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Regulation of foreign capital flows in Chile

1. GENERAL INFORMATION

1.1 Title of practice or experience

Regulation of foreign capital flows in Chile

1.2 Category of practice/experience and brief description

This practice is intended to regulate the composition of foreign capital inflows into the Chilean economy in order that the volatility which typically characterises short-term flows be reduced and that domestic macroeconomic stability, as well as Chile's export-driven growth model, be preserved. The regulations are also aimed at enabling the effective implementation of monetary policy in the face of capital surges. These measures take the form of reserve requirements, a stamp tax on foreign credit and a minimum-stay requirement for foreign direct investment. The Chilean policies have important lessons for developing countries in adapting their financial policies, especially in light of the financial turmoil that started in Asia in mid-1997 but is now spreading to other regions.

1.3 Name of person or institution responsible for the practice or experience

Banco Central de Chile (Central Bank of Chile)

1.4 Name and position of key or relevant persons or officials involved

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(These two officials of the Central Bank of Chile are authors of a key 1997 paper describing the policy, which is referenced at the end of this report.)

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This report is authored by the Third World Network, based on several papers describing or analysing the Chilean policy.

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2. THE PROBLEM OR SITUATION BEING ADDRESSED BY THE PRACTICE/INNOVATIVE EXPERIENCE

After the foreign-exchange drought of the 1980s debt crisis, external capital started streaming into several Latin American nations by the end of the decade. But this capital surge is not without its own set of problems in terms of its impact on these developing economies. While the problems posed by large foreign capital inflows are more or less the same for the recipient economies, measures to cope with the capital influx can run the gamut from a predominantly *laissez-faire* approach to the imposition of quantitative limits. This report examines the Chilean response to the capital surge, which can be considered to occupy a position somewhere in between these two extremes.

Among the Latin American economies, Chile is a favoured destination for foreign capital. As a share of Gross Domestic Product (GDP), total capital inflows into Chile averaged 6.2% over the 1990-94 period. Arguably just as important a consideration as the volume of capital flows is the composition of these flows. In this respect, while foreign direct investment (FDI) constitutes

the single largest type of inflow into the Chilean economy, a significant portion of foreign capital has entered in the form of shorter-term funds (Agosin & Ffrench-Davis, 1996).

The latter can essentially be divided into portfolio capital and short-term credits. Portfolio capital, in turn, comprises purchases of debt and equity securities such as stocks, bonds and money-market instruments. It is channelled mainly through foreign mutual funds and through offerings of shares of Chilean companies on the New York Stock Exchange via American Depository Receipts (ADRs) (Ffrench-Davis et al., 1995). Such investments are typically motivated by the prospect of short-term capital gains and are prone to bandwagon effects, be it in taking positions or in liquidating them (Agosin & Ffrench-Davis, 1996). As such, portfolio investments can hardly be considered as the most stable form of capital flow.

Volatility also characterises short-term bank lending, which is based on interest-rate arbitrage. Such flows will come in only if and when the domestic interest rate exceeds the international rate by a margin sufficient to cover the expected depreciation of the recipient country's currency and the country-specific risk premium. When this condition ceases to hold, the funds can just as suddenly depart for more remunerative climes.

Chile has been exposed to the potential of such volatility. Foreign funds made a beeline for Chile from the late 1980s onwards. It therefore had to confront the problems associated with large capital inflows.

A major problem is that massive inflows of foreign capital within a short period of time bid up domestic asset prices beyond levels justified by the underlying economic fundamentals. This, in turn, through the positive wealth effect generated, leads to unsustainable increases in consumption and investment. Furthermore, a foreign capital surge entails real exchange rate appreciation as demand for the recipient country's currency rises.

It should be noted that much of the short-term capital flowing in is not actually channelled into real, productive investment but rather into speculative activities. Not only are these activities, by their nature, volatile and unpredictable but they also do not contribute towards the recipient country's long-term economic development.

These speculative inflows often "produce their own grave-diggers" as the resultant real exchange rate appreciation and increase in domestic demand cause a widening current account deficit. Along with the rise in external indebtedness, this situation adversely affects foreign capital's perception of the economy's general creditworthiness. Consequently, when an event triggers a change of investor opinion, foreign funds scramble for the exits, and the outflow is exacerbated by the herd mentality that characterises international financial market players.

