The rise and fall of the Chilean economic miracle

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7 The Rise and Fall of the Chilean Economic Miracle

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Laboratory experiments are, fortunately, not possible in the social sciences. But there can be no doubt that since 1970 Chile has been a testing-ground for sharply contrasting economic theories. From September 1970 to September 1973 the Popular Unity government under President Allende attempted to create a socialist economy with extensive government ownership and control. After a violent coup in September 1973 the country was moved in quite the opposite direction when a technocratic team, acting with the full support of the ruling military junta under General Pinochet, restored private ownership in many areas and opened up the economy to new competitive forces. The members of this technocratic team were known as 'the Chicago boys' because of their sympathy for the free-market doctrines associated with the University of Chicago. Although their work affected many parts of Chilean society, the emphasis in this paper is on their efforts to liberalize the financial system. The argument will be that both the apparent success of the free-market experiment until 1981 and its breakdown in 1982 can be explained largely by the course of financial liberalization. The other most salient reform, a programme of trade liberalization which opened the Chilean economy to foreign competition, interacted with financial liberalization in important ways, but it will not be discussed in detail here.[1]

The financial liberalization should be understood as part of a reaction against a long-run tendency towards greater state interference with resource allocation. This tendency dated back to the early 1930s. The first part of this chapter describes the financial system as it was in the 1950s, 1960s and early 1970s, when the Chilean economy was increasingly dominated by government and its agencies.

Financial repression in Chile

The Chilean economy in the twenty years until 1973 suffered from seriously inadequate financial institutions, which were unable to channel resources to profitable uses in the most effective way. This weakness has been termed 'financial repression' and is to be found in many other less developed countries.[2] Its main consequence in Chile was that the ratios of financial assets and liabilities, including money, to national income were low by the standards of advanced capitalist societies. The restricted level of financial intermediation reflected a previous lack of savings and investment, and was associated with a shortage of accumulated capital. It has been estimated that gross investment between 1940 and 1965 averaged only 11 per cent of gross national product and in many years hardly covered depreciation.[3]

Financial repression was partly the result of government controls. Chile had many decades of large budget deficits until the Pinochet regime and, because of the absence of a significant domestic market in public debt, governments borrowed heavily from the central bank and from the commercial banking system. The commercial banks were forced to acquire more government paper than they would have liked, usually by being obliged to maintain excessive reserve requirements.[4] They were penalised in their competition with institutions known as *financieras*, who were not subject to such onerous regulations, but were nevertheless watched by the monetary authorities. Because of these and many other restrictions on bank lending to the private sector, and because governments prevented interest rates rising to a market-clearing level, there was a continuous excess demand for credit. This was exploited by a fringe of less reputable intermediaries who may have been financed to some extent by the banks and *financieras*. The most notorious were rural moneylenders who exploited small farmers' limited access to mainstream financial institutions. A study of their activities in the early 1960s found that they reaped positive real interest rates in a range from 27 per cent to 360 per cent per annum, almost entirely on loans of under $1,000.[5]

The constraints on private financial intermediaries reduced their efficiency and made them vulnerable to charges of failing to meet the needs of the national economy. Politicians had a good pretext for establishing state-owned and state-administered alternatives. By the early 1970s these existed in great number and variety, but two were pre-eminent. The first was CORFO, a conglomerate set up in 1939 with stakes in many nationalized industries, most of which accomplished the rare achievement of being both monopolistic and loss-making; it regularly had a financial deficit.[6] The second was the Banco del Estado, a commercial bank owned by the state but distinct from the central bank. Both CORFO and the Banco del Estado directed funds to companies not only on the basis of relative profitability, but also according to governments' most urgent political priorities. There was also a tendency for cheap loans to go to cronies or useful acquaintances in the small urban elite. Shortly after his appointment as finance minister in 1977 de Castro – who became a key figure in the financial liberalization – protested against previous abuses. He condemned the behaviour of monetary authorities who 'arbitrarily established interest rates at levels which did not even compensate for inflation' and distributed 'among their friends the scant savings generated by the public'. 'Under this system many quick fortunes were amassed by certain individuals and groups who recall those times with nostalgia.'[7]

The deficiencies of private-sector financial intermediaries stemmed from rampant inflation as well as government interference. In the 1950s and 1960s Chile had, on average, the highest inflation rate in the world. The size and frequency of price changes confused the interpretation of market signals and undermined the operation of the price mechanism. This was particularly important for companies trying to assess the true significance of a particular nominal interest rate. Because they did not know whether inflation would be 20 per cent or 40 per cent in two or three years' time, they hesitated about arranging medium- or long-term finance. The time-horizon of all business decisions shortened; large investments with extended gestation periods were not undertaken, whatever their potential profitability in the long run; and the appraisal of financial risks absorbed too much management effort. It has been estimated that in the 1950s an 'excessive proportion of executive energy – 14 to 18 per cent of their time – was devoted to financial matters, and financial operations grew inordinately at the cost of production operations'.[8] Companies, unable to obtain loans from banks or other intermediaries, had to borrow and lend between themselves in the form of trade credit. Inflation hampered the development of an efficient, privately-owned and profit-oriented financial system.

Under the Allende government financial repression intensified. Programmes of nationalization became indistinguishable from organized stealing, and respect for private property disintegrated.[9] The inflation rate, which had averaged 27.9 per cent under the previous Christian Democrat government of President Frei, was 22.1 per cent in 1971, 163.4 per cent in 1972 and 508.1 per cent in 1973. As the sphere of 'social ownership' expanded, the private financial system contracted almost to the point of extinction. At the end of 1973 outstanding peso credits by the Banco del Estado were three times larger than those granted by the rest of the banking system in its entirety.

