

# *Primer*

## Capital Controls

### . Introduction

Capital controls are quantitative restrictions or taxes that limit the quantity, use and destination of international capital flows. The purpose of capital controls is to stabilize capital flows in order to prevent excessive inflows from precipitating a financial crisis or to restrain massive capital outflows in the wake of a crisis from exerting further contractionary pressures on an economy. In addition to their use for crisis prevention and mitigation, capital controls have also been considered as a policy to isolate an economy, in part or in whole, from international financial flows so as to strengthen the effectiveness of its macroeconomic and development policies.<sup>1</sup>

### . Brief Policy Background

The elimination of capital controls was the cornerstone of financial market deregulation in developing countries in the 1990s. Known as capital market liberalization, the policy of removing all restriction on international capital flows was justified on the basis of improving the efficiency of financial markets and encouraging greater foreign investment into developing countries. The major proponents of this policy included the IMF and other international financial institutions, the governments of G7 countries and the major private financial corporations; and they pursued this policy with much determination and little compromise.

Today, capital controls are receiving a more practical reassessment by policy makers and opinion leaders. This rethinking no doubt follows the policy failures of the 1990s. Private capital in the form of credit and portfolio investment surged into the middle-income developing countries in the first half of the decade only to be followed, in many cases, by financial crises that lead to capital outflows. The wave of financial crises swept up Mexico in 1994, East Asia in 1997, Russia and Brazil in 1998, Ecuador in 1999, Turkey in 2001 and Argentina in 2002. Malaysia and Chile used capital controls during these crises but were not as negatively affected as some of its neighbors indicating that the capital controls might have created a buffer against the crises. Now the IMF has

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<sup>1</sup> This partial isolation for the purpose of strengthening policy effectiveness was the original and primary objective of Tobin (1974, 1978) when he proposed a foreign currency transaction tax. More on the difference between the Tobin Tax and capital controls later in the Primer.

made some conciliatory remarks about cautiously pursuing capital market liberalization and that capital controls might be used to mitigate the effects of a financial crisis.<sup>2</sup> Even the laissez-faire stalwart "The Economist" has endorsed the idea.<sup>3</sup>

At the present time, the immediately pressing economic problem for developing economies is the lack of capital inflows. Thus part of the policy debate over the merits of capital controls must address whether the stability they promise or the inefficiencies they threaten will remedy this current situation.

## . Purpose

**Inflow.** The need for capital controls stems from the potential for finance capital to move rapidly and in surges across borders. When a country experiences a massive capital inflow possibly due to high domestic short-term rates, the economy is likely to overheat and the currency appreciates. This becomes a problem when the country has a fixed or heavily managed exchange rate. To combat the currency appreciation, a central bank will engage in sterilized intervention in the open market by selling domestic securities and buying foreign assets. This has the effect of reducing the money supply in the country to offset the increase that occurred from the capital inflow. This can be a highly costly process, especially when there is a large interest rate differential as the central bank will be paying out high interest rates while earning low rates on foreign assets. Furthermore, more speculative and volatile inflows make the process of sterilization even more difficult and ineffective.

While capital controls are sometimes employed in an attempt to discourage the destabilizing effect speculative capital inflows, they are not intended to prevent or permanently discourage capital flows intended for use in long-term investments.

In addition to creating upward pressure on currency values, a surge of capital inflows can lead to excess credit creation and over-lending to banks, other financial institutions, non-financial businesses and consumers. This can result in an unsustainable pace of investment. It can also lead to a rapid rise in asset prices and even speculative asset price bubbles that leave the economy vulnerable to the effects of a sudden burst and collapse of asset prices. One major concern is the vulnerability of the financial system to large loan losses from defaults once the bubble bursts and capital quickly leaves the country. Faced with this potential threat, restrictions or disincentives on capital inflows can serve to protect developing industries and financial markets.

Controls also serve as measure to manage the financial system. They can be used by the financial system to reduce the exchange rate exposure and to increase the maturity of liabilities on financial institutions' balance sheets and thus prevent any breakdown in the financial system

**Outflow.** Massive outflows of capital are another threat to economic stability. Known as "capital flight", the outflow will weaken the currency and make it difficult for companies to gain credit needed for trade and normal operations. In order to retain capital or

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2 Eswar Prasad, Kenneth Rogoff, Shang-Jin Wei and M. Ayhan Kose. 2003. "Effects of Financial Globalization on Developing Countries: Some Empirical Evidence". IMF (March 17, 2003).

