

---

# Capital Control : An Experience of India, Thailand and Malaysia

Chand Tandon\*

## Abstract:

*A very large variety of controls are used by developing countries to restrict and regulate the movement of capital which allows agents to reap the advantages of diversification of assets in the financial and real sectors. This article discusses in brief the classification of controls like , dual (two-tier) or multiple exchange rate systems, Explicit taxation of cross-border flows, Indirect taxation of cross-border flows, in the form of non-interest bearing compulsory reserve/ deposit requirements and other regulatory controls and then carries out a comparative analysis' of these controls in the countries . We also discuss when and What Type of Controls are Effective, Crises, and the Lessons from Experience of countries like Thailand India and Malaysia.*

## 1.0 Introduction

Today there is a substantial controversy about the role of capital controls. Prior to the Asian Crises in 1997, the predominant view among economists was that controls on capital flows were generally bad. After the crises, there has been more disagreement about the role of capital controls. Many blamed capital mobility rather than national policies for the crises. During the 1997 crises, India and China were largely left untouched and some argued this was because they had substantial controls.

Developing countries by and large use a variety of controls to restrict and regulate the movement of capital. It is meaningful to segregate controls with the objectives to which they assigned. Controls can be targeted to deal with balance of payments

pressures and macroeconomic disturbances generated by volatile capital flows or can be designed to prevent flows from disrupting stabilization and structural reforms. Controls can be put into place to ensure that domestic saving is used to finance domestic investment and to limit foreign ownership of domestic factors of production and may also targeted to enhance the authorities ability to tax domestic financial activities and wealth.

**\*Dr Chand Tandon**  
Asstt Prof. (Finance)  
New Delhi Institute of Management  
E-mail: [chandtandon@gmail.com](mailto:chandtandon@gmail.com)

### Classification of countries' capital controls with year of implementing

Capital Inflows	Capital Outflows	Part of framework of control
Brazil (93-97)	Malaysia (98-06)	China
Chile (91-98)	Romania (96)	India
Colombia (93-98)	Russia (98-99)	Vietnam
Malaysia (94)	Spain (92)	
Thailand (95-97)	Thailand (97-98) Venezuela (94-96)	

Above Table depicts the years in which the capital control was implemented in various countries and the framework of control introduced mainly from the part of China, India and Vietnam

#### 2.0 Capital Controls: Prudence vs. Control

The capital account liberalization primarily aims at liberalizing controls that hinder the international diversification of domestic savings in a portfolio of home assets and foreign assets and allows agents to reap the advantages of diversification of assets in the financial and real sector.

A working definition of capital account convertibility (CAC) is 'the freedom to convert local financial assets into foreign financial assets and vice versa at market determined rates of exchange. It is associated with changes of ownership in foreign/domestic financial assets and liabilities and embodies the creation and liquidation of claims on, or by the rest of the world. CAC can be, and is, coexistent with restrictions other than on external payments. It also does not preclude the imposition of monetary/fiscal measures relating to foreign exchange transactions which are of a prudential nature.

As the definition indicates, capital account convertibility is compatible with prudential restrictions. Temporary measures to insulate an economy from macroeconomic disturbances caused by volatile capital flows are in accord with an open capital account.

It aims at allowing the country to reap the advantages of the inflow of foreign savings, information and technology. The benefits of capital mobility come with certain risks. These risks can be categorized into credit risk, interest and exchange rate risk and liquidity risk. There is the additional risk of herding and contagion in international financial markets. The ordering and degree of liberalization is a fine balance between removing the impediments in the way of efficient international financial intermediation as part of the overall reform process and introducing and maintaining prudential standards and the supervisory to contain the risks of international financial intermediation. This is especially relevant as the growing experience with financial market integration indicates that financial markets are imperfect and subject to information asymmetries<sup>1</sup>. Theoretical literature does focus on capital market restrictions as welfare enhancing in an imperfect financial world.

Theory as well as practical experience points to the legitimacy of using capital controls of a prudential nature and stronger disclosure and prudential standards.

