a number of the measures recommended by the Tarapore Committee, though the implementation is not yet complete. The

Box 7. Preconditions for Capital Account Convertibility Established by the Tarapore Committee

The Tarapore Committee recommended that India achieve the following benchmarks as preconditions for capital account convertibility.

- Consolidate the public finances to achieve a sustainable position (defined as a deficit of the central government of 3.5 percent of GDP or less, accompanied by a reduction in the deficit of the states and the quasi-fiscal deficit).
- Reduce inflation, to 3–5 percent annually.
- Strengthen the financial system, including by
 - taking steps to reduce the net non-performing asset ratio to 5 percent in 1999–2000;
 - reducing the cash reserve requirement to 3 percent over the same period;
 - leveling the playing field between banks and nonbanks;
 - harmonizing the cash reserve requirement on domestic liabilities with those on overseas and nonresident liabilities (with a possibly higher cash reserve requirement on nonresident liabilities including overseas borrowing by banks);
 - improving risk management by financial institutions (marking to market, monitoring currency and maturity mismatches, internal control systems, accounting and disclosure, capital adequacy to cover market risk, and training in best practices techniques with the adoption of the corresponding technology);
- improving prudential supervision (effective off-site surveillance, more stringent capital adequacy norms than the Basel minimums, tighter income recognition and asset classification norms);
- increasing the autonomy of public sector banks and financial institutions to deal with increased competition from foreign banks and the growing private sector (however, the report stopped short of recommending privatization);
- strengthening legal framework for loan recovery and execution of collateral to deter default.
- Establish a monitoring band for real exchange rate developments (± 5 percent around an estimate of a “neutral” real exchange rate).
- Adopt macroeconomic policies consistent with a current account deficit that can be sustainably covered by normal capital inflows (about 2 percent of GDP); and consistent with this, trade and external financing policies that would allow the debt service ratio to decline (from 25 percent to 20 percent).
- Maintain adequate foreign exchange reserves (at least six months of imports and a legally required reserves to currency ratio of at least 40 percent).

pace of liberalization has slowed somewhat in the last two years, primarily reflecting concerns raised about capital flows following the outbreak of the Asian crisis.

Policies Supporting Capital Account Liberalization, and Their Sequencing

The gradual and cautious approach taken by the authorities to liberalizing the capital account, and in particular the relatively strict limits still remaining in place on capital outflows and short-term capital flows of all types, appears to reflect concerns about the impact such flows could have on the financial sector. This sector has been under close government control at least since the late 1960s, with the nationalization in several stages of all the major banks. Until the 1990s, policies were also not supportive of the development of securities and derivatives markets, which are essential in hedging the risks associated with short-term capital flows.

However, since the early 1990s, as part of the general opening of the economy, policies have been

geared to creating a framework that would allow the financial sector to operate safely and efficiently in a more liberal and open environment. Progress has been fastest in the securities markets and slower in the banking system, where reform has been sequenced to first improve the environment in which banks operate, for example by establishing markets for government debt and improving prudential regulation and supervision, followed by steps to improve operational efficiency. It appears that despite considerable advances, financial sector development and regulation remain a constraint on capital account liberalization; removing the controls that remain would need to take into account prudential considerations.

The liberalization of foreign direct investment and portfolio equity was accompanied and supported by steps to liberalize external trade and current international payments and by the abolition of the domestic industrial licensing system. Absent such reforms, there would have been the risk that capital inflows would have reflected rent-seeking or otherwise have been channeled into unproductive activities. The reform of trade and current payments are discussed first, followed by various aspects of financial sector reform.

Trade and Current International Transactions

The liberalization of trade and current foreign exchange transactions that began in 1991 was undertaken in parallel with the liberalization of foreign direct investment and portfolio equity investment (and the virtual abolition of the domestic industrial licensing system). The pre-1991 trade regime was very restrictive. Government authorization was required for the import of virtually all goods; maximum tariff rates exceeded 300 percent; and the average (import weighted) tariff rate stood at 87 percent in FY 1990/91, the highest in the world. In relatively short order, all licensing restrictions on imports of intermediate and capital goods were lifted, and imports of consumer goods were partially liberalized. By FY 1993/94, the average tariff rate had declined to 33 percent, and it declined further to about 20 percent in FY 1997/98.⁸⁸

Rapid progress was also made in liberalizing current foreign exchange transactions. This was accompanied by a move from a fixed official rate to a dual exchange rate system in 1992, and to a unified exchange rate and a managed float in 1993, with the exchange rate determined in the interbank foreign exchange market; and India accepted the obligations of the IMF's Article VIII, Sections 2, 3, and 4 in August 1994. Some controls on current international transactions remained in place by the end of 1998—these were either not subject to IMF jurisdiction or consistent with Article VIII. These included prescription of currency for member countries of the Asian Clearing Union, limits on imports and exports of gold, a wide-ranging prohibition on imports and exports of rupee banknotes and coins, repatriation and surrender requirements for export earnings (though these have been weakened gradually and export earnings may be held in foreign currency accounts), and limits on foreign currency allowances for travel and education (which have been steadily eased). The maintenance of a number of these regulations has presumably aided in the enforcement of controls on capital transactions, which could otherwise be more easily circumvented.

Financial Sector Reforms

Monetary management, the development of securities markets, and the regulation and restructuring of the banking system are highly interconnected in India, as in many other countries. Prior to 1991, the chief objectives of monetary and financial policies

were to (1) stabilize the economy in the face of shocks while maintaining an appropriate degree of price stability; (2) steer low-cost financing to priority sectors of the economy; (3) sustain high rates of economic growth; and (4) provide low-cost financing of government deficits. With the erosion of fiscal discipline, especially in the 1970s and 1980s, the pursuit of these objectives was reflected in rising rates of monetary growth and higher inflation (consumer prices increased by 2 percent annually in the 1950s, and by around 9 percent annually in the 1980s).

Although a wide range of monetary policy instruments has always been available to the Reserve Bank of India, including reserve ratios, liquidity ratios, interest rate and credit controls, standing facilities, and various types of open market operations, until very recently all monetary policy instruments, whether direct or indirect, operated through administrative controls or fiat. This reflected state domination of the banking system and the almost complete absence of private financial markets, be it for government securities or for private bonds and equities. In 1991, more than 60 percent of bank deposits had to be held against cash reserve requirements and statutory liquidity requirements, met by investing in government securities. About 40 percent of the rest was allocated at controlled interest rates to priority sectors. Interest rates were subject to tight and complex regulation, as were the entry, exit, and operations of banks, insurance, companies, and mutual funds.

Change in the financial system since 1991 has been substantial, with steady progress toward a more open and market-oriented system. The authorities, moving on many fronts at once, have sought to gradually disentangle the complex web of regulations and strengthen institutions weakened by state control.

Banking system reform has emphasized a wide-ranging and largely complete liberalization of the complex structure of interest rates, combined with a gradual reduction in the cash reserve requirement and statutory liquidity requirement and easier conditions for the entry of private banks. Bank profitability has been mixed in recent years, though generally improving, but almost all banks have met the 8 percent capital adequacy ratio, owing mainly to injections of fresh funds by the government (Rs 24 billion in FY 1997/98). The gross nonperforming loan ratio has declined to 16 percent in 1997/98; and provisioning has been aggressive.

Prudential regulation and supervision of banks have been significantly strengthened since the early 1990s, and work in this area is progressing steadily. Formal responsibility for most banking regulation and supervision rests with the Reserve Bank of India, which in 1994 created a Board of Financial

⁸⁸Even so, the average tariff rate remains above the 10 to 15 percent range into which most emerging market economies fall.

Supervision to complement the work of the Department of Supervision. The Department of Supervision, which has been recently subdivided into banking and nonbanking units, conducts bank surveillance and enforces reporting requirements. The Board of Financial Supervision, by contrast, concentrates on supervisory issues and ensures compliance with regulations and guidelines. It also evaluates the soundness of domestic banks, including through the use of numerical scoring, with progress well under way toward the adoption of a CAMELS rating system. Supervision is done through both on- and off-site supervision, but consolidated supervision is hampered owing to the absence of consolidated accounts.

Prudential norms for the banking system have been gradually strengthened in recent years, generally following the recommendations of the Narasimham Committees. Prudential norms could be strengthened further in line with the recommendations of the Narasimham and Basel Committees, although a few financially fragile public sector banks might find it difficult to quickly meet significantly stronger norms. The following steps to strengthen banking regulation have been taken since 1991.

- An 8 percent minimum capital adequacy ratio for banks was introduced in 1992.⁸⁹ It is largely calculated in accordance with the Basel capital accord, though the current definition of Tier II capital is tighter as it does not include the revaluation of fixed assets. Three weak public banks were given a transitional period to increase capital to the minimum; at end-1997/98, only one public sector bank did not meet the 8 percent minimum. The capital adequacy ratio for banks will be increased to 9 percent in March 2000. The authorities have also announced their intention to increase the capital adequacy ratio further to 10 percent, as recommended by the second Narasimham Committee, but no date has been set yet. An even higher ratio may be desirable given the recent experience in many developing countries, though there is also a widespread view that the capital adequacy ratio is not necessarily an appropriate measure of the risks facing banks, which might better be addressed by improvements in banks' own risk management practices.
- Stronger loan classification, provisioning, and income recognition rules were phased in over a three-year period beginning in 1992/93, but

may need to be strengthened further. Periods for classifying loans as substandard (6 months) or doubtful (30 months) are overly long, though the government has announced its intention to shorten the period for a doubtful classification to 24 months by March 2001. Provisioning requirements for doubtful loans have been set at just 50 percent (though there are no deductions for collateral, which is difficult to execute in the Indian legal system). Income recognition must be stopped if interest or an installment of principal is not paid 180 days after arrears are first noted (30 days after the due date, for a total of 210 days), compared with best practice of 90 days or fewer.

