Capital Inflows and Economic Policy in Chile

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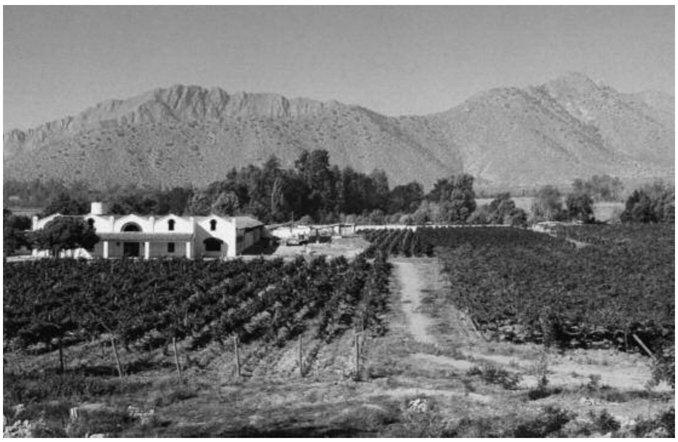
TOWARD THE END OF THE 1980S, private capital inflows began to return to most Latin American countries, and Chile was one of the favourite destinations of such capital. The reversal of the drought in capital inflows of the early 1980s was undoubtedly welcome. It relieved the enormous scarcity of foreign exchange that hampered growth during the debt crisis. But the magnitude of the new capital flows and their composition have also caused problems for which the recipient countries have been, by and large, poorly prepared.

The recent capital inflows are very large relative to the size of the recipient countries' economies. This in itself has led to a number of problems. First, there is the problem of absorption. If they are to contribute to long-term development, capital inflows must lead to a significant increase in investment, something which, with the exception of Chile, has not taken place in most countries in the region. In several countries—notably Mexico and Argentina—the new abundance of foreign capital has appreciated the currency, triggered real-estate and stock-market booms, and boosted consumption, with the attendant fall in domestic saving.

Large capital inflows also pose difficult dilemmas to policy-makers. Without intervention in foreign-exchange markets and in the absence of capital controls, the currency will appreciate, which may be undesirable from the point of view of other important policy objectives. For example, most Latin American countries are pinning their hopes for development on export-led growth, an objective which is harder to attain if their own currencies appreciate, thereby reducing the profitability of actual and potential export industries. On the other hand, intervention in the foreign-exchange market to prevent currency appreciation compels the central bank to buy dollars from the market and sell domestic currency. This swells the stocks of domestic money in the hands of the public and makes controlling inflation more difficult.

An alternative is "sterilised" intervention, which means that the central bank mops up the excessive creation of pesos involved in buying foreign exchange by issuing central-bank debt. As a result of these sales of central-bank debt, it is possible to return the stock of domestic currency to the levels existing before the capital inflow. This seems to be the best alternative and the one being practised by several countries in the region; but it is not without its problems. The central bank winds up accumulating large foreign-exchange reserves with returns below those on central-bank debt (which must be issued to conduct the required sterilisation operations). Moreover, in order to make its paper more attractive to the public, the central bank must increase the interest rate on its debt, and this keeps interest rates in the economy high, encouraging further capital inflow.



Economic stability behind "hot money" barriers

Chile's Recent Capital Inflows

Private long-term capital flows began to return to Chile in 1986, well ahead of the foreign capital surge to Latin America as a whole (see Figure 1). The initial spurt was associated almost exclusively with the debt-equity swap programme instituted by the authorities in the second half of 1985. A foreign company wishing to make foreign direct investments (FDI) in Chile could do so by buying Chilean debt in the international market, say from a commercial bank. It would then take the debt to the central bank and convert it into pesos. At the time, Chilean debt was selling at a large discount on its nominal value, about 55 cents on the dollar. And since the central bank valued it at about 85% of face value, there was a big profit to be made by investing through this scheme. The catch was that not all investors were allowed to use it. Mining investments were excluded, and those authorised had to demonstrate that they met certain Chilean national objectives, such as increasing exports or introducing new technologies. Investors not using swaps did not have to submit to these limitations. Chile has had a very liberal FDI regime since 1974, with practically no restrictions. In part owing to the large subsidy implicit in the swap scheme, the programme was successful in attracting significant amounts of FDI in the form of swaps. However, FDI not associated with swaps continued to grow apace. The swap programme stopped being used by foreign investors in 1991, mainly because the international price of Chilean debt had risen to such an extent

