



ASIAN DEVELOPMENT BANK
Economics and Development Resource Center

CONTROLS ON SHORT-TERM CAPITAL INFLOWS – THE LATIN AMERICAN EXPERIENCE AND LESSONS FOR DMCs

Pradumna B. Rana

September 1998

**CONTROLS ON SHORT-TERM CAPITAL
INFLOWS – THE LATIN AMERICAN EXPERIENCE
AND LESSONS FOR DMCS**

Pradumna B. Rana

September 1998

Foreword

The *EDRC Briefing Notes* are developed from notes prepared by staff of the Economics and Development Resource Center to brief Management and the Board of Directors. The *Notes* aim to provide succinct, nontechnical accounts of salient, current policy issues. They are not meant to be in-depth papers, nor intended to contribute to the state of current scientific knowledge. While prepared primarily for Bank readership, the *EDRC Briefing Notes* may be obtained by interested external readers upon request. The *Notes* reflect strictly the views and opinions of the staff and do not reflect Bank policy.

JUNGSOO LEE
Chief Economist

Contents

INTRODUCTION	1
SHORT-TERM VERSUS LONG-TERM CAPITAL: IS THERE A DIFFERENCE?	1
CONTROLS ON SHORT-TERM CAPITAL INFLOWS	2
The Latin American Experience	2
Effectiveness of the Controls	4
Desirability of Controls	6
LESSONS FOR DMCs	6
<i>Box</i>	
Tobin Tax	3
<i>Figures</i>	
1 Total External Debt to GNP Ratio, 1996	11
2 Short-term Debt, June 1997	11
<i>Appendixes</i>	
I THE EAST ASIAN FINANCIAL CRISIS: SHORT-TERM CAPITAL AS A CONTRIBUTORY FACTOR.....	9
II CONTROLS ON CAPITAL INFLOWS: CHILE AND COLUMBIA	12
REFERENCES	13

INTRODUCTION

This paper has the following objectives. First, it attempts to identify the differences between short-term capital (hot money) and long-term capital. Second, it reviews the experiences of the Latin American countries, namely, Chile and Colombia, which have imposed controls on capital in the form of unremunerated deposits. Large and excessive amounts of short-term capital inflows were an important contributory factor to the East Asian financial crisis. An important lesson from the crisis is that the composition of foreign capital deserves as much attention as its overall level (Appendix I). Correcting the policy mistakes that led to the surges in short-term private capital flows is, therefore, an obvious way of discouraging such inflows. In addition, this paper determines whether there is a role for direct controls on short-term capital. Third, based on the Latin American experience, the paper derives lessons for the DMCs, both the affected and the unaffected, on how to avoid large surges of short-term capital.

SHORT-TERM VERSUS LONG-TERM CAPITAL: IS THERE A DIFFERENCE?

The popular view among many policymakers is to promote long-term capital inflows, but to discourage short-term inflows. The motivation for this policy stems from several factors. First, there is now a broad agreement that foreign direct investment is valuable and brings in not only foreign capital but more importantly spillover benefits in the form of technology and training. Short-term capital, on the other hand, is not associated with the ancillary benefits. Second, long-term capital flows take longer to be withdrawn from a country. Therefore, the lower the share of short-term capital in total flows, the lower the probability of sudden reversals in capital flows. As the recent East Asian experience illustrates, short-term

capital tends to lead to excessive optimism, which switches to pessimism when investor confidence weakens. By contrast, long-term inflows, such as foreign direct investment, are more strongly guided by medium-term fundamentals and are less sensitive than short-term capital to cyclical fluctuations in domestic or international interest rates.