The central problems in the financial liberalization

The new economics team which took over after 1973 was well aware that the underdevelopment of the financial system in Chile was in sharp contrast to the highly sophisticated patterns of financial intermediation found in advanced capitalist societies. More particularly, they knew that the explosive inflation rates at the end of the Allende government had made people economize on money balances, and that the ratio of the money supply to national income was extremely low not only by the standards of the industrialized West, but also in comparison with Chile's past. One of their prime aims was to raise the real money supply in the hope that the loans matching the extra deposits would finance new capital investment. McKinnon's thesis – of complementarity between the money supply and the capital stock – provided a theoretical rationale for their intentions.[10] Although the focus was on the level of real money balances, the general approach was to expand the range and size of all financial institutions serving the Chilean economy. Research by Goldsmith, which has shown that the 'financial interrelations ratio' (i.e., the ratio of financial assets to national wealth) increases with income per head, confirms the pertinence of their diagnosis. Goldsmith has claimed that

> the existence of clearly different forms of financial development is doubtful. The evidence now available is more in favour of the hypothesis that there exists only one major path of financial development, a path marked by certain regularities in the course of the financial interrelations ratio, in the share of financial institutions in total financial assets, and in the position of the banking system.[11]

But the programme faced two serious difficulties. First, a large financial system relies on a stable measuring-rod of value. As Chilean economists understood very well from their experiences in the 1950s and 1960s, inflation disrupts financial planning and heightens the uncertainties faced by both borrowers and lenders. Lower inflation was therefore a precondition for successful financial liberalization and inflation can be lowered only if the rate of *nominal* money supply growth is contained. But, in order to expand the *real* money supply, it was necessary to let the nominal money supply increase by more than the price level.

So the Chicago boys were ambivalent in their attitude towards the monetary aggregates. Slow money growth was required to combat inflation, but high money growth to promote financial development. Although the conundrum can be resolved in principle by a distinction between nominal and real magnitudes, there is no doubt that in practice Chilean policy-makers became rather confused about where they were going. In particular, they were unsure about the value of the equilibrium ratio of money to national income and consequently lacked clear signposts for financial targeting. It should be emphasized here that the commonplace media description of Chilean economic policy as 'monetarist' is simple-minded to the point of misrepresentation if monetarism is taken to mean the absolute primacy of money-supply control as an anti-inflationary weapon. The role of the money supply in economic policy was both more subtle and more muddled than this.

Secondly, a financial system is sustained by professional expertise, notably the knowledge and experience of lawyers, accountants and bankers. One function of this expertise is to protect property rights when command over assets is transferred from their owners to entrepreneurs and companies or, in other words, when credit is extended between people. The rapid expansion of the financial system intended in Chile should therefore have been accompanied by a substantial strengthening of credit appraisal, banking technique, accounting standards and so on. As we shall see, this was not to happen. The absence of a responsible central banking tradition was also a handicap.

The initial reforms, September 1973 to December 1977

When the Pinochet regime came to power, Chile faced an economic emergency. Price increases were accelerating and the country was unable to repay its foreign debts. Orthodox and vigorous measures were taken. The budget deficit was cut from 25 per cent of national income to virtual balance in only two years, while a big devaluation helped to shift resources from domestic consumption to the external sector.

Action on the monetary front was – at least, in theory – equally straightforward. In his October 1974 report on the public finances Cauas, the Finance Minister, said that 'the monetary policy we have been applying recognizes that there is a close relation between the rhythm of growth in the level of prices and the rate of expansion of the money supply. This recognition ... grows directly out of the observation of the dramatic Chilean experience with inflation.' In addition to this fairly mechanical quantity-theory approach, the peso was devalued repeatedly 'to avoid the deterioration of the real exchange rate' (i.e., the loss of export competitiveness). Such a deterioration was judged likely to have 'very serious effects on the balance of payments and on the allocation of resources'.[12]

The two main practical steps were the establishment of uniform reserve requirements for all banks and the freeing of interest rates. Before the reforms each bank was entitled to a certain amount of central-bank credit and, at the ruling interest rate, this was invariably less than the amount it wanted. Subsequently banks were free to bid for reserves from other banks and expand their balance sheets at will, as long as they satisfied the reserve requirements. The bidding for reserves drove up interest rates. At first the central bank placed limits on this process, but from 25 April 1975 banks were free to set interest rates at any level for transactions which matured in one year or less. Real interest rates rose to remarkable levels. In 1976 the typical interest rate per month was about 11 per cent, equivalent to an annualized 250 per cent. At the same time the inflation rate, as measured by the increase in wholesale price in the twelve months to December was 151.5 per cent, implying real rates of about 40 per cent. By early 1977 real rates were even higher. In the first quarter of 1977 the average real interest rate on bank loans was 5 per cent per month, equivalent to an annualized 80 per cent.[13]

These astronomic real rates did not hinder credit expansion or economic recovery. Output slumped by 12.9 per cent in 1975 because of a stabilization crisis resulting from the simultaneous rise in oil prices and collapse of copper prices. But it then picked up 3.5 per cent in 1976 and 9.9 per cent in 1977. Private-sector credit demand was so resilient that, despite the level of real interest rates, the money supply increased by 247 per cent in 1974, 277 per cent in 1975 and 201 per cent in 1976. The first notable deceleration occurred in 1977 when the rate of growth dropped to 124 per cent.[14]

It is difficult, looking at the numbers, to believe that Cauas' early remarks on the importance of checking monetary growth were taken very seriously. Money-supply increases of over 200 per cent a year were less than the 400 per cent recorded in 1973, but they were still extraordinarily fast. Nevertheless, inflation did slow down, perhaps because the high interest rates encouraged people to hold more bank deposits. The consumer price index, which had soared by 508.1 per cent in the twelve months to December in 1973, went up by 375.9 per cent and 340.7 per cent over the same period in 1974 and 1975, but the figures for 1976 and 1977 were more reasonable at 174.3 per cent and 63.5 per cent respectively.[15]