To make matters worse, these market agents are not always very sensitive to this risk and, as such, react only when it is too late, when the conditions have deteriorated to the extent that forced external adjustment of some magnitude becomes necessary (Le Fort & Budnevich, 1997). The overshooting of asset prices, aggregate demand and the real exchange rate now occurs in the opposite direction, with potentially devastating effects on the domestic economy as the currency plunges alongside asset prices, with a resultant increase in the external debt overhang looming over the economy.

Such capital surges can further undermine domestic macroeconomic stability by throwing in doubt the feasibility of monetary policy. In the event of high inflation, tight monetary policy, which entails an increase in interest rates to curb excessive spending in the economy, would normally be called for. However, in an environment of unregulated capital flows, this interest-rate rise would lead to the influx of foreign funds attracted by the lucrative returns and greater potential for interest arbitrage. The capital surge, if left unchecked, can wreak damage upon the domestic economy. In short, the use of monetary policy to achieve such an important macroeconomic policy objective as price stability is more or less thwarted due to its impact on external capital flows.

Of course, the real exchange rate appreciation (and its deleterious effects on the recipient economy's competitiveness in international trade and, hence, its current account balance) that results from the capital inflow can be countered by the central bank's engaging in foreign-exchange-market intervention, namely by buying foreign exchange. However, such intervention also serves to raise the domestic money supply, bringing about inflation. Once again, the conflict between the objectives of price stability and external balance manifests itself.

A possible solution to this policy dilemma could be in the form of sterilised intervention, where the inflationary effect of the foreign-exchange-market intervention is offset by the central bank's sale of government securities via open-market operations. Consequently, the central bank ends up holding assets that yield the international rate of return and that depreciate in real terms while having to issue liabilities that pay the higher domestic rate and that maintain their real value (Le Fort & Budnevich, 1997). Thus, this measure cannot be sustained on a long-term basis, owing to the losses incurred by the central bank.

Another undesirable consequence of massive capital inflows to developing countries lies in how they heighten the vulnerability of the domestic financial system, which may not be all that well-developed to begin with. Due to the unpredictable nature of short-term capital flows and their being channelled into speculative uses - partly as a result of inadequate prudential supervision within the domestic financial sector - there is increased deposit volatil-

ity as well as foreign-exchange risk (Helleiner, 1997).

Moreover, the problem of moral hazard – arising from economic agents' tendency to “perceive the existence of publicly provided insurance to liabilities of financial institutions and institutional investors, whether or not it has been explicitly offered” – further contributes to the assumption of greater risks (Le Fort & Budnevich, 1997). When the speculative bubble bursts, the financial sector will be in danger of going under, being saddled with a considerable stock of non-performing loans.

It is evident, therefore, that capital surges, while bringing in much-needed funds from abroad that can go some way towards financing a country's economic development, can also wreak havoc on the domestic economy. Considering the shortcomings associated with foreign-exchange-market intervention, be it of the sterilised variety or otherwise, some form of regulation of these capital flows appears necessary to sift out the less desirable components of foreign capital while continuing to encourage the entry of long-term productive investments. In this regard, it might be instructive to examine the capital controls in place in Chile, something to which we now turn.

3. DESCRIPTION OF THE PRACTICE/INNOVATIVE EXPERIENCE AND ITS MAIN FEATURES

In 1978-81, Chile experienced a period of large capital inflows. This period ended with the debt and economic crises. In 1982-87, there was instead a shortage of foreign exchange resulting from the debt crisis. From the late 1980s, there has been a return of foreign capital, and thus the correspondent potential problems caused by this capital surge.

To deal with this, the authorities have adopted a number of measures with the aims of partially insulating the domestic economy from the impacts of capital inflows, preventing too much appreciation of the currency (so as to protect the competitiveness of exports) and maintaining freedom and space for the implementation of domestic monetary policy.

Four basic instruments were used to neutralise any effects that the influx of short-term capital could have on the aims of Chile's export-driven growth strategy. These instruments are: (a) the application of taxes and reserve requirements to capital inflows; (b) an exchange-rate policy based on “dirty” floating of the exchange rate in relation to a reference value pegged to a basket of currencies; (c) open-market operations to sterilise the monetary effects of exchange-rate dealings; and (d) the prudent supervision of financial markets. These measures succeeded in moderating the exchange rate appreciation caused by the new capital inflows. Even so, there was a 15% revaluation of the real exchange rate (French-Davis et al., 1995).

The first of the measures mentioned above has been rather unique, and this study has chosen to focus on it. It should be remembered, however, that in Chile, taxes and reserve requirements on capital inflows were accompanied by the other three measures and thus a full understanding of Chile's strategy in regulating capital inflows would require a study of all the measures.

