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ORIGINS AND RESOLUTION OF A BANKING CRISIS: CHILE 1982-86

Edgardo Barandiarán   Leonardo Hernández

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Huérfanos 1175, primer piso.
Teléfono: (56-2) 6702475   Fax: (56-2) 6702231

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ORIGINS AND RESOLUTION OF A BANKING CRISIS: CHILE 1982-86

Edgardo Barandiarán
The World Bank

Leonardo Hernández
Economista Senior
Gerencia de Investigación Económica
Banco Central de Chile

Resumen

En 1981 comenzó en Chile una crisis económica y financiera considerada entre las más grandes de este siglo. Sin embargo, su solución resultó ser bastante heterodoxa ya que las medidas tomadas parecieron muchas veces arbitrarias y en más de alguna oportunidad hubo importantes reveses de las mismas. A pesar de lo anterior la economía se recuperó relativamente rápido y desde entonces el sistema financiero chileno se ha fortalecido de manera importante, al punto que la reciente crisis financiera internacional no causó ningún problema a los bancos chilenos. En este trabajo se analiza y evalúa la experiencia chilena de comienzos de los años ochenta, en particular, el contexto interno y externo en que se dio la crisis financiera de 1982-86, y las políticas que se implementaron para su cabal solución. El trabajo intenta identificar cuáles políticas funcionaron y cuáles no. Además, en la medida que la disponibilidad de datos así lo permite, el trabajo evalúa cómo y cuáles de las distintas políticas permitió la recuperación de la solvencia del sistema financiero.

Abstract

Starting in 1981, Chile went into a deep economic and financial crisis. The Chilean solution to the crisis was heterodox in the sense that many policies appear to have been arbitrary, and policy mistakes were made and corrected along the way. However, the economy recovered relatively quickly, and since has built a strong financial sector that allowed the country to avoid the financial turmoil observed during 1995 and 1997-98 in other emerging market economies. This paper reviews and evaluates the Chilean experience of the early 1980s. In particular, it discusses the macroeconomic internal and external environment that led to the banking crisis, and describes in detail the main measures implemented to its resolution. The paper attempts to identify which policies worked and which ones did not. To the extent allowed by the data, we try to see how (and which of) the different policies led to a recovery of the solvency in the banking system.

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1. INTRODUCTION

This paper is about the origins and resolution of the Chile's banking crisis precipitated by the 1982-83 recession. In the past 150 years, several times Chile suffered large income losses because of a decline in its terms of trade or other external shocks, and often it had to reverse expansionary domestic policies. The 1982-83 recession was the fourth largest one after the Great Depression, the oil crisis of the mid-1970s, and the one at the beginning of the First World War. Aggregate output fell in real terms over 20 percent between the peak level of the third quarter of 1981 and the bottom level of the same quarter of 1983. By late 1983, unemployment had climbed to over 30 percent of the labor force, and the share of population in absolute poverty had increased to around 55 percent from about 30 percent in 1981 (Hernández and Mayer, 1998). Also, CPI-measured inflation had more than double in relation to the low level of 9.5 percent in the twelve months to December 1981.

The magnitude of the 1982-83 recession was determined by the circumstances of the economy at that time. First, in the two years up to mid-1981, the domestic private demand for consumption and fixed capital investment had increased rapidly to a record level. Later most of this investment would be the basis for a large increase in output and exports, but in late 1981 it had yet to mature. Independent of its driving forces, the expansion of domestic private demand was possible by the sudden access to both domestic and foreign loanable funds intermediated mostly by private national banks (foreign banks still accounted for a small share of domestic loan markets).

Second, to some extent, the bank's loan portfolios reflected excessive risk taking by banks in the sense that their depositors (and perhaps other creditors) had not been explicitly fully compensated by the credit risks they were taking. The magnitude of this problem was not known at the time of the crisis, and has never been possible to assess its importance. Although two large banks were intervened in November 1981 because of the allegation of excessive risk taking, when the crisis deepened in 1982 the deterioration of the loan portfolios was due mostly to the new macroeconomic conditions.

Third, the 1980-81 boom had led to changes in relative prices, in particular, an increase in real wages. The latter resulted from the economic boom, the indexation of nominal wages to past inflation and from substantial reductions in the cost of labor to companies (due to cuts in wage taxes). These changes were difficult to reverse in the recession mainly because of Chile's traditional inflationary bias—changes in relative prices were possible only by increasing some nominal prices. The reforms of labor laws notwithstanding, nominal wages were still rigid downwards and political pressures quickly mounted for devaluing the Chilean peso.

Fourth, last but not least, notwithstanding the new legal and government institutions of the 1980 Constitution, they were yet to bound effectively government's powers. Thus, given the income losses anticipated by the main constituencies of the military government, pressures for its intervention quickly mounted. It took some time for the government to abandon its commitments to a fixed exchange rate policy and to a policy of no bailing out any party affected by the crisis.

By mid-1981, the record level of the aggregate demand for consumption and investment was no longer sustainable. The increase in real interest rates in the first semester of 1981 and the decline in terms of trade in the previous twelve months forced a contraction in private demand for both consumption and investment. The magnitude of the subsequent recession was determined by some combination of all four factors mentioned above. Independent of their relative importance in determining the magnitude of the recession, it is important to note that these factors were not the cause of the large expansion in private demand in previous years. The latter was a direct consequence of new and raising expectations about the country's potential income level, in turn the result mainly of the economic reforms of 1974-81 and the new institutions of the 1980 Constitution. (Table 1.1 shows in a chronological order and in a nutshell the events that led to the crisis and the recovery of the Chilean economy.)

The resolution of the financial crisis triggered a complex process. It took some time to complete it, and it consisted mainly of many ad-hoc measures. To achieve their objectives, most had to be revised and fine tuned often. Table 1.2 summarizes the measures as if they had been part of a comprehensive plan, but it took some time for all pieces to fall into a coherent approach. More important, it was an expensive process with a cumulative fiscal cost of over 40 percent of GDP. Nevertheless, its success was a prerequisite for aggregate demand and output to recover their pre-crisis levels.

The recovery that started by 1985 led to high GDP growth rates (per capita GDP reached the 1981 record level in 1988) and facilitated the development of a strong financial sector that since then has fared well the turmoil of international capital markets. In fact, Chile's recovery probed to be more sustainable than that of other Latin American economies affected at that time by a serious external debt crisis.

Four elements were decisive to that strong and sustainable recovery. First, key macroeconomic variables—i.e., fiscal deficit, inflation, etc.—were kept under control or stabilized around reasonably low levels in the years following the crisis (and additional progress was made on reducing or stabilizing them through the 1990s). Second, Chile's terms of trade recovered after 1987, greatly facilitating the restoration of fiscal discipline and external equilibrium. Third, the incentives to substitute equity capital for debt capital—in particular, the reform of the income tax system to encourage the reinvestment of profits—were effective. Finally, the prudential and regulatory frameworks for banks and other financial companies were completely overhauled in the aftermath of the 1982-84 crisis.

This paper briefly studies the origins of the Chilean banking crisis of 1982-86, and, in greater detail, the different measures and programs developed by the government to resolve it. To the extent allowed by the data the paper also attempts to discuss the rationale and cost-effectiveness of all these measures. Section two sets the stage by discussing the main reforms of the financial system and the main macroeconomic developments in the seven years previous to the crisis. Section three discusses in greater detail each of the most important crisis resolution measures, focusing on their rationale and effects. Each of the sub-sections here analyzes one particular measure implemented to deal with the crisis. Finally, section four presents some final remarks –albeit tentative– regarding the cost effectiveness of the different measures. The conclusions drawn from this paper can be useful when designing policies to deal with (or prevent) other banking crises such as the recent ones in East Asia.

Table 1.1

~~Economy is widely controlled by the government~~: most banks and enterprises are owned by the state; key prices are set by the government; large fiscal deficit and high inflation develop	~~Economic liberalization~~: banks and enterprises are privatized, prices and interest rates are liberalized and tariffs are sharply reduced; budget deficit is also sharply reduced	~~Economic Boom~~: financial sector (credit) grows at very high rates (faster than GDP), while the economy receives large capital inflows; asset prices raise; GDP also grows at high rates and the current account deficit enlarges	~~Financial Crisis~~: 19 financial institutions, representing 60% of the financial system's assets, are taken over by the gov't. and either closed, merged or rehabilitated. GDP falls by more than 15 percent in two consecutive years: 1982-83.	~~Economic recovery~~: banks that were rehabilitated are privatized while the institutional framework is upgraded. New banking and tax laws are passed, and the supervisory agencies are given more power and resources. The economy recovers on a sustained basis

1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

Table 1.2 Government actions

	Take over of ailing financial Institutions (1)	Devaluation	Loan portfolio: sale of bad loans to the Central Bank	Loan portfolio: preferential exchange rate	Loan portfolio: Debt restructuring	Domestic liabilities: control of interest rates	Foreign Liabilities: Debt Equity Swap Mechanisms	Re-privatization of ailing banks
1981:Q4	**8**							
1982:Q1								
Q2	**3**							
Q3					**1st program**			
Q4					**2nd program**			
1983:Q1	**8**							
Q2					**3rd program**			
Q3								
Q4								
1984:Q1								
Q2					**4th program**			
Q3								
Q4						(2)		
1985				(3)				**Popular Capitalism**
1986	**2**				**5th program**			

Notes: (1) Numbers indicate the number of financial institutions intervened. (2) Temporarily abandoned for 2 weeks in November. (3) The program ended in June.