The extreme difficulty of applying a crude quantity-theory method encouraged the Chicago boys to consider a new approach to inflation control. The change in the tone and content of official statements was gradual. In April 1975 Cauas said that inflation should decrease 'as a result of the reduction in money creation which in turn is the product of the significant drop in public spending'. The thinking here seems to be that public spending is the ultimate cause of inflation and that money creation arising from private-sector credit is blameless in the inflationary process. The idea was developed more fully in the October 1975 report on the public finances. Something termed 'the degree of liquidity in the economy' was deemed to be 'a problem'. As inflation fell, the velocity of circulation would decelerate and 'the volume of money' would be 'insufficient to finance the flow of transactions'. It followed that, 'The economy must necessarily return to operating with a normal level of liquidity under stable conditions. This means that during some period money should increase more rapidly than prices and when this occurs it is not correct to speak of excess liquidity.' In more technical and precise language, achievement of lower and more stable inflation expectations would promote the demand for real money balances, while the forces behind expansion of real money balances, such as credit to the private sector, should not be viewed with alarm. The budget deficit was the real enemy, not private-sector credit. 'Equilibrium in the fiscal sector ... will guarantee the end of the long history of inflation in Chile.'[16] Policy was consistent with this proposition. By late 1976 the budget was effectively in balance and it was to remain so for the next five years.

When de Castro became finance minister in early 1977 these themes were retained and elaborated. Inflation came to be viewed more in fiscalist than in monetary terms. Private-sector credit was blessed because of the contribution it would make to the 'monetization' of the economy. In December 1977 restraint over the monetary aggregates was more or less discarded as a technique for controlling inflation. Under the new dispensation, exchange-rate management became the fulcrum of anti-inflation policy.

The abandonment of rigorous targets for money and credit growth was logically consequent on the dilemma faced by policy-makers at the beginning of the financial liberalization. As we have seen, they wanted the financial system to expand and assume the functions of resource allocation previously performed – with inefficiency and occasional dishonesty – by government. Such expansion required that money and credit grow at a higher rate than nominal gross domestic product (GDP). There was obviously a powerful demand for bank credit from the private sector since this had persisted despite astonishing real interest rates in 1976 and 1977. The quantification of restraint over money and credit seemed, to Cauas and de Castro, tantamount to placing an explicit obstacle in the way of financial development. In their view such development was essential to the initiation of rapid economic growth led by the private sector.

By late 1977 and early 1978 much had been achieved in areas other than financial liberalization. The balance of payments had been corrected, with a small current-account surplus in 1976 followed by a deficit of 4.5 per cent of GDP in 1977, quite a normal and acceptable figure for a developing country. The major structural reform was the removal of trade barriers, including the largest unilateral reduction in tariff rates ever implemented by any country. Imports grew quickly as a result, but exports were also very dynamic. Most spectacular was the increase in non-traditional exports which rose from $71.2 million in 1973 to $818.7 million in 1978. These non-traditional exports – mainly fruit, forest products and fishmeal – benefited from resource reallocation due to trade liberalization and from the policy of a competitive exchange rate to which Cauas had stated his government's commitment in October 1974.

Financial liberalization and exchange-rate management

By the end of 1977 the Chilean authorities had curbed inflation, but at rates well in excess of 50 per cent it was still above the average for the 1950s and 1960s. As further and intensified credit restraint was ruled out because of its conflict with growth objectives, the economic team embarked on an imaginative strategy to dampen inflation expectations. The hope was that in this way the costs (in terms of lost output and employment) of further reductions in inflation would be minimized. In Chile, as in other Latin American countries, the exchange rate between the dollar and the local currency is closely watched because the public knows – from many years' unhappy experience – that it is a good advance indicator of future price increases. The idea favoured in late 1977 was to announce an advance schedule of peso devaluations against the dollar, each one being smaller than the last. The link with the dollar was intended to be an earnest of the government's anti-inflation resolve, while the gradual diminution in the size of the devaluations was supposed both to reflect and to enforce a continuing decline in the inflation rate. The devaluation schedule was set out in a small table known as the *tablita*. De Castro announced the first *tablita* in February 1978.

Of course, the *tablita* would work only if people believed that the devaluation schedule could be held. De Castro and his associates designed a relatively simple central banking model, similar to the currency-board system operated over many decades in former British and French colonies, to solve this problem. They thought that the exchange rate could be maintained at the pre-announced level if the central bank had sufficient dollars to meet any claims made on it. So the vital requirement was that the central bank's liabilities (i.e., high-powered money for the rest of the economy, known as *emisión* in Chilean terminology) should be 100 per cent covered by foreign-exchange reserves. In the past the Chilean central bank's balance sheet had looked very different. Because of budget deficits the central bank had had to lend to the government and other public-sector agencies, and because of the cosy relationships with private banks it had bought much of their paper. Its liabilities were therefore matched mostly by credit to domestic entities, not by foreign-exchange reserves. But in 'the new Chile' being forged by the Pinochet government the central bank would – so it was presumed – be able to stop all forms of domestic credit. As the budget was balanced the government would have no need for funds, while de Castro was confident that rediscounting facilities to the private banks could be withdrawn without fuss.

Two further features of the proposed currency-board model should be noted. First, although the central bank itself was to give no loans to the private sector in any form, commercial banks were left free to increase their loans to the private sector as much as they wished. They had to comply with reserve requirements, but these were being progressively relaxed. The easing of reserve requirements would allow a steady rise in the money multiplier and, as a result, a given amount of high-powered money would support an increased quantity of deposit liabilities. Secondly, the ultimate base of the financial system was the central bank's foreign-exchange holdings. It was the rise or fall of these holdings which was to determine – when all the arrangements were working smoothly – the amount of high-powered money in the economy and so the behaviour of private-sector credit and the monetary aggregates. In these circumstances the authorities welcomed the inflow of capital from abroad because it added to foreign-exchange reserves. When the new system was being organized they were enthusiastic about all forms of private-sector credit, with few hesitations or provisos, and they viewed capital inflows approvingly.[17]