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that it was no longer profitable to invest via debt swaps.

FDI therefore represents a large part of the capital inflow to Chile over the last decade or so. About 60% of FDI through regular channels has gone into copper mining, the remainder concentrated in services. The bulk of investments made with debt-equity swaps went into the processing of natural resources, especially forestry and pulp and paper, and into services.

Financial foreign investments began in 1989, as shown in Figure 2. Short-term private credits became a big item in the capital account in 1990. These flows were very important until 1993, when they began to fall off as a consequence of the measures adopted to stem them. They have practically disappeared in net terms. Short-term bank credits can be very volatile, as they respond to differentials in interest rates between Chile and the US (the international market of reference for Chile). These differences must, of course, be adjusted for exchange-rate expectations and a country risk premium. If interest rates in Chile exceed those of the US by, for example, 10 percentage points, it could be because operators expect the price of the dollar in Chilean pesos to increase by 10%. In this case, the interest differential in dollars is effectively zero. Also, foreign financial investors could demand higher interest rates in Chile than those they obtain in the US, if they view Chilean investments as intrinsically more risky. Therefore, for short-term capital to flow into Chile, the domestic interest rate must exceed the international rate by a margin that is more than sufficient to compensate for the country risk premium and the expected depreciation of the Chilean peso.

These conditions have prevailed in Chile since the late 1980s. On the one hand, domestic interest rates have remained high, owing to lingering inflation and restrictive monetary policies. On the other, in 1992 and 1993, dollar interest rates reached a 30-year low and, while they have risen since then, they are still much lower than they were in the 1980s. As Chile began to emerge from the debt crisis, expectations turned from peso depreciation to peso appreciation. Improving export prices also contributed to the change in expectations with regard to Chilean borrowers' capacity to service debts in foreign currency. Expectations of peso appreciation, owing to the capital inflow itself and to improved export earnings, made short-term "round-tripping" appear very profitable; not only would the investor obtain higher interest on his capital in Chile, but the amount of original dollars might also increase on account of the appreciation of the peso. Also, toward the end of the 1980s, foreign financial investors changed their perception of Chile and began to view it as a safe place to invest. They therefore required a lower interest rate in order to place their funds in Chilean peso instruments than they did during the debt crisis.

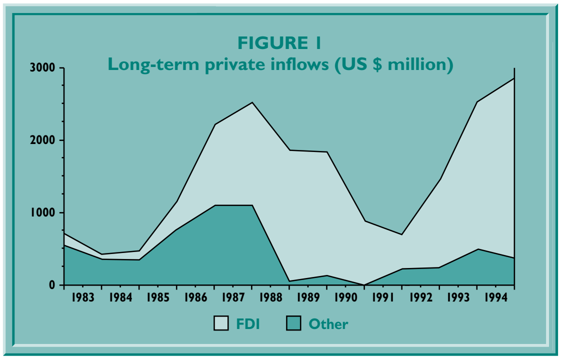

FIGURE 1
Long-term private inflows (US $ million)