- Open foreign exchange positions are limited to 15 percent of banks' unimpaired capital, and subject to a supplementary capital requirement of 5 percent.
- Regulations on loan concentration and large exposures limit lending to a single borrower to 25 percent of capital, and investment in subsidiaries to 20 percent of capital. These regulations were weakened in 1998, when limits on lending to a single group of companies were raised from an already high 50 percent of capital to 60 percent, provided that the additional 10 percent are lent in support of certain types of infrastructure projects.

Key weaknesses remain in the banking sector. First, publicly owned or controlled banks continue to play a dominant role in the system, accounting for about 80 percent of its overall liabilities. These banks have little room for maneuver in their staffing and salary decisions, owing inter alia to labor market regulations; this has raised the costs of financial intermediation. Banks have also been exposed to increased competition from nonbank institutions (steps were taken in 1998 to subject these institutions to capital adequacy requirements if they take deposits from the public). High costs have also slowed the resolution of the accumulated financial burdens. Second, although transparency has increased, reflecting stricter reporting and disclosure standards, standards for asset classification and income recognition still fall somewhat short of international best practice, and effective capital levels may be lower than measured. Third, domestic banks remain subject to political influence and directives, with about one-third of credit allocated to "priority sectors" where rates of return and repayment prospects have generally been poor. Nonperforming loan ratios in the priority sectors have generally been much higher (23 percent in 1997/98, compared with 13 percent in nonpriority sectors).

Important steps have been taken to improve the functioning of securities markets and investment

⁸⁹The capital adequacy ratio for nonbank financial corporations is 10 percent.

funds, including most notably the establishment of the Securities and Exchange Board of India as a separate statutory body in 1992. Since then, the authority and autonomy of the Securities and Exchange Board have been repeatedly strengthened, and the Board has used its regulatory powers to increase the transparency and efficiency of securities transactions and increase investor protection, including by

- prohibiting the preferential allotment of shares at below-market prices in primary issues;
- requiring brokers to meet capital adequacy norms, and separate client and broker accounts;
- securing legal authority for the establishment of central securities depositories;
- bringing under its regulatory jurisdiction schemes introduced since 1994 by the Unit Trust of India, the main public investment fund (particularly in response to the financial difficulties experienced by Unit Trust of India's largest investment scheme);
- permitting the establishment of private mutual funds, and issuing guidelines for their operation, accounting, and advertising; and
- taking measures to prevent insider trading and other unfair trading practices.

These reforms, in conjunction with the liberalization of international portfolio investment and the introduction of an electronic stock exchange in 1994–95 (the National Stock Exchange, which competes with the long-established Bombay Stock Exchange) improved the functioning of the Indian stock market, though both equity prices and new issue activity have been weak in recent years. Secondary market trading in government securities increased, following steps by the Reserve Bank of India to establish a primary dealer network (the first six primary dealers were licensed in 1996), the introduction of uniform price auctions with pre-announced amounts in the 91-day treasury bill market, the introduction of a delivery versus payment system in 1995 to improve securities settlement, and efforts to stimulate the development of the interbank repo market.

There has also been steady movement toward the use of indirect instruments of monetary policy by the Reserve Bank of India. Most notably, the cash reserve requirement and statutory liquidity ratio have been steadily reduced since 1991/92. Repo auctions were introduced in 1992, but were interrupted for an extended period in 1995/96. In November 1997, repo auctions were replaced by regular, fixed rate repos; and the repo rate has since been adjusted frequently to reflect policy objectives, in particular with regard to the exchange rate. Limits have also been set for on-demand government borrowing from the Reserve Bank of India. Such limits will help to

normalize the functioning of the government securities market and facilitate the use of indirect monetary policy instruments. Ad hoc treasury bills were replaced with a “ways and means” advance system in April 1997, and ceilings on ways and means financing are being tightened progressively.

The insurance sector remains reserved to two state enterprises, the Life Insurance Corporation and the General Insurance Corporation. A law that would have allowed limited entry in health insurance was delayed owing to the difficult political situation in the first half of 1998. There has also not been much progress in adapting prudential regulations to prepare for an eventual liberalization. Existing regulations are geared toward a publicly controlled sector that provides financing to the government; for example, insurance companies are required to hold more than half of their portfolio in government-designated securities.

Sequencing of Capital Account Liberalization and Supporting Reforms

The sequencing of reforms in India can be broadly characterized as follows. Trade, current payments, and foreign direct investment were liberalized first (1991), followed by the start of financial system reform and the liberalization of portfolio equity investment (1992). Additional liberalization of portfolio and foreign direct investment was undertaken in 1993 and 1994, in parallel with further reforms of trade policies, current foreign exchange transactions, and the financial sector. The gradual reduction in the cash reserve requirement and statutory liquidity requirement that began in 1991/92 continued, and government reliance on central bank financing was limited, inter alia, to support the move to indirect monetary policy instruments. There was a temporary tightening of restrictions on portfolio equity inflows in 1995, followed by a resumption of a gradual forward movement in financial sector restructuring and capital account liberalization, including most notably steps to loosen restrictions on external commercial borrowing and banks' foreign borrowing and lending in 1997 and 1998.

As noted earlier, India's approach to capital account liberalization therefore emphasized loosening restrictions on longer-term and ownership-based inflows first, with shorter-term transactions and outflows being liberalized only once considerable progress had been made in financial sector reform. This approach reflected the lessons of the 1991 crisis.

In addition, aside from the bold measures taken in 1991/92, India has eschewed a “big bang” approach to capital account liberalization and financial sector reform, preferring instead to move simultaneously,

cautiously, and steadily on many fronts at once. The cautious pace of capital account liberalization has been largely motivated by a desire to first put in place the appropriate preconditions, including sound macroeconomic policies and a stable financial system. The reform of the largely state-controlled banking system has proven to be particularly difficult.

Effectiveness and Costs of the Controls

As described previously, India's capital controls are almost entirely quantity based rather than price based, and their enforcement and administration has been largely delegated to authorized foreign exchange dealers, who are required to investigate the legality and permissibility of all foreign exchange transactions within the guidelines promulgated by the Reserve Bank of India and other government agencies. Prior to 1991, the effectiveness of the controls was enhanced by the presence of numerous other restrictions on private sector investment, international trade, and financial market activity.

On its face, this system offers very few opportunities for circumvention or evasion. Indeed, the controls in place until 1991 were highly effective in limiting measured flows in the categories of capital that were restricted.⁹⁰ As expected, capital account liberalization has been associated with a pronounced increase in measured flows, which, however, remain quite modest by international standards (Figures 23 and 24).

A rigorous empirical assessment of the effectiveness of capital controls in India is difficult to undertake, owing mainly to a lack of formal studies. Even so, the following observations may shed some light on this question. The first two suggest that capital controls may have been effective in isolating India's financial markets from those abroad, while the third may indicate that capital controls were circumvented to some extent.

1. Stock markets in developing countries, including India, are much less correlated with one another than stock markets in the advanced countries (Table 6).
2. An examination of the covered interest parity condition suggests that even in the late 1990s,

⁹⁰Mainly foreign direct investment and portfolio investment. As noted previously, there were considerable debt-creating inflows in the late 1980s, reflecting an increase in NRI deposits and public enterprise borrowing. These inflows contributed to the 1991 crisis and stimulated a rethinking of the approach to capital controls.

Table 6. Correlations of Stock Market Indices¹

	1980–90	1991–98
India	0.73	0.60
Canada	0.53	0.94
France	0.96	0.94
Germany	0.90	0.98
Italy	0.76	0.92
Japan	0.94	0.59
United Kingdom	0.95	0.95
United States	0.97	0.96
Brazil	0.71	0.86
Chile	0.52	0.73
Colombia	0.52	0.50
Israel	0.51	0.59
Korea	0.96	0.80
South Africa	0.91	0.69
Venezuela	0.59	0.80
Average	0.67	0.71

Source: Economic Data Sharing System.

¹Adjusted correlation coefficient (\bar{R}) in static regression of equity indices (deflated) on G-7 countries (or other G-7 countries).

India's financial markets were still imperfectly integrated with foreign markets.⁹¹

3. A study of trade misinvoicing in India covering 1971–86 concluded that cumulative unregistered capital outflows over this period may have amounted to \$20 billion to \$30 billion.⁹²

A related question, which is similarly difficult to answer, is whether capital controls in India provided scope for independent macroeconomic policies. One may observe that India weathered the Asian crisis without major disruptions and mostly escaped financial contagion, even though its fiscal deficit was larger than in the countries that were hardest hit. Of course, various factors contributed to this outcome, including a relatively comfortable reserve position, flexible exchange rate policy, a relatively small current account deficit, and international trade and financial linkages that are still quite limited. In particular, India's external debt, debt ser-

⁹¹Under covered interest parity, the covered differential (D) equals the difference of domestic interest rates (i) and foreign interest rates (i^*), less the forward premium (p): $D = i - i^* - p$. With perfect capital mobility, D should equal zero, so the domestic interest rate equals the foreign rate plus the forward premium. A sophisticated examination for India of the interest rate parity condition is provided by Joshi and Sagger (1998).