The *tablita* and its accompanying machinery failed. They failed amidst an economic catastrophe almost as bad as the shambles of 1973. The system's architects have, understandably, been criticized as the main culprits in the fall of the Chilean economic miracle. But proper recognition should be paid to the virtues of the new system, particularly in the Chilean context, when it was first envisaged. The aim was to terminate the sequence of slowly diminishing devaluations by fixing the exchange rate. This aim was fulfilled. The peso was pegged at 39 to the dollar in July 1979 and de Castro declared that the rate would be maintained 'for many years'. For a country like Chile, habituated to currency turmoil, this was a step forward. It reduced business uncertainty and took the exchange rate – at least temporarily – out of the political arena. It also had the desired effect on inflation expectations. The first year of the *tablita*, 1978, saw the inflation rate fall to 30.3 per cent. If everything had turned out ideally, the central banking system had even more to commend it. The supply of high-powered money to the economy would come to depend not on domestic budgetary excesses and the associated political wrangling, but on external developments outside policy-makers' control. The scope for political interference with economic variables, which had been far too great in Chile for many decades, would be much reduced. Finally, the denial of rediscounting and other facilities to private banks would end the unfair exploitation of cheap central-bank credit about which de Castro had complained so forcefully when he was first appointed. Although the private banks would be more exposed to competition because of the increased distance between themselves and the central bank, they would also be less regulated. Their new freedom would allow them to grow swiftly, enabling Chile to escape from the financial repression which had stunted its development, particularly its private-sector development, for more than thirty years. There may seem to be something of a discrepancy between Cauas' October 1974 commitment to avoid a 'deterioration of the real exchange rate' and de Castro's July 1979 pledge that the fixed exchange rate would be held 'for many years'. But the two statements reflected a common ambition, to promote financial development by ending the extreme macroeconomic uncertainty and instability which had hindered Chile's progress for so long.

The course of financial liberalization, December 1977 to October 1981

The four years from December 1977 were very exciting for the Chilean economy. Economic growth was faster than at any time since the 1920s and living standards improved spectacularly. The increase in GDP was 8.2 per cent in 1978, 8.3 per cent in 1979, 7.5 per cent in 1980 and 5.3 per cent in 1981. Among the most vigorous sectors were the new export industries. Non-traditional exports advanced from \$818.7 million in 1978 to \$1,820.8 million in 1980. Inflation remained moderate by Chilean standards and, briefly, even became low by international standards. Consumer prices rose only 9.5 per cent in the twelve months to December 1981. Here, without question, was an economic miracle – or so it seemed.

As Cauas and de Castro intended, the boom was driven by private-sector credit. Between December 1977 and August 1981 bank credit to the private sector rose by over eleven times (see Table 7.1). Although prices went up by about 140 per cent in the same period the increase in real terms was almost five times, a remarkable figure for such a short space of time. The growth was most rapid in 1979 and 1980, coinciding with the phase of particularly buoyant economic activity. Credits were extended in both pesos and dollars. As Table 7.2 shows, peso and dollar loans increased at roughly similar rates. Chilean banks were unable to fund their dollar lending from domestic sources and instead had to borrow heavily abroad. Their external dollar borrowings were $248.3 million in 1978, $434.8 million in 1979, $1,465.9 million in 1980 and $2,824.8 million in 1981.

The structural composition of credit growth corresponded to the economic team's objectives. With the budgetary position so strong, the public sector was not a significant participant in the boom. Indeed, small surpluses were recorded on the government's finances in 1979, 1980 and 1981. As CORFO's miscellany of industries had been restored to profit-

Table 7.1 *Assets and liabilities of the Chilean monetary sector, 1973–81*

All figures are in millions of pesos and relate to end of period.

	Domestic credit to				
	Public sector	Private sector	Other assets	Net claims abroad	Monetary liabilities (including banks' capital and reserves)
Dec. 1973	858	59	−96	−277	544
Dec. 1977	74,340	49,654	−15,101	−19,894	108,998
Dec. 1978	117,194	114,593	−25,881	12,395	356,149
Dec. 1979	154,185	206,782	−17,212	12,395	356,149

Source: Boletín Mensual (Banco Central de Chile, Santiago), May 1980, p. 880.

	Domestic credit to					
	Public sector	Private sector	Financial sector	Other assets	Net claims abroad	Monetary liabilities (including banks' capital and reserves)
Dec. 1979	125,657	205,410	3,396	14,649	14,235	363,347
Dec. 1980	130,469	358,894	14,891	43,600	69	547,923
Aug. 1981	93,797	565,881	10,767	53,652	−61,312	662,785

The figures have been compiled on different bases over this period, with the break coming at December 1979. The table is therefore presented in two parts so as to mark where different criteria have been applied.

The totals include credit extended in both pesos and dollars. The figure in the final column is the sum of all the previous columns.

Source: Boletín Mensual, May 1980, p. 1098.

Table 7.2 *The growth of private-sector credit in Chile, 1978–81*

	Loans to private sector by commercial banks			
	Local currency		Dollars	
	Amount (millions of pesos)	Change on year earlier	Amount (in $m.)	Change on year earlier
Dec. 1978	57,051	—	1,000	—
Dec. 1979	104,612	+83.4%	1,642	+64.1%
Dec. 1980	191,590	+83.1%	3,551	+116.4%

Source: Boletín Mensual (March 1981), p. 625.