In the transitional period capital controls may play a role in insulating the economy from volatile capital flows and provide a country time to strengthen initial conditions and allow the authorities to use discretionary policies in the pursuit of this objective. Even in the post liberalization period transitional controls cannot be ruled out. For example, the OECD

---

Code of Liberalization for Capital movements provide for transitional arrangements for retaining controls if a members economic and financial situation does not justify liberalization and also in order to contain adverse developments in the balance of payments.(Footnotes)

#### 4.1 Types of Capital Control

Broadly controls can broadly be grouped into two categories - direct or administrative controls and indirect or market based controls. The former range from outright prohibition or discretionary approval procedures for cross-border transactions. The latter are price based instruments designed to effect price and sometimes both price and volume Administrative controls usually imply an outright prohibition on cross-border transactions. In many cases a discretionary approval procedure may be in place.

(a) Direct or administrative capital controls restrict capital transactions and/or the associated payments and transfers of funds through outright prohibitions, explicit quantitative limits, or an approval procedure (which may be rule-based or discretionary). Administrative controls typically seek to directly affect the volume of the relevant cross-border financial transactions. A common characteristic of such controls is that they impose administrative obligations on the banking system to control flows.

(b) Indirect or market-based controls discourage capital movements and the associated transactions by making them more costly to undertake. Such controls may take various forms, including: dual or multiple exchange rate systems; explicit or implicit taxation of cross-border financial flows (e.g. a Tobin tax); and other predominantly price-based measures. Depending on their specific type, market-based controls may affect either the price or both the price and volume of a given transaction.

In **dual (two-tier) or multiple exchange rate systems**, different exchange rates apply to different types of transactions. Two-tier foreign exchange markets have typically been established in situations in which the authorities have regarded high short-term interest rates as imposing an unacceptable burden on domestic residents, and have attempted to split the market for domestic currency by either

requesting or instructing domestic financial institutions not to lend to those borrowers engaged in speculative activity.

2. **Explicit taxation of cross-border flows** involves imposition of taxes or levies on external financial transactions, thus limiting their attractiveness, or on income resulting from the holding by residents of foreign financial assets or the holding by nonresidents of domestic financial assets, thereby discouraging such investments by reducing their rate of return or raising their cost Tax rates can be differentiated to discourage certain transaction types or maturities..
3. **Indirect taxation of cross-border flows, in the form of non-interest bearing compulsory reserve/deposit requirements** (URR hereafter) has been one of the most frequently used market-based controls. Under such schemes, banks and nonbanks dealing on their own account are required to deposit at zero interest with the central bank an amount of domestic or foreign currency equivalent to a proportion of the inflows or net positions in foreign currency. URRs may seek to limit capital outflows *by* making them more sensitive to domestic rates. For example, when there is downward pressure on the domestic currency, a 100 percent URR imposed on banks would double the interest income forgone by switching from domestic to foreign currency. URRs may also be used to limit capital inflows by reducing their effective return; and they may be differentiated to discourage particular types of transactions.
4. **Other indirect regulatory controls** have the characteristics of both price- and quantity-based measures and involve discrimination between different types of transactions or investors. Though they may influence the volume and nature of capital flows, domestic monetary control considerations or prudential concerns may at times motivate such regulations. Such controls include: provisions for the net external position of commercial banks, *asymmetric open position limits* that

---

discriminate between long and short currency positions or between residents and nonresidents; and certain credit rating requirements to borrow abroad. While not a regulatory control in the strict sense, reporting requirements for specific transactions have also been used to monitor and control capital movements (e.g., derivative transactions, non-trade related transactions with nonresidents).

The Reserve Bank of India made a step forward in this area by setting out the ordering of liberalization in its *Report of the Committee on Capital Account Convertibility (1997)* based on certain pre-conditions. The Report emphasizes that CAC is a process accompanied by other reforms. Although the report set out a three-year frame for liberalization, the emphasis is on the pre-condition, their status determining the actual speed of opening up. The Report is a useful example to see that even in the proposed liberalized world, the limits on various transactions in the transition phase and maintenance of certain controls and limits as a prudential concern in the long run. Chile and China like India have on occasion used capital control measures to pursue prudential objectives. (Ariyoshi, A. *et al.*, 1999). Rightly point out that the effective use of such measures rests on the existence of adequate administrative machinery. Recent literature emphasizes the need to understand the nature of capital controls. (Johnston, 1998 and Ariyoshi, A. *et al.* 1999). There is understandably no foolproof method of insulating a country against a crisis, but it crucial to talk about the degree of capital account liberalization at various stages of the overall reform process.