2. BANKS AND THE MACROECONOMY

A. Reforming Chile: The new banking system, 1974-81

By September 1973, the Chilean banking system was under government control. Since the Great Depression, government intervention in a variety of forms had been expanding, but in late 1970, ownership of most banks was still private. During the Allende government, from December 1970 to September 1973, however, *CORFO* (*Corporacion de Fomento*, a state-owned financial institution) bought a controlling stake in most private banks (it failed only to buy enough shares to control *Banco de Chile*—the largest private bank—and three small banks). Also, the Central Bank played a much larger role in the mobilization and allocation of bank deposits.

Privatization

As part of its market-oriented reform of most economic institutions, the military government set the foundations of a private banking system by reprivatizing most banks and by changing the regulation of private banking. The reprivatization started in mid 1975, and to facilitate it, *CORFO* auctioned shares to the highest bidder who could borrow from *CORFO* up to 90 percent of the price. The process took longer than anticipated at its beginning because the new owners of a few banks failed to service their debts with *CORFO*, and the banks had to go again through the auction process.[1] The reprivatization of banks took place simultaneously with that of nonfinancial enterprises, and their timing was criticized because of the low prices at which the banks and the enterprises apparently were sold. They were also criticized because of the appearance of a bias towards ownership by the few Chileans with access to foreign capital and, therefore, the high concentration of ownership in a few conglomerates or *grupos económicos.*[2]

Bank reprivatization was followed by a gradual relaxation of entry restrictions. Although few new Chilean banks were authorized, the controlling shareholders of some old banks changed, and in early 1978, foreign banks started to open subsidiaries. Thus, the number of national banks increased from 21 at the beginning of the reprivatization process to 25 at the end of 1981 (including *Banco del Estado*, the state bank established in the early 1950s that the military government decided not to privatize). Also, by the end of 1981, there were 19 subsidiaries of foreign banks operating in Chile, but they still accounted for less than 5 and 10 percent of the total assets and loans of all financial institutions, respectively (Table 2.1).

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1 *Banco Osorno* was one of these banks; after its privatization in late 1975, it was intervened in late 1976, and later *CORFO* recovered 64 percent of the bank's shares, which were sold again to private investors in mid 1979.

2 These conglomerates consisted of a controlling shareholder of several investment companies or *sociedades de papel* which, in turn, were the shareholders of banks and nonbank financial institutions, as well as of companies involved in the production of goods and services or *empresas con chimenea*.

Table 2.1 Number of Financial Institutions

	1977	1978	1979	1980	1981	1982	1983	1984
Number of financial institutions	42	49	49	55	61	50	45	45
Public banks	1	1	1	1	1	1	1	1
Share in total assets (%)		27.4	22.9	21.2	18.9	16.2	18.1	18.5
Private banks	20	21	21	23	24	20	18	18
Share in total assets (%) (1)		66.7	71.4	72.5	77.7	82.0	67.8	68.3
Finance Companies	18	21	18	18	17	10	7	7
Share in total assets (%)		5.9	5.7	6.3	3.4	1.8	1.3	1.1
Foreign banks	3	6	9	13	19	19	19	19
Share in total assets (%)							12.8	12.2
Share in total loans (%)		2.4	4.2	4.9	8.7	12.6	9.2	
Share in total deposits (%)		0.5	2.2	2.7	7.0	14.8	13.8	

Notes: (1) includes foreign banks for 1978-82. Sources: Larraín (1989) and Valdés-Prieto (1994).

The new rules

The restoration of private banking was accompanied by new rules to govern bank activities. Their effectiveness was conditioned, however, on the recognition of credible bounds on government powers. Since the military government was the consequence of a breakdown in the country’s institutions of law and government, credible bounds on its powers took time to build. The credibility of banking and other reforms could not be established until after the government had actually proved that it abode to its commitment to maintain the new rules even under the pressure of new circumstances. In particular, it was difficult to establish that credibility after the collapse of the savings and loan associations in June 1975, when the government unexpectedly and arbitrarily prohibited the repayment of their obligations and forced their rescheduling.[3] Initially, at least in 1974-76, there was a fear that the banking system could continue to be instrumental to the financing of public deficits. To compete with other intermediaries, private banks had to be relieved of this burden. The successful fiscal reform of 1975 was critical for this relief, but not sufficient because of the need to rebuild the central bank’s international reserves. High reserve requirements on bank deposits, with a compensation related to the interest rate paid on time deposits, were then used to finance the accumulation of international reserves. Between December 1976 and December 1980, the gradual reduction of reserve requirements became a source of loanable funds, but more important these policies strengthened the credibility of the government’s commitment not to tax financial intermediation (Table 2.2).

[3] The fact that the government decision was perceived as arbitrary and unexpected by the general public reflects the lack of a clear set of rules at the time.

Table 2.2: Programmed Reductions in Reserve Requirements (in percent)

	Demand deposits	30 to 89 day time deposits	90 day to 1 yr. time deposits
First stage: May 1976-December 1977			
Initial rates	85	55	55
Final rates	59	20	8
Second stage: January 1978-July 1978			
Initial rates	59	20	8
Final rates	42	20	8
Third stage: August 1978-March 1979			
Initial rates		No changes	
Final rates			
Fourth stage: April 1979-December 1979			
Initial rates	42	19	8
Final rates	42	8	8
Fifth stage: January 1980-December 1980			
Initial rates	21	7	7
Final rates	10	4	4

Source: Valdés-Prieto (1994)

The new rules of private banking were to reflect the needs of competition. The rules that evolved between 1930 and 1970 limited competition between banks and nonbank intermediaries (by imposing constraints on bank activities in exchange for the privilege of raising funds with a sort of government guarantee) as well as within the banking industry (by forcing reliance on non-price instruments that required government's authorization, such as the opening of branches). Indeed, the old rules were the foundation of a repressed financial system, and they could not be the basis of a new system in which banks were to compete openly for deposits and loans. The concern about excessive risk taking by banks was to be balanced with the market discipline brought about by the need of competition, but in accordance with some prevailing ideas, the initial debate centered largely on how to eliminate gradually the specialization of bank activities. The elimination of rules imposing artificial differences between banks was finished only in December 1981.

Capital requirements

The role of capital requirements did not change in this period. They were set in terms of the minimum amounts needed to enter the industry, and were gradually unified across types of banks to eliminate their specialization. Also, capital adequacy was regarded as an upper limit to the size of banks rather than as self-insurance for the portfolio risk. Thus, capitalization was set at a minimum of 5 percent of domestic liabilities, and after April 1980, of total (domestic and foreign) liabilities.

In January 1978, the Superintendency of Banks was authorized to classify loans and other investments according to their risk and to assess their values relative to liabilities. It took however until February 1980, for the Superintendency to issue the first set of rules on how banks should assess and report the risks of their loans and investments (the banks were to report only to the Superintendency). Apparently the initial reports on the risks of loans and other investments made clear that the new system would require banks to increase substantially their capital if they were going to have enough self-insurance for these risks.

In addition, the rules on provisions against losses continued to be based on the idea of a general provision of 2 percent of the loan portfolio plus special provisions for loans in arrears. The rules were to be changed after the risk classification of loans and other investments became fully effective.

The regulation of lending practices and credit risk

The rules setting prudential constraints on lending and investment portfolios and the rules forcing timely disclosure of accurate information evolved slowly. In 1975, when the country was facing a depression and the government was strongly inclined to rely on the private sector for rebuilding the economy, there were fears of imposing a heavy regulatory burden on private banks. Because of these fears, rules on collateral and secured loans were simple and many loans were not properly secured; rules on nonperforming loans and provisions for loan losses were below international standards; and rules on the assessment and classification of loan risks were implemented gradually. Besides, the government recognized its limited capability to enforce rules, in particular to enforce them evenly and fairly. Except for the rules governing entry, several of the rules on lending practices, in particular the rules about connected lending, were enforced poorly and banks were able to take advantage of many loopholes in the regulatory system.

In December 1976, the failure of *Banco Osorno* and several financial companies made clear the dilemma the government faced about the regulation of private banking. It had to choose between tight regulation of banks with preemptive intervention, and lax control offset by a presumption of fraud in case of failure. The government opted for the latter. Thus, the controlling shareholders of *Banco Osorno* lost their equity and control of the bank, and more important, they faced fraud trials that took years to settle. The government applied the same principles to the financial companies that were liquidated at that time. The government clearly signaled that it was willing to held owners and managers of failed banks personally liable for the losses and to prosecute them for fraud.[4] Likely the full repayment of the liabilities of *Banco Osorno* and other failing institutions contributed to the expectation that the state guarantee amounted to 100 percent of the system's liabilities (a limited deposit insurance scheme was set in early 1977). But the severe penalties for mismanagement should have restrained the risks effectively taken by bank managers. The penalties were severe because there was no clear distinction between mismanagement and fraud and any failure was presumed by the government to be the result of fraud (a presumption later on applied to all failed banks). In other words, the allegation of fraud should have deterred bank managers and the controlling shareholders (which usually were managers or board members) to take excessive risks.

[4] This message was clearly stated in the case of *La Familia*, a finance company whose owners and managers were close to the government but who nevertheless were prosecuted.

The regulation of liabilities

On the liability side, the most important reform referred to foreign borrowing. Starting in April 1979, the rules governing foreign borrowing by banks were relaxed, and after April 1980, their foreign and domestic liabilities were subject to the same rules. Thus, after April 1980, the only constraint to foreign borrowing by banks was the capital adequacy ratio of a minimum of 5 percent of their total liabilities.