⁹²Rishi and Boyce (1990). The margin of error in such studies (as in all studies of illicit economic activity) is high.

Table 7. India: Indicators of Vulnerability vis-à-vis Asian Economies in the Year Prior to the Outbreak of the Crisis (1996)

	India	Korea	Indonesia	Malaysia	Philippines	Thailand
General government balance						
Percent of GDP	-7.8	1.2	1.4	5.0	-0.4	1.0
Rank	6	3	2	1	5	4
Current account balance						
Percent of GDP	-1.2	-3.2	-4.7	-4.9	-4.7	-7.9
Rank	1	2	3	4	3	5
External debt, end of period						
Percent of GDP	24.0	53.4	32.5	39.0	50.1	49.9
Rank	1	6	2	3	5	4
External debt service						
Percent of GDP	2.8	9.2	3.0	8.2	7.0	5.0
Rank	1	6	2	5	4	3
Percent of exports	26.6	35.5	9.4	8.9	17.3	12.8
Rank	5	6	2	1	4	3
Reserves, end of period						
Months of imports	5.4	3.6	2.3	3.6	2.9	5.5
	2	3	5	3	4	1

Source: Economic Data Sharing System.

vice ratio, and external bank liabilities were all more benign than in Indonesia, Korea, Malaysia, the Philippines, and Thailand (Table 7). It is plausible that India's policy of limiting debt-creating inflows helped to keep these ratios low. It is not possible to judge on the basis of the available evidence whether capital controls provided scope for monetary and exchange rate policies that would have been incompatible in a more open environment. But one must also note that despite the presence of limits on capital flows, India experienced two serious balance of payments crises in the last two decades (in 1980 and 1990–91), and that these crises led the authorities to implement IMF-supported adjustment programs. The origins of the crises lay in domestic macroeconomic imbalances that were exacerbated by external shocks.

Another question that has not been satisfactorily resolved in the literature is whether capital controls have contributed to India's relatively poor growth performance, or to the relatively high volatility of real output (Figure 26 and Table 8). Although there is by now a large body of cross-country empirical research documenting a connection between government involvement in the economy (using measures such as aggregate tax ratios and indices of economic regulation) and long-run economic growth, none of this work has thus far specifically and convincingly

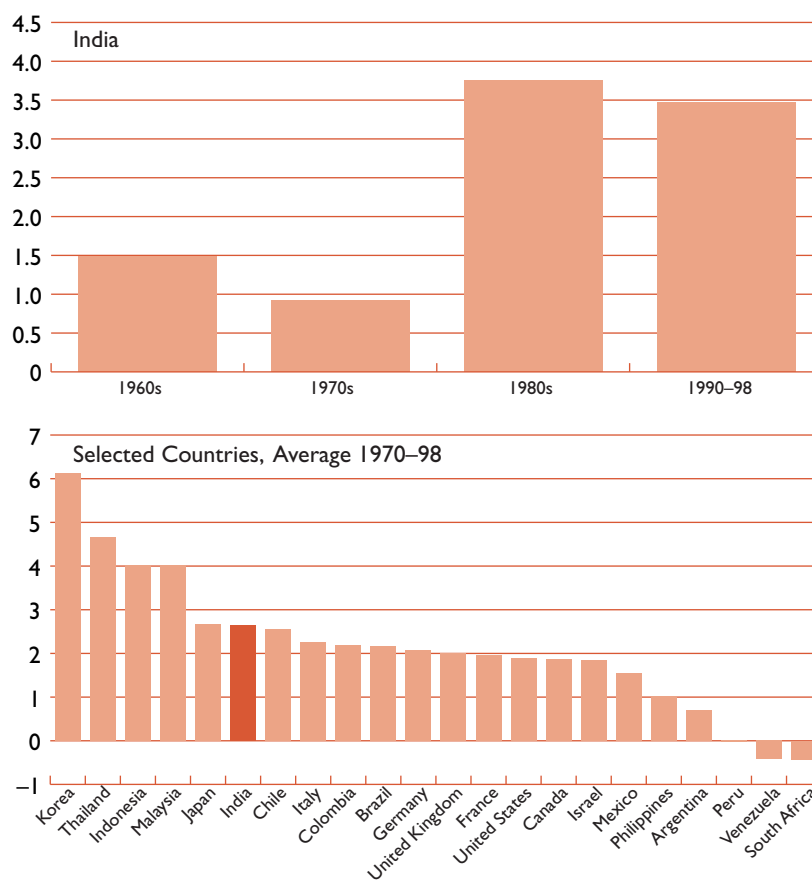
addressed the role of capital controls.⁹³ The following stylized facts are suggestive but hardly conclusive.

- Other Asian economies (Indonesia, Korea, Malaysia, and Thailand) were as poor as India initially, but have grown much faster and now have per capita incomes that are a multiple of India's. By and large, their capital account regime was liberalized earlier and to a greater extent than India's. But India's economy was also more heavily regulated in many other respects.
- Economic growth in India was stronger than its long-run average following the liberalization of the capital account that began in 1990, but it was similarly stronger than average during much of the 1980s, before liberalization of the capital account (and other regulations) began in earnest.
- From a theoretical perspective, access to international capital markets should help to smooth fluctuations in the domestic economy, but it

⁹³The work of Barro and others supports the view that economic liberalization is associated with faster long-run growth of GDP (Barro and Sala-i-Martin, 1995). Some doubt has also been cast on the statistical robustness of the class of result obtained by Barro and others (see Levine and Renelt, 1992).

Figure 26. India: Long-Run Growth in Real GDP Per Capita

(In percent a year)



Source: IMF Data Fund.

Table 8. India: Growth and Variability of Real GDP vis-à-vis Asian economies, 1970-97

	Average	Standard Deviation	Coefficient of Variation ¹
India	4.8	3.3	0.7
Indonesia	6.8	2.4	0.4
Korea	8.1	3.1	0.4
Malaysia	7.4	2.9	0.4
Philippines	3.8	3.8	1.0
Thailand	7.3	2.8	0.4

Source: Economic Data Sharing System.

¹Mean divided by standard deviation.

may also expose a country to financial market instability (including runs and other types of herding behavior by international investors). The volatility of growth in India's economy is, however, primarily attributable to the high share of the agricultural sector, which is sensitive to variations in weather, and there are no studies examining whether capital controls have added to or reduced this volatility.

Conclusions

There are thus three salient points in India's experience with the use of capital controls. First, capital account restrictions are just one element of a larger

and pervasive system of economic regulation and control. Despite the liberalization of recent years, many economic controls remain in place. Trade barriers are still high, a number of difficulties in the largely state-owned banking system remain unresolved, the transition to indirect instruments of monetary control has been hampered by the continuing need to finance large public sector deficits, and restrictions are still in place on many international capital transactions (and even on some current trans-

actions). Second, economic controls—including capital controls—have kept the economy relatively closed and may have protected it from external shocks, such as the Asian crisis, including by limiting external indebtedness. It is, of course, not possible to quantify the specific contribution of capital controls. Third, economic liberalization, including of capital flows, may have contributed to faster economic growth during the 1990s, though this cannot be rigorously established.

Appendix III Malaysia's Experience with the Use of Capital Controls

Inci Ötker-Robe

Malaysia is a highly open economy and has traditionally followed an approach to economic development that included the liberalization of capital movements. The authorities implemented a first round of liberalization of the regulations on foreign exchange transactions after accepting the obligations of Article VIII in November 1968 and floating the ringgit in 1973, and further liberalized capital account controls in 1986–87 and 1994–96 following periodic reviews of exchange control regulations. The liberalization of the capital account was accompanied by measures to deregulate the financial system beginning in the late 1980s: key reforms targeted a gradual liberalization of interest rates, reduction of credit controls, and enhancement of competition and efficiency in the system. Measures were taken to improve the legal and regulatory framework and supervisory practices, and regulations were updated to address prudential concerns, including loan classification, provisioning and disclosure requirements, limits on large exposures, capital adequacy, and bank liquidity. Significant efforts were also made to deepen the financial markets.

Malaysia's process of capital account liberalization was interrupted on two occasions. First, in early 1994, the authorities introduced a number of direct and regulatory controls on portfolio inflows following a period of heavy inflows in 1990–93, in combination with a number of monetary and prudential measures. The controls were intended to be temporary, and were lifted within a period of less than a year, when the authorities considered that the objectives of the controls had been achieved (see Box 8). Second, following a period of strong downward pressures on the ringgit in the context of the Asian financial crisis, the authorities introduced (on September 1, 1998) a wide range of exchange and capital controls along with pegging the exchange rate vis-à-vis the U.S. dollar. The measures aimed at eliminating the offshore ringgit market, which was viewed as the source of the speculative pressures on the ringgit, and imposed restrictions on portfolio transactions. Foreign direct investment flows and current international transactions were

exempted. In February 1999, one aspect of the control package, the prohibition of the repatriation of nonresidents' portfolio capital for 12 months, was replaced with a market-based system of exit levies. The controls were intended to be temporary; however, official statements to date indicate that the prevailing controls would remain in place until stricter curbs were imposed on currency trading in international markets.