The Chilean system of reserve requirements and taxes is based on the separating-out of the different types of capital inflows (including FDI, external loans and credits, and portfolio investment), and the imposition of specific rates of reserves and/or taxes and/or a minimum-stay requirement on each or some of these forms of inflows.

The system has a bias in favour of longer-term and direct foreign investment, and it imposes higher costs on short-term inflows.

For FDI, the only important restriction is a minimum-stay requirement, under which such investment must be maintained in the domestic economy for at least one year. This applies only to the principal. Profits are generally not subject to this requirement, except from investment performed through debt conversion (Le Fort & Budnevich, 1997). The reason for not imposing a reserve requirement or tax is that the Chilean authorities would like to attract FDI, which is considered desirable in terms of its contribution to the economy's productive capacity, and the transfer of technology and management skills it engenders.

Other forms of capital inflows have been subjected to different rates of reserve requirements for different periods, and taxes, introduced at different dates. The rates have also been varied as circumstances change, thus enabling policies to be flexible in accordance with changes in needs.

In June 1991, the authorities imposed a stamp tax on external loans at an annual rate of 1.2% on operations of up to one year. This had earlier been in operation but applied only to domestic credit (Agosin and Ffrench-Davis, 1996).

Also in June 1991, external credits were subjected to a non-interest-bearing reserve requirement of 20%. The reserves had to be maintained with the central bank for a minimum of 90 days and a maximum of one year. This meant that the impact fell mainly on short-term flows (Agosin and Ffrench-Davis, 1996).

In July 1991, an alternative to the reserve requirement was allowed for medium-term credits. In lieu of maintaining part of the funds with the central bank, medium-term borrowers may pay to the central bank an amount equivalent to the financial cost of the reserve requirement. This cost is calculated by applying the London Inter-Bank Offered Rate (LIBOR) plus a specified spread to the amount of the reserve requirement. The margin above LIBOR was fixed at 2.5% as at July 1991.

According to Agosin and Ffrench-Davis (1996): “The reserve requirement, the option of paying its financial cost and the tax on foreign credits all have a zero marginal cost for lending that exceeds one year, and are particularly onerous for lending at very short maturities.”

In 1992, the authorities wanted to increase domestic interest rates in order to maintain macroeconomic stability. As they did not want to attract increased capital inflows when implementing this policy, they decided to augment the reserve requirements.

In May 1992, the reserve requirement on external credits was raised to 30%. Later, the reserve requirements were extended to time deposits in foreign currency. In October, the central bank increased the period for which the deposit had to be maintained to one year regardless of the maturity of the loan. At the same time, the spread charged over LIBOR in the option of paying the financial cost of the reserve requirement was raised from 2.5 to 4%.

In the middle of 1995, there were further pressures towards currency appreciation. To stem these pressures, in July 1995, the central bank extended the 30% reserve requirement to foreign financial investments into the country, particularly the purchases of Chilean stocks by foreigners (through ADRs).

Thus, by the second half of 1995, there was in place a 30% reserve requirement on almost all forms of foreign capital inflows (including external loans and bonds issued abroad, external credit lines used to finance trade operations, foreign-currency deposits and portfolio investment) with the exception of FDI, which was only subjected to a one-year stay requirement.

On top of these, certain portfolio capital inflows such as bonds and ADRs (which represent the acquisition of shares of domestic companies by foreigners) are limited by their having to meet minimum-amount and risk-rating conditions. These instruments can only be issued if the amount to be raised comes to at least US\$25 million. Furthermore, the minimum acceptable long-term debt risk classification demanded of issuers is BBB or better for non-financial companies and BBB+ or better for banking institutions (Le Fort & Budnevich, 1997).

In the first half of 1998, the situation regarding capital flows changed. From the middle of 1997, some East Asian countries had suffered from a deepening financial and economic crisis. This had a significant effect on Chile as a significant part of its exports are to the Asian region. From the latter part of 1997, the Chile peso dropped against the US dollar. Thus, from a situation where there were pressures for revaluation, there now developed a reverse situation of pressures towards depreciation.

In response, in June 1998, the financial authorities reduced the reserve requirement for capital inflows from 30% to 10%.

This reduction in the reserve requirement ratio shows that the policy can

be implemented flexibly to suit changing conditions. In a period of excessive inflows, the ratio can be maintained at a higher level, or raised; and in a period where greater inflows are desired, the ratio can be reduced.