The new rules were relevant for banks to access the international credit markets. For all Chilean borrowers, this access was regulated by Article 14 of the Foreign Exchange Transactions Law. Article 14 limited foreign borrowing by setting conditions to guarantee the access to the official foreign exchange market to repay foreign creditors. These conditions were changed a few times in the late 1970s and were effective in limiting short-term borrowing. Thus, after April 1980, to access international credit markets, banks had to comply with the capital adequacy ratio (at that time it was not binding for all banks) and the conditions of Article 14. Given the international market conditions at that time, the reform implied a large potential for borrowing abroad, and it turned to have important effects on bank performance in 1980-81. Indeed, foreign loans became the main source of banks funding during 1981-82 (Table 2.3, column 4).

Table 2.3

Funding of the Change in the Financial System's Assets
(in percent; from real values)

Year	[1]	[2]	[3]	[4]	[5]	[6]
1977	50.4	29.2	8.4	3.3	0.5	9.1
1978	41.3	28.7	3.5	10.8	3.6	-5.3
1979	29.6	17.5	1.8	7.5	2.2	0.5
1980	40.3	23.7	3.6	11.3	1.7	-0.1
1981	11.3	1.6	-2.3	11.4	0.2	0.5
1982	22.6	-0.1	2.3	20.5	0.4	-0.6

Notes: [1] Change in total assets (in percent). [2]-[6] Sources of funds as follows
Change in liabilities: [2] Deposits [3] Domestic loans [4] Foreign loans
Change in other sources: [5] Capital [6] Provisions

B. From depression to euphoria (1974-81)

External shocks and the crisis of 1975

In late 1974, at the beginning of banking reform, Chile suffered large income losses because of a sharp decline in its terms of trade. Moreover, the public sector was running a large deficit, and projections for 1975 estimated a public sector deficit much larger than the current account deficit in the balance of payments (over 20 and 10 percent of GDP, respectively). To make matters worse, due to political reasons Chile could not rely on having access to significant foreign funds to finance the two deficits. Thus, to eliminate the two deficits, the military government had no choice but to cut public expenditures drastically, to increase public revenues through a tax reform and other measures, to decree a large devaluation of the domestic currency, and to pursue a tight monetary policy.

The government plan succeeded, and both deficits were eliminated rapidly. In early 1976 the current account of the balance of payments changed to a surplus, and that year the non-financial public sector run a small surplus. The plan could not prevent, however, high unemployment rates and sharp declines in per capita output and income, which in 1975 were around 80 and 75 percent of their levels during the late 1960s. Also, the plan implied a large depreciation of the real exchange rate, and consequently a large decline in real wages (to over 60 percent of their level in the late 1960s).

The banking system played at best a minor role in the elimination of the two deficits. Deposits were too low at the beginning of the crisis and most were channeled to the central bank through high reserve requirements on deposits. Almost all deposits were short term, less than 30 days, and once the controls on interest rates were lifted, their nominal values increased sharply. By early 1976, interest rates were free but deposits continued at low levels (the composition changed, however, implying a higher average cost; see last two columns in Table 2.4). Until mid 1976, banks could hardly mobilize deposits. In addition to the sharp decline in disposable income that led to negative national savings, the inflation rate continued to be high and erratic. Also, there was uncertainty about the government's commitment to the new rules because of a few reversals in interest rate policy and the intervention in the collapse of S&L associations. And there was some competition from the formal and informal financial companies that started business in late 1974. On the other hand, the private demand for bank loans increased sharply. The main sources of this demand were the huge cash deficits of the many companies affected by the depression and the reprivatization of nonfinancial enterprises.

Table 2.4

INFLATION RATES AND REAL COST OF BANK LIABILITIES

(in percent per year)

	Inflation rate		Cost of funds:	
	CPI	**WPI**	**Total Liabilities**	**Short-term and demand deposits**
1975	340.7	410.9	14.0	13.9
1976	174.3	151.5	16.6	18.5
1977	63.5	65.0	13.9	16.1

In sum, during the depression, banks continued to intermediate funds to finance the government. Increasingly, however, they were able to allocate the flow supply of funds to private borrowers, albeit at high real interest rates. According to the series of nominal interest rates on short-term loans, in late 1975 and early 1976, ex post real rates exceeded 50 percent per year. There are two caveats to these estimates, however. First, apparently the rates paid by connected borrowers were much lower. Second, as estimates of the ex ante rates relevant to a large number and variety of borrowers, ex post rates could lead to wrong inferences as they did not take account of the large changes in relative prices and related expectations of additional changes or even reversals.

The recovery of 1976-79

By mid 1976, the two deficits had been eliminated, but macroeconomic stability was still elusive. Inflation continued to be high and erratic, and international reserves net of Central Bank's foreign liabilities were negative at a time when the government could not have access to foreign credit. Thus, between mid 1976 and the pegging of the nominal exchange rate in June 30 1979, the reduction of inflation and the accumulation of international reserves were the driving forces of monetary, exchange rate and financial policies. Given the new conditions of the macroeconomy in mid 1976, the government assumed that the recovery of output and income would be led by a large reallocation of resources to the production of tradable goods and services. Thus, it could aim its policies at reducing inflation to its historical level (around 20 percent per year) or even to the level of developed countries, but this reduction would have to be gradual because the inflation tax was needed to finance the accumulation of international reserves. Moreover, since the current account surplus could be expected to turn into a deficit once the recovery of output was advanced, restrictions on inflows of foreign capital had to be removed to ensure an excess supply of foreign exchange at the official exchange rate. After a period of uncertainty about exchange rate policy (two nominal revaluations of the Chilean peso were followed by a nominal devaluation), starting in December 1977, the nominal exchange rate was determined largely by the need to ensure a sustained reduction in inflation (Table 2.5).

Table 2.5: Real Exchange Rate (RER), Reserves and Inflation, Chile 1976-85

Year	Inflation CPI (% change)	Nominal Exchange Rate (% change)	RER (1986=100) (1)	International reserves	
				Reserves (US$ MM)	Months of imports
1976	199.3	--	63.59	107.9	0.7
1977	84.1	57.9	57.07	273.3	1.4
1978	37.2	20.1	68.14	1058	4.2
1979	38.9	14.0	70.20	2313.8	6.6
1980	31.2	0.0	60.81	4073.7	9.5
1981	9.5	0.0	52.88	3775.3	7.1
1982	20.7	89.8	58.96	2577.5	8.8
1983	23.1	18.6	70.82	2022.7	8.8
1984	23.0	46.9	74.00	2055.9	7.7
1985	26.4	43.3	90.86	1866.7	8.2

(1) An increase is a depreciation. Source: Central Bank of Chile.

It took longer than anticipated to achieve the two objectives of low inflation and high reserves.[5] By mid 1979, it was widely believed that fixing the peso to the US dollar would accelerate the convergence of domestic inflation to the international level, and that soon the accumulated reserves would be enough to deal with external shocks. By then, output and income per capita had certainly recovered their levels of the late 1960s, and measures of the real exchange rate showed some appreciation in relation to 1975 levels, albeit still a large depreciation in relation to the late 1960s. More important, the new conditions appeared appropriate to expand market-oriented reforms to labor contracts and to services under government control, such as social security, education and health. Modernization became the catchword of government action in these areas. Also, it was the rationale for pushing a constitutional reform, which would provide a stronger institutional foundation to the market economy.

In the recovery period (i.e., from mid 1976 to mid 1979) banks played an important role as intermediaries of domestic funds to private business. Because of the reduction in reserve requirements (Table 2.2), their flow supply of loanable funds to private business exceeded the flow supply of deposits. Given the initial low levels of bank credit to the private sector, it was not surprising that the stock of this credit increased at high rates (also, banks benefited from the collapse of financial companies in 1977). By mid 1979, this stock was close to 20 percent of GDP, slightly higher than the stock of bank liabilities with the private sector (only around the end of 1978, banks became net suppliers of funds to the private sector). Although banks had already started to access international credit markets, in mid 1979, their intermediation of foreign funds still consisted largely of trade credit. Since the private demand for bank credit also increased at high rates during the recovery period—mainly due to a growing competition for taking over existing assets and enterprises—the decline of interest rates was slow (Table 2.6).

Table 2.6 Financial System Development

	ANNUAL REAL GROWTH (%)				RATIOS:	
Year	**[1]**	**[2]**	**[3]**	**[4]**	**[6]**	**[7]**
1978	53.6	58.4	41.3	51.0	0.232	0.340
1979	31.9	30.7	29.6	29.9	0.282	0.393
1980	45.9	41.2	40.3	42.8	0.376	0.510
1981	17.8	11.2	11.3	11.6	0.498	0.643
1982	20.7	17.0	22.6	24.7	0.733	0.928
1983	-8.5	11.6	12.3	11.8	0.734	1.037

Notes: Annual Real Growth (%) of [1] total loans, [2] asset portfolio, [3] total assets, [4] medium-and short-term plus demand deposits. Ratios of [6] total Loans/GDP, [7] total assets/GDP

In mid 1979, real interest rates on loans were still close to 20 percent per year (with the same caveats mentioned above for the depression period). Real interest rates on deposits had already declined to less than 5 percent per year, however. Despite the low

[5] The delay was due to a variety of reasons, including the border conflict with Argentina, some conflict between the two objectives of lower inflation and reserve accumulation, and problems in changing and fine tuning policies. However, these negative forces were partly offset by improvements in Chile's terms of trade.

levels of reserve requirements in mid 1979, for all banks, the average interest income spread over total assets continued to be high at around 7 percent (Table 2.7). Operational costs other than loss provisions were high during all the recovery period; apparently the high costs were due to the expansion of banks into new geographical areas and new lines of business, as well as the upgrading of skills and technology. In comparison with expected rates of return on capital in nonfinancial activities (about 30 percent before taxes), the ex-post rates of return on bank capital certainly were not high (around 20 percent before taxes).