This appendix reviews Malaysia's experience with the use of controls on capital outflows in 1997–99, providing information on the objectives, nature, and design of the controls, some evidence on their effectiveness from the perspective of realizing their objectives, as well as the potential costs that may have been associated with their use.⁹⁴

Background Developments Before the Imposition of Outflow Controls in 1998–99

Capital Control Regime Before the 1998 Controls

Malaysia's capital control regime was comparatively liberal prior to the imposition of the outflow controls in 1998–99.

- For a number of years prior to September 1998, cross-border transactions in ringgit had been treated fairly liberally, including the use of ringgit in trade payments and receipts, relatively few restrictions on ringgit financial transactions with nonresidents, and tolerance of offshore over-the-counter trading in equities and bonds listed on the Malaysian exchanges. As a result, an active offshore market in ringgit had developed, mainly in Singapore, with the majority of cross-currency hedging of ringgit taking place

⁹⁴This review is an expanded version of the paper "Use of Capital Controls and Evolution of the Capital Control Regime," IMF (1999d).

Box 8. Malaysia's Experience with the Use of Controls on Capital Inflows¹

From 1990 to 1993, the Malaysian economy recorded unprecedented levels of capital account surpluses, led by both long-term and short-term capital inflows. 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 high interest rate differentials in favor of Malaysia and market expectations of 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 high interest rates to contain inflation on the one hand, and the need to discourage short-term inflows on the other. 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 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 exchange rate flexibility. 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. The authorities resorted to supplementary direct monetary instruments to limit the inflationary consequences of the inflows, including the successive increases in the statutory reserve requirements, as capital inflows remained strong.

Concerned about loss of control on monetary aggregates and inflation and the instability in the financial markets, the authorities introduced a number of direct and market-based capital control measures in January–February 1994, supplemented with some easing of interest rate policy and curtailing of sterilization operations. The measures were specifically designed to limit short-term capital inflows and included (1) the prohibition against residents selling Malaysian money market

securities with less than one year maturity to nonresidents; (2) the curtailing of speculative activities of offshore agents through prohibition of commercial banks to engage in non-trade-related bid-side swap or forward transactions with nonresidents; (3) asymmetric limits on banks' external liability positions with nonresidents excluding trade-related and foreign direct investment flows; and (4) a non-interest-bearing deposit requirement for commercial banks against ringgit funds of foreign banking institutions. Some prudential regulations were also introduced to address the liquidity situation, including a redefinition of banks' eligible liability base to include all inflows of funds from abroad (thereby making such inflows subject to reserve and liquid asset requirements).

The immediate market reaction to the 1994 measures was negative, resulting in a depreciation of the ringgit in the initial months of 1994 and a correction in the stock market. However, the controls were intended to be temporary, adopted to deal with the destabilizing monetary conditions, and the authorities recognized that if such measures remained as a permanent feature in the system, possible market distortions could emerge, resulting in an inefficient allocation of resources (see Willard Working Group 2, 1998). Hence, by the end of 1994 most of these measures were lifted as their objectives were viewed to be realized in terms of containing short-term inflows and monetary expansion, and as the stability in the foreign exchange market was restored after a temporary period of pressures. The prudential measures were maintained. In 1994, broad monetary aggregates decelerated markedly; the capital account surplus declined sharply, reflecting a large reversal in short-term inflows in the second half of 1994 (particularly the new external liabilities of the banking system); and while long-term investment flows were relatively unaffected. Based on available data, the controls therefore seemed effective in reducing the volume, as well as changing the composition of, the capital inflows. However, the narrowing of interest rate differentials (as measured by interbank money market rates) and curtailment of sterilization operations may also have contributed to the slowdown in short-term inflows.

Malaysia's experience is an illustration of the increased complexity of monetary management in an environment with global integration of financial markets and associated increase in capital mobility. The main lessons suggested by Malaysia's experience with the use of inflow controls are (1) the importance of following a consistent set of monetary and exchange rate policy mix in such an environment to avoid excessive and destabilizing capital inflows; and (2) potential effectiveness of recourse to controls on such inflows when such controls are accompanied by the strengthening of the prudential regulations and an appropriate monetary policy response (in this case, allowing interest rate differentials to narrow and curtailing sterilization).

¹This discussion draws extensively on IMF (1995) and Willard Working Group 2 (1998).

in this market rather than onshore. Until 1997, Malaysian banks were unrestricted in providing forward cover against ringgit to nonresidents, thus facilitating arbitrage between the domestic and offshore markets.

- Portfolio capital inflows by nonresidents were also unrestricted into all types of Malaysian financial instruments (bonds, equities, money market, derivative instruments, and bank deposits). Prior to September 1, 1998, there was no restriction for portfolio outflows for corporate residents with no domestic borrowing, while corporate residents with domestic borrowing were required to seek prior approval to remit funds in excess of RM 10 million per corporate group per year for overseas investment, including extension of loans to nonresidents. The primary issue of securities by nonresidents and of securities abroad by residents required approval. No controls applied to extension of suppliers' credits to nonresidents for periods up to six months.
- Borrowing abroad by authorized dealers and Tier I merchant banks, as well as their lending in foreign exchange to residents and nonresidents were unrestricted, subject to certain prudential limits. Many factors have been taken into consideration, including the net open position limits, in determining the prudential limits for banks' exposure to foreign currency loans. Foreign currency borrowing by residents was subject to limits, and amounts above this limit required approval, granted for foreign exchange saving or earning projects.
- Inward foreign direct investment flows were actively encouraged through tax and other incentives, although prior approval was needed for investment in certain sectors. Nonresidents were completely free to repatriate their investments through a system of external accounts. Outward foreign direct investment was not restricted.

Economic and Financial Environment Before the Controls

Malaysia entered the 1997 Asian financial crisis with generally stronger fundamentals than the other Asian crisis economies, but potential vulnerabilities also existed from rapid credit expansion and deterioration in the asset quality of banks. As the onset of the crisis in mid-1997 revealed structural weaknesses in the region's banking systems and resulted in a more general reassessment of regional lending risks, the ringgit came under significant depreciation pressure along with other regional currencies. Much of this pressure occurred through previously unrestricted currency trading in the offshore ringgit

market.⁹⁵ As agents took short positions in ringgit in the expectation of a depreciation, offshore ringgit interest rates increased relative to domestic interest rates and resulted in capital outflows, amounting to about RM 24.6 billion in the second and third quarter of 1997.

In an attempt to break the link between the domestic and offshore interest rates, in early August 1997 the authorities imposed limits on banks' non-commercial-related offer-side swap transactions with nonresidents; the limits excluded hedging requirements of foreigners for trade-related transactions and genuine portfolio and foreign direct investments. As a result, wide spreads emerged between domestic and offshore interest rates.⁹⁶ However, the breaking of the direct arbitrage link did not prevent outflows, which occurred through various legal channels to take advantage of the large offshore/onshore interest differentials created by the swap limits.⁹⁷ The flow of ringgit funds from the onshore to the offshore market resulted in an increase in domestic interest rates (see Figure 27), which contributed to the acceleration of economic contraction and aggravated the difficulties in the corporate and banking sectors. The economy contracted by 4.8 percent in the first half of 1998, and initial estimates indicated that nonperforming loans in the banking system could be as high as 25 percent of total loans.