In a summing up of the Chilean system, Agosin and Ffrench-Davis (1996: p. 30) have stated: "The Chilean monetary authorities have used two main mechanisms to discourage capital inflows: (a) a tax of 1.2% on all foreign loans regardless of their maturity and (b) reserve requirements for a period of up to one year on foreign borrowing, bank deposits in foreign currency, and, recently, some portfolio inflows. Until October 1992, reserve requirements had to be maintained for a period that fluctuated between 90 days and a year. The regulations were changed in October 1992 to require reserves to be maintained on deposit for a full year, regardless of the maturity of the loan. There are therefore three elements that raise the cost of foreign borrowing to Chilean agents: (a) to meet the reserve requirement, they must borrow more funds than they need; (b) they must pay the foreign credit tax; and (c) for loans with maturities of less than one year, they must maintain reserves on deposit for longer than the maturity of their loan."

These measures all serve to increase the cost of external financing and are particularly geared towards discouraging excessive inflows of funds of a short-term orientation which, as we have seen, are the most volatile and potentially damaging. Given that the reserve requirement involves a one-year deposit regardless of the duration of the investment, the shorter the term of the inflow, the greater is the implied cost.

In terms of revenue, the Chilean authorities receive stamp tax on foreign loans, interest paid by borrowers of foreign funds in lieu of meeting reserve requirements and the central bank's earnings on the interest-free reserve requirements. Up to 1994, the estimated revenues were US\$355 million, comprising tax on foreign loans, \$110 million; interest in lieu of reserves, \$121 million; and interest earned, \$124 million.

4. DESCRIPTION OF THE INSTITUTION RESPONSIBLE AND ITS ORGANISATIONAL ASPECTS

The Chilean monetary authorities are responsible for overseeing the implementation of the capital-market regulations.

The administration of the reserve requirement is handled by the central bank, Banco Central de Chile, in which the reserve requirement funds have to be deposited. In the course of preparing this report, a paper by the bank's Deputy Director of Research, and the International Director and Manager of Financial Analysis (Le Fort & Budnevich, 1997) was consulted which detailed the system of capital-account regulations in place in Chile.

Moreover, the Banco Central is also responsible for interventions in the foreign-exchange market as well as sterilised interventions in order to stabilise the real exchange rate under the managed-float system (more of which later).

5. PROBLEMS OR OBSTACLES ENCOUNTERED AND HOW THEY WERE OVERCOME

Until recently, the problems encountered in the course of implementing the above measures basically revolved around their inability to adequately stem the capital surge. Accordingly, steps to overcome this centred on fortifying the prevailing regulations.

Initially, the reserve requirement was only 20% and covered only external credits. Also, the duration for which it applied varied between 90 days and a year. But, owing to the need to raise domestic interest rates to ease inflationary pressures in the booming economy without encouraging a renewed capital surge, the reserve requirement ratio was increased to 30% in May 1992 and coverage was broadened to include time deposits in foreign currency. In October of the same year, the term of the required non-interest-bearing deposit at the central bank was made a uniform one year, no matter the maturity of the loan, in order to accentuate the bias against short-term inflows. At the same time, the financial-cost equivalent of the reserve requirement was increased, with the spread over LIBOR widened from 2.5% to 4%. And as the spectre of real exchange rate appreciation once again loomed imposingly over the economy, in July 1995, foreign portfolio investments, particularly ADRs, became the next form of capital inflow to fall under the ambit of the reserve requirement (Agosin & Ffrench-Davis, 1996).

Apart from these direct regulations imposed on foreign capital inflows, exchange rate policy has also been employed by Chile to discourage short-term speculative flows by introducing a greater element of uncertainty into the equation. (Chile operates a managed floating exchange rate system within a band, and the flexible interventions of the central bank in the foreign-exchange market, coupled with monetary sterilisation operations, do help in moderating the effects of the capital inflows on the real exchange rate.)

For example, in early 1991, the exchange rate of the Chilean peso was moderately revalued on three occasions and then, in compensation, devalued in the following months. Such a measure introduced exchange-rate "noise" as the real devaluations within each move made it more costly for short-term funds to enter the country (Ffrench-Davis et al., 1995).

Also, in 1992, the official benchmark rate's peg to the US dollar was replaced with a peg to a basket of currencies comprising the dollar, the deut-

schemark and the yen. This was in order to deter interest-rate arbitrage, given the daily instability of the international prices among these three currencies (Ffrench-Davis et al., 1995).