## **5.0 When and What Type of Controls are Effective? Lessons from Country Experience**

### **4.4 India**

**Background** After the economic crisis of 1991, India embarked on a liberalization process that has begun to reverse decades of inward-looking and interventionist policies. Industrial licensing has been abolished and trade barriers have been reduced. Over the course of the 1990s, a cautious and gradual move towards more capital account openness was underway, although considerable obstacles to full convertibility are still present.

### **Sequencing of reforms**

Signed Article VIII in August 1994, although some current account controls have been maintained that are consistent with these obligations. Capital account liberalization has proceeded at a gradual pace. The 1997 Tarapore Committee on Capital Account Convertibility recommended a cautious approach that seeks to establish the preconditions for liberalization on a sound footing. These include fiscal consolidation, an inflation target and, most importantly, the strengthening of the financial system. Consequently, more stable flows such as direct and portfolio investment have been liberalized first, followed by partial liberalizations of debt-creating flows, derivative transactions and capital outflows. Financial reform has continued concurrently.

### **Exchange rate policy**

India has pursued a flexible exchange rate policy in the context of a managed float.

**Capital controls** India maintains an extensive capital control regime, despite the liberalization of the past decade. Controls have been quantity-based rather than market based and have been administratively enforced. They have been oriented towards limiting the country's external debt, particularly acting to reduce excessive exposure to short-term foreign debt. Controls remain on the external exposure of pension funds and insurance companies and the external assets of banks are closely monitored.

### **Effectiveness of controls**

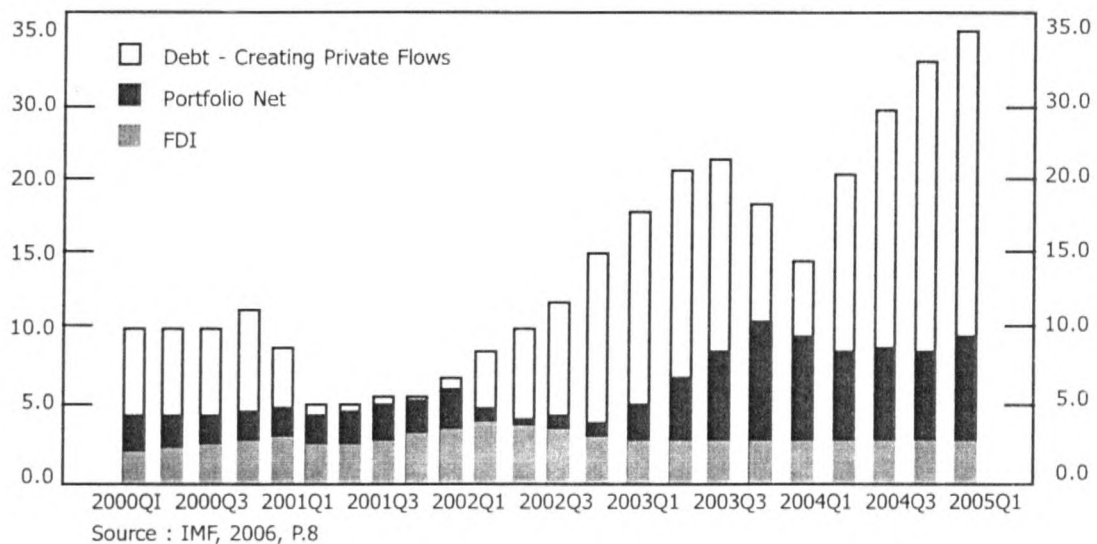
India's controls have been largely effective in limiting measured capital flows and in shifting their composition towards long-term flows. Among other factors, such as the economy's limited trade and financial linkages with the global economy, controls insulated India from the 1997 Asian crisis. Indeed, long-standing and extensive capital controls have reduced the country's vulnerability to external crisis. It should be noted however, that the extensive controls of the 1970s and 1980s did not prevent India from experiencing high levels of external indebtedness and balance of payments crises in 1980 and 1991. There is evidence of evasion and avoidance of controls working through trade misinvoicing. Furthermore,

controls carry significant administrative costs, burden legitimate transactions and create inefficiency.

**Lessons** India's experience illustrates the gradual approach to capital account liberalization. CAC has proceeded gradually in the context of a broad reform agenda that encompasses trade, competition and industrial restructuring. Emphasis has been placed on the reform of the financial system as a precondition for capital account liberalization. The Report of the Committee on Banking Reform has set out the large-scale reform agenda that is required. India's experience also reveals the effectiveness of the

present control regime in preventing, along with other factors, a build-up of short-term external liabilities that could increase the country's vulnerability to externally-generated crises. In contrast to the countries affected by the Asian crisis, India also limits banking assets held in real estate, foreign currency and equities. Thus, the balance sheets of Indian banks are not subject to the same degree of volatility. By effectively shifting the composition of inflows towards more stable, long-term flows, India can receive the benefits of capital account liberalization while limiting vulnerability while financial sector reforms proceed.