The September 1998 Exchange and Capital Control Measures

Objectives and Design of the September Measures

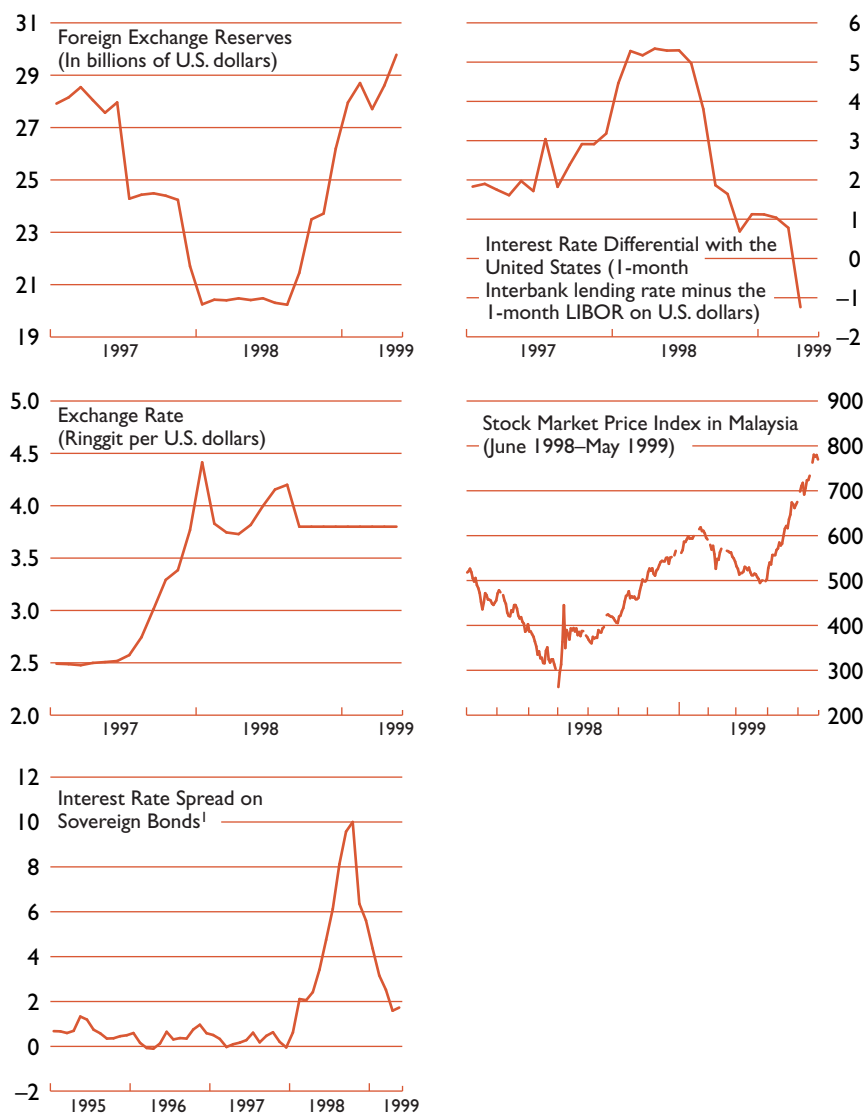
After substantial capital outflows had already taken place and reserves had stabilized at a lower level, the authorities introduced on September 1, 1998, a wide range of direct capital and exchange controls (see Table 9 for details). The main objective of the measures was to regain monetary policy independence by containing speculation on the ring-

⁹⁵The size of the offshore market is believed to be some multiple of the underlying stock of ringgit offshore, as reflected in the External Account balances held by nonresidents with resident banks, which amounted to about RM 9.1 billion at end-August 1998 (see Bank Negara Malaysia, 1998, p. 70).

⁹⁶As of August 1998, the offshore ringgit market was offering deposit interest rates exceeding 20–40 percent compared with 11 percent in Malaysian banks; by that time, the ringgit had depreciated to around RM 4.20 per U.S. dollar from around RM 3.75 in April 1998.

⁹⁷These channels included transfers of nonresident deposits in Malaysia to offshore banks, and portfolio outflows by residents. The net outflow of portfolio capital was RM 5.5 billion in the last quarter of 1997.

Figure 27. Malaysia: Various Indicators of Market Reaction to Exchange and Capital Controls



Sources: Data provided by the Malaysian authorities; IMF staff estimates; and Bloomberg.

¹Interpolated yield on Malaysian Yankee bonds with maturity date 9/27/2000 minus the yield on U.S. treasury bonds with maturity date 8/15/2000.

git through the elimination of the offshore ringgit market and to stabilize short-term capital flows. Underlying this were concerns that interest rates would have to be kept high for prolonged periods that would be harmful for the economy and the financial condition of the banking institutions. The introduc-

tion of the controls was accompanied by the pegging of the ringgit at RM 3.80 per U.S. dollar, following a period of managing its float since July 1997; an immediate further cut in interest rates and easing of credit policy; and a continuation of an easier fiscal policy stance that had been adopted in

Table 9. Malaysia: Capital and Exchange Control Measures in 1997–99

Measure	Motivation
<p>August 4, 1997: Controls were imposed on banks to limit outstanding noncommercial-related ringgit offer-side swap transactions (i.e., forward order/spot purchases of ringgit by foreign customers) to \$2 million per foreign customer (hedging requirements of foreigners for trade related and genuine portfolio and foreign direct investments were excluded).</p>	To delink the offshore ringgit market from its onshore counterpart and reduce the upward pressure on domestic onshore interest rates.
<p>September 1, 1998: A number of selective exchange control measures were introduced, including the following.</p> <ul style="list-style-type: none"> A requirement was introduced to repatriate all ringgit held offshore (including ringgit deposits in overseas banks) by 10/1/98 (Bank Negara Malaysia approval thereafter); approval requirement was imposed to transfer funds between external accounts (freely allowed previously); and licensed offshore banks were prohibited to trade in ringgit assets (allowed up to permitted limits before). A limit was introduced on exports and imports of ringgit by resident and nonresident travelers, effective 10/1/99 (no limits existed before). Residents were prohibited from granting ringgit credit facilities to nonresident corresponding banks and stockbroking companies (subject to a limit previously). Residents were prohibited from obtaining ringgit credit facilities from nonresidents (subject to limits previously). All imports and exports were required to be settled in foreign currency. Malaysian banks were prohibited from conducting transactions in offer-side swaps with nonresident banks (effectively reducing the previous swap limit to zero), and from engaging in reverse repo transactions collateralized by ringgit instruments with nonresident banks. All purchases and sales of ringgit financial assets can only be transacted through authorized depository institutions; trading in Malaysian shares on Singapore's Central Limit Order Book over-the-counter market became de facto prohibited as a result of a strict enforcement of the existing law requiring Malaysian shares to be registered in the Kuala Lumpur Stock Exchange and other authorized trades prior to trade. 	Aimed specifically at eliminating the offshore ringgit market and restricting the supply of ringgit to speculators that can be used to take positions against the ringgit.
<p>September 1, 1998: A number of additional measures were introduced, including the following.</p> <ul style="list-style-type: none"> Approval requirement for nonresidents to convert the ringgit held in external accounts into foreign currency, except for purchases of ringgit assets (no such restrictions previously). A 12-month waiting period (from September 1, 1998 or the date of entry of funds, whichever comes later) for nonresidents to convert ringgit proceeds from the sale of Malaysian securities held in external accounts (excludes foreign direct investment flows, repatriation of interest, dividends, fees, commissions, and rental income from portfolio investment). There were no such restrictions previously. A prior approval requirement beyond a certain limit for all residents to invest abroad in any form (previously applied only to corporate residents with domestic borrowing). A specific limit on exports of foreign currency by residents and up to the amount brought into Malaysia for nonresidents (previously, export of foreign currency required approval with no specific limit). 	Aimed at preventing heavy capital outflows by residents and nonresidents.
<p>February 15, 1999: The 12-month holding period rule for repatriation of portfolio capital was replaced with the following.</p> <ul style="list-style-type: none"> A graduated system of exit levy on repatriation of the principal of capital investments (in shares, bonds, and other financial instruments, except property investments) made prior to 2/15/99, with the levy decreasing in the duration of investment, and thus penalizing earlier repatriations (the levy is 30 percent if repatriated in less than 7 months after the date of entry (or September 1, 1998, whichever comes later), 20 percent if in 7–9 months, and 10 percent if 9–12 months); no levy on principal if repatriated after 12 months and no levy on profits, interest, dividend, or rental income; A graduated exit levy on the repatriation of the profits from investments made after 2/15/99 in shares, bonds, and other financial instruments, except property investments, with the levy decreasing in the duration of investment; no levy on principal and no levy on interest, dividend, or rental income (the levy is 30 percent if repatriated in less than 12 months after the investment was made and 10 percent if repatriated after 12 months). 	To encourage existing portfolio investors to take a longer-term view of their investments in Malaysia, attract new funds to the country, discourage destabilizing short-term flows, and allow for a smoother outflow of funds.
<p>February 18, 1999 and April 5, 1999: Property investments and investors in MESDAQ (where growth and technology shares are listed) were exempted from the exit levy.</p>	To exclude from the controls certain types of investments that are either difficult to liquidate or resemble foreign direct investments.

early 1998 toward the objective of stimulating economic activity. The authorities also accelerated financial and corporate sector reforms that had commenced in early 1998 to deal with the weak financial institutions and to heighten the resilience of the banking system. In particular, they strengthened the supervision of the financial institutions and updated various prudential regulations for the banking system, including to incorporate market, credit, and off-balance-sheet risks involved in capital account transactions.

The control measures were specifically designed to limit the internationalization of the ringgit, by eliminating access to ringgit by speculators both onshore and offshore, as well as to stabilize the impact of short-term capital flows. The measures were wide-ranging in that they eliminated practically all previously unrestricted channels for the transfer of ringgit abroad, including, *inter alia*, through restrictions on transfers between external accounts of nonresidents, ringgit credit facilities between residents and nonresidents, use of ringgit in settling trade transactions, exports and imports of ringgit, and trading of ringgit assets offshore. The previous swap limits were reduced to zero, effectively prohibiting any such transactions with nonresidents. The controls also required the repatriation of ringgit held offshore to Malaysia by end-September 1998; blocked the repatriation of portfolio capital held by nonresidents in Malaysia for a 12-month period; and imposed tight limits on transfers of capital abroad by residents.