	Loans to private sector by commercial banks			
	Local currency		Dollars	
	Amount (millions of pesos)	Change on year earlier	Amount (in $m.)	Change on year earlier
Dec. 1980	248,231	—	3,844	—
Dec. 1981	382,627	+54.1%	6,440	+67.5%

The figures are not presented on a continuous basis over the whole period because the harmonization of regulatory arrangements for banks and *financieras* made it necessary to include *financieras* in the same category as the banks after December 1980.
Source: Boletín Mensual (March 1981), p. 625.

ability by robust management, it also was not borrowing from the banks. Bank credit to the public sector fell from 125,657 million pesos in December 1979 to 93,797 million pesos in August 1981, at the same time that credit to the private sector soared from 205,410 million pesos to 565,881 million pesos. Whereas in December 1973 the public sector's debts exceeded domestic monetary liabilities by a wide margin, in August 1981 they represented only 14.2 per cent of such liabilities. Clearly, the private sector received the overwhelming preponderance of credit during the financial liberalization. Moreover, most lending operations were conducted by private-sector entities. By August 1981 the Banco del Estado, which had largely abstained from the frenzy of new lending, was a rather neglected institution. Its proportion of domestic-currency loans had fallen to 10.7 per cent. It seemed condemned to a permanent loss of market share to aggressive competitors such as the Banco de Chile (14.1 per cent) and the Banco de Santiago (8.8 per cent).[18] Regulations were being harmonized to create parity between the banks and the *financieras* so that all credit-granting and deposit-taking businesses could be integrated, on equal terms, into one financial system.

While the commercial banks lent money at a furious pace to the private sector, the central bank tidied up its balance sheet. Domestic credit to the public and private sectors was gradually eliminated in order to meet the requirements of the currency-board blueprint. Table 7.3 shows how much progress was achieved. In December 1977 claims on the public sector were by far the largest class of assets held by the central bank. As in December 1973, they much exceeded the total amount of high-powered money. Between December 1977 and December 1979 claims on government continued to grow, but more slowly than high-powered money. The central bank was able to change 'net claims abroad' from a negative to a positive figure, establishing some reserve backing for the issue of high-powered money. After 1979 the position began to approach a genuine currency-board pattern. In February 1980 the banking system lost central-bank loan facilities and became a small net creditor on the central bank. Between April and June 1980 direct lines to the non-bank private sector were also cut off and it, too, became a net creditor.[19] De Castro had acted on his angry words in 1977, making sure that 'quick fortunes' would not be grabbed by 'certain individuals and groups' with preferential access to central-bank credit. The curtailment of credit to the public sector was a less tractable problem, but it did decline by almost a third between December 1979 and August 1981. As a result of these cut-backs in domestic credit the central bank was able to cover high-powered money fully by holdings of international reserves. Indeed, from mid-1979 onwards reserves exceeded high-powered money. In late 1980 de Castro and his team believed that they had established an automatic system for regulating credit and money, comparable to the gold standard in its invulnerability to administrative discretion and political interference.

But the events of 1982 and 1983 were to demonstrate that nothing could be taken for granted in Chilean monetary control. The financial gyrations of these two years were far from automatic; they required the exercise of much administrative discretion and prompted considerable political interference. There were several sources of trouble, but without doubt one of the most important was the fixed exchange rate. Despite Chile's relative openness to international competition because of its low tariff barriers, the inflation rate did not fall quickly to international levels after July 1979.

Table 7.3 *The balance sheet of the Banco Central de Chile*

1. Structure of central bank assets
All figures are in millions of pesos and relate to end of period.

	Domestic credit to						
	Public sector	Private sector	Banking sector	Other assets	Net claims abroad	Capital and reserves	High-powered money
Dec. 1973	723	44	9	−199	−201	−48	327
Dec. 1977	87,833	2,135	6,526	−24,221	−14,344	−20,420	37,509
Dec. 1978	110,441	9,249	7,197	−27,330	−4,905	−50,379	54,083
Dec. 1979	143,315	14,999	6,168	−6,917	43,288	−121,438	79,413

High-powered money (or *emisión*) is the sum of all the columns to the left.
Source: Boletín Mensual (May 1980), p. 880.

	Domestic credit to						
	Public sector	Private sector	Banking sector	Other assets	Net claims abroad	Capital and reserves	Central bank liabilities
Dec. 1979	120,983	10,213	17,317	−6,236	61,128	−117,572	85,833
Dec. 1980	119,989	−757	2,417	−10,478	127,063	−138,367	99,867
Aug. 1981	82,010	4,371	−7,726	−13,547	141,561	−116,384	90,285

From January 1979 central bank liabilities were separated in Chilean financial statistics into high-powered money and two other categories, excess reserves and quasi-money. There is a consequent break in the series.
Source: Boletín Mensual (December 1981), p. 2831.

2. Reserve backing for high-powered money
All figures are in millions of pesos.

	Net international reserves	High-powered money	Reserves as a percentage of high-powered money
Dec. 1977	15,323	37,509	40.9
Dec. 1978	40,699	50,379	80.8
Dec. 1979	97,227	65,321	148.8
Dec. 1980	163,667	90,097	181.7
Aug. 1981	161,207	82,232	196.0

The 'net international reserve' concept used is reserves at the central bank minus IMF position. The high-powered money definition changed over the period, but interpretation would be unaffected by using other series.
Source: Boletín Mensual, several issues.

Indeed, over the whole period of the *tablita* and the fixed rate, the real exchange rate rose substantially. Morgan Guaranty has estimated that the peso's real appreciation may have amounted to 45 per cent between early 1978 and the beginning of 1981.[20] This hampered Chilean exports in world markets and made imports artificially cheap. The distortion of relative prices inevitably affected the pattern of credit allocation, causing the 1977–81 boom to become extremely lop-sided. The growth of non-traditional exports slowed down and, after 1980, they started to decline in value terms. Money was not channelled towards investment in the tradables sector, but instead financed consumption and investment in property. Too many consumption goods were paid for by personal borrowing from abroad. So-called 'capital inflows' were squandered on French cheeses and Swiss chocolates. Of course, there was some increase in investment in plant, machinery and buildings, but it was disappointing in scale. An increasing number of Chileans began to doubt that the fixed exchange rate could be held, since there was an obvious need to correct the massive current-account deficits – of $1,971 million in 1980 and $4,814 million in 1981 – which emerged. They also wondered whether bankers and loan-sharks in the private sector were any more skilled at resource allocation than politicians and bureaucrats in the public sector.