3 The Economist. "Where Capital Controls Make Sense." May 1, 2003.

discourage such outflows, central banks usually raise domestic interest rates in order to increase the incentives for domestic investment and to raise the cost of short-selling the currency. All of these factors put contractionary pressures on the economy.

In the event that herding, which is not based on economic fundamentals, or contagion lead to capital flight, capital controls can be used to preempt or suppress such dangerous behavior.

In an economic context in which behavior is not based on stable economic fundamentals, an economy can be faced with two or more equilibriums. In one case, the equilibrium occurs after investors rapidly move capital out of a country in the anticipation of a future devaluation, thus causing an actual devaluation and leading to economic turmoil. In another case, capital stays put and this allows the economy to rebound and the better economic conditions justifies the decision to remain invested in the country. In theory, both scenarios are rational for investors, however the policy of imposing capital controls allows the second equilibrium to occur and thus protects the country from a crisis.

### **Policy effectiveness.**

In addition to preventing destabilizing flows, capital controls can be used by a country to stimulate growth. This was the main reason for previous uses of capital controls. Growth in an economy can be encouraged through expansionary monetary or fiscal policies. In emerging markets, expansionary fiscal policies are frowned upon because of the impact on deficits. High levels of deficits in emerging markets scare investors because it increases the threat of the government monetizing the deficit, which would significantly increase inflation. This leaves emerging markets to use monetary policy to encourage growth but in an open economy monetary policy will have an unwanted change in capital direction. Capital controls provide a mechanism in which monetary policies can be used without adversely affecting capital movement.

## **. Types of Capital Controls**

Capital controls can be classified along several different lines of demarcation. They can be distinguished as either administrative or tax based, they can be short-term or long-term (permanent), they can be applied to inflows or outflows (or both), and ???.

Administrative type capital controls are policies that explicitly restrict, with the force of law, the volume of capital transactions. Controls can be enforced by restrictions on currency convertibility into foreign currency, through the requirement to have administrative approval for designed purposes or through licenses. In order to be successful, capital controls must be designed to eliminate potential loopholes and black markets for the currency. These policies require proper supervision and monitoring by the government and can be quite costly from an administrative standpoint. Examples of administrative capital controls are non-convertibility of currency, prohibitions on off-shore borrowing, the issuance of deposits or loans to foreigners, multiple exchange rate system, limits on off-balance sheet foreign exchange positions and foreign currency liabilities.

Under a restricted convertible system the domestic currency can only be converted by certain authorities, such as the central bank or ministry of finance, or for certain purposes. The central bank is in charge of conducting all foreign currency transactions. Unlike a fully convertible system, the central bank will have greater control of its reserves, and this policy effectiveness makes the country less vulnerable to capital flight or speculative attack.

In a multiple exchange rate system, the government can bifurcate foreign investors demand for the domestic currency. Financial institutions are instructed not to loan the domestic currency to speculators but loans can be made for trade credits and foreign direct investment. This system has typically been applied to countries with high short-term rates. By splitting the market, the country will not experience an overshooting of the exchange rate or capital flight once short-term interest rates fall from their heights. The administrative burden falls on the government and the financial institutions.

Tax based controls, on the other hand, serve to discourage capital transactions by affecting prices. Usually the goal of tax based capital controls is to make speculation more costly and to encourage long-term investment. These controls can be direct or indirect, such as reserve requirement.

When reserve requirements are implemented companies are required to deposit a non-interest bearing amount to the central bank based on their net positions in foreign currency. Typically, the percentage of the reserve reduces as the maturity of the loan increases in order to encourage more long-term investment. The reserve requirement essentially acts as a tax on foreign loans. In this control, the administrative burden rests with companies and the central bank.

The categorization of capital flows is a common problem in implementing and measuring the effectiveness of capital controls. Capital inflows can take the form of, amongst others, loans, equity investments, real estate investments and trade credits. The next problem deals with separating long-term inflows from short-term inflows. Short-term loans that are constantly rolled over may be mislabeled as short-term even though they remain in the country for a long time. Long-term loans might have options-like features, such as a put option, which allows the lender to recall the loan principal and thereby make the loan short-term in nature. The mislabeling of short term and long term flows can lead to capital controls discouraging desired capital and encouraging unwanted capital.

The difficulties in accurately defining flows or transactions makes enforcement difficult and efforts to avoid or evade the controls more effective. Take derivatives for example. Foreign exchange swaps, in which one party receives U.S. dollars for pesos and then later trades or repays U.S. dollars for pesos, have the economic characteristics of a collateralized loan. If capital controls apply to loans but not swaps, then the loophole will allow those eligible to engage in swaps to evade the controls.