However, the Chilean monetary authorities were recently confronted with a problem of a diametrically opposite nature as a result of the ongoing East Asian financial crisis. Instead of being inundated with a capital deluge, the Chilean economy this time around had found foreign capital increasingly hard to come by and had to cope with a falling peso (Mark, 1998). Chile, which has developed close trading links with many Asian “tiger” economies, saw demand (as well as prices) for its exports founder as these economies were hit by depreciating currencies and torpid, or even negative, growth. This unfavourable trade situation was exacerbated when Japan, the biggest Asian buyer of Chilean exports and Chile’s second-largest trading partner, also became afflicted with the economic malaise.

In response to this, in June this year, the reserve requirement ratio was reduced from 30% to 10% in order to encourage more capital inflows into the Chilean economy and thus support the peso (Gonzalez, 1998).

6. EFFECTS OF THE PRACTICE/INNOVATIVE EXPERIENCE

A major aim of Chile’s capital-market regulations has been to discourage excessive inflows of certain forms of capital, whilst retaining the flows of long-term direct investment. As noted by Le Fort and Budnevich (1997): “The effectiveness of the reserve requirement can be also seen from the change of the composition of net capital inflows. Increasingly, external financing has been moving from debt to direct investment and equity-based portfolio investment. This implies a more flexible structure of financing, favouring risk-sharing between domestic and external partners. At the same time, medium- and long-term forms of debt have gained ground and represent increasing proportions of total debt financing.”

Measured in terms of percentage of GDP, FDI and longer-term portfolio investment have grown in importance compared to foreign borrowing, with net foreign investment plus portfolio investment picking up from around 3% and 1.2% of GDP in 1990 and 1991 respectively to 2.5% and 4% in the two subsequent years. Even in the case of foreign borrowing, the share of medium- and long-term debt has increased relative to that of short-term financing. In 1994, short-term financing was equivalent to 2.4% of GDP, constituting a decline from its 1990 level of 4.6% (Le Fort & Budnevich, 1997).

This movement towards a greater relative composition of longer-term, more stable inflows can be attributed to the regulations’ inherent discriminatory bent against short-term funds. The shorter the duration of the stay of a

particular item of inflow, the more costly, in relative terms, it becomes to place a given portion of the funds in a one-year non-interest-bearing deposit account with the central bank and to pay a fixed annual stamp tax of 1.2%.

Thus, the aim of checking the inflow of volatile short-term funds without jeopardising the entry of FDI seems to have been realised through Chile's imposing its regulations on incoming capital. Given that the internationalisation of the Chilean stock exchange is only just beginning, the ability of these regulations to put a damper on funds with a short-term orientation may well become integral to preserving domestic macroeconomic stability in the face of globalised capital.

With respect to facilitating the use of monetary policy as an anti-inflationary tool, the regulations have also proven their worth to policy-makers. A tight-money stance has been able to be maintained without prompting an influx of foreign funds, with the result that inflation has been reduced from almost 30% in 1990 to 9% in 1994 on the back of average short-term real interest rates of 6% per annum, higher than developed-country standards (Le Fort & Budnevich, 1997).

Bearing in mind the potential pitfalls involved in drawing conclusions from a naked-eye inspection of economic data, it is worth noting that in the 1990s, Chile has enjoyed higher or steadier GDP growth than have Mexico and Argentina, two fellow Latin American nations that have, in contrast to Chile, gone down the path of greater capital-account liberalisation. While initially the Mexican inflation rate was lower than that of Chile, the massive capital flight that subsequently befell Mexico and that led to a drastic depreciation of its currency sent Mexican price levels soaring way above those in Chile (Agosin & Ffrench-Davis, 1996). Although such comparison hardly constitutes the most rigorous means of analysis, it does suggest that the capital-account regulations, by shielding the economy from the wild fluctuations brought about by large-scale short-term capital inflows and outflows, contribute to the maintenance of a stable economic environment in which the operation of government macroeconomic policy can proceed unhampered.

Pursuing this course of comparison further, we see that Mexico's cumulative current account deficit (an indicator of financial sustainability) over the period 1991-94 of 25.4% of GDP was two-and-a-half times greater than Chile's 10.4%. "Even though the volume of foreign capital inflows in Chile as a share of GDP was quite similar to that in Mexico, Chile effectively used a much smaller amount", as a result of the reserve requirement and the stamp tax consuming quite a sizeable proportion of the inflows (Agosin & Ffrench-Davis, 1996).