Table 2.7

INTERMEDIATION MARGINS AND PROFITS OF THE FINANCIAL SYSTEM

(In percent except column 7)

Year	FM/A [1]	GOM/A [2]	PE/A [3]	AE/A [4]	OE/A [5]	P/A [6]*	A/E [7]	P/E [8]
1978	6.7	10.5	1.6	5.7	0.7	2.5	7.5	18.5
1979	7.0	10.1	1.8	5.1	0.6	2.6	8.8	23.0
1980	6.9	8.9	1.7	4.9	0.1	2.2	10.5	23.5
1981	6.0	7.4	1.9	4.3	0.2	1.0	11.8	11.4
1982	4.5	6.3	3.4	3.6	-1.0	0.3	12.4	4.1

Notes: FM: Financial Margin = (Interest income-interest expenses) GOM: Gross Operating Margin = (operating income-operating expenses) PE: Portfolio expenses = (Provisions + Write-offs) AE: Administration Expenditures OE: Other expenses net of other non-operating income P: Profit before taxes A: Total Assets E: Equity. * [6]=[2]-[3]-[4]-[5]

The euphoria of 1980-81

In late 1979, the process of modernization was underway and the main trends of the recovery period became pronounced. In the following two years, the private demand for consumption and investment increased at high rates, driving output and income per capita at levels higher than the ones of the late 1960s.[6] While the recovery of 1976-79 was based on the opportunities to reallocate resources created by the depression and the market-oriented reforms, the expansion of 1980-81 was based on optimistic expectations about the country's economic potential. Independent of their origin, these expectations led to large increases in asset prices and consequently to wealth effects on consumption and to investment opportunities. Even the incipient deterioration of the world economy failed to prevent the emergence and consolidation of such expectations. They peaked after the referendum on the new Constitution in September 1980—when both the economy and the government were surfing on their own euphoria—and remained strong until early 1981. By then, the world economy was already in a recession and Chile had started to suffer again from a large decline in its terms of trade. Moreover, the private sector had already borrowed abroad large amounts at floating interest rates, and the burden of servicing this debt started to increase *pari-passu* with LIBO rates. In the second half of 1981, when the current account deficit had become a serious imbalance, the private demand for consumption and

[6] Note that comparisons with the levels of output and income, as well as with measures of the real exchange rate and real wages, in 1975 are misleading: their values at that time reflected the depression brought about by the sharp deterioration of the terms of trade when the country had yet to recover from the policies of the Allende government.

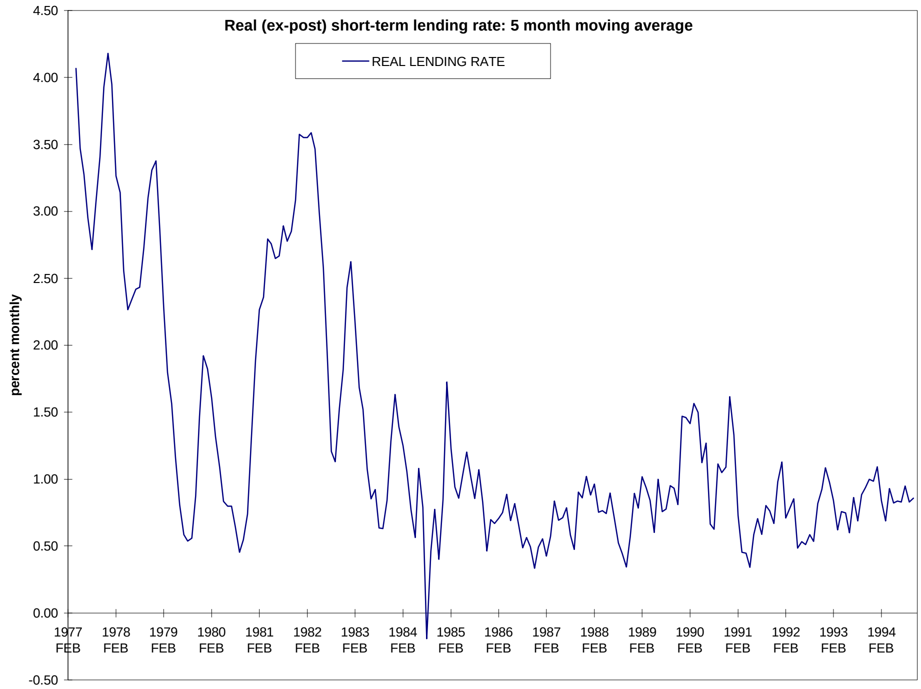
investment declined rapidly, and by the end of the year Chile was entering into the recession that precipitated the 1981-83 banking crisis.

The banking system played a key role in the euphoria of 1980-81. In addition to deepening their role in the intermediation of domestic funds, the national banks were a main mechanism for mobilizing foreign funds to private business and households (before the crisis, foreign banks never threatened the position of national banks). By the end of 1981, the stock of bank credit to the private sector (including business and households) had increased to over 45 percent of GDP, almost twice its level of mid 1979 (see table 2.6 above). The increase in domestic liabilities and the decline in bank lending to the public sector accounted for at least 70 percent of the increase in bank lending to the private sector. The rest of the funds were from foreign loans: the share of foreign liabilities in the total liabilities of banks increased from around 17 percent in mid 1979, to just over 30 percent at the end of 1981.

Until mid 1980, the (flow) supply of domestic funds to the banks had been increasing, but then it started to decline when the (flow) demand for bank credit was still increasing. Contrary to what happened in 1976-79,[7] the growing demand for bank credit was due mainly to investments in a variety of new projects to produce tradable goods—most with long maturation periods—as well as in commercial buildings, housing and other durable goods. The growing gap between the two flows could not be funded by foreign credit, however, and the declining trend in domestic interest rates of the previous four years came to an end in late 1980. During 1981, ex post real rates on loans increased sharply, to over 40 percent per year (Figure 2.1), but how much ex ante rates increased depends on expectations about changes in relative prices. In 1981, all indexes were showing low inflation or even deflation, but more important, once again they were showing changes in relative prices much larger than anticipated.

[7] In this period the demand for credit was mainly driven by a strong competition for taking over assets and enterprises.

Figure 2.1



C. <u>Back to depression (1982-86)</u>

<u>The government and the crisis</u>

The sharp decline in the private demand for consumption and investment brought about a rapid decline in output and income. The decline took place mainly in 1982, but it bottomed out in late 1983. By then, output and income per capita were at 85 and 75 percent of their levels in the late 1960s, respectively. The new depression triggered immediate pressures on the government to change its policies or at least to provide relief to sectors that had suffered income losses. The government's initial reaction was to reiterate its commitment to free market policies and therefore not to intervene at all: demands for government's intervention were denounced as motivated only by sectoral or group interests, and replied with requests for business to adjust quickly to the new market conditions. But the possibility of a government's bailout of distressed enterprises and farmers blocked the prospect for an automatic adjustment to the new conditions. The new Constitution notwithstanding, the military government had the power to bail them out, so the only doubt was about its willingness to do it.

The government finally intervened. First, on June 14 1982, it decided to abandon the fixed exchange rate policy. The decision implied a devaluation of the peso which in the following three months—until a crawling peg rule became credible—depreciated by 60 percent (from 39 to 63 Chilean pesos per US dollar). This policy was supposed to benefit the activities affected by the deterioration in the terms of trade, but it increased greatly the burden of servicing foreign debt. Hence, it forced the first large debt relief program based on a preferential exchange rate. Second, on January 13 1983, the government decided to deal directly with the financial crisis and opted for providing relief to distressed debtors of the financial system and assistance to banks to restore their solvency, and for forcing the closure and takeover of several banks. Other measures would follow soon. The relief to debtors and the assistance to banks implied a large government expenditure financed largely by the issue of bonds to be placed with domestic investors, in particular the new pension funds. By then, as all other Latin American countries, Chile did not have access to foreign investors.

The causes of the crisis: a simple model

The rationale and in particular the sequencing of government policies were conditioned by the diagnosis of the crisis and the political developments precipitated by the crisis. Economic policymakers believed that external shocks and some excessive risk taking by the *grupos economicos* were the main causes of the crisis, and they accepted reluctantly to intervene, mainly to accommodate political pressures. Only for a short period of time, between April 1984 and early 1985, policymakers sympathetic to the economic reforms of the late 1970s and early 1980s were forced out of office. In that short period, because of increasing political pressures, the new policymakers attempted to accelerate the recovery of the economy, but they aborted their policies quickly as international reserves were depleted, and the military government appointed another group of policymakers sympathetic to the economic reforms.

The debate about the causes of the depression has yet to provide conclusive evidence about the relevance of several ideas. However, a simple model can help to identify the main forces leading to the crisis. Let us assume that the private sector consists of three groups. New owners which borrow to finance their investments; former owners which sell their property and deposit the proceeds in banks; and workers which earn a salary from the new owners by producing two goods, one exportable and the other nontradable (the importable good is produced only abroad). To be sustainable, an increase in aggregate demand for consumption and investment depends on the rapid growth of the new owners' disposable income, the only group running a deficit. The deficit is financed with two debts, one to be paid back only with the importable good (the foreign debt) and the other one with any good (the domestic debt). The interest rates on both debts are variable. If new owners' expectations about the income from their investments turn to be wrong—because lower than expected output prices or higher than expected interest rates or wages, or any other reason—then sooner or later the new owners would face a solvency problem. Moreover, if the world price of the exportable good declines, the new owners will earn a lower than expected income, and their debt burden will increase because of the need to produce more of the exportable good to service their foreign debt.