Capital controls have also been cited to lose effectiveness over time as agents find methods of going around the controls. When trade credits are exempt from capital controls agents under or over invoice trade to smuggle money in and out of the country. Furthermore, the perception of controls being either temporary or permanent will create different effects. Many studies attempting to measure the benefits of capital controls

have simply used a dummy variable to represent whether a capital control exists or not rather than trying to model the type of control in existence.

## . Capital Controls and the Tobin Tax

The Tobin Tax<sup>4</sup> and other transaction taxes, although sometimes called capital controls, are distinctly different policies with different economic effects.

The Tobin Tax is applied to every single transaction, both inflows and outflows, and applies even to transactions between counterparties within the country. It does not explicitly restrict the quantity of transactions, but rather creates a disincentive to engage in transactions that would be required to effect a capital inflow or outflow. However the low rate of taxation proposed by most Tobin Tax advocates including Tobin himself, would be very small, perhaps insignificant, in comparison to the incentive to capture a large differential in the rate of return an international transaction or an even larger potential differential from avoiding the consequences of a currency devaluation.

Whereas some tax-based capital controls, such as the Chilean-Colombian style, work by taxing capital flows, they are not a tax on every transaction. Instead they are a much higher tax rate applied once to capital inflows and once the capital has been converted to the local currency or deposited in a local bank, then future transactions (except for early repatriation) are taxed no more.

This is a tax of 0.10%-0.25% on all foreign exchange transactions.<sup>5</sup> It is ideally meant to reduce profits and volume of short-term trading while not discouraging long-term investment, a goal similar to most capital controls. But unlike most other capital controls, the Tobin Tax affects both inflows and outflows. The Tobin Tax then does not try to prevent excessive capital inflows or outflows in order to change the net capital flow. A symmetric tax on both inflows and outflows should have no impact on net capital flows. Also by being applied to all foreign exchange transactions, the tax discourages all international activity equally rather than trying to shift the composition or maturity of capital like other controls.

## . Economic Analysis

Each type of control has a set of benefits and costs. Different controls have different effects and implementation.

Restricting conversion is probably the strictest form of capital control. However, it enables a country to have a significant amount of power on its currency and reserves. This will protect it from a crisis or speculative attack but will still allow the country to participate as an open economy and enjoy the benefits of trade and globalization.

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4 For a more detailed description of the Tobin Tax, see Financial Policy Forum Special Policy Report 7: "Lessons for Tobin Tax Advocates: The Politics of Policy and the Economics of the Market Micro-Structure" and Financial Policy Forum Primer: "Tobin Tax" at [www.financialpolicy.org](http://www.financialpolicy.org)

5 This is the presumed range for the tax. No decision has been made on the actual magnitude.

The downside is controls that completely restrict an activity or transaction are the hardest to monitor and can lose usefulness quite quickly as black or parallel markets quickly emerge. Currencies can be smuggled in and out of the country to create a black market. These highly restrictive controls will also have the undesired effects of discouraging long-term investments and foreign direct investment. Precedent in this case is very important. Investors use previous policies to gauge the likelihood of a country implementing restrictive capital controls in the future. They will then be cautious of putting capital into a country with a history of restricting conversion. Restricting currency convertibility will likely have long-term effects even if the restriction is short-term and temporary.

Limits on activities and exposures allow for some flexibility and capital movement because limits will not discourage investment to the extent of conversion restrictions. They can also have the positive effects of reducing exposures in banks and reducing the potential for sudden capital surges. Furthermore, limits can protect the central bank from speculative attacks. This will reduce the danger of crisis and drastic devaluations.

However, limits can skew investment choices favorably or unfavorably and can be expensive to monitor and measure. For example a capital control limiting the amount of deposits that can be sold to foreigners might direct capital flows toward other short-term highly liquid instruments such as money market funds. Limits on the amount of short-term foreign borrowing by banks may cause banks to issue long-term callable loans or long term bonds that are swapped into a floating rate. Additionally, limits on the percentage of foreign currency liabilities in banks may give incentives for banks to hand out more domestic loans, which could reduce asset quality. Monitoring the controls takes a large amount of cooperation from the public and private sectors. Transactions will have to be categorized into short-term, long-term, destinations, purposes or denominations. Regulatory supervision must be stepped up and the private sector will have to deal with the immense paperwork in disclosing positions or applying for approvals. Corruption can also occur in the process of applying for approvals and licenses.

In contrast to limits, taxes on transactions are easier to monitor and implement. The use of taxes can give incentives to shift capital toward more long-term and foreign direct investments. Governments can use taxes to penalize short-term speculators and then reallocate the tax proceeds to more social welfare enhancing projects.