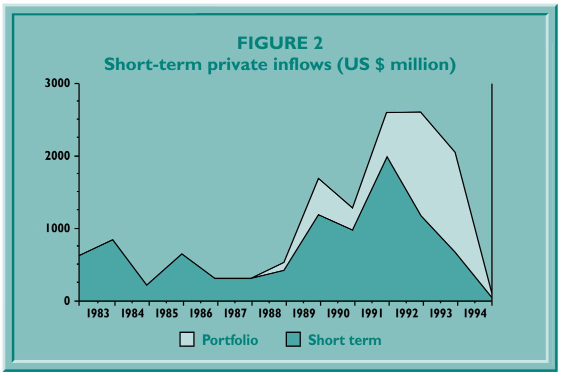

FIGURE 2
Short-term private inflows (US $ million)

Portfolio flows have also become quite important since 1989. These flows consist of the purchase of stocks of Chilean corporations and corporate or government bonds by foreigners. They are not usually thought of as short-term capital, but in practice they are. Typically, portfolio investors are very influenced by what other investors are doing (particularly if they are large investment banks investing on behalf of their clients) and are therefore prone to "bandwagon" effects, either in making investments or in liquidating them. This was clearly the case in the 1994-95 Mexican crisis.

The "emerging markets" mania of recent years in international stock markets can be interpreted as a dramatic reduction in the perceived risk of investing in a selected number of developing countries, including Chile. Chile's relatively developed domestic stock market, plus the burgeoning use of American Depositary Receipts (ADRs) for placing shares in the US stock markets, made Chilean stocks a prime candidate for investors seeking new and more exotic financial vehicles.

Portfolio inflows have taken two forms: investments through mutual funds set up in the major international capital markets, and the issuance of ADRs by a handful of large Chilean corporations. Mutual-fund investments were very large in the 1989-91 period, when the Chilean stock market was very undervalued. ADRs, on the other hand, were quite large from 1990 through 1994. Later, the combined effect of the Mexican crisis and tighter regulations on these inflows (see next section) caused them to decline sharply. The original issue of ADRs represents an opportunity for expanding the capital of firms at relatively low cost, since capital costs in international markets tend to be lower than in Chile. However, there is also the secondary issue of ADRs through the purchase of the underlying stock in the Chilean market by foreigners and its subsequent conversion into ADRs. This operation does not constitute an enlargement of the capital of the issuing company, but only a change in ownership from nationals to foreigners. These shifts in ownership involve exposing the economy to an additional degree of uncertainty and volatility, since when foreign investors' mood changes they can easily reverse the operation and convert their ADRs into the underlying stock in national currency for sale on the domestic stock market. This is precisely what happened during the Mexican crisis. The herding behaviour displayed by foreign portfolio investors—who are often poorly informed about fundamentals—has been increasingly recognised as a critical element in the crisis.

The Policy Response

In the 1990s, the Chilean monetary authorities have deployed a wide array of policies toward the surge in capital inflows. On the one hand, the central bank has attempted to discourage short-term and speculative capital inflows while maintaining open access to the economy for FDI. On the other hand, it has sought to partially insulate the domestic economy from the impact of capital inflows by intervening in foreign-exchange markets to prevent an excess supply from unduly appreciating the currency, and by almost completely sterilising the monetary effects of the rapid accumulation of foreign-exchange reserves.

The "emerging markets" mania and Chile's relatively developed domestic stock market have made Chilean stocks a prime candidate for investors seeking new and more exotic financial vehicles.

The main consideration of exchange-rate policy has been to protect the growth model adopted by the authorities, one based on the expansion and diversification of exports. In order for exports to continue to be the engine of growth of the Chilean economy, the level and stability of the real exchange rate are crucial. This objective could have been placed in jeopardy if capital inflows caused excessive currency appreciation and greater future volatility when the direction of net flows went into reverse. In the same way that capital inflows bring strong upward pressure on the currency, capital outflows tend to create downward pressure. If a large proportion of capital inflows are temporary and are likely to become capital outflows over the short to medium term, the exchange rate will tend to exhibit unnecessarily wide fluctuations which, by making future profitability more uncertain, are deleterious to investment for the international market. On the other hand, since the purchase of foreign exchange by the central bank tends to swell the domestic money supply, sterilised intervention was deemed necessary in order not to fall short of the central bank's inflation targets.