Some argue that it may be difficult to distinguish between short-term and long-term inflows (Claessens, Dooley, and Warner 1995). Standard balance of payments classifications into direct investment, portfolio flows, short-term flows, and others, are, in general, not very informative about the volatility, effective maturity, and liquidity of the flows. Furthermore, if incentives are strong enough, even flows that are perceived by policymakers to be long-term may in fact be more liquid. For example, selling direct investment may require time and significant transaction costs, but it is possible to create a "synthetic sale" by obtaining bank loans in the domestic currency that can be initiated rather quickly and with low transaction costs. This is, however, a minority view especially after the 1994/1995 Mexican crisis and the current East Asian crisis where the destabilizing effects of short-term capital were an important contributory factor (Appendix I surveys the East Asian experience).

CONTROLS ON SHORT-TERM CAPITAL INFLOWS

The Latin American Experience¹

Following years of limited access to international capital markets, capital inflows to Chile began to rise in 1990. The initial response of the Chilean central bank was to intervene in the foreign exchange markets in order to mitigate the appreciation of the nominal (and real) exchange rate, together with sterilization operations involving open market sales of central bank paper in order to avoid the monetary consequences of foreign exchange market interven-

1. In addition to individual country measures implemented in Latin America, one proposal that has recently gained some popularity is the worldwide implementation of the "Tobin Tax" (see Box).

Box: Tobin Tax

In the 1970s, Nobel Laureate James Tobin suggested imposing a small tax on all foreign exchange transactions to slow down speculative trades in the foreign exchange market. The order of magnitude for such a tax would be around 0.1 percent, or US\$1,000 per million dollars sold. Although this would be a negligible cost for long-term investors, for speculators flipping currencies weekly or daily, it would amount to a tax of 10 to 50 percent on their investment.

Criticism of the Tobin Tax has focused on its technical feasibility. With US\$1.3 trillion changing hands daily in foreign exchange markets, the sheer enormity of imposing the tax is forbidding. Another problem is that, to be effective, the Tax would have to be uniformly adopted worldwide. If it were to be adopted by only a few countries, it would likely cause the taxed agents to shift to untaxed countries. This proposal was discussed at the G-7 Halifax Summit of 1995, but an agreement was not reached. Interest in the Tobin Tax, however, is not likely to disappear, particularly if the incidence of financial crises increases and they continue to destabilize the global economy.

tion. The large magnitude of sterilization operations, however, pushed domestic interest rates higher, and fueled a surge in short-term capital inflows. The capital account surplus as a percent of GDP reached 10 percent of GDP in 1990, with short-term flows accounting for one third of this amount. Concerned that capital inflows might reverse—as had happened during the financial crisis of the early 1980s—the authorities took steps in mid-1991 to discourage short-term inflows (which were considered to be particularly volatile). Specifically, in June 1991 the authorities introduced a 20 percent nonremunerated reserve requirement, to be deposited at the central bank for a period of one year, on liabilities in foreign currency associated with direct borrowing by firms (Appendix II). Concurrent with the introduction of this tax on capital inflows, the central bank markedly scaled back sterilized activities, in the hope that real interest rates would decrease and thus reinforce the capital controls.

As in Chile, capital inflows to Colombia also accelerated markedly in the early 1990s. The central bank initially responded to increased inflows with sterilized intervention operations. By late 1991, however, sterilization operations were deemed too costly as the central bank bills—which were used to conduct open market operations—carried an interest rate far in excess of the rate of return on foreign exchange reserves. The Colombian authorities abandoned sterilization operations and permitted the exchange rate to appreciate. By 1993, however, oil discoveries in various districts further attracted capital inflows and the Colombian authorities responded in September of that year with capital controls similar to the Chilean ones discussed above. In Colombia, however, the nonremunerated reserve requirement of 47 percent was to be maintained for the duration of the loan and applied to all loans with maturities of 18 months or less, except for trade credit (Appendix I). This was tightened further in August 1994 to cover all loans with maturities of 5 years or less. The magnitude of the reserve requirement was a decreasing function of the maturity of the loan, and ranged from 140 percent for loans of thirty days or less to 42.8 percent for five-year loans. This design of the tax—levying high effective rates on short maturities—possibly suggests that the authorities believed lower tax rates would not have been a sufficient disincentive.