The fixed exchange rate must take some blame for the mistakes of 1980 and 1981, but it was not the only weakness in the government's programme. The financial liberalization was, in truth, much too rapid. It must be recognized that the Chicago boys were worried about the structure of the financial sector. For example, in February 1980 Bardón, the president of the central bank, contrasted a system of *multibanca*, with several small, multi-function banks, and a system of *banca especializada*, in which each institution had a particular niche in the credit market and was insulated from competition.[21] He favoured a system of *multibanca* because it aided competition. But, in general, members of the economic team were too trustful of unhampered market forces and too sanguine about prudential aspects of the credit boom.

The quintupling of real private-sector credit was accompanied by conspicuous speculative excesses. Since the real capital stock rose by nothing like the same amount, the extra credit supported very rapid increases in asset values, particularly the price of property and land. These increases in asset values led to frenetic wheeling and dealing without any underlying economic purpose whatever. The worst offenders indulged in transactions barely distinguishable from outright theft. A typical manœuvre was for a bank executive to purchase a piece of land on his account and then arrange a loan – from his bank – for another buyer, possibly a relative, at a much higher price. One of the most common abuses was the *cartera relacionada*, the loan of money to bank subsidiaries or to personnel employed by a bank. Banks were, in effect, taking in deposits to back their managers' personal investments. A report prepared by the Superintendent of Banks and Financial Institutions in 1982 showed that loans to companies connected with owners of financial institutions averaged 15.4 per cent of assets and were often more than 20 per cent.[22] Some of the most objectionable deals were organized by two particularly large *grupos*, one headed by Javier Vial and the other by Fernando Larraín and his brother-in-law, Manuel Cruzat. Their flagship banks were, respectively, the Banco de Chile and the Banco de Santiago. At one time it had been hoped they would assume the mantle of the Banco del Estado as particularly trustworthy havens for savings. When the more convoluted antics of these and other institutions were exposed in the media, the general public was appalled.[23] Some observers regarded certain manipulations as equivalent in their vulgarity and greediness to the appropriation of public property by minor civil servants at the end of the Allende government.

The fall of the Chilean economic miracle

By the spring of 1981 de Castro realized that, largely because of bankers' misdeeds, the Chilean economy was in very serious difficulties.[24] From then on he fought a continuous battle with the *grupos* to clean up the mess. In May 1981 came the first sign of trouble, the bankruptcy of Crav, a large sugar company. Investigations into the affairs of its creditor banks revealed alarming irregularities on the part of their executives. In July 1981 de Castro pushed through a law to reform the banks, placing limits on the ratio of *carteras relacionadas* to total assets. In November eight institutions were subjected to 'intervention' or, in other words, were taken out of the hands of their managements and brought under official control. Ironically, their bad loans had to be assumed by the Banco del Estado. As a state-owned enterprise, it could absorb the losses involved.

Vial retaliated by organizing a press campaign in favour of devaluation. He knew that devaluation would have spelt humiliation for de Castro who had devised the currency-board model and made it operate, with apparent success, for over two years. The correspondence columns of *El Mercurio*, Chile's most important newspaper, became lukewarm about the fixed exchange rate. It is hard to understand what Vial and his allies hoped to achieve by organizing a campaign in favour of devaluation, since devaluation would clearly be a disaster for their businesses – and it was. The rumours of an exchange-rate change certainly had a calamitous effect on the economy. To keep Chileans prepared to hold pesos, interest rates had to be maintained at high nominal rates, with the monthly cost of short-term loans about 3.5 per cent in the second half of 1981. Meanwhile, the fixed exchange rate prevented price increases and inflation was negligible. Real interest rates, which had dipped to reasonable levels in 1979 and 1980, rose once again to stratospheric figures. The growth of bank lending slowed down sharply, with credit to the private sector up by 23.3 per cent in the six months to November 1981 compared with 42.3 per cent in the previous six months. Without the usual injection of new credit, property prices started to sag – at the same time that nominal interest rates were over 50 per cent a year. Against this background any kind of property investment was hopelessly unprofitable. It was inevitable that construction activity would collapse and it should have been obvious to de Castro that measures to cut interest rates were essential to stop an economic catastrophe.[25] But de Castro was committed to the fixed exchange rate of 39 pesos to the dollar – and also to humiliating the *grupos* who had spoilt the financial liberalization.

Policy-making was in disarray. Public squabbles between members of the economic team and leading financiers were a daily occurrence, while the signposts of impending disaster were easy to read. A flight from the peso to the dollar developed in anticipation of an exchange-rate adjustment. The rapid lending growth in the mid- and late 1970s had raised the level of peso money balances from 6.5 per cent of GDP at the end of 1974 to 26.0 per cent at the end of 1981.[26] The Chilean people, who have abundant experience of devaluations, decided to protect their wealth by lowering the proportion of their assets held in peso deposits. De Castro was soon alerted to the major conceptual flaw in the currency-board model. When bank deposits are convertible into dollars, 100 per cent reserve cover for central-bank liabilities is insufficient to hold the exchange rate. Instead 100 per cent cover for all bank liabilities is needed. Chile did not have that. The reserves fell from $4,064 million in September 1981 to $3,679 million in January 1982 and $3,319 million in June 1982. Economic activity slumped as banking difficulties spread from the 'intervened' banks to others and as very high real interest rates deterred borrowing. Unemployment climbed from 8.1 per cent in July-September 1981 to 17.4 per cent in March–May 1982. As the government's popularity fell heavily, Pinochet had to act. In April 1982 de Castro, the obvious scapegoat, was obliged to resign.

But the *grupos* had not won. Their day of reckoning was soon to come. The Chilean economy, already suffering from grave internal disorders, was subjected to two external shocks in the second quarter of 1982. The first was an intensification of the international recession which, in June 1982, reduced the real price of copper to its lowest level for fifty years. The second was the decision by the international banking community to halt new loans to Latin America. The pretext for the ending of credits was the Falklands dispute, but the true reason was a surprisingly belated realization that countries like Chile cannot run current-account deficits of almost $5,000 million indefinitely.