In that simple model, without the initial deficit and the related accumulation of debt, there cannot be financial distress. But if there is distress, the motivation of borrowers (in Chile, new owners' optimistic expectations which by definition are to be frustrated) and the judgement of lenders (in Chile, bad judgement due to regulatory deficiencies and failures of market discipline) can be its cause. The cause can also be an event leading to lower than expected income for debtors to repay their debts timely (in Chile, the external shock that led to a large increase in the real interest rate on foreign debt, or the higher than expected increase in real wages due to their indexation to past inflation when inflation was declining). Or it can be a decline in the terms of trade bringing about both a lower than expected income and a higher than expected debt burden (in Chile, the decline in the world prices of copper and other exportable goods relative to the prices of oil and other importable goods). Except for the increase in real wages,[8] all other factors could have caused Chile's crisis.

Devaluation, relative prices and financial distress

The model highlights the importance of relative prices and real wages. The terms of trade, the real exchange rate and real wages fluctuated greatly in the 1970s and early 1980s. In Chile's history, there had been several episodes of unsustainable levels of domestic demand for goods and services or negative real shocks, corrected by a large depreciation of the real exchange rate (and a large decline in real wages since the two were closely related). In these episodes, the depreciation of the real exchange rate was the result of a devaluation of the official exchange rate, and not surprisingly, in late 1981 and early 1982, there were calls for abandoning the fixed exchange rate set in June 1979. The government's initial reaction was to wait for a decline in nominal wages. Contrary to previous experiences in Chile, when the public sector was the major debtor in foreign currency, the devaluation of the peso was expected to increase the debt service burden of the private sector—in particular, of the new owners not producing the exportable good or whose investments in the exportable sector had yet to generate income (both were significant, especially the latter). This was an additional argument for relying on a decline in nominal wages to force a change in relative prices[9], but market forces were not enough to force a reduction in nominal wages. The old inflationary bias of the Chilean economy was still alive: changes in relative prices had to occur only through increases in some nominal prices. Not surprisingly, the abandonment of the fixed exchange rate policy in 1982 strengthened the inflationary bias responsible for Chile's high inflation rate since then (Table 2.5).

The devaluation of the peso in June 1982 led to a depreciation of the real exchange rate and lower real wages, but at the cost of increasing sharply the debt service burden of the new owners. Even if the devaluation mitigated the conflict between the new owners

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8 Although the increase in real wages was much higher than the amount determined by indexation, part of its effect on labor costs was offset by lower labor taxes. The government had been reducing these taxes gradually in the two years previous to the implementation of the pension reform in May 1981.

9 Actually, the devaluation of the peso would have increased the political pressures on the government from the groups suffering losses, while a wage deflation would have had a smaller (or more indirect) effect on this regard.

and workers, it aggravated the conflict between the new owners and their creditors, that is, the old owners and foreign banks. There was no mechanism for creditors to force the repayment of their claims—bankruptcy proceedings had not been reformed yet and they could only handle the few cases of normal times. Thus, the new owners could default without taking the risk of losing control of their assets and enterprises. It was in the context of this conflict that government intervention to solve the debt problem should be understood. Banks could not handle the restructuring of the debts of a large number of new owners—despite some concentration of bank credit in the business conglomerates or *grupos economicos*—especially when some banks were representing the interests of their new owners rather than those of their creditors.

The banking crisis

The focus on resolving expediently the conflict between new owners and their creditors explains government's delay to address the structural weaknesses of the banking system. Although the crisis was the result mainly of macroeconomic forces, there was a need to address the structural weaknesses of the banking system. Thus, only in 1986, after most programs aimed at dealing with the outstanding debts of 1982 had already been implemented, the government started the reform of the banking law and other regulations with the idea of setting new processes to deal with problem banks. Between 1982 and 1986, the government controlled the banking business tightly to prevent that its intervention would create a moral hazard problem, and its control substituted for any weaknesses in the system developed between 1975 and 1981.

Large portfolio shifts, in particular runs against some banks, did not play an important role in the crisis. Contrary to other experiences, in Chile soon it became clear that the ultimate cause of the pervasive distress of banks and other financial institutions was the rapid slowdown of the economy after two years of euphoria, and that the government was capable of handling the crisis. Before January 1983, the threat of a large portfolio shift perhaps deterred or delayed government intervention. There were, however, several instances in which this intervention could have precipitated a shift but it did not happen (for example, when two large banks were intervened in November 1981, just at the beginning of the depression). But in January 1983, the government did not want to take the risk of a run against banks and explicitly guaranteed all their deposits.

Nor losses of international reserves due to capital flight were significant. There was a loss of reserves first in the three months after the devaluation of the peso in June 1982, and then again in January 1983, because of the conflict between the government and the foreign banks. This conflict was precipitated by the government's attempt to impose a loss equivalent to 30 percent of their claims, on all depositors and other creditors of the banks forced into liquidation. However, foreign banks blocked this attempt by not renewing their trade credit lines to Chile. In a few weeks the loss of international reserves amounted to over US$1 billion, but once it was agreed that foreign banks were not going to take a loss, trade credit quickly recovered its level of late 1982.

Chile's banking crisis followed a long period of high real interest rates in which the Central Bank could do little to lower them. The four-year declining trend of real interest rates was reversed in the last quarter of 1980. Then the rates increased at least until mid 1982. Only in early 1983, they started to decline again after the government began controlling them (see figure 2.1 above). At some point in late 1981 or early 1982, it became clear that banks were caught in a sort of Ponzi game: for most short-term loans, they were rolling over principal and capitalizing interest. It was not a rational game between borrowers and lenders (there was no reason to believe that capital and interest could be rollover for ever), but the result of their belief that sooner or later the government would have no choice but to bail them out. As long as the game kept going, the depression deepened, and only in late 1983, when government intervention was well advanced, conditions became favorable for production and employment to recover.

Initially the recovery was slow. It depended on the new owners' ability to generate the cash flow needed to finance the accumulation of working capital. Given their indebtedness, and as long as the government was concerned about the quality of the loan portfolios of banks, those owners could hardly qualify for new bank credit. Indeed the recovery was too slow to relieve the political pressure on the government. The economic constraints to accelerate it—in particular, the persistent low terms of trade and limited access to foreign capital as well as the persistent fragility of the banking system—were well known to be ignored. The failed attempt of mid 1984 sent a clear message about the consequences of ignoring the constraints, and the government did not attempt to accelerate the recovery again. The recovery continued then at a slow pace but on sound bases—including the maturation of the pre-crisis investments in tradable goods and the reforms of the pension and income tax systems. When the international context changed for good, Chile was in a strong position to grow at high rates.

3. RESOLUTION OF THE BANKING CRISIS

A. Government intervention

The 1982-84 financial crisis was resolved through a series of measures implemented by the government that were aimed at rehabilitating the financial system. In particular, specific measures were taken to improve the repayment capacity of debtors, and to give banks and finance companies more time and the incentives to rebuild their portfolios and their capital base. In addition, several financial institutions were put under government provisional administration and later on returned to private management, while some non-viable financial institutions were liquidated so that they would free resources to be allocated to more productive uses.

This section analyses in detail, in subsections 3.B thru 3.G, all the measures taken since 1981 to address the different problems that appeared as the crisis unfolded. The approach used consists of looking—to the extent allowed by data availability—at microeconomic evidence to assess the rationale for, and the effects of, the different government actions. For this purpose we analyze the performance prior to the crisis, and the effect of the different government policies during and after the crisis, of three separate groups of financial institutions, namely, foreign, domestic intervened, and domestic non-intervened. The three groups together comprise all financial institutions operating in Chile in each year. Intervened institutions are pooled together although they were intervened in different years. The institutions included in each group are listed in tables A.1 thru A.3 in the annexes (the sub-periods are due to different formats of the financial statements published by banks and finance companies). Some institutions disappear from the sample because of liquidation or merger.

It is important to note that many of the measures taken had a significant effect on the consolidated public sector budget and its financing. However, in the analysis that follows we ignore the macro effects—in particular, the impact on the Central Bank's monetary base—of all these measures and how the macroeconomic equilibria were maintain.

B. The loan portfolios

Until the end of 1981, the loan portfolios of banks (including both banks and financial companies) had been growing at high real rates (Table 3.1.A). As of the end of 1981, their credit to the private sector amounted to over 45 percent of 1981 GDP, and as shown in Table 3.1.B, the share of intervened banks in the total loan portfolio had increased up to 55 percent, largely at the expense of nonintervened banks. Although in the three years up to the end of 1981, the loan portfolios of foreign banks had been growing at higher rates than that of national banks, they still accounted for only 5 percent of the total loan portfolio. Most of that bank credit had been given to private companies for commercial purposes, but the shares of mortgage loans for housing and consumption loans mainly for durable goods had been increasing rapidly.