Effectiveness of the Controls

Chile's implementation of capital controls succeeded in lengthening the maturity of inflows. The capital account balance as a percentage of GDP fell from 10 percent in 1990 to 2.4 percent in 1991, and the decline in net capital inflows derived largely from a collapse in short-term inflows, which swung from 3.2 percent of GDP in 1990 to -0.7 percent of GDP in 1991. In contrast, direct investment actually rose slightly during this period. Capital inflows surged once again in 1992, and in May of that year the reserve requirement was raised to 30 percent. In June this year, it was reduced to 10 percent amidst concerns of the changing international environment and reduced capital inflows. Similarly, in Colombia, capital controls (which have since been eased), did not appear to

reduce net capital inflows. However, there was a shift in the composition of capital inflows, as short-term flows accounted for a declining share of total capital inflows after the implementation of the capital inflow taxes.

The before-and-after type of assessment of the previous paragraph is supported by more systematic analysis using multiple regressions. Cardenas and Barreras (1997) estimated capital flow equations for Colombia and found that while controls did not significantly affect the total magnitude of capital inflows into the country, they altered the composition toward longer maturities. Using a similar approach, Le Fort and Budnevich (1996) reached an almost identical conclusion for Chile. Valdez-Prieto and Soto (1996) found that although capital controls did not affect aggregate flows of short-term capital to Chile, it discouraged, at least, one or more components of short-term capital. The particular form in which the tax was implemented in Chile and Colombia also has merit. Reserve requirements work like a market-based tax, shifting investors' incentives by reducing their returns on short-term loans, thereby increasing the relative attractiveness of longer-term investment. They are not the "command and control" type of restrictions.

The IMF (1995) basically supports the view that capital controls were effective in Chile and Colombia. After surveying the experiences of a wider set of countries including those that imposed prudential regulations on the financial sector (e.g., Indonesia and Thailand) and controls on capital outflow (e.g., Mexico and Thailand), it concludes that such measures were, at least in the short run, effective in either reducing the volume of capital inflows or affecting their composition, or both. The longer the controls persist, however, the greater the chances that they will be ineffective. The more integrated an economy becomes, and the greater the array of instruments, including derivatives, the easier it will be to circumvent controls.²

2. The other findings of the IMF study are that reserve requirements appear to be more effective than "command and control" type of restrictions and that controls on inflows tend to be more effective than controls on outflows because the latter are generally resorted to during balance-of-payments or financial crisis.

Desirability of Controls

Even if capital controls are effective, it does not mean that they should be used. The benefits of using them (including the benefit of extending the maturity of capital inflows) should outweigh the costs. For example, capital controls increased the domestic cost of capital in Chile and Colombia. Capital controls also require an active and highly competent supervisory authority to administer the requirements effectively. Also as noted in the previous paragraph, the effectiveness of controls weakens quickly. Chile's and Colombia's relative economic stability during the Mexican crisis, therefore, had little to do with capital controls. Rather, it was primarily the high level of domestic savings to finance development as well as a stronger banking system relative to Mexico that did the job. There is, therefore, a need for caution in introducing controls except on a temporary basis.

LESSONS FOR DMCs

This Latin American experience suggests that although capital controls can be effective, they are desirable only under very specific circumstances as a temporary measure. This does not mean, however, that governments are wholly at the mercy of sudden inflows and outflows of short-term capital. The brunt of the evidence suggests that the extent to which private capital movements are destabilizing depends largely on the soundness of a country's macroeconomic policies and the robustness of its financial sector. The preferred solution is, therefore, to manage private capital flows properly so that inflows of short-term capital will not be excessive. Despite good management, on occasion, short-term capital flows could be destabilizing. Only in such specific cases and on a temporary basis should DMCs consider complementing policy reforms with more direct measures to discourage short-term capital flows along the lines of the Latin-style unremunerated reserves. The preferred solution is still proper management of private capital flows.