The excess supply of foreign exchange began in mid-1990, as Chilean assets began to be viewed by both real and financial investors as attractive vehicles. The new abundance of foreign exchange caused a modification in exchange-rate policy. Prior to 1990, the central bank had in place a crawling peg for the dollar, with the market rate being allowed to fluctuate by 5% around the peg. The growing abundance of foreign exchange was quickly reflected in an appreciation of the peso. Beginning in July 1990, the peso-dollar exchange rate moved from the top of the band to the bottom. The strong inflows of capital continued, with the central bank making large purchases of foreign exchange in the market. Recurrent runs on the dollar and in favour of the peso were reinforced with expectations of a revaluation (and drops in domestic interest rates), which hampered monetary policy.

In June 1991, a reserve requirement of 20% was established on external credits. The reserves—which earned no interest—had to be maintained with the central bank for a minimum of 90 days and a maximum of 1 year. This meant that their impact fell mostly on short-term flows. At the same time, a tax on domestic credit, at an annual rate of 1.2% on operations of up to 1 year, was extended to apply to external loans. An alternative to the reserve requirement was allowed for medium-term credits. This consisted of making a payment to the central bank of an amount equivalent to the financial cost of the reserve requirement. The financial cost was calculated applying the London interbank offered rate (LIBOR) plus 2.5% to the amount of the reserve requirement.

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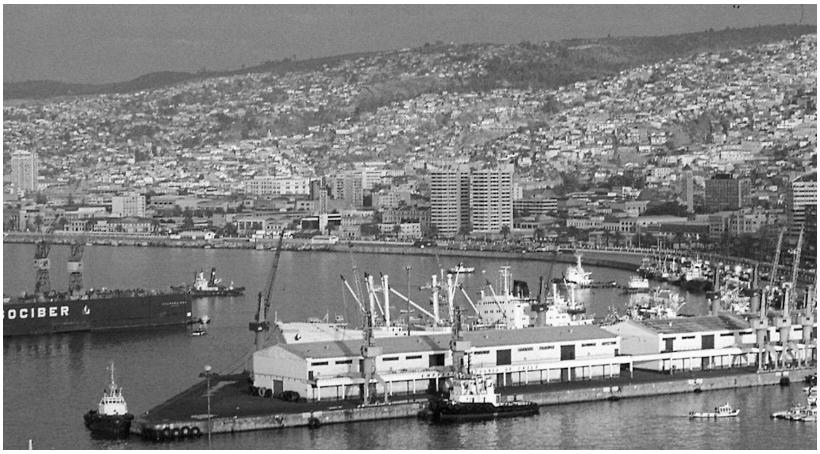
This system avoids the problem of having a public institution make the decision of whether a particular investment is actually short term or long term. Since the cost of the scheme for any loan exceeding a maturity of 1 year is zero on the period in excess of a year, and is very onerous for transactions with short maturities, it automatically discourages short-term inflows without having adverse effects on truly long-term operations such as FDI. It should be noted that FDI financed with loans, either from international financial markets or from parent companies, is subject to the reserve requirement, while FDI financed with equity capital is not. However, loans for financing FDI tend to be long-term and, therefore, the increase in costs owing to the reserve requirement scheme is likely to be very small. It is interesting that FDI has continued to rise in the period since the reserve requirements have been in force and is now at record levels.

Pressures on the foreign-exchange market continued in the ensuing months, partly owing to capital inflows. In order to deter interest-rate arbitrage by making it more costly and by creating greater uncertainty for short-term financial transactions, the floatation band was widened to 10% around the peg in 1992. At the same time, reserve requirements on capital inflows were raised to 30%. Reserve requirements were also extended to time deposits in foreign currency, and the period during which they have to be maintained was raised to 1 year regardless of the maturity of the loan. The spread charged over LIBOR in the option of paying the financial cost of the reserve requirement was simultaneously raised from 2.5% to 4%.