This issue of a sustainable current account deficit is, in turn, related to the real exchange rate. The extent of currency appreciation should be controlled

so as not to adversely affect competitiveness in international trade and in order to correspond to a sustainable current account deficit. However, Edwards (1998) adduces empirical evidence that strongly suggests the inability of the reserve requirement to affect in any significant manner the real exchange rate, both in the long and short run.

Indeed, the reserve requirement is unable to prevent speculative attacks arising from expectations of exchange-rate adjustments because its implied financial cost is insufficient to offset the capital gains that can be made from the change in the currency value. As a result, “despite the reserve requirement, only exchange rates that are consistent with market expectations can be successfully defended. The equilibrium trend of the exchange rate, even if it represents a significant real appreciation of the currency, cannot be influenced by such policies. An exchange-rate adjustment can be spread more over time, but only to a certain extent” (Le Fort & Budnevich, 1997).

However, the effectiveness or otherwise of the reserve requirement should not be judged against an aim which it was not set out to realise, namely, in this case, defend a fundamentally unsustainable exchange rate.

The altogether more modest objective of the reserve requirement as regards the real exchange rate is to prevent wild fluctuations around the rate’s equilibrium trend so as to avoid the drastic and painful adjustments associated with such swings. The absence of any unduly large, potentially destabilising capital inflow into Chile that may lead to overshooting of the exchange rate in the direction of appreciation (initially, that is) is testament to the regulations’ ability to contribute towards real exchange rate stability. With no such controls – and the costs they impose on capital inflows, particularly those of a shorter-term nature – in place, a capital surge might well have materialised in view of, among other things, the positive interest-rate differential with respect to the industrialised economies.

But Le Fort & Budnevich (1997) go on to assert:

“The fact that the appreciating trend of the Chilean currency has continued at about the same rate after the introduction of a reserve requirement is not an indication of the ineffectiveness of this tool. The reserve requirement allows for maintaining an interest-rate differential in favour of the emerging economy without having to generate an expectation of currency depreciation to fulfill the arbitrage condition. That is to say, the reserve requirement is successful if a once-and-for-all currency appreciation followed by a depreciating trend is avoided. An appreciating trend could be the result of financial pressures rather than a trend in the equilibrium exchange rate; and rather than indicating weaknesses of the reserve requirement itself such a

sustained trend shows the strength of the existing capital-account regulations, including the reserve requirement One should expect from such measures no more than a contribution to efforts aimed at keeping the current account deficit within reasonable bounds and at sustainable levels, while domestic macroeconomic targets of growth and price stability are attained."

Thus, viewed in the light of its designated objectives, the Chilean reserve requirement (and the capital-account regulations as a whole) can claim a significant degree of success.

Moreover the regulations do bring in some revenues to the state. The taxes and interest earned from the time the scheme started up to 1994 totalled \$355 million. Noting that the amounts are not very large, Agosin and French-Davis (1996) conclude that these policies should therefore be judged by their prudential and regulatory value rather than as revenue earners.

Nevertheless, such measures do have their downside as well. For one, the cost of capital to domestic economic agents will have increased as a result of three effects. They now have to borrow more than what is required for their intended use in order to comply with the reserve requirement (or, in lieu of that, pay the financial-cost equivalent). The stamp tax constitutes another item of expenditure. In addition, borrowers whose foreign loans are for a duration of less than a year incur an opportunity cost by having to maintain their interest-free deposit with the central bank for the full one year.

Not only does such a situation impose a heavier burden on domestic economic agents but it actually also involves a distorting effect on the financial market in that the large firms, with their access to international finance and knowhow in circumventing the regulations, are likely to remain relatively unscathed, leaving the small and medium-size firms to bear the brunt of the more onerous domestic borrowing rates (Edwards, 1998).

By effectively limiting the degree of integration of the domestic system into the global financial markets, Chile's capital-account regulations also limit the extent of portfolio diversification that can be enjoyed by domestic economic agents. A portfolio comprising a wide range of assets from both the domestic sector and abroad would have minimised the risk faced by the investor by reducing correlation with the vagaries of the single domestic economy, thereby increasing domestic income stability that can compensate for the national income volatility arising from the variability of individual export prices which affects open economies (Le Fort & Budnevich, 1997).

It should be evident that these regulations interfere with the free running of the capital market and, consequently, questions of inefficient resource allocation will arise. However; the markets themselves, unlike their textbook in-

carnations, are far from being efficient; imperfect information, bandwagon effects and a myopic orientation towards short-term capital gains characterise the operations of portfolio investors, for example. Furthermore, one need only note the speculative uses to which much of short-term capital has been directed in emerging markets (in the real-estate sector and the stock market, for instance) to apprehend how, in many respects, the financial markets have become divorced from the real production economy.