How should capital flows be managed in order to avoid large surges of short-term capital? Four lessons appear to stand out:

- (a) Free capital movement and pegged exchange rates are a dangerous mix. Not only does a fixed rate prevent a central bank from using interest rates to prevent the economy from overheating, but it also encourages excessive foreign borrowing in the short-term form. As the Chileans have shown, exchange rate uncertainty can dampen capital inflows. In terms of macroeconomic responses, responsible fiscal management, supported by limited monetary sterilization and some nominal exchange rate flexibility, is an appropriate response to reduce the destabilization effects of private capital inflows.

- (b) The banking system plays a dominant role in the allocation of resources in the Asian countries, and the health of this system largely determines whether the Asian countries will be able to exploit the benefits of financial integration and avoid its pitfalls. Recapitalization and restructuring of banks to get credit flowing again is on the top of the reform agenda. Actions are also required for reforming (i) the institutional structure in areas such as the regulatory and supervisory framework, transparency and disclosure of information, accounting systems, market infrastructure, and risk management; (ii) human resources in various areas such as regulation, supervision, and accounting; and (iii) overall governance of the sector to avoid, among others, insider trading and overly risky lending to speculative sectors and corporates. Chile has been a leader in improving bank regulation.

- (c) Actions should also be initiated to develop well-functioning capital markets to reduce the risks of potential instability in an integrated world. Actions are required in three areas: market infrastructure (e.g., clearing and settlement system); protection of the interests of minority shareholders; and disclosure of market and company information.

- (d) Countries must be prudent in capital account liberalization. Capital account liberalization must be sequenced properly. The preconditions for successful liberalization are: a sound macroeconomic framework consistent with the choice of exchange rate regimes, a strong and well-regulated domestic financial sector, and a strong autonomous central bank. Prudence in capital account means neither a return to pervasive capital controls nor a rush to immediate liberalization. It means a pace of liberalization consistent with the state of development of the financial system and the degree of soundness of macroeconomic management (Stiglitz 1998, Bhagwati 1998, and Rodrik 1998).³ This may lead to calls for reintroducing capital controls in those countries that have liberalized capital accounts in recent years and freezing the liberalization process in those that have not liberalized. After all, those Asian countries that have not liberalized their capital accounts have been spared the East Asian contagion. This, however, would be a serious misreading and interpretation of the Latin American experience with capital controls.

3. These authors question some of the earlier findings of the positive relationship between financial sector liberalization and economic growth.

Appendix I

**THE EAST ASIAN FINANCIAL CRISIS:
SHORT-TERM CAPITAL AS A CONTRIBUTORY FACTOR**

An important contributory factor to the East Asian financial crisis was the large and excessive amounts of short-term capital. Initial levels of external debt in the affected countries before the crisis was low, except perhaps in Indonesia, and so external indebtedness was not high by international standards (Figure 1). Nevertheless, most of this borrowing was unhedged, representing significant exchange rate risks to banks and private firms with large net liability positions.

More important was the dramatic shift in the composition of financing toward short-term borrowing, especially in the Republic of Korea (henceforth Korea), Indonesia, and Thailand. Short-term borrowing was already very high in many East Asian countries and jumped to dangerous levels during 1993-1996. It became clear after the crisis that short-term borrowing was even higher than these figures had suggested because it did not include nonbank liabilities. Much of this short-term borrowing was used to finance long-term investments including nontraded and vulnerable sectors such as real estate. The magnitude and rapidity of this buildup in short-term debt increased systemic risk in three ways: first, banks and corporations became vulnerable to large exchange rate swings; second, banks and nonbank financial institutions that intermediated these funds became vulnerable to downturns in the real estate markets; and third, banks, firms, and the economy at large, given the magnitudes involved, became vulnerable to an external liquidity squeeze. As it turned out, all of these three risks came to pass in East Asia last year and reinforced each other, resulting in the crisis.