Over time, further measures have been taken to deter unwanted foreign capital. In July 1995, the central bank extended the reserve requirement obligation of 30% to all foreign financial investments into the country (particularly to the purchases of Chilean stocks by foreigners, or the secondary ADRs). In order to close a loophole through which the reserve requirements were being evaded, in October of 1996 authorities began to screen FDI applications. They denied permission for capital to enter Chile as FDI when the inflow was actually deemed to be disguised financial capital. In these cases, it was determined that foreign firms could still invest in Chile, but that they had to go through the central bank and thus face the reserve requirement.

The combination of disincentives to short-term inflows and the reforms in the exchange-rate regime was able to significantly reduce the inflow of short-term, interest-arbitrage funds, which fell from 3.5% of GDP in 1992 to practically zero in 1994. At the same time, there has been a significant reduction in the net inflow of portfolio capital. Nonetheless, disincentives to short-term capital inflows have not prevented a significant appreciation of the peso in real terms. In fact, the central bank had to revalue the currency peg at the end of 1994 and again at the beginning of 1997. However, the appreciation has been orderly and contained, which would not have been possible without disincentives to capital inflows.

The policy response this time has been completely different from the one that followed the past surge in foreign capital inflows between 1977 and 1981 which preceded the debt crisis. At that time, all restrictions to capital inflows were removed, and the exchange rate was fixed in terms of the dollar. Since domestic inflation wound down only slowly, a huge real currency appreciation accumulated over time. When international bank lending dried up, the crisis exploded, GDP fell by 15% in 1982-83, and unemployment climbed to over 20%. It took the economy until 1988 to recover fully and begin to grow again.



The Valparaiso harbour.

Table 1
Chile's Investment, Saving and Growth, 1974-95
(expressed as a percentage of GDP)

	Gross Fixed Investment	Public Investment	Private Investment	National Saving	External Borrowing	Per Capita GDP Growth
1974-81	18.4	3.7	14.6	16.3	5.9	2.0
1982-89	18.7	2.7	16.0	13.4	6.4	1.1
1990-95	24.9	2.7	22.2	25.5	2.3	4.7

Source: Author's calculations based on data from the Central Bank of Chile.

Saving, Investment and Growth

The period since 1989 marks a clear-cut improvement in the growth performance of the Chilean economy, in comparison to the period of the military dictatorship from 1973 to 1989. Saving and investment rates have also risen sharply from their levels in the mid-1980s (see Table 1). While it would be incorrect to assign to the management of inflows the entire success in raising saving, investment and growth rates, it is hard to deny that the policies toward capital inflows have been supportive of the improvement in growth performance that has clearly taken place in the 1990s.

The inflow of short-term funds fell from 3.5% of GDP in 1992 to practically zero in 1994.

The ratio of gross fixed investment to GDP has risen steadily since its trough in the early 1980s, from about 15% of GDP in 1983-84 to over 27% in 1995. Even taking averages for 1982-89 and 1990-95, the investment rate can be seen to have risen sharply, from less than 19% to 25% of GDP. The increase in the national saving rate was even more spectacular, going from 13% in the 1980s to 27% in the 1990s. At the same time, external borrowing (the current-account deficit) declined sharply, from 6.5% of GDP to 1.5%. This is indeed surprising, since foreign capital inflows have averaged about 5% of GDP in the 1990s. This suggests that the policies of sterilising the capital inflows and fiscal austerity, by preventing undue currency appreciation, made the economy absorb less foreign capital than what was on offer. The counterpart of the difference between the capital inflows and external borrowing, of course, was the accumulation of foreign assets by the central bank. Some observers question the rationality of this low-yield "investment". However, it should be remembered that capital flows can be very volatile and that foreign-exchange reserves, now at the level of about 1 year's worth of imports, could quickly evaporate.