However, there is no guarantee that taxes will produce the desired outcome. Small taxes will not discourage the large gains that can occur from speculative attacks and thus does not present a credible barrier to attacks. Unless taxes are applied evenly on all instruments, investors may be able to find tax advantages and loopholes. Similar to limit restrictions taxes can change investment choices. Implementing countries usually want the change to occur in the maturity of the instrument. However, the change can occur in other areas. Taxes on stock market transactions might lead to investors creating synthetic stock in the derivatives market by selling puts and buying calls. Futures can also be used to replicate stock. Taxes, such as the reserve requirement, on loans could shift foreign investors toward foreign direct investment.

## . Conclusion

Capital controls have historically been associated with repressive governments. This has given them a poor representation of their benefits. Now that capital market liberalization has not been the immediate success many imagined, capital controls have been brought into the limelight as a possible solution to some of the problems of the global economy. By preventing destabilizing capital flows it is possible for emerging markets to develop their institutions, policies and financial system. Emerging markets will also have the ability to enact independent monetary policy without having to have the exchange rate freely float. Unfortunately, implementation of controls is difficult and costly. Since there are a greater number of securities and instruments that are now available, controls have to be comprehensive to be effective. Also required are increased supervision by the government, central bank and financial institutions. There are significant benefits to capital controls but the controls need to be carefully designed and implemented for them to be of value.

# Appendix: Country Cases

## . Chile

One of the most cited examples of the use of capital controls is Chile during the 1990's. In 1982 Chile experienced the dangers of capital account liberalization by going through a debt and currency crisis. The cause of the crisis was a weak financial sector and an inconsistent exchange rate. Learning from this experience, Chile took measure to prevent another crisis. In the late half of the 1980's Chile began growing at an accelerated pace partly due to a relaxed fiscal position. By 1989 real GDP grew by 10%, unemployment was halved and inflation was 26% annually. Faced with an overheating economy, Chile tightened monetary policy. However, the higher domestic interest rates combined with a fall in world rates and large flows going into emerging markets caused a surge of capital inflows in Chile. The choice was to either let the currency appreciate and undermine the export-oriented strategy or to let the economy grow with the massive inflows of capital leaving the economy vulnerable to a reversal or an external shock.

Chile decided to pursue a policy of mix of sterilized intervention and capital controls. In 1991, Chile initiated an unremunerated reserve requirement of 20%. Companies that take on foreign loans, excluding trade credits, had to deposit 20% of the loan to the central bank in a non-interest bearing account. The URR was later expanded to include nondebt flows, such as foreign commercial deposits, ADR's<sup>6</sup> and foreign direct investment. The objectives of the URR were to shift the composition of capital flows to equity and longer-term maturities and to give more freedom to monetary policy. The results of the controls were expected to reduce the upward pressure and volatility on the exchange rate. The URR acts as a tax and makes it costly for companies to borrow abroad and thus creates a wedge between domestic and external interest rates. The wedge allows for higher short-term domestic interest rates than would otherwise be possible given the heavily managed exchange rate. Other capital controls in Chile included repatriation and minimum stay requirements for foreign direct investment.

Even with the reserve requirement Chile was not able to exert independent monetary policy. The increase in reserves at the central bank led to a greater money supply. To sterilize the effect, the Chilean central bank sold bonds. This had the effect of reducing bond prices and raising interest rates. Capital inflows then increased with the higher interest rates.

The control on inflows was matched with a liberalization of outflows. Banks and institutional investors in Chile had greater freedom to send money abroad. Limits on amount these institutions can invest were increased. The ceiling for banks was increased from 20% of capital and reserves in 1994 to 70% in 1998. The goal of liberalizing outflows was to stabilize net flows in light of increasing capital inflows.

During the 1990's Chile was able to move from being in a fiscal deficit to being in a surplus. The surplus was needed to offset the costs of central bank intervention. The

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<sup>6</sup> An ADR is an American Depository Receipt and allows for foreign firms to be able to issue stock in the U.S.

exchange rate followed an orderly appreciation a gradual widening of the exchange rate band. The financial system was also improved. By 1997 Chile was able to implement the Basel capital standards for banks.

Several studies have tried to isolate the effects of capital controls on the Chilean economy. In general there is some evidence that the URR was able to increase domestic rates and that the composition of capital flows shifted toward more medium and longer term maturities. The URR had little to no significant impact on capital flows or on the path of the real exchange rate but was able to reduce the exchange rate volatility by 20%. The explanation for the lack of impact on capital flows is that regulation tended to lose effectiveness over time as entities found methods of circumvention.