Table 3.1.A Growth by type of institution

	Total Loans Growth (%)		Deposits Growth (%)		Equity Growth (%)	
	1980-79	1981-80	1980-79	1981-80	1980-79	1981-80
Foreign	93.1	64.3	46.9	75.0	28.2	31.4
Intervened	64.4	39.3	37.2	58.7	25.6	30.4
Non-intervened	34.1	26.5	23.0	41.2	12.3	8.2

Table 3.1.B Market share by type of institution

Assets	**1979**	**1980**	**1981**
Foreign	4.0%	4.7%	5.9%
Non-intervened	46.0%	41.8%	37.8%
Intervened	50.0%	53.4%	56.3%
Loans	**1979**	**1980**	**1981**
Foreign	3.4%	4.4%	5.3%
Non-intervened	46.7%	41.4%	38.8%
Intervened	49.8%	54.2%	55.9%
Deposits	**1979**	**1980**	**1981**
Foreign	3.9%	4.4%	5.1%
Non-intervened	46.4%	43.6%	40.6%
Intervened	49.7%	52.0%	54.4%
Equity	**1979**	**1980**	**1981**
Foreign	9.7%	10.4%	11.3%
Non-intervened	45.0%	42.2%	37.7%
Intervened	45.3%	47.4%	51.1%

By the end of 1981, the balance sheets of private companies and households had already started to show the impact of a year-long period of high real interest rates, a decline in real estate prices, and a rapid slowdown in the growth rates of output and disposable income. The levels of indebtedness of corporations and all other types of companies had been increasing during 1981, but even at the end of the year, they were not high enough to claim that most were in any sense overindebted. Indeed, an analysis of the financial statements of corporations shows that at the end of 1981, the debt-to equity ratios of firms in the tradable and non-tradable sectors were, on average, 0.64 and 0.44, respectively (Hernández and Walker, 1993). Businesses other than corporations could have hardly incurred in greater indebtedness because of their limited access to bank credit. Also, the net worth of households had started to decline in late 1981, but at the end of the year the loss was not yet significant. Their indebtedness was much lower than that of companies and real estate prices had declined at most 10 percent in relation to the peak level of mid 1981.[9]

By the end of 1982, however, the crisis was fully reflected in the balance sheets of companies and households—by the end of 1982, the debt-to equity ratios of firms in the tradable and non-tradable sectors had increased to 1.1 and 0.76, respectively (Hernández and Walker, 1993). In addition to the income losses from lower terms of trade and higher

[9] Stock prices increased rapidly until July 1980, when the Chief of the Securities Commission stated publicly that there was no reason for the prices to be that high. Even at that time the stock market was a minor component of the financial system, and new issues of securities accounted for a negligible share of the financing of private investment. Furthermore, while by the last quarter of 1981 the price of houses had fallen by 33 percent with respect to their peak in 1981:Q2, the price of land had increased by 22 percent. Indeed, the price of land kept increasing until 1982:Q2 (Morandé and Soto, 1992).

international interest rates, there were losses from lower output and employment. Producers of exportable goods benefited from the devaluation, but the effect was partly offset by the higher debt burden; and only the government clearly benefited because the increased revenue from copper production exceeded any loss from its low level of foreign indebtedness.[10] Also, the operational losses were compounded by capital losses from lower asset prices relative to domestic debt and especially relative to foreign debt (Hernández and Walker, 1993). By then some companies and households were insolvent, but it was hardly the condition of most of them.

The increasing financial distress of companies and households affected rapidly the solvency of national banks because they had been the main source of debt capital. The effect was due to the lower ability to service the debts, but more important, to a strong reluctance to service them based on the expectation of a government's bail out.[11] Although the deterioration of loan portfolios took a long time to be reflected accurately in the income statements and balance sheets of banks, it was well known that the impact had been significant. Since the main indicators of the deterioration of loan portfolios were not reliable, it was not clear how each bank had been affected. In December 1982, the level of provisions for the entire system was commensurate with that of non-performing loans, but the latter still amounted to only 2.5 percent of total loans. Although at that date—except for Banco del Estado—all banks showed low provisions, subsequent developments showed that national banks had been the most affected by the crisis and that their provisions were largely insufficient (Table 3.2). In sum, the information available for the government intervention—in 1982 or earlier—was poor and likely affected its timing and details.

Table 3.2

(A) Non-performing assets (net of transfers to the CB) as a share of total assets (%)

	December 1981	December 1982	March 1983
Domestic Banks	1.71	2.31	8.40
Foreign Banks	2.25	2.00	1.88
Banco del Estado	1.72	3.96	3.54
Total	1.74	2.56	6.72

(B) Provisions as a share of total assets (%)

	December 1981	December 1982	March 1983
Domestic Banks	0.80	1.78	3.25
Foreign Banks	0.88	1.26	1.10
Banco del Estado	3.23	4.06	4.33
Total	1.31	2.11	3.15

10 Actually, in 1980 and early 1981, the Central Bank prepaid part of its foreign debt. This debt had been contracted by the Central Bank on behalf of the government at nominal interest rates much lower than those prevailing in 1980-81. Indeed, while total medium and long-term debt increased on average by about US$2.5 billion per year during 1980-81, private debt increased by US$2.7 billion (Table A.4 in the annexes).

11 This can be inferred from press reports published at that time.

(C) Past Due Loans over total loans (%), Banks and Financial Companies

1979	1980	1981	1982	1983	1984	1985
1.6	1.1	2.3	4.1	8.4	8.9	3.5

Sources: Panels (A) and (B), Revista Gestión, June 1983; panel (c) G.Held (1989).

During 1981 and given the increasing distress of their debtors, banks were expected to restructure debts voluntarily, in particular short-term debts denominated in pesos. Actually, banks with access to foreign credit had been transforming these short-term debts into long-term debts denominated in US dollars. A large part of the short-term debt had been used to finance investments in fixed capital, and at the time of contracting the debts, borrowers expected to transform them rapidly. Although the declining trend in real interest rates of short term loans and the increasing supply of foreign credit had led to the expectation that their costs would eventually converge, in 1980 and 1981, most borrowers preferred to be indebted long term, even if denominated in a foreign currency. The preference was motivated by the expectation that the government would keep the exchange rate fixed at the rate of 39 pesos per dollar, but also by the expectation of rates of return on investments that would exceed greatly the expected cost of long-term debts denominated in US dollars. However, in late 1981, most banks were struggling with the rollover of short-term debts, and their main concern was how much of the interest payment to capitalize as part of the rollover. To restructure debts banks did not have access to sources of long term funds other than foreign credit, and when access to foreign credit became increasingly difficult—before Mexico declared a moratorium of its foreign debt in August—that transformation had all but stopped.

Thus, the government was pressed to intervene, in particular to facilitate the restructuring of debts. In this section, three sets of programs are discussed. The first one, perhaps the most important one, was aimed at restructuring debts denominated in US dollars and was precipitated by the devaluation of the peso in June 1982. The second one consists of programs aimed at providing relief to several groups of debtors. And the third one includes the series of programs that allowed the banks to sell their substandard loans to the Central Bank.

(1) The preferential exchange rate program for repaying debts

Because of the large impact of the devaluation of the Chilean peso on the balance sheets of corporations, households and other debtors, in mid 1982 the government was urged to provide relief by allowing debtors to buy the foreign exchange to service their foreign debts at a preferential rate. The government's scheme implied a large subsidy to debtors whose debts were denominated in a foreign currency (mainly the US dollar). As shown in Figure 3.1, until September 1984, the average level of the subsidy was equivalent to around 17 percent of the debt service (or 17 cents per US dollar of each payment of capital and interest). After the devaluation of September 1984 and until the scheme was ended in June 1985, the subsidy increased to around 35 percent of the debt service. Given the initial levels of the foreign debt of both banks and non-financial companies, it is not surprising that its fiscal cost amounted to the large annual amounts shown in Figure 3.2, and to a total amount of US$ 2.4 billion.[12]

Figure 3.1

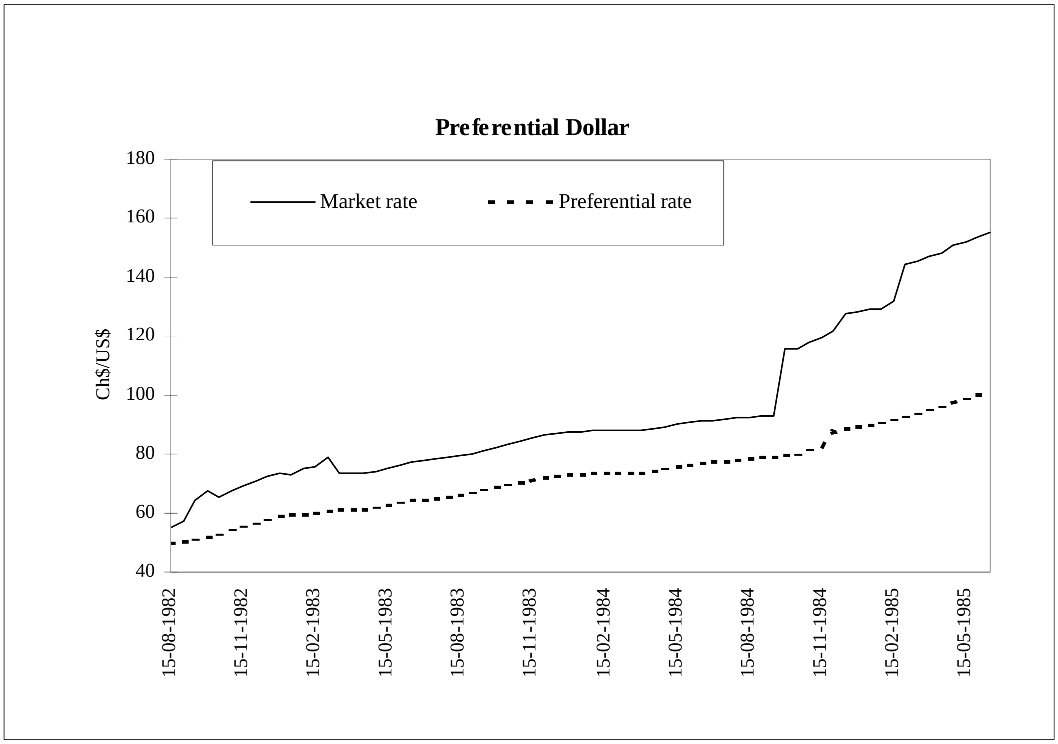
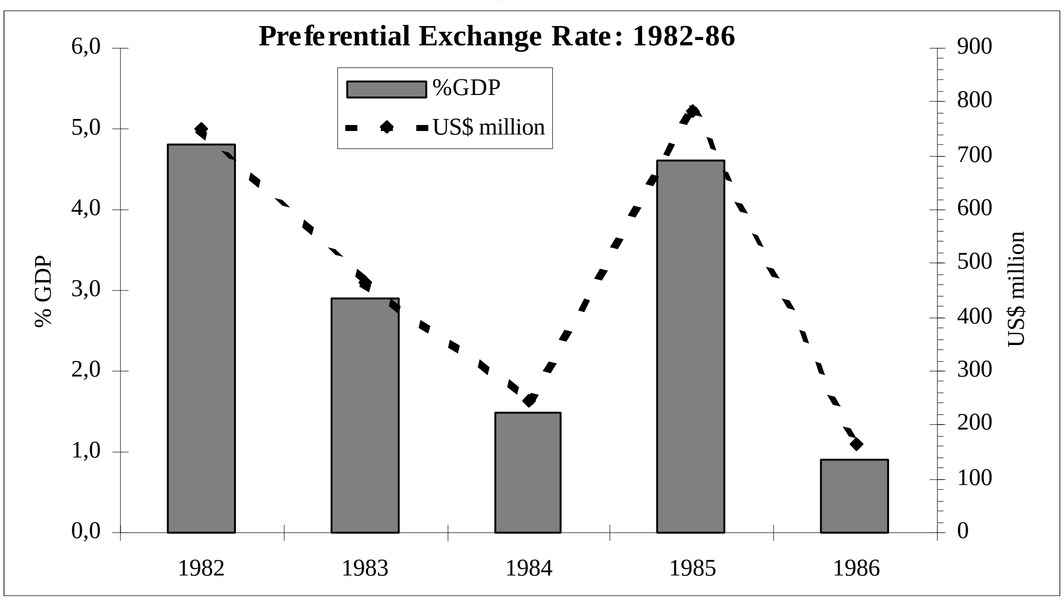