The rise in saving and investment rates since their troughs in the mid-1980s has been remarkable. Moreover, it has taken place at the time of strong capital inflow and even stronger increases in the availability of foreign capital to the Chilean economy. In other countries, such as Mexico and Argentina which face large capital inflows, investment rates remained unchanged and domestic saving rates fell sharply, partly owing to the income and wealth effects of currency appreciation and sky-rocketing stock and real-estate prices. The Chilean policies to restrain capital inflow and to moderate currency appreciation can be credited with at least part of the success achieved with regard to investment, saving and growth rates.

> *Chilean policies to restrain capital inflow can be credited with at least part of the success achieved with regard to investment, saving and growth rates.*

Some Policy Lessons From the Chilean Experience

The Chilean experience with the management of capital inflow leaves us with several important lessons. The first one is that, for developing countries, the swings in capital flows can be of extraordinary magnitude relative to the size of their economies. Over the last 15 years, Latin American countries have gone from the Scylla of the debt crisis (and the shorter-lived Tequila crisis) to the Charybdis of foreign capital abundance during most of the 1990s. Totally passive policy stances will inevitably result in enormous volatility in key domestic prices (exchange rates and interest rates) and economic aggregates. By depressing investment, these fluctuations have adverse effects on long-term growth.

Second, contrary to conventional wisdom, it is possible to discriminate between flows which are stable, of a long-term nature, and that do contribute to the country's growth (such as FDI) and those which are basically speculative and lead to excessive domestic volatility. In the Chilean case, the discouragements applied to speculative flows have had no adverse effects on FDI, which has continued to rise to unprecedented levels.

Third, it is best to use instruments which are as non-discretionary as possible, in order to avoid the abuse of controls for the personal gain of the controllers. In addition, non-discretionary and (semi) automatic instruments have the great advantage that they minimise evasion. Some evasion is inevitable: any system of discouragements makes it profitable for operators to attempt to circumvent them. In the Chilean case, it has been necessary to close loopholes as it became obvious that agents were using them. However, circumvention can be kept to a minimum with a well-designed, automatic and transparent system.

Fourth, the objective of sustaining growth in the face of volatile capital flows (or volatile export prices, for that matter) requires the use of a battery of policy instruments. In the Chilean case, the combination of tax-like instruments to deter speculative inflows, increasing short-term exchange rate uncertainty, and sterilising the monetary effects of capital inflow has worked well.

Fifth, the Chilean case (as well as those of other Latin American countries receiving large inflows) demonstrates that a surge in capital inflows, even those of a long-term nature, creates a real absorption problem. Despite all the measures taken by the Chilean authorities, the peso has appreciated steeply (albeit in an orderly manner). The period immediately following a favourable upward revision of desired investments in a country by foreign corporations could be marked by net inflows of FDI which are very large for the size of the economy. It may be worthwhile for countries that suddenly become attractive to multinationals to try to spread out this adjustment over time to higher desired stocks of FDI. This can be done through the auctioning of FDI rights or some queueing mechanism for foreign investors.

Last but not least, the Chilean experience suggests that, when a country has permanently become more attractive to foreign capital, it is worthwhile considering a liberalisation of capital outflow. The privatised pension funds (the *Administradoras de Fondos de Pensiones,* or AFPs) have been allowed to invest a growing proportion of their total portfolios abroad (standing now at 9%). But there are still regulations that hamper them from doing so. In recent years, several large Chilean firms have invested in foreign markets, particularly in neighbouring countries. If they could tap the cash-rich AFPs more easily for funding these operations, the downward pressure on the peso might ease. Making regulations for banks to invest abroad more flexible would also help. Chilean banks have a regional competitive edge which they are already beginning to exploit through investments abroad. These could well increase if the regulatory framework were liberalised, maintaining, of course, prudential safeguards. ◆

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