Hellyer (1998) points out that the volume of foreign-exchange transactions in the global financial system, amounting to around **US\$1** trillion a day at present, has increased fourteen-fold since the 1970s while world trade has little more than doubled. He goes on to declare: “[The world financial system] is in cyberspace and programmed to ignore the real needs of the vast majority of the world’s population still in need of food, clothing and shelter.” Unfortunately, though, when the entire fragile financial edifice collapses, the real economy – and the real people in it – do suffer, as the experience of the Latin American and Mexican crises and the ongoing East Asian crisis amply demonstrates. It is in such a volatile environment that the need for at least some form of capital-market regulation, such as Chile’s, can best be appreciated.

The discussion thus far has centred on employing the regulations to stem the inflow of volatile short-term funds. It is what they were set out to achieve, and, as has been shown in this section, is something they have in fact largely achieved. With this in mind, the recent reduction of the reserve requirement ratio in order to attract more inflows due to the effects of the East Asian crisis on Chilean trade, seems to strike an inconsistent note.

Rather than discrediting the entire notion and rationale of the reserve-requirement system, however, this move actually points to the flexibility such a regulation affords in managing the capital account. It should be noted that the reason for discouraging excessive short-term inflows to begin with is to avoid the instability and drastic adjustments forced on the domestic economy as a result of swings in the direction and volume of these flows. If a high reserve requirement ratio is used to prevent undue real exchange rate appreciation that would eventually entail the said instability, then, by the same token, a lowering of the ratio to counter an unwanted depreciation that has equally destabilising consequences is warranted.

As well, it is worth repeating here that the Chilean capital-market regulations do not include “drying up the capital account” as one of their objectives. Of course, it could be contended that, given their demonstrable effectiveness in Chile, if such capital controls had been in operation in the East Asian economies in the first place, the financial crisis might not even have erupted (or, at least, not on such a damaging scale).

Therefore, the value of the Chilean measures lies in their being a set of

possible policy measures that governments of developing countries can take to avoid the volatility of short-term capital inflows and outflows, and thus prevent the kinds of major financial crises that have recently afflicted many countries.

7. SUITABILITY AND POSSIBILITY FOR UPSCALING

A “cleaner” alternative with respect to regulating foreign capital inflows is the Tobin tax, a tax on all international transactions, be they trade-related or capital-market transactions. Like the Chilean regulations, the Tobin tax, which takes the form of a uniform rate, imposes a substantial disincentive on short-term flows, while the cost incurred in relation to long-term flows is almost negligible. “The reason is that payment of a, say, 0.25% tax on a 10-year investment represents a negligible fraction of the principal earnings. By contrast, on an overnight round trip, it would eat up the profits except on investments with extremely high returns” (Dornbusch, 1997).

However, the Tobin tax constitutes an improvement on the current Chilean controls in that the potential for evasion is less. The latter cover only financial transactions and, as such, evasion is possible to the extent that the intended inflows can be channelled through transactions which fall beyond the ambit of the regulations. Such evasive measures may include underinvoicing imports or overinvoicing exports, delaying import payments or accelerating export receipts and bringing in funds through the informal foreign-exchange market (Agosin & Ffrench-Davis, 1996). The Tobin tax, on the other hand, applies to all cross-border flows and not merely to financial transactions.

Of course, because of its comprehensiveness, the tax imposes a cost on trade transactions as well but, again as with the case of long-term financial transactions, this is likely to be negligible for any single goods or services transaction. Furthermore, it is precisely the result of its broad application to all foreign-exchange transactions, and hence its relative simplicity (out of not having to discern between different types of cross-border flows), that the Tobin tax entails less administrative burdens and costs on the levying authorities compared to the imposition of something like Chile’s reserve requirement (Dornbusch, 1997).

Finally, even with regard to FDIs, the possibility of instituting measures to regulate their inflow cannot be discounted. After the underinvestment of the debt-crisis years, foreign investors, through a characteristic process of stock adjustment, have headed back to the region – Chile being a prime destination – in order to attain their desired levels of FDI stock. In the process, these large inflows may pose absorption problems for the host economies in

terms of possible overheating and the resultant macroeconomic adjustment.