Figure 3.2



Source: Eyzaguirre and Larrañaga (1991).

12 The cost is calculated based on actual cash flows (losses) incurred by the Central Bank because of this program (the annual figures are divided by each year GDP).

The subsidy benefited only debtors who contracted their loans with foreign creditors (directly or indirectly through a bank) in accordance with the provisions of Article 14 of the Foreign Exchange Transactions Law. Since these debts were registered with the Central Bank, it was relatively simple to implement the subsidy, and more important to ensure its effectiveness. The government opted to pay it cash through the Central Bank, but later on the subsidy—for large debtors—was paid with a bond issued by the Central Bank that could be sold in the secondary market. This change was aimed at minimizing the monetary effect and to reduce the size of the subsidy. The subsidy was paid at the time that debtors were obliged to buy foreign exchange to repay their debts.

The controversy about its justification notwithstanding, the subsidy was a cost-effective way to deal with the impact of the devaluation on the debt burden. If the devaluation of the peso was the only instrument for achieving a new set of equilibrium relative prices and if default on the foreign debt was not an option, then the subsidy achieved its objective of ensuring the repayment of the foreign debt at a small administrative cost. If, to mitigate its redistributive effect, the subsidy had been conditioned on the transfer of ownership or control of assets to the government or a third party, it would have hardly achieved its objective and its administrative cost would have been much higher.

(2) Debt restructuring programs

By late 1981, some interest groups started to press the government for relief assistance to service their debts. They consisted of companies (including farmers) that had suffered or claimed to have suffered a large income loss due to changes in relative prices and the slowdown of economic activity. The rapid deterioration of the economy made evident, however, that the problem was not limited to some areas or activities, and that a concession to any particular group would lead quickly to similar demands by many other groups. The pressures continued growing, however, and not surprisingly the devaluation of June 1982 with its large impact on relative prices reinforced the idea that some sectors of the economy had already been hit hard.

The first government program for restructuring commercial debts was announced in August 1982. It provided debtors with loans to repay up to 30 percent of their outstanding debts with the banking system. With a total amount of US$250 million (equivalent to 0.96 percent of 1982 GDP), the main objective of the program was just to transform short-term debts into debts with maturities between three and five years. The interest rates of the new loans were not low (LIBOR+6 percent on dollar-denominated loans, and *UF*+16.5 percent on peso-denominated loans) but implied a large subsidy for the debtors because their cost of capital at that time was much higher.[13] Soon, in October 1982, another similar program was implemented with a total amount of US$320 million but only for peso-denominated debts (by then the preferential exchange rate program discussed above had already been implemented), but the interest rate was lowered to *UF*+12 percent. (In the first program, the Central Bank issued money and lent it directly to the debtors who, in turn, paid back their loans to the banks. In the second program, however, the Central Bank issued money to

[13] The notation *UF+* is to indicate that the principal is indexed (with one-month lag) to the CPI through the *Unidad de Fomento*, *UF*, so the interest rate is (almost) a real one.

buy long term bonds from the banks and then the banks used these funds to restructure the debts.)

The two programs set three conditions that were repeated in subsequent programs. First, they were intended not to benefit the main debtors of the banking system because it was in the self-interest of each bank to restructure the debts of its main debtors. Thus, the ceiling on the amount of restructured loans was equivalent to US$500,000[14]. Second, only viable companies could benefit. This condition was expected to force the banks first to separate their business debtors into viable and nonviable, and then to initiate legal action against the latter to recover the funds or to take over the collateral. Finally, only debts of productive companies, that is, those producing goods and services (that is, *empresas con chimenea*) could be restructured, explicitly excluding the debts of investment companies (that is, *empresas de papel*) holding shares in the productive companies. It is not known the extent to which the first two conditions were effectively enforced—in particular, at that time the banks could hardly distinguish between viable and nonviable debtors—but the third one should have been easy to enforce.

The two programs were not enough to relieve the pressure on the government, however. First in April 1983 and then in June 1984, new programs to restructure debts were announced. The 1983 program attempted to give more relief to small businesses; it provided for the restructuring of 30 percent of the outstanding debt with banks but up to a maximum amount equivalent to US$104,000. The 1984 program was aimed at medium size businesses: the maximum amount to be rescheduled was increased up to the equivalent of US$1,206,000. In relation to the 1982 programs, the last two programs provided the debtors with much better terms for restructuring their debts, including lower real interest rates, grace periods for repayment and longer maturities. Also, the last two programs did not imply an increase in the monetary base because the funds given by the Central Bank to the banks had to be invested in Central Bank's bonds as required by the targets of the monetary programs agreed with the International Monetary Fund.[15] The banks benefited greatly from this arrangement because they earned interest at the rate of *UF*+12 percent per year on Central Bank's risk-free bonds, as the rate was intentionally set high to improve the profitability of the banks.[16]

In comparison with the restructuring of commercial debts, the restructuring of mortgage debts did not pose serious problems. Given the variety of terms in the original loan contracts and the differences in the economic and financial conditions of the debtors, the restructuring of commercial debts required some discretion for the banks to assess the viability of their debtors. In the case of mortgage debts, however, the terms of the original loans were quite standard, with any important differences in the economic conditions of the debtors being reflected in the amount of the loans. To restructure mortgage loans, creditor

[14] It was established that only debts up to Ch$35MM would be eligible for rescheduling under these conditions.

[15] In 1982, Chile did not have a formal program with the IMF, but it agreed to meet some monetary targets. In early 1983, it agreed on a formal program that was renewed annually until 1989.

[16] In other words, the monetary expansion was sterilized with CB bonds sold to commercial banks. The bonds yield was set at 12 percent real.

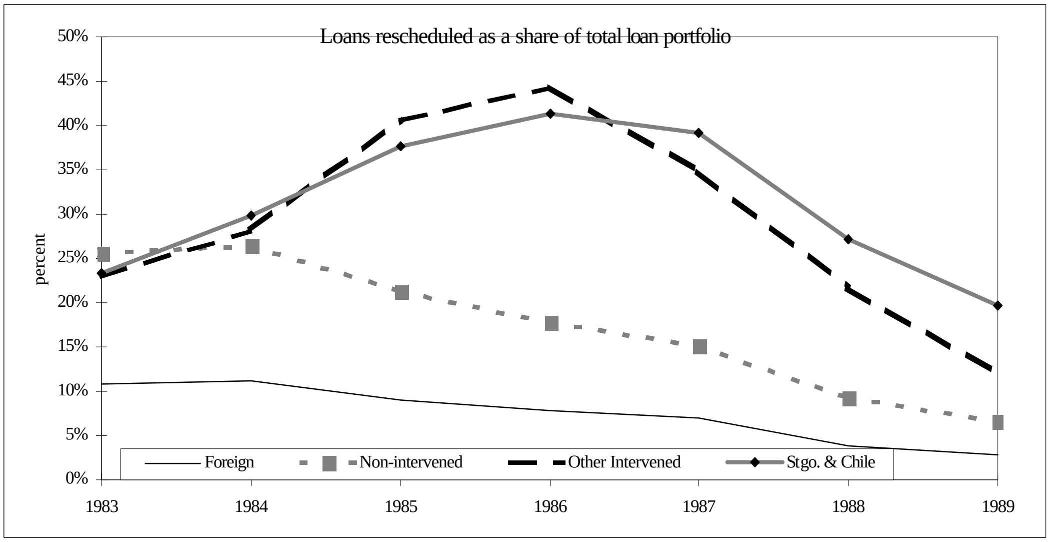
banks were constrained by the lack of long term funds and by the high cost of doing it case by case. The pressure on the government to provide relief to mortgage debtors increased sharply in early 1983, when the effects of the devaluation of the peso on relative prices and real wages, and therefore on inflation, were fully realized (and when unemployment rose significantly). In addition to a large capital loss—for many debtors nominal prices of real estate had declined sharply, while their outstanding debts stayed constant because those were indexed to the CPI through the *UF*—the depression had brought about a large decline in all labor incomes.