Because of these external events, Chile was required – in a period of less than a year – to shift about 15 per cent of GDP into improving the trade balance. An economy which had been lop-sided in the satisfaction of domestic demand now had to be transformed into one biased towards meeting foreign demand. The peso was devalued by 18 per cent on 14 June, despite a pledge by Pinochet only a few days earlier that this would not happen. A run on the peso developed and the authorities had to let it float on 5 August. It depreciated by a further 30 per cent in a fortnight.

The attempt to restrain inflation by exchange-rate management was in ruins. The consumer price index, which had been stable in the first half of 1982, rose by 20 per cent in the second half. The upheaval in relative prices made necessary by the balance-of-payments correction was traumatic for the financial system. Banks were very exposed because of the preponderance of loans to domestic-market activities, such as construction and property. The devaluation enormously increased the peso cost of servicing dollar debts. The Banco de Chile, the Banco de Santiago and other errant institutions found that many customers could not repay their loans. Virtually the entire Chilean financial system was bankrupt. Loan losses exceeded – and, in some cases, were a multiple of – capital and reserves. The central bank and the Banco del Estado, as the only two solvent organizations remaining, had the thankless task of putting the private banks' affairs back into some sort of order. The privatization of credit and resource allocation, a task which had taken several years to accomplish, was reversed in only a few months. As numerous examples of financial skulduggery were revealed, the financial liberalization became a target for anger and mockery. The whole free-market experiment was stigmatized by its association in the public mind with the unedifying behaviour of a relatively small number of individuals. The Chilean economic miracle was over.

Conclusion: the need for prudential checks in financial liberalization

Although the Chilean economic miracle was wrecked by a relatively small number of people, it would be wrong to seek solace or excuse in some sort of conspiracy theory. The problem can be stated in very general terms. Chilean policy-makers wanted to stimulate private-sector expansion by financial liberalization. But no economy can accommodate a quintupling of the real stock of private-sector credit in a period of under four years. It was far too ambitious to proceed at such a rate. The central bank would have been fully justified, on prudential grounds, in warning the commercial banks to behave more responsibly before the credit boom degenerated into a sophisticated form of gambling. It is quite normal and proper for a central bank to exercise prudential supervision, by threatening sanctions against insubordinate institutions, in the advanced market economies. The appropriate moment for such action in Chile is difficult to judge, but it may have been as early as mid-1980. In June 1980 share prices were eight times higher *in real terms* than in January 1977, a ridiculous rate of appreciation which must have reflected market-rigging by the *grupos*.[27]

The quintupling of private-sector credit led to three sorts of difficulty. First, the expansion of peso loans on one side of the banks' balance sheet was matched by the expansion of peso deposits on the other. It became evident in late 1981 that the Chilean public was not willing to hold the much-increased quantity of peso deposits. The move out of the peso into the dollar was so extreme that the central bank could not maintain the fixed exchange rate, despite immaculate control over its credit to both public and private sectors. Restraint over central-bank domestic credit is not sufficient for exchange-rate stability if the demand for a currency is unstable. In Chile, where people are highly familiar with the dollar as a store of value and unit of account, and where guessing the next devaluation is almost a national pastime, the demand for pesos is extremely unstable.[28] The blow to confidence in June 1982 was so severe that, in future, it will be an even more arduous task to raise the ratio of money balances to national income, as the theories of McKinnon and Goldsmith suggest is needed if the economy is to achieve sustained growth.

Secondly, the high ratios of financial intermediation to national income found in the advanced market economies reflect the cumulation of many decades' experience and understanding. The various misdemeanours in Chile have been seen before, in the United States, Britain and elsewhere, on numerous occasions. But arrangements for preventing and curbing abuses exist. These take the form not only of regulatory bodies, but also – and perhaps more importantly – of banking routine, professional codes of conduct, business ethics and so on. Capitalist economies, despite their allegedly self-serving dynamic, may depend far more on 'implicit contracts' – involving trust and forbearance – than is commonly realized.[29] Despite its cultural homogeneity, Chile could not build up a large stock of such 'implicit contracts' in a few years. They may be essential to the full development of a financial system. There is something sad, as well as ironic, in de Castro's high-minded withdrawal of central-bank credit to the private banks, just when they were at their busiest robbing each other and the general public. 'The irresponsibility of bad businessmen is dangerous for the market system, in the same way as the irresponsibility of bureaucrats in the statist system.'[30]

Thirdly, the reliance on dollar loans from abroad as one ingredient in the credit boom was very risky. The fixed exchange rate and the currency-board model were not, in themselves, bad ideas. Undoubtedly, the real exchange-rate appreciation of 1978, 1979 and 1980 complicated the economy's evolution, but it is not clear that adjustment to the 1982 terms-of-trade deterioration would have been much smoother with a more flexible exchange-rate system. It should be emphasized that the trade deficit was eliminated *before* the June 1982 devaluation. Many British and French colonies operated currency boards successfully in the past, despite being exporters of primary commodities subject to extreme price volatility. Their practice was to build up surplus balances in the metropolitan power when the terms of trade were good and run down balances or borrow when the terms of trade were poor. But Chile was borrowing on a vast scale while the terms of trade were good. The need to rectify the balance of payments became drastic because, simultaneously, there was an adverse terms-of-trade shift and new foreign credits were stopped.

Financial liberalization is probably vital to the development of efficient market economies in Latin America. But the Chilean experience suggests that institutional reform should be conducted gradually and with circumspection. Today the country is hamstrung with debt, both internally and externally. It may recover from the mishandled liberalization attempt of 1977–82, but its legacy of financial excesses will constrain the economy for several years to come. In the words of a former senator to the Chilean congress, 'Before we begged and spent. Now we must produce and pay.'[31]

NOTES

1 See T. G. Congdon, '*Apertura* Policies in the Cone of Latin America', *The World Economy* (Trade Policy Research Centre, London), September 1982, for a more detailed analysis. Several papers on the subject appear in a special issue of *Cuadernos de Economía* (Universidad Católica, Santiago), published in August 1981.