These exchange and capital restrictions were supported by additional measures to eliminate other potential loopholes, including amendment of the Companies Act to limit distribution of dividends, which were not subject to the controls; effective closing of the over-the-counter offshore market (the so-called Central Limit Order Book) in Malaysian equities; and announcement of the demonetization of large denomination ringgit notes (made effective in July 1999) to prevent large sums of ringgit from being easily taken offshore. The authorities stressed that payments and transfers for current international transactions and foreign direct investment were not subject to restrictions, provided that appropriate documentary evidence is presented. Commercial banks, which were delegated the responsibility to implement the exchange controls, were required to ask for documentary evidence for the types of transactions they approved and to report to Bank Negara Malaysia on a frequent basis. Even though no explicit penalties were established for the circumvention of the controls, the authorities closely monitored the activities of the commercial banks and at times exercised moral suasion to ensure enforcement of the regulations.

Effectiveness of the September Measures

Available evidence suggest that the controls have so far been effective in achieving the objective of eliminating the offshore ringgit market (see Bank Negara Malaysia, 1998). Among the various measures introduced, the restrictions on the internationalization of the ringgit are believed to be the most instrumental. In particular, the freezing of the external accounts, which prevented ringgit funds from being transferred from one account to the other and from being used to settle transactions or lend to other nonresidents effectively eliminated offshore ringgit trading and constrained nonresidents' access to ringgit funds. The 12-month holding period rule for repatriation of portfolio capital, as well as the restrictions imposed on residents' outward investments, seemed helpful in containing the potential outflows.

The effectiveness of the controls was also evident in the absence of speculative pressures on the ringgit since the controls were introduced and the ringgit was pegged, notwithstanding the significant relaxation of monetary and fiscal policies. Significant indications of the emergence of a parallel market were absent (initial indications of black market activity developing in the cash market apparently subsided once market participants realized that there were adequate reserves to meet their needs); there was also no significant evidence of the emergence of a non-deliverable forward market,⁹⁸ only a few reports of efforts to evade controls,⁹⁹ and no indications of circumvention through underinvoicing of exports or overinvoicing of imports.¹⁰⁰

The overall balance of payments continued to strengthen, reflecting a steeper decline in imports than in exports, in view of the real depreciation of the ringgit and weak domestic demand. Net portfolio capital outflows were contained and foreign exchange reserves continued to increase (Figure 27), though it should also be kept in mind that substantial amounts of capital outflows had already taken place prior to the imposition of the controls, and reserves

⁹⁸Some market reports indicated that occasional bilateral trades were made based on RM 3.80 per U.S. dollar as spot, but the trading volumes were too small to constitute a market. Anecdotal evidence suggests that difficulties in finding an onshore counterparty to execute the operation prevented the development of such a market.

⁹⁹One such incident took place through swaps of portfolio investment for foreign direct investment among market participants; this transaction was approved by Bank Negara Malaysia.

¹⁰⁰Based on a comparison of the value of Malaysia's exports to its three largest trading partners against the value of the trading partners' imports from Malaysia, a Morgan Stanley report found no signs of misinvoicing of external trade to circumvent the controls; the study attributed the lack of such circumvention primarily to the ringgit's undervaluation.

had stabilized.¹⁰¹ However, realized net private foreign direct investment and new commitments fell in 1998, and continued to remain very weak in 1999.¹⁰² In the meantime, the authorities have pressed ahead with bank and corporate sector restructuring. The reduction in interest rates that accompanied the controls are believed to have helped to contain the increase in nonperforming loans of the banking system.¹⁰³ Also, the overall process of cleaning up the bad loans and recapitalizing the banking sector through Danaharta (the Asset Management Company, which is in charge of cleaning up nonperforming loans of the financial institutions) and Danamodal (the recapitalization agency) appears to compare favorably with efforts elsewhere in the region, with some positive results already achieved. There is, however, a need to speed up corporate restructuring. Moreover, despite the significant decline in interest rates and the increase in financial sector liquidity, bank lending growth remained subdued, and real GDP contracted by 6.7 percent in 1998, owing to sharp falls in investment and, to a lesser extent, in consumption, compared with the 7.7 percent growth in 1997.

The containment of the capital outflows following the September measures seems to reflect a combination of factors. The first group of factors relates to the design and implementation of the control measures, which effectively eliminated the offshore trading in ringgit as a potential source of speculative pressure. These factors included (1) the wide-ranging nature of the controls that has covered es-

entially all the potential loopholes in the system; (2) strict implementation and enforcement of the measures by Bank Negara Malaysia and a disciplined banking system, which strictly interpreted the measures and has not sought out potential loopholes; and (3) Bank Negara Malaysia's efforts to disseminate information on the nature of the exchange control rules to promote greater transparency and understanding of the measures. The containment of capital outflows has also reflected a number of factors that, in effect, reduced the incentives for circumvention compared with the cost of doing so. These include (1) the adequacy of foreign exchange reserves; (2) the timing and the circumstances under which the capital controls had been adopted (in particular, relatively strong fundamentals of the Malaysian economy); (3) acceleration of macroeconomic and financial reform efforts, which has given credibility to Malaysia's overall policy agenda; (4) ex post undervaluation of the ringgit following its fixing at RM 3.8 per dollar as other regional currencies started to appreciate around the time the ringgit was pegged; and (5) return of investor confidence to the region in general.

Costs and Benefits Associated with the Controls

The control measures appear to have been beneficial in helping to contain capital outflows, and thus in buying the authorities time in which to implement more fundamental policy reforms, including the correction of macroeconomic imbalances and acceleration of the bank and corporate restructuring programs. Progress made so far in bank and corporate restructuring programs also contributed to the improvement in investor sentiment toward Malaysia. Moreover, rapid cuts in interest rates (though not as dramatic as in the other Asian crisis countries) and relative exchange rate stability, made possible, in part, by the existence of the controls, were generally viewed positively by domestic businesses, which increased the acceptability of the controls, as it reportedly made it easier for businesses to plan ahead revenues and costs, and helped prevent further erosion in repayment capacity.¹⁰⁴

At the same time, however, there were initially adverse external reactions to the September measures, which were suggestive of the weakening of investor and market confidence in Malaysia. Reflecting this reaction:

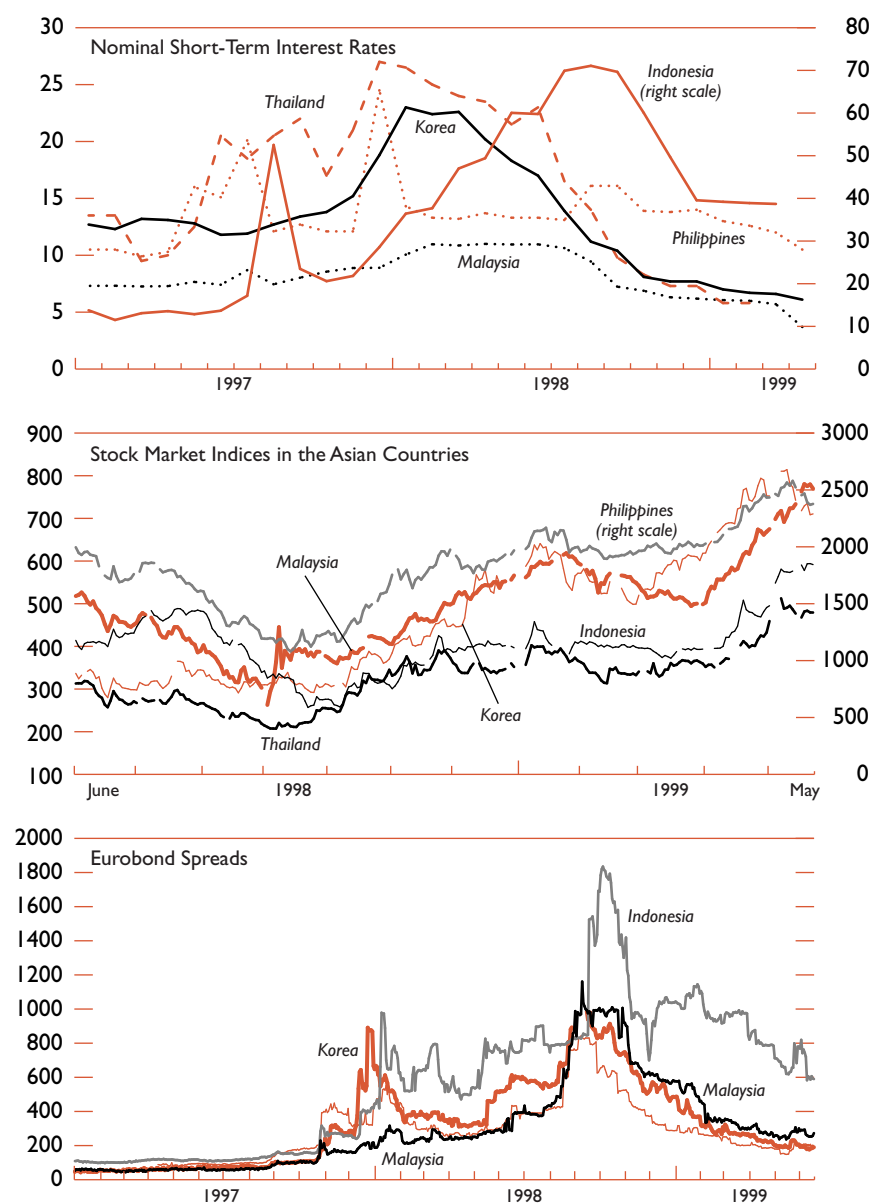
¹⁰¹The short-term capital account recorded a substantial net outflow of capital overall in 1998 (RM 21.7 billion, compared with a net outflow of RM 11.3 billion in 1997 and a net inflow of RM 10.3 billion in 1996), reflecting the large portfolio outflows in the second and third quarters of 1998, but short-term outflows stabilized in the last quarter, following the implementation of the 12-month holding period for portfolio investment effective from September 1998 (Bank Negara Malaysia, 1998). Moreover, net outflows from overseas investment by Malaysian companies also declined (to RM 1.3 billion in 1998 from RM 8.2 billion in 1997), reflecting a slowdown in economic activity and uncertainty in the region, as well as the government directive to defer overseas investments that did not have direct linkages with the domestic economy, and the tightening of the exchange control regulations on overseas investments of residents since September 1998.