Moreover, FDI flows are themselves not free from volatility. Being the supranational behemoths that their name suggests, transnational corporations regularly engage in “international intrafirm financial transactions to respond quickly to changing national circumstances.” They manage liquid funds as well as flows of real goods and services, and they usually do so very effectively. Foreign direct investors can also, when appropriate, borrow from foreign or domestic financial institutions in pursuit of their international financial-flow objectives (Helleiner, 1997).

As a result of these characteristics, some form of regulation of FDI inflows might not be out of place. (Note that these regulations are discussed only in relation to capital volatility and absorption; the issue of regulations that are more directly related to domestic development, such as conditions on domestic content, employment of locals, technology transfer and so on, is beyond the scope of this report.) Agosin & Ffrench-Davis (1996) put forth some possible measures, such as auctioning FDI rights, placing investment applications on an informal queue or selecting among those projects on offer only those deemed most likely to contribute towards domestic development. “All these options entail a much more pragmatic approach to FDI than the uncritical embrace of recent years.”

8. SIGNIFICANCE FOR (AND IMPACT ON) POLICY-MAKING

The Chilean system has significance for developing countries that wish to better manage the interface between external financial forces and domestic macroeconomic and financial objectives. In view of the present financial crisis, which has spread from East Asia to other parts of the world, the Chilean policies assume even greater significance and are now often quoted as examples of prudent management.

The Chilean policy recognises the need to distinguish between long-term and short-term capital inflows, and the potentially harmful movements of short-term flows, and devises practical mechanisms to reduce their volatility.

The main policy significance, therefore, is that the measures contribute to the prevention of excessive capital movements that could cause damage to the economy through the inflows of too much funds and thus the build-up of foreign debts, their being channelled into unproductive investments, the risk of large withdrawals of the short-term funds and a consequent debt crisis.

The measures also enable a country to have better control over its financial and macroeconomic policies.

As we have seen, one of the prime objectives behind Chile’s institution of its capital-market regulations is to enable the effective implementation of

monetary policy. In the absence of some form of constraint on foreign capital inflows, a tight monetary policy needed to control domestic inflation, through its effect of raising interest rates, will not be feasible due to the massive capital influx that will result. In this regard, Chile's regulations can be considered a success, as has been demonstrated in the section on their effects, allowing for high interest rates (and a positive interest-rate differential with respect to the developed world), thereby curbing excessive national expenditure and hence keeping inflation in check. In turn, this ensures that relative prices generally remain stable and thus do not adversely affect or distort resource allocation and sustainable growth.

By contributing towards a more stable real exchange rate and a more sustainable current account deficit, regulations like Chile's facilitate the pursuance of economic policy that is geared towards export-led growth. Indeed, the growth and diversification of exports has become the engine of growth of the Chilean economy. For example, in 1995, exports grew by 11% in real terms compared to real GDP growth of 8.5% (Le Fort & Budnevich, 1997).

While the capital-market regulations have played, and continue to play, their part in avoiding the volatility that comes with unfettered financial liberalisation, it should also be necessary to strengthen the domestic financial system. This is to enable it to perform its intermediary role more effectively in terms of more efficient resource allocation and reducing the prospect of channelling funds rashly towards activities that would generate speculative bubbles.

Towards this end, more and better prudential supervisory mechanisms need to be put in place, and these would supplement and go hand-in-hand with the capital-market regulations. As Devlin et al. (1995) put it: "[Effective [prudential] regulation will require countries to improve their monitoring systems for external capital flows. This must be done not only at the microlevel for individual financial institutions, but also at the macrolevel to ensure that the volume and composition of flows are consistent with economic stability."

9. POSSIBILITY AND SCOPE OF TRANSFERRING TO OTHER COMMUNITIES OR COUNTRIES

Given the globalised nature of financial capital, and the potential damage that it (especially funds of a short-term, speculative orientation) can wreak on the recipient economy, developing countries would do well to study the Chile capital-account regulations, and in particular the reserve requirements and taxes on capital inflows.

The need for some form of capital control is even more acute for the smaller developing economies (where the absorption problem is heightened)

and those with a less-developed domestic financial sector.

The frequency and severity of the financial crises that have afflicted several developing economies and regions in recent times indicate the danger of letting capital surges go unchecked. Accordingly, the need for measures to regulate the flow and composition of foreign capital comes to the fore, with a view to preserving stability and sustainability, while going some way towards ensuring that foreign funds, instead of causing the recipient economy to veer off its development path, play their part in facilitating the growth process.

The Chile policies could well be considered as options to be adapted and implemented in other countries wishing to reduce the impact of their exposure to volatile international financial flows.

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