The degree of vulnerability of East Asian countries in this regard before the crisis can be assessed by comparing their outstanding short-term external debt to external reserves. As can be seen in Figure 2, short-term debt exceeded external reserves by a large margin for Korea, Thailand, and Indonesia in June 1997. This made the countries much more vulnerable to a potential run on their currencies in the face of a loss of investor confidence.

The large and excessive buildup of short-term and unhedged external capital in East Asia was due to a number of policy mistakes (Asian Development Bank and World Bank 1998). First, in dealing with the demand pressures of the large surges in private capital of the 1990s, greater reliance was placed on monetary sterilization.⁴ This policy increased domestic interest rates and the differential between domestic and international interest rates. And since short-term capital flows tend to be more responsive to interest rate differentials, the composition of external liabilities became skewed toward short-term unhedged obligations. Second, the East Asian countries maintained a pegged exchange rate regime that reduced perceptions of exchange rate risks and encouraged excessive amounts of short-term unhedged capital.⁵ Third, while the East Asian countries accelerated the pace of financial sector reforms in the late 1980s and the early 1990s, they failed to strengthen the regulatory and supervisory structure of banks and this led to increased risk taking by banks by borrowing short-term foreign capital.⁶ Increased emphasis was also placed on opening the external capital account. For example, Korea liberalized its capital account significantly in the 1990s to achieve Article VIII status at the IMF.

4. These are policies that seek to offset the expansionary effects of increases in foreign assets.

5. Short-term flows are more affected by fluctuations around the central parity, while long-term flows are affected by the movements in the central parity.

6. Other instances of destabilizing financial sector liberalization occurred in Mexico in 1994-1995, Chile and the US in the early 1980s, and the Nordic countries in the mid-1980s and late 1980s.

Figure 1. Total External Debt to GNP Ratio, 1996

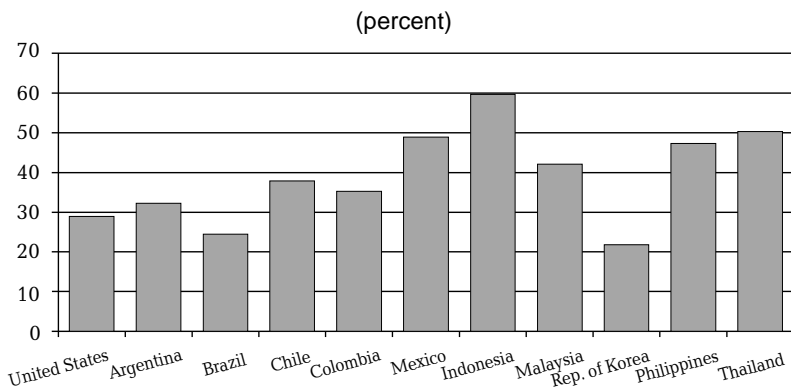
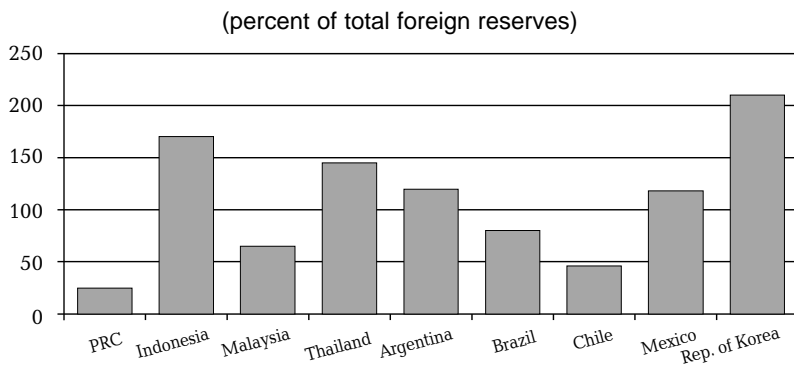


Figure 2. Short-term Debt, June 1997



Appendix II

CONTROLS ON CAPITAL INFLOWS: CHILE AND COLUMBIA**Chile**

June 1991. Nonrenumerated 20 percent reserve requirement to be deposited at the Central Bank for a period of one year on liabilities in foreign currency for direct borrowing by firms.