## • Malaysia

The other frequent example of the use of capital controls is Malaysia during the Asian Crisis. Their use of capital controls received widespread attention because Paul Krugman, a well respected economist, took the unorthodox view that controls were a appropriate response to the crisis. Malaysia, unlike Chile, was effectively able to implement controls that could not be easily avoided. Malaysia's also had administrative controls while Chile's URR was a market based control. Before the Asian Crises, Malaysia had a very liberal treatment of capital flows. The ringgit was allowed to be used in financial transactions with nonresidents and equities and bonds were allowed to trade offshore. This had the effect of creating a large offshore market for the ringgit. Nonresidents also had the freedom to invest in all types of Malaysian financial instruments and nonresidents along with residents were allowed to borrow abroad by authorized dealers and Tier 1 merchant banks. In addition, FDI was actively encouraged through tax incentives.

When the crises began, Malaysia had good economic fundamentals but the liberalization of capital created large credit expansion and a deterioration of asset quality. Consequently, investors expected the ringgit to depreciate and took short positions in the offshore ringgit market. The short position led to an increase in the offshore interest rate and capital outflows from Malaysia. In response officials imposed limits on banks' noncommercial-related offer-side swap transactions with nonresidents. The limits excluded hedging for trade and portfolios and foreign direct investment. The spread between the offshore and onshore interest rates widened as the ringgit market moved offshore and the onshore interest rate increased. Increases in the onshore interest rates put pressure on economic contraction and the banking system. GDP fell by 4.8% in the first half of 1998 and nonperforming loans was estimated to total 25% of all loans.

Officials then began the next phase of capital controls with the goal of regaining autonomy in monetary policy and containing the speculation in the offshore market. First the ringgit was pegged to the dollar at RM 3.80 per U.S. dollar and then the following controls were implemented:

- A requirement to repatriate all ringgit held offshore
- Licensed offshore banks were prohibited to trade in ringgit assets
- A limit on exports and imports of ringgit by residents and nonresidents

- Residents prohibited from granting or obtaining credit facilities to nonresidents
- All imports and exports are to be settled in a foreign currency
- Banks were prohibited from conducting offer-side swaps with nonresidents and from conducting reverse repo transactions collateralized by ringgit instruments with nonresidents
- All purchases and sales of ringgit financial assets can only be transacted through authorized depository institutions
- Approval requirements for nonresidents to convert the ringgit in external accounts into foreign currency, except for the purchase of ringgit assets
- A 12 month waiting period for nonresidents to convert ringgit proceeds from the sale of Malaysian securities held in external accounts
- A prior approval requirement beyond a certain limit for all residents to invest abroad in any form

The capital controls were specifically designed to reduce the scope of the offshore market, reduce capital outflows, and reduce access to the ringgit by speculators. The administrative burden mainly fell on commercial banks to implement the controls however many entities felt the burden of documentation and regulatory approval. There were no controls on foreign direct investment and officials actively encourage FDI. Policy reforms were used in combination with the controls. Easing of monetary and fiscal policy was used to stimulate the economy. The banking system was strengthened with greater supervision and updated regulations.

Malaysian officials were effective in eliminating the offshore market and no parallel or black market for the ringgit emerged. The wide nature of the controls and closing of all potential loopholes is the main reason why the controls were effective. There were only a few reports of efforts on trying to avoid the controls. The 12 month waiting period to repatriate sales of assets rule was also effective in reducing capital outflows. In 1999 the 12 month waiting period was modified to a system of taxes based on the holding period and applied at the time of conversion from the ringgit. The size of the tax decreases as the holding period increases.

The benefits of the controls were that it enabled policy makers to have some time to correct macroeconomic imbalances and to strengthen the balance sheets on banks and corporations. Other than the administrative burden the costs for capital controls were that upon implementation the stock market fell by 13.3%, rating agencies downgraded Malaysia, the country was removed from emerging market stock indices because of the lack of liquidity and the country risk premium increased and FDI although not restricted fell. One year later the stock market did rebound, rating agencies upgraded, Malaysia was added back to some emerging market indices and investor sentiment improved.

Similar to Chile, the empirical evidence on the benefits of the controls are mixed. Kaplan and Rodrik (2001) believed the controls allowed for breathing room for monetary and fiscal policies and created a faster recovery. Yet the authors cannot completely rule out the possibility that Malaysia would have recovered the same without the controls. Kaplan and Rodrik along with Johnson and Milton (2001) believed the controls allowed for political crookedness. Johnson and Milton found that companies with strong political connections outperformed upon implementing the capital controls.