**Fig. 1 Composition of Net Capital Flows to India (Four quarter cumulative total, US \$ billions)**



#### 4.5 Malaysia

**Background** In the early 1990s, Malaysia faced large inflows of foreign capital, comprising both short- and long-term capital. The significant increase in short-term inflows (which rose from 5.3 percent to 8.7 percent of GDP in 1993), induced mainly by a high interest rate differential and expectations of a ringgit appreciation, increased concerns regarding sustainability and stability. Domestic interest rates, however, remained high to restrain inflation. The high costs of sterilization and its maintenance of high interest rates, led authorities to implement controls on short-term capital inflows. In 1997, in the midst of a financial crisis, Malaysia implemented controls on

capital outflows in order to limit downward pressure on the exchange rate and upward pressure on domestic interest rates that were exacerbating the contraction that was already under way and undermining the financial system. The controls also served to "buy time" for domestic adjustment and to insulate the economy from the international market turmoil. Initially, the authorities tried to break the link between onshore and offshore rates by setting limits on ringgit non-trade related swap transactions with non-residents, but these reinforced large interest differentials and induced greater outflows. Consequently, the authorities decided to impose direct exchange and capital control measures in September 1998. These sought to contain ringgit speculation and

---

the outflow of capital by eliminating the offshore ringgit market.

### Sequencing of reforms

Malaysia accepted Article VIII obligations in 1968. Malaysia has always had a relatively open capital account. Since the mid-1980s portfolio inflows have been free of restrictions, and bank's foreign borrowing and lending in foreign exchange has been free (except for net foreign exchange open position limits). Residents' foreign currency borrowing is subject to limits that require approval if they are to be exceeded. Before the crisis, cross-border activities in ringgit were also free. Financial sector reform has been accelerated in the wake of the crisis.

### Exchange rate policy

Before the July 1997 crisis, Malaysia engaged in a managed float of the ringgit. With the imposition of controls in September 1998, Malaysia pegged the ringgit to the US dollar.

**Capital controls** Inflow controls in 1994 were seen as temporary measures to restrain short-term inflows, particularly in the form of foreign borrowing by banks and ringgit deposits opened by bank and non-bank foreign customers. The measures included :

- prohibitions on residents selling Malaysian money market securities to non-residents,
- prohibitions on banks engaging in non-trade related bid-side swap or forward transactions with non-residents,
- ceilings on banks' net liability positions (excluding trade and FDI flows) to curtail foreign borrowing to engage in non-trade and portfolio transactions,
- a requirement that banks place with the central bank the ringgit funds of foreign banks maintained in non-interest bearing accounts.

In addition to these measures also eased interest rate policy, curtailed sterilization measures and introduced increased prudential regulation to contain the excess liquidity in the banking system. The controls were largely lifted by the end of 1994. The outflow controls imposed in September 1998 sought to eliminate channels through which speculative positions against the ringgit could be taken. The controls excluded FDI

and current international transactions. The essential elements of the controls were:

- the closure of all channels for taking ringgit abroad
- required the repatriation of ringgit held abroad to Malaysia
- blocked repatriation of portfolio capital held by non-residents for 12 months
- imposed restrictions on transfers of capital by residents

Further measures to close loopholes, such as amending the Companies Act to limit dividend payments, were also enacted. In February 1999, the one-year restriction on repatriation of portfolio capital was replaced by an exit levy that penalizes early withdrawal of funds. The levy applies to principal or profits of non-residents' portfolio investments, depending on whether the funds were brought in before or after February 15, 1999. The objective was to encourage investors to extend their investment horizons in Malaysia and to induce a smooth outflow of funds (rather than a sudden outflow when the holding period expired).

### Effectiveness of controls

The 1994 controls on capital inflows were largely successful in achieving their objectives of containing short-term inflows and the monetary expansion and instilling stability in the foreign exchanges. Monetary aggregates significantly decelerated and the capital account surplus fell in response to a reversal in short-term inflows in the second half of 1994 (particularly new external liabilities of the banking system). Long-term flows such as FDI were unaffected. Some caution is required in interpreting the evidence, however, since authorities were simultaneously lowering the interest rate differential and ending sterilization operations which may also be expected to lower short-term flows.