¹⁰²Preliminary data indicate that foreign direct investment approved by the government in the first quarter of 1999 amounted to RM 1.3 billion, compared with RM 12.9 billion in 1998, and the value of foreign direct investment applications totaled RM 991 million in the first quarter of 1999, compared with RM 12.7 billion in 1998 and RM 14.5 billion in 1997.

¹⁰³In its most recent upgrading of Malaysia's credit outlook, Standard&Poor's indicated that if the interest rates had not been cut sharply in the last six months, nonperforming loans could have risen to above 30 percent of total loans, computed on a three-month basis.

¹⁰⁴The general improvement in market sentiment toward Asia has also contributed to lower interest rates and appreciating currencies.

Figure 28. Selected Comparative Financial Indicators in the Asian Countries



Sources: APD Database and Bloomberg.

- The stock market initially fell by 13.3 percent, to its lowest level in 1998, but rose subsequently (Figure 28) against the background of purchases by state-controlled institutional

funds, investments by nonresident investors that had their funds blocked in Malaysia, and an improvement in confidence in the region more generally.

- Several rating agencies downgraded Malaysia's credit and sovereign risk ratings immediately following the measures (e.g., Moody's Investor Service, Thompson Bank Watch, and Fitch IBCA), citing concerns that the controls threatened Malaysia's relative openness to trade and foreign investment, which was one of the cornerstones of its rapid economic development.
- Malaysia was removed from key investment indices that track emerging country stock markets and that are used as investment benchmarks for fund managers (the investment and capital indices of IFC, Morgan Stanley (MSCI) and FT-S&P) for reasons that included lack of liquidity of investments in Malaysian instruments.
- Malaysia's risk premium in international markets also increased (as suggested by the increase in sovereign bond yield spreads), raising the costs of foreign currency funding to Malaysian corporations and banks. Prior to September 1998, Malaysia's spread was moving very closely with the other Asian crisis countries, and was consistently lower than the others in the period from November 1997 to about mid-1998. While the spreads on all emerging market debts increased in August 1998 following the Russian default, those on Malaysian obligations rose further in September following the implementation of capital controls (see Figure 28) and remained consistently above those of Korea and Thailand since then.
- Although current international transactions were excluded from the controls, because of ambiguities in the nature of the announced controls the IMF conducted an immediate on-site review to determine whether the measures were in conformity with Malaysia's obligations under Article VIII, Sections 2, 3, and 4 of the IMF's Articles of Agreement; the measures were found to be in conformity with the Articles, but their implementation would need to be kept under review. Similarly, although foreign direct investments were not subject to the controls, there was considerable initial uncertainty about the coverage and impact of the measures, which caused foreign direct investors to adopt a cautious attitude toward new investment in Malaysia (Bank Negara Malaysia, 1998, p. 54).¹⁰⁵

On the domestic front, there was also some initial confusion about the precise nature of the measures, in part reflecting the very short time within which

the implementation regulations and notices had to be prepared. To address such concerns, the Bank Negara Malaysia met with investors and provided seminars on the new controls and subsequently issued many clarifications and press releases that were later compiled and published in "A Guide to the Exchange Control Rules," with illustrative examples on how the rules apply. Although these efforts have been effective and contributed to the domestic acceptability of the control measures, they also imposed a significant administrative burden on all parties involved—that is, the Bank Negara Malaysia; traders and investors, who had to supply necessary documentation and proof to execute their bona fide transactions; and the authorized banks, who were delegated the responsibility to implement the controls and had to report to Bank Negara Malaysia on a frequent basis, while they were also carrying out bank restructuring efforts. Activity in the spot and swap currency markets and the future markets also declined sharply,¹⁰⁶ reflecting both the fixing of the exchange rate and limitations imposed on forward transactions. Finding nonresident counterparties to hedge longer-term currency risks became more difficult after the imposition of the controls (particularly those on the ringgit's internationalization).

February 1999 Modification of Capital Controls: The Exit Levy System

The authorities made some adjustments in the exchange control regulations in February 1999, against the background of the continued weakness in foreign investor confidence. They replaced the outright prohibition of repatriation of portfolio investment for a 12-month holding period with a market-based measure of a system of exit levies, effective from February 15, 1999. The objective of the exit levy system was stated to be to encourage "existing portfolio investors to take a longer view of their investments in Malaysia, and attract new funds into the country, while at the same time discouraging destabilizing short-term flows." In addition, "the rule was designed to allow a smoother outflow of funds, rather than a sudden and massive outflow upon the expiry of the one-year holding period" (in September 1999).¹⁰⁷

¹⁰⁵The weakness of foreign direct investment also reflected domestic problems in the major investing countries, global excess capacity, and continuing uncertainty in the region in 1998.

¹⁰⁶The monthly volume of total transactions in the foreign currency spot and swap markets declined from an average of RM 73.8 billion in January–August 1998 to RM 28.4 billion in the last four months of 1998 (RM 115.8 billion in the same period in 1997).

¹⁰⁷See Bank Negara Malaysia (1998), p. 65.

Design of the Exit Levy

Malaysia's exit levy system is a graduated system of levies applied at the time of the conversion of ringgit proceeds from the sale of portfolio investments into foreign exchange, with the size of the levy decreasing over the duration of investment in Malaysia.¹⁰⁸ It is a price-based control that attempts to discourage portfolio outflows without explicitly prohibiting them, and the graduated nature of the levy attempts to punish earlier repatriations more heavily. Under this system, depending on when the funds are brought in, the principal or the profits of portfolio investments would be allowed to be repatriated subject to a graduated levy (that is, a higher levy for earlier repatriations). The system makes a distinction between investments brought in before and after a given cutoff date, February 15, 1999.

1. For capital brought in *before February 15, 1999*, the one-year holding period restriction on the repatriation of portfolio investment was replaced with a declining scale of exit levies on the repatriation of the principal of the investments (with the levy declining successively from 30 percent to 20 percent, 10 percent, and zero percent, depending on whether the principal is repatriated in less than 7 months, in 7–9 months, in 9–12 months, or after 12 months, respectively, after the effective date of entry into Malaysia).¹⁰⁹
2. For capital brought in *after February 15, 1999*, the repatriation of profits, but not the principal, would be subject to one of two rates of exit levies, 10 percent or 30 percent, depending on whether the investment stayed in Malaysia more or less than 12 months, respectively.

To distinguish between the different periods when the funds were brought in, the authorities required those funds that were brought in on or after February 15, 1999, to be placed in Special External Accounts. The authorized banks implementing the regulations were asked to closely monitor and report to Bank Negara Malaysia the amounts and movements of funds in these accounts and to require applicants who wish to repatriate their investments to submit detailed forms and corresponding documents, in-

¹⁰⁸The levy is collected by authorized dealers in foreign currencies and permitted merchant banks and deposited into the consolidated federal account as provided by the Exchange Control Act of 1953. The levy is applied at the time of the conversion of ringgit into foreign exchange and is thus not considered a capital gains tax that can be offset through double taxation agreements.

¹⁰⁹The effective date of entry is September 1, 1998, or the actual date of entry, whichever comes later. If the investment had been made after a 12-month holding period from when the funds were brought in, the repatriation of profit would also be subject to a 10 percent levy, regardless of when it is repatriated.

cluding to indicate the time of entry and exit and the specific types and nature of their investments, in order to calculate the appropriate levy.

The design of the exit levy on profits implies that the levy has the potential to discourage both short-term portfolio inflows and outflows. Although the levy explicitly taxes the outflow, while leaving inflows unrestricted, it may also serve to implicitly tax and thus discourage portfolio inflows, as the foreign investor would take into consideration, before bringing his funds to Malaysia, the levy that he would have to pay upon repatriating the proceeds. Since the levy is graduated (i.e., the higher the levy, the earlier the exit), it would also discourage short-term investors, who would factor in a higher levy in their investment decisions.

The design of the levy on profits also implies that the levy would impact mainly on portfolio equity investments in the Kuala Lumpur Stock Exchange, since the exchange control regulations define profits to exclude dividends, interest earned, and rental income, and give certain exemptions with regard to repatriation of funds relating to investment in immovable property (which is already subject to a capital gains tax and viewed as difficult to liquidate quickly), foreign direct investments, transactions in the financial futures exchanges, and investments in companies listed in the newly established over-the-counter share market, MESDAQ (which are viewed as having similar characteristics to foreign direct investment).