2 R. I. McKinnon, *Money and Capital in Economic Development* (Washington, D.C., 1973) introduced the concept of financial repression. See, particularly, Chapter 6.

3 M. J. Mamalakis, *The Growth and Structure of the Chilean Economy* (New Haven, Conn., 1976), p. 298.
4 The assets qualifying as reserves would typically be government liabilities.
5 C. Nisbet, 'Interest Rates and Imperfect Competition in the Informal Credit Market of Rural Chile', *Economic Development and Cultural Change* (1967).
6 CORFO stands for Corporación de Fomento or Development Corporation.
7 S. de Castro, speech to Latin American Association of Financial Development Institutions on 29 March 1977, p. 237 of J. C. Mendez (ed.), *Chilean Economic Policy* (Santiago, 1979).
8 Mamalakis, *Growth*, p. 287.
9 Towards the end of the Frei government there were frequent seizures (or *tomas*) of state housing, built by two agencies known as MINVU and CORVI. 'The live-in maid of the director general of Planning and Budget obtained two sites, one for her ten-year-old son and another as insurance for herself. After the Allende government took power, many lower-level MINVU personnel took advantage of their access to keys and vacant CORVI or Social Security Fund living units.' P. S. Cleaves, *Bureaucratic Politics and Administration in Chile* (Berkeley and Los Angeles, 1975), p. 300.
10 McKinnon, *Money and Capital* develops this idea. See, for example, the proposition on p. 57 that 'if the desired rate of capital accumulation (and hence private savings) increases at any given level of income, the average ratio of real cash balances to income will also increase'.
11 R. W. Goldsmith, *Financial Structure and Development* (New Haven, 1969), p. 40.
12 Mendez (ed.), *Chilean Policy*, pp. 108–9 and 87.
13 The figures are taken from pp. 905–7 of Banco Central de Chile (Santiago), *Boletín Mensual*, May 1980. The calculation of the real interest rate is complicated in a period of rapidly falling inflation by the lack of an obvious reference period. The rate in the last twelve months may be quite different from the annualized rate in the latest month.
14 The figures are taken from p. 33 of Ministerio de Hacienda, *Exposición sobre el Estado de la Hacienda Pública* (Santiago, 1982). The money-supply concept under consideration in the text is narrow money, dominated by transactions balances. The changes relate to the twelve months ending in December each year.
15 *Exposición*, p. 69.
16 Mendez (ed.), *Chilean Policy*, pp. 159, 177 and 228.
17 The Chilean arrangements resembled those in colonial countries with currency boards. Another example may have been Panama where the local currency (the bilboa) circulates at par with the dollar and again has 100 per cent reserve backing. See 'The Panamanian monetary system', pp. 223–8, in H. G. Johnson, *Further Essays in Monetary Economics* (London, 1972). The theoretical under pinnings of the Chilean system were described in two articles in the central bank's *Boletín Mensual* of October 1980, 'Algunos Puntos Preferentes al Manejo Monetario en Chile' by A. Bardón and F. Bacigalupo and 'Inflación y Tipo de Cambio: Experiencia Reciente' by S. de la Cuadra.
18 *Boletín Mensual*, December 1981, p. 2839.

19 *Boletín Mensual*, March 1981, p. 619.
20 Morgan Guaranty Trust Company, *World Financial Markets*, February1982, p. 7.
21 A. Bardón, 'Ventajas de un Sistema de Multibanca en un País Pequeño, con Mercado del Capitales en Desarollo', *Boletín Mensual*, February 1980, pp. 211–17.
22 The figures are mentioned in a talk by C. Cáceres, the president of the central bank, on 'Recent Developments in the Chilean Economy', mimeo, September 1982.
23 One example may suffice. Vial's Banco de Chile lent $300 million to the Banco Andino, registered in Panama, in order that the Banco Andino might shore up companies in which Vial was a large shareholder. This was despite legal restrictions on direct loans by the Banco de Chile to these companies, many of which were *empresas de papel* (paper enterprises). *Latin American Regional Reports, Southern Cone* (Latin American Newsletters, London), 11 March 1983, p. 7.
24 It should be pointed out that, by this stage, there were major divisions among the Chicago boys. Many former government ministers were involved in banking and thought devaluation necessary.
25 Sjastaad highlights the damage from excessive real interest rates in his assessment of the Chilean experiment. See L. A. Sjastaad, 'Failure of Economic Liberalism in the Cone of Latin America', *The World Economy* (Trade Policy Research Centre, London), March 1983, pp. 5–26. See, particularly, pp. 16–19.
26 *Exposición*, pp. 84–5. Peso money balances are taken to include private-sector money and quasi-money.
27 We see here part of the explanation for the very high real interest rates. The rates were high compared with the rate of increase in the prices of goods and services. But they were modest compared with the rate of increase in asset values. When increases in asset values gave way to decreases in late 1981, nominal rates of 3 per cent or 4 per cent a month soon generated a 1930s-style slump.
28 This point has obvious implications for the monetary approach to the balance of payments – or, at least, to the application of that approach to Latin American countries.
29 The term 'implicit contracts' is usually applied to labour markets. See pp. 89–92 of A. M. Okun, *Prices and Quantities* (Oxford, 1981). But it is also relevant to financial markets. A fascinating article, 'The Bagehot Problem', by F. Hirsch in *The Manchester School*, September 1977, argued that the existence of a lender of last resort creates moral hazard in banking, a problem which needs to be checked by restraints on competition.
30 P. Baraona, a former economics minister, in an interview in *El Mercurio*, 8 November 1981.
31 P. Ibáñez, in an article on 'Reglas del Juego', in the journal of *Escuela de Negocios de Valparaíso*, January 1983.