The controls on outflows imposed in late 1998 were effective in eliminating the offshore ringgit market. The restrictions on the internationalization of the ringgit were essential in achieving this objective, especially the freezing of external ringgit accounts. The absence of speculative pressure on the ringgit, following the imposition of controls and the currency peg, in an environment of significantly relaxed

monetary and fiscal policy is evidence of the controls' effectiveness. No parallel market has emerged and evasion and avoidance of controls through measures such as misinvoicing appear minimal. More studies are required to estimate the effectiveness of the controls.

Malaysia was hit by the 1997 Asian crisis which followed the Thai baht's devaluation. While Malaysia's fundamentals were relatively strong (high growth, low inflation, full employment, relatively strong financial system and, in contrast to Thailand and Indonesia, no massive build-up of short-term overseas debt), two vulnerabilities had been developing: a massive accumulation of outstanding domestic credit and a large exposure of the banking system to the property sector and share trading. When the crisis erupted, the ratio of outstanding credit to GDP stood at 160%, up from an average level of 85% during 1985-1989. As much as 45% (and perhaps as high as 55%) of outstanding bank credit in 1996 was to the property and share trading sector. Thus, speculators reasoned that an interest rate defence of the ringgit was untenable and that the massive increase in credit was evidence of a decline in the quality of borrowers. After the baht's fall, the ringgit was placed under speculative pressure. Bank Negara relented and the currency depreciated rapidly. In contrast to Thailand and Indonesia which accepted IMF programs, Malaysia stood apart and instead implemented a capital control regime that would insulate it from market pressures while it sought to stimulate a recovery through more relaxed monetary and fiscal policy and reform the financial structure.

**Lessons** The Malaysian experience with inflow controls in 1994 suggests that they can be effective when they are complemented by measures to reduce the interest rate differential and heighten prudential regulation. It also suggests that controls that are temporary in nature are also more effective in that they limit the increased porosity of controls that develops over time. The overall macroeconomic policy stance, particularly by maintaining a tight fiscal policy, also served to complement the inflow controls. While Malaysia had comparatively strong fundamentals when compared to other affected countries, the 1997 crisis revealed weaknesses generated by rapid credit expansion and the consequent deterioration of bank asset quality. The crisis led to a reassessment of the

risks associated with regional banks and pressure soon escalated against the ringgit. The Malaysian experience suggests the importance of close central bank monitoring of the uses to which external funds are being directed and whether their properties are consistent with the type of inflows (for example, the excessive funding of non-tradeable sectors such as real estate with short-term inflows may signal greater vulnerability). Furthermore, improved bank surveillance and enforcement is required to rapidly ensure provisioning in banks with escalating non-performing loans.

#### 4.6 Thailand

**Background** Like Malaysia, in the early 1990s Thailand experienced a large inflows foreign capital. A pegged exchange rate, an open capital account and large interest rate differentials induced large and often volatile short-term inflows. The establishment of the Bangkok International Banking Facility (BIBF) in 1993 along with incentives to borrow through it, accelerated short-term capital inflows. The size and volatility of inflows increased inflationary pressure and hindered monetary policy. In 1995, through monetary, prudential and market-based capital control measures, the authorities sought to deal with the large inflows. Continued strong inflows required an extension of the control program in 1996.

In 1997, Thailand was hit by substantial speculation against the baht in the wake of a deteriorating current account deficit and developing financial sector problems. These trends led to increasing questioning of the sustainability of the exchange rate peg. It was, correctly, assumed that the high interest rates required to sustain the peg were incompatible with the state of the economy and the stability of the banking system. To combat the speculative pressure, the authorities imposed capital controls in May 1997. The controls sought to close the channels for speculation against the baht.