In June 1983, the government announced a program to restructure mortgage debts. It amounted to a loan for debtors to reduce their next 48 monthly payments *(dividendos*). It started with a 40 percent discount in the first 12 payments, then 30 percent in the second 12 payments, 20 percent in the third 12 payments, and finally 10 percent in the remaining 12 payments. It also reduced the monthly payments that had become past due in the last 24 months. The Central Bank lent funds to commercial banks at the interest rate of UF+7 percent per year, and the banks were to relent the funds to the mortgage debtors at the rate of UF+8 percent per year, so the banks could finance the restructuring costs with the differential. Mortgage debtors were to start to pay back the Central Bank's loan at the end of the 48 months. In June 1984 the program provided additional relief for debtors with mortgages up to about US$127,000. In particular, it extended the maturity of the Central Bank's loan up to the maturity of the original mortgage, and reduced its interest rate to UF+4 percent per year. Later, in March 1986, a new program was introduced similar to the modified version of the first one—for mortgages up to the ceiling above—but in addition debtors were given the option to choose the indexation clause of the Central Bank's loan.

Two other minor restructuring programs were also implemented. First, as part of the relief measures of May 1983, a program was set to restructure the debts of transportation companies that had borrowed to buy commercial vehicles, including trucks, buses and taxis. Second, as part of the relief measures of June 1984, some funds were provided to restructure some consumption loans.

The subsidies given through the debt restructuring programs benefited the debtors of the intervened financial institutions, and to a lesser extent the debtors of foreign and non-intervened banks. This corroborates the fact that the intervened institutions had lent more to riskier creditors or projects, or to creditors in sectors more prone to be affected by the macroeconomic cycle or by the change in relative prices—i.e., movements in the real exchange rate (Figure 3.3).

Figure 3.3



Note: Stgo&Chile stand for *Banco Santiago* and *Banco de Chile*, the two largest private banks of the Chilean financial system, which were among the institutions intervened in January 1983.

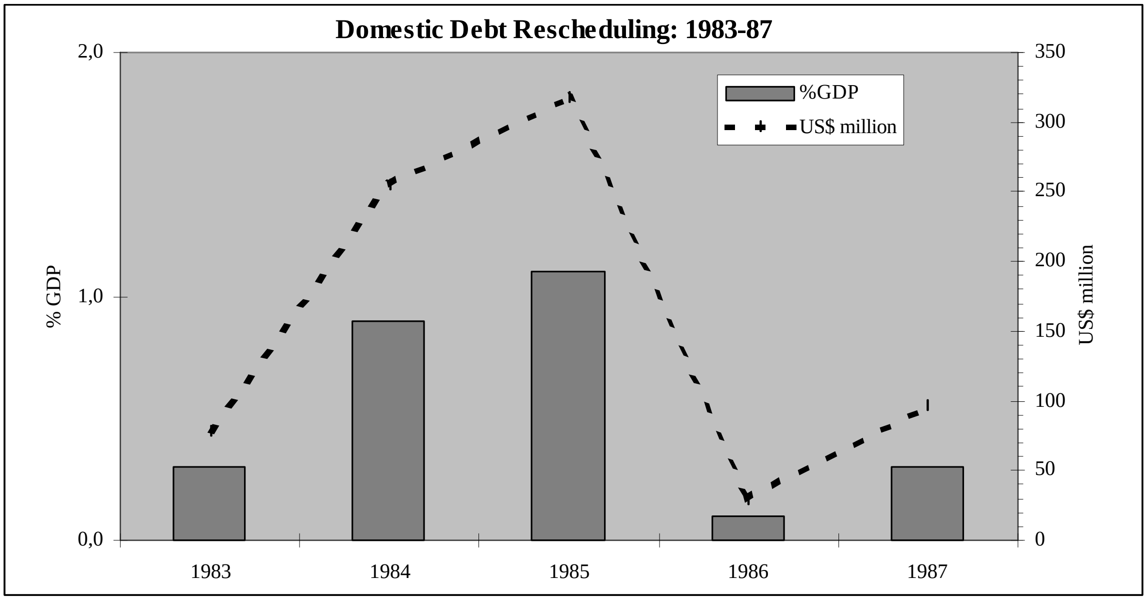
The fiscal cost of all restructuring programs is shown in Figure 3.4[17]. Although lower than that of the preferential exchange rate, the cost was significant. While the preferential exchange rate program was justified by the high cost of defaulting on the foreign debt, the debt restructuring programs were justified by the high cost of a massive default of the domestic debt. At some point in the crisis the government had no choice but to provide relief, but in mid 1981, when the crisis was yet to start, there was little else that the government could have done to persuade debtors and creditors that it would not bail them out. The institutions of law and government failed to prevent the euphoria of 1980 and 1981, and not surprisingly, they were even less appropriate to deal with a massive conflict between debtors and creditors precipitated by the prospect of a long period of high international and national interest rates. The conflict was exacerbated by the deteriorating economic situation and raising unemployment which, in turn, raised expectations –and increased the pressure– for a government bailout. These expectations delayed the payment of some debts, further deteriorating the overall situation.[18] The bail out through the preferential exchange rate program and the debt restructuring programs were the consequence of these pressures, and as schemes to bail out the debtors, the latter were not as cost effective as the former.[19] Partly this was due to the inherent difficulties of designing debt restructuring programs—especially in the case of commercial debts—and because the need for flexibility (as reflected in the fine tuning of the programs once they were implemented) contributed to aggravate the moral hazard of government intervention.

17 The cost estimate is based on actual cash flow transfers from the Central Bank to borrowers (Source, Sanhueza, 1998).

18 Press reports at the time indicate that many solvent debtors were delaying the repayment of their debts as they expected (al least) a partial bail out from the government.

19 The administrative cost per peso transferred to debtors was very low in the preferential exchange rate program.

Figure 3.4



Sources: Marshall and Schmidt-Hebbel (1994) and Sanhueza (1998).

(3) <u>The sale of non-performing loans to the Central Bank</u>

Since late 1981, the government had been urged to alleviate the financial distress of banks. In early 1982, some actions were taken to facilitate the recognition by banks of their loan losses: authorization to record as past due loans that had been in arrears for 90 days (the traditional standard was 30 days); additional time to build up provisions to cover loan losses; and a special 5-year period to recognize losses from the sale of assets taken over from debtors. They were not enough, however, and in July 1982, the government instructed the Central Bank[20] to purchase substandard loans—overdue loans, loans classified as D, and connected loans—from banks. This action would be the beginning of several similar programs.

The initial program was intended only to be an accounting procedure to provide banks with an incentive to clean up their balance sheets. The Central Bank was to purchase loans at face value and to pay the banks with a promissory note maturing in ten years but paying no interest. Banks could sell loans for up to 150 percent of their capital, subject to the obligation of repurchasing the substandard loans pari passu with the payment of the promissory note by the Central Bank, and the non-distribution of profits (dividends) until they had repurchased all of the loans. Although no transfer of resources was involved, banks benefited from the sale of loans to the Central Bank because they did not need to provision against these loans and they could free any provision already made. The government expected that it would be enough incentive for banks to stop the rollover of loans and to accelerate the classification of debtors into viable and nonviable. Substandard loans would then increase sharply, including loans to related parties.

[20] At the time the Central Bank was not autonomous.

The program was not as successful as the government had expected, however. By the end of September 1982, only 62 percent of the substandard loans reported at the end of June 1982 had been sold to the Central Bank. By the end of December, it increased to 91 percent. Since the amount reported at the end of June underestimated grossly the actual conditions of loan portfolios, the program had failed to clean up banks' balance sheets. The failure has been attributed to the uncertainty about the consequences of not being able to repurchase the loans in accordance with the payment schedule of the promissory note. Given the poor prospect of a rapid recovery in cash flows and profits, the owners were not ready yet to take the risk of losing the control and management of their banks. Also, banks were still reluctant to stop rolling over loans because it would have forced them to start legal action against delinquent debtors, <u>when it was still likely that the government could provide additional relief to debtors</u>[21].

As part of the government take over of eight financial institutions in January 1983, the original program began to be expanded greatly, with significant changes occurring through the rest of the decade. <u>First</u>, banks were given more time to sell substandard loans to the Central Bank—the deadline was extended several times. <u>Second</u>, the maximum amount of loans that a bank was allowed to sell to the Central Bank was raised from 1.5 to 2.5 times a bank's capital, and later on to 3.5 times. <u>Third</u>, the responsibility for repurchasing the loans from the Central Bank out of profits was shifted from the banks to their original shareholders, so new investors could capitalize the banks without being responsible for the obligation to repurchase the loans. <u>Fourth</u>, the Central Bank started to pay part of the purchase of substandard loans (up to 60 percent) with a 4-year promissory note accruing interest at the rate of *UF*+7 percent per year. For this part of the loans the banks' obligation to repurchase them was to accrue interest at the rate of *UF*+5 percent per year—therefore, the program could also be considered as swap with the Central Bank with a return (spread) of 2 percentage points.

The expansion of the program also strengthened the rules for the administration of the loans sold to the Central Bank. The loans were left with the original banks for their administration and collection of payments. All collections had to be applied to the repurchase of the loans, and borrowers were not informed that their loans had been sold to the Central Bank to prevent that they could take advantage of the fact that their banks were no longer holding the titles.

With the new rules, banks (especially, the two large banks intervened in January 1983) had good incentives to sell all their substandard loans. In addition to benefiting from not having to provision against these loans, they benefited from the interest rate differential of 2 percentage points between the interest earned on the Central Bank's promissory note (7 percent) and the interest paid on the obligation to repurchase the substandard loans from the

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