Effectiveness of the Exit Levy and Associated Benefits and Costs

The replacement of the 12-month rule with the graduated levy on the repatriation of principal of investments has been viewed by many market participants as a positive development, since it makes it possible to withdraw funds before the end of the 12-month holding period, albeit at a price that punishes earlier repatriations. Moreover, the graduated nature of the levy provides some scope for phasing this repatriation, as the high rates of the levy may limit the extent to which investors take advantage of the freedom to repatriate. Available evidence suggests that despite the high levy of 30 percent on early repatriations of investments, some fund managers promptly liquidated part or all of their holdings on the Kuala Lumpur Stock Exchange in the days following the announcement, which led to a sharp fall in stock prices.¹¹⁰

¹¹⁰The total amount of outflows since then has been limited to RM 154 million through April 21, 1999 (\$40 million at the fixed exchange rate, compared with the estimated amount of \$10–\$15 billion that had been blocked by the 12-month rule).

Notwithstanding this initial reaction and an initial period of market confusion about the nature and extent of the new rules, there have been some indications that the replacement of the 12-month rule with the graduated levy on capital repatriation has contributed to an improvement in investor confidence. Preliminary data indicate that between the introduction of the levy and mid-June 1999, the net total inflow of capital through the Special External Accounts of nonresidents amounted to RM 2.9 billion compared with the net inflow of RM 18.5 million as of March 10 this year (also see Figures 27 and 28).¹¹¹ In addition, as a result of the introduction of the exit levy, IFC announced plans to reinstate Malaysian equities in its capital index (in November 1999), and discussions with Morgan Stanley were in progress on the reinclusion of Malaysian equities in their emerging market index.¹¹² In upgrading Malaysia's international credit ratings in April 1999, the rating agencies also cited the changes in these controls.

Countering these developments, however, some concerns were also expressed about the levy on the repatriation of profits.

- The degree of protection provided by the levy against volatile capital flows appeared limited. Since the levy does not apply to interest payments and dividends, it affects primarily capital gains on equity investments; other forms of portfolio capital flows would be less affected (including nonresident investments in short-term instruments, bank deposits, bonds, derivatives, and property investments), since a larger element of the profits on such investments reflects interest payments. The levy would also not add much to reduce volatility in the stock market, since it does not involve any procedures to reduce the buying and selling of shares for ringgit.

¹¹¹The cumulative amount of net portfolio inflows between February 15 and mid-July 1999 reached RM 4.7 billion but fell to 4.16 billion as of August 11, according to the National Economic Action Council; many investors apparently expect foreign investors to repatriate their funds before September 1, when the prevailing 10 percent tax on repatriation of principal ends.

¹¹²Morgan Stanley has announced, however, that Malaysia has been taken out permanently from its developed country stock index, where its previous inclusion was seen as an aberration. This may have a permanent effect on volume of foreign equity investment in Malaysia, even when Malaysia is reinstated in the emerging markets index. Following its initial decision not to reinstate Malaysia in its emerging markets index, in its review in mid-1999, Morgan Stanley announced on August 12, 1999, that it would reinstate the country into its benchmark investment indices in February 2000, if the process of liberalization of the financial system is not delayed or reversed; Malaysia's weighting in the indices, however, will be lower than its weight before it was excluded from the index last year.

- The levy seems to be intended to discourage portfolio investors more generally, including genuine portfolio investments (the stated objective is to change the maturity composition of the flows) since the 10 percent levy would still apply to repatriation of profits even if the investment is held longer than 12 months.
- The levy may have added an additional degree of administrative complexity to investing in Malaysia. While the controls are focused on portfolio investments and exempt foreign direct investment flows, the additional administrative complexities of the exchange control system may have adverse effects on all types of foreign investment flows, including foreign direct investment. The continued weakness in foreign direct investment flows into Malaysia in the first quarter of 1999, as well as some indications of disinvestment by several companies provide support for this view (see *Oxford Analytica* (1999), and footnote 102 above).
- The levy might have also raised the cost of capital in Malaysia, since it reduces the expected rates of return on equity to foreign investors and thus raises the rates of return that must be offered by investments in Malaysia relative to other markets. Similarly, Malaysia's risk premium in international markets remained high relative to some of the other Asian countries; and the interest rate spread on the recent sovereign bond issue by Malaysia was somewhat larger than those of Korea and Thailand.¹¹³
- Moreover, the ongoing need for monitoring inflows, as well as the complexity of the technical procedures for implementing the levy, imposed a significant administrative burden on all the parties involved.

Conclusions

It is difficult to disentangle the impact of Malaysia's capital controls from broader international and regional developments, as the pattern of economic performance in Malaysia since the emergence 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 realizing their intended objective of reducing the ringgit's internationalization and help-

¹¹³Similar concerns have been recently voiced by a prominent academic, Merton Miller (July 9, 1999), that the controls "were actually harmful to Malaysia and its citizens" and led to higher interest rates on dollar borrowings as well as higher costs in attracting equity funds to Malaysia.

ing to contain capital outflows by eliminating the offshore ringgit market and by restricting the outflows of capital by residents and nonresidents. The wide-ranging nature, and strict enforcement, of the controls prior to the partial relaxation of the control regime in early 1999 certainly played a role. However, the ex post undervaluation of the ringgit relative to other regional currencies, the return of international investor confidence to the region as well as to Malaysia following indications of better economic growth prospects, and particularly the prudent macroeconomic policies and rapid progress in the financial sector reforms, were also important in reducing pressures for capital outflows.

The comparatively positive results achieved so far also do not seem to have come without costs. These include, in particular, (1) the significantly negative reactions from the international financial community and the subsequent decline in investor confidence; (2) a rise in Malaysia's risk premium, which has increased the cost of funding from foreign sources; (3) a fall in net foreign direct investment inflows, de-

spite their exemption from the controls and the relatively strong position of Malaysia on entering the regional financial crisis; (4) the administrative burden that the implementation of the controls has imposed on all parties involved; and (5) the decline in the activity in spot, forward, and futures markets that may have limited hedging and risk management by market participants.

It is also important to resist the temptation to draw firm conclusions from Malaysia's experience with the use of controls on capital outflows, not least because of the difficulty in separating the impact of the controls from that of the accompanying macroeconomic and financial sector reforms, as well as from the broader international and regional developments. The full impact of the controls would have to be assessed when the controls are put to the test following the anniversary of the 12-month period in September 1999, after which the repatriation of portfolio capital will become unrestricted, and when market expectations regarding the ringgit's future value begin to change.

Table A4. China: Selected Economic Indicators

	1990	1991	1992	1993	1994	1995	1996	1997	1998
	(In percent of GDP)								
Current account balance	3.1	3.3	1.3	-1.9	1.3	1.3	0.9	3.8	3.4
Financial account balance	-2.3	-1.6	0.4	3.6	0.4	2.3	1.0	-1.4	-1.3
Net private capital flows excluding reserves	0.8	1.7	-0.7	3.3	4.6	4.9	4.6	2.9	-1.2
Direct investment in reporting economy	0.9	1.1	2.3	4.6	6.2	5.1	4.9	4.9	4.6
Net portfolio flows, with errors and omissions	-0.9	-1.6	-1.7	-1.2	-1.0	-3.5	-1.7	-1.7	-2.5
General government balance	-2.0	-2.2	-2.3	-2.0	-2.7	-2.1	-1.7	-1.8	-3.0
	(In billions of U.S. dollars)								
Current account balance	12.0	13.3	6.4	-11.6	6.9	8.8	7.3	34.7	32.6
Financial account balance	-8.8	-6.5	1.8	21.7	2.2	16.2	8.4	-12.8	-12.7
Net private capital flows excluding reserves	3.1	6.8	-3.6	19.5	25.0	34.2	38.1	25.9	-11.9
Direct investment in reporting economy	3.5	4.4	11.2	27.5	33.8	35.8	40.2	44.2	43.8
Net portfolio flows, with errors and omissions	-3.4	-6.5	-8.3	-7.0	-5.6	-24.2	-13.9	-15.1	-23.6
	(Annual percentage change)								
Real GDP	3.8	9.2	14.2	13.5	12.6	10.5	9.6	8.8	7.8
Consumer prices (e.o.p.)	4.3	4.5	8.8	18.8	25.5	10.1	7.0	0.4	-1.0
Reserve money (e.o.p.)	30.1	24.2	16.3	42.5	31.0	20.6	29.5	13.9	2.3
Broad money (e.o.p.)	28.9	26.7	30.8	42.8	35.1	29.5	25.3	17.3	15.3
Nominal exchange rate (e.o.p.) ¹	10.6	4.1	5.8	0.8	45.6	-1.5	-0.2	-0.2	-0.0
Real effective exchange rate (e.o.p.) ²	-16.9	-5.8	-13.0	-0.9	9.9	6.3	5.4	11.6	-8.7
	(In percent)								
Interest rate differential ³	1.6	2.0	3.9	6.4	6.4	5.1	3.7	1.4	-0.5
Depreciation-adjusted ³	-7.5	-2.4	0.0	-17.0	10.5	6.8	4.4	1.8	-0.4

Sources: IMF (WEO, IFS, INS, and staff estimates); and country authorities.

¹Domestic currency units per U.S. dollar.

²Increase means an appreciation. Revised weights.

³Difference between domestic currency-denominated deposit interest rates in China and those in the reference country, United States (yearly average). See Figures 8 and 17 for details.