**Economic forecast**

	2005	2006	2007
Real GDP growth (%)	4.6	4.2	4.5
Inflation (yr avg, %)	4.6	4.5	3.5
Interest Rate (policy rate, %)	4.0	5.0	4.0
Exchange rate (eop) '["[!			
Ysre4aqeTHB per USD	41.06	35.50	36.00

Source: Economics@ANZ



---

## Sequencing of reforms

### Exchange rate policy

Thailand pegged the baht to a basket of currencies (primarily weighted towards the US dollar) since 1984. In the aftermath of the crisis, the control regime resulted in the creation of a two-tier currency market, with separate exchange rates for investors who buy baht in domestic and overseas markets. **Controls** In conjunction with raising interest rates, increased sterilization of inflows and the prudential reduction of loan-deposit ratios in vulnerable banks, the authorities introduced more direct controls aimed at capital inflows in August 1995. These included:

- asymmetric open position limits for short and long positions
- a reporting requirement for banks on risk control measures in foreign exchange and derivatives trading
- a seven percent reserve requirement on non-resident baht accounts with less than one-year maturity and on finance companies' short-term foreign borrowing.

Restrictions were also placed on banks' non-priority lending in foreign exchange and on their foreign currency exposure. In 1996, with continued strong inflows, the authorities (a) extended the seven percent reserve requirement to non-resident baht borrowing with a maturity of less than one year and new offshore borrowing of maturities of less than one year by commercial and BIBF banks, (b) the minimum capital adequacy requirement for commercial banks was raised. In 1997, in the face of declining reserves and a costly interest rate defense of the baht, the Thai authorities sought to prevent speculation against the baht by adopting a set of capital controls. These included:

- financial institutions were required to suspend transactions with non-residents that could lead to a build-up of baht positions in the offshore market.
- The prohibition on purchasing before maturity baht denominated bills of exchange and other debt instruments requiring payment in US dollars.
- Foreign equity investors were prohibited from repatriating funds in baht (but were free to repatriate funds in foreign currencies)
- Non-residents were required to use the onshore exchange rate to convert baht proceeds from sales of stocks.

The controls sought to deny non-residents without genuine commercial or investment transactions access to domestic credit needed to create a net short domestic currency position, while exempting genuine business related to current account transactions, FDI flows and portfolio investments.

### Effectiveness of controls

The 1995 measures contributed to a slowdown in economic activity and decelerated the pace of foreign borrowing but it was only with the extension of the measures in 1996 that total net flows fell and shifts in their composition were seen. The mix of measures Two cautionary notes are required, however. First, isolating the effectiveness of the control regime from other factors (such as declining investor confidence) is difficult. Second, the true maturity of inflows is often weakly related to their maturities as measured in the balance of payments accounts. The controls did not prevent Thailand from experiencing the devastating experience of a reversal of inflows a year later and, as that crisis revealed, they did not prevent foreign funds from flooding non-tradable sectors with no capacity to generate foreign exchange. Only about half of bank's foreign currency loans were granted to foreign exchange generating sectors. The 1997 controls reduced trading in Thailand's swap market where investors buy and sell to hedge currency risks for investments in Thailand. They also temporarily halted speculative attacks on the baht by segmenting the onshore and offshore markets. However, controls did not prevent outflows through other channels, given the large spread between the onshore and offshore interest rates. Controls also could not prevent the devaluation of the baht in July 1997 that initiated the Asian crisis.

The 1997 controls provided only very brief respite for the Thai authorities. Circumvention was aided by the narrow range of the controls, their inability to eliminate the offshore baht market (as Malaysia post-crisis controls eliminated the offshore ringgit market), and the continued deterioration of conditions in the financial sector and the macro economy. Thus, controls served to undermine investor confidence further and discouraged capital inflows. In January 1998, as the economic environment improved, controls were removed and the baht appreciated along with rising stock market prices.



---

Thailand experienced weakening fundamentals during the course of 1997 and increasing speculative pressure against the baht. The combination of a fragile financial system, a pegged exchange rate and liberalized short-term inflows built-up large exposures to short-term foreign currency denominated debt that raised fundamental concerns of policy viability. The devaluation of the baht in July 1997 signaled the start of the Asian financial crisis. designed to address large capital inflows seem to have attained their objectives:

- net capital inflows were reduced
- short-term net inflows declined as a percentage of total inflows between 1995 and 1996
- the maturity of BIBF loans increased
- the share of short-term debt in total debt declined
- marginally reduced the growth of non-resident baht accounts

**Lessons** Thailand's experience with capital account liberalization highlights several important points. First, the reform of the financial sector and improvements in prudential regulation and enforcement lagged the implementation of greater capital account liberalization (especially the introduction of the BIBF in 1993).