The stamp tax of 1.2 percent a year (previously paid on domestic currency credits only) was applied to foreign loans as well. This requirement applied to all credits during their first year, with the exception of trade loans.

May 1992. The reserve requirement on liabilities in foreign currency for direct borrowing by firms was raised to 30 percent. Hence, all foreign currency liabilities had a common reserve requirement.

June 1998. The reserve requirement was reduced to 10 percent as inflows of foreign capital started to decline.

Colombia

June 1991. A 3 percent withholding tax was imposed on foreign exchange receipts from personal services rendered abroad and other transfers, which could be claimed as credit against income tax liabilities.

February 1992. Banco de la República increased its commission on its cash purchases of foreign exchange from 1.5 percent to 5 percent.

June 1992. Regulation of the entry of foreign currency as payment for services.

September 1993. A nonrenumerated 47 percent reserve requirement to be deposited at the Banco de la República on liabilities in foreign currency for direct borrowing by firms. The reserve requirement is to be maintained for the duration of the loan and applies to all loans with a maturity of 18 months or less, except for trade credit.

August 1994. Nonrenumerated reserve requirement to be deposited at the Banco de la República on liabilities in foreign currency for direct borrowing firms. The reserve requirement was to be maintained for the duration of the loan and applied to all loans with a maturity of five years or less, except for trade credit with a maturity of four months or less. The percentage of the requirement declined as the maturity lengthened—from 140 percent for funds that were 30 days or less to 42.8 percent for five-year funds.

REFERENCES

- Asian Development Bank and World Bank, 1998. *Managing Financial Integration in Asia: Emerging Lessons and Challenges*. Forthcoming.
- Bhagwati, J., 1998. "The Capital Myth: The Difference between Trade in Widgets and Dollars." *Foreign Affairs* 77(3):7-12.
- Cardenas, M., and F Barreras, 1997. "On the Effectiveness of Capital Controls: The Experience of Colombia during the 1990s." *Journal of Development Economics*.
- Claessens, S., M. Dooley, and A. Warner, 1995. "Portfolio Capital Flows: Hot or Cold?" *The World Bank Economic Review* 9(1):1-17.
- International Monetary Fund, 1995. *International Capital Markets: Developments, Prospects and Policy Issues*. Washington, D.C.
- _____, 1997. *International Financial Statistics*. Washington, D.C.
- Le Fort, G., and C. Budnevich, 1996. "Capital Account Regulations and Macroeconomic Policy: Two Latin American Experiences." Central Bank of Chile.
- Rodrik, D., 1998. "Who Needs Capital-Account Convertibility." In *Essays in International Finance* No. 207, Princeton University.
- Stiglitz, J., 1998. "Boats, Planes and Capital Flows." *Financial Times*, 25 March 1998.
- Valdez-Prieto, S., and M. Soto, 1996. "New Selective Capital Controls in Chile: Are They Effective?" Catholic University of Chile.
- World Bank, 1998. *Global Development Finance*. Washington, D.C.

EDRC Briefing Notes Series

- No. 1 The Yen Depreciation and Its Implications for East
and Southeast Asia
by *Douglas H. Brooks, Jesus Felipe, Rana Hasan,*
and Reza Y. Siregar
September 1998
- No. 2 Controls on Short-Term Capital Inflows – The Latin
American Experience and Lessons for DMCs
by *Pradumna B. Rana*
September 1998