Second, the liberalization of short-term inflows in the context of high domestic interest rates and a pegged exchange rate led to a substantial increase in short-term liabilities of banks and financial companies. Third, the use of controls in 1995-1996 may have precluded moves towards greater exchange rate flexibility and development of indirect monetary policy instruments. Fourth, the controls implemented before the currency crisis of July 1997 were ineffective in altering the basic constraints facing Thai policymakers: they failed to halt the speculative pressure against the baht and may have exacerbated negative perceptions of Thai policy.

### **Conclusion:**

Before the Asian crisis, the general scholarly view was that liberalization of capital movements was an essential element of economic liberalization—almost a touchstone of commitment to market reforms. However, the Asian financial crisis forcefully demonstrated that capital flows carry both benefits and costs. This means that for countries with poorly

developed financial markets, free cross-border movement of capital is incompatible if these countries try to maintain separate currencies and their own exchange arrangements. Moreover, there is growing awareness that rapid liberalization and the associated expansion of credit and increase in the mobility of cross-border capital can give rise to significant risks, unless liberalization is preceded or accompanied by measures to promote more effective risk management. Thus, the view that imposition of controls to regain maneuvering room for monetary policy is no longer considered heretical. Analysts are quick to point out that Asian economies that did not experience a severe crisis during the financial crisis had some sort of controls on capital flows. For example, China had extensive capital controls. Singapore had not internationalized its currency given the restrictions on the use of the Singaporean dollar and borrowing outside Singapore. India's policy toward foreign capital in the 1990s differentiated between different types of flows. That is, while there was considerable liberalization of the regime for foreign direct investment, liberalization of portfolio flows began gradually in 1993. More importantly, debt flows have not been liberalized and short-term debt is tightly controlled for all Indian residents, including banks. Unlike many other emerging market countries, India also restricts capital outflows. Thus, it is argued that India's cautious approach insulated it from the destabilizing forces of highly volatile capital flows.

### **References**

- Ariyoshi *et al.* (1999) Country Experiences with the Use and Liberalisation of Capital Controls. IMF, advance copy.
- Dooley, M. (1996). "A Survey of Controls over International Capital Transactions", *IMF Staff Papers*, vol. 43, no. 4, December.
- Eichengreen, B. *et al.* 1999. 'Capital Account Liberalization: Theoretical and Practical Aspects', Occasional Paper, no.172, Washington, DC: International Monetary Fund.
- Johnston, B. 1998. 'Sequencing Capital Account Liberalizations and Financial Sector Reform', IMF Paper on Policy Analysis and Assessment, PPAA/98/8 (July), Washington, DC: International Monetary Fund.

- 
- Johnston, B. and C. Ryan. 1994. 'The Impact of Controls on Capital Movements on the Private Capital Accounts of Countries' Balance of Payments: Empirical Estimates and Policy Implications,' IMF Working Paper 94/78 (July), Washington, DC: International Monetary Fund.
- Johnston, B. and N. Tamirisa. 1998. 'Why do countries use capital controls?,' IMF Working Paper, WP/98/181 (December), Washington, DC: International Monetary Fund.
- Kaminsky, G., S. Lizondo and C. Reinhart. 1998. 'Leading Indicators of Currency Crises,' *IMF Staff Papers*, vol.45, no.1 (March), pp.1-18.
- Krugman, P. 1999. 'Balance Sheets, the Transfer Problem and Financial Crises,' paper prepared for the festschrift volume in honor of Robert Flood, January.
- Lopez-Mejia, A. 1999. 'Large Capital Flows: A Survey of Causes, Consequences, and Policy Responses,' IMF Working Paper, WP/99/17 (February), Washington, DC: International Monetary Fund.
- Quirk, P. and O. Evans. 1995. 'Capital Account Convertibility: Review of Experience and Implications for IMF Policies', Occasional Paper, no.131, Washington, DC: International Monetary Fund.
- Reinhart, C. and T. Smith. 'Temporary Capital Controls', mimeo, August 1997.
- Reserve Bank of India.1997. *Report of the Committee on Capital Account Convertibility*, Mumbai: Reserve Bank of India.
- Glick, Reuven and Michael Hutchison. 2000. "Stopping 'Hot Money' or Signaling Bad Policy? Capital Controls and the Onset of Currency Crisis." Paper presented at the Claremont Conference on the Political Economy of International Financial Crises, Claremont, December 2000.
- Leblang, David. 2001. "To Devalue or to Defend: The Political Economy of Exchange Rate Policy ." Manuscript Collection, Department of Political Science, University of Colorado, Boulder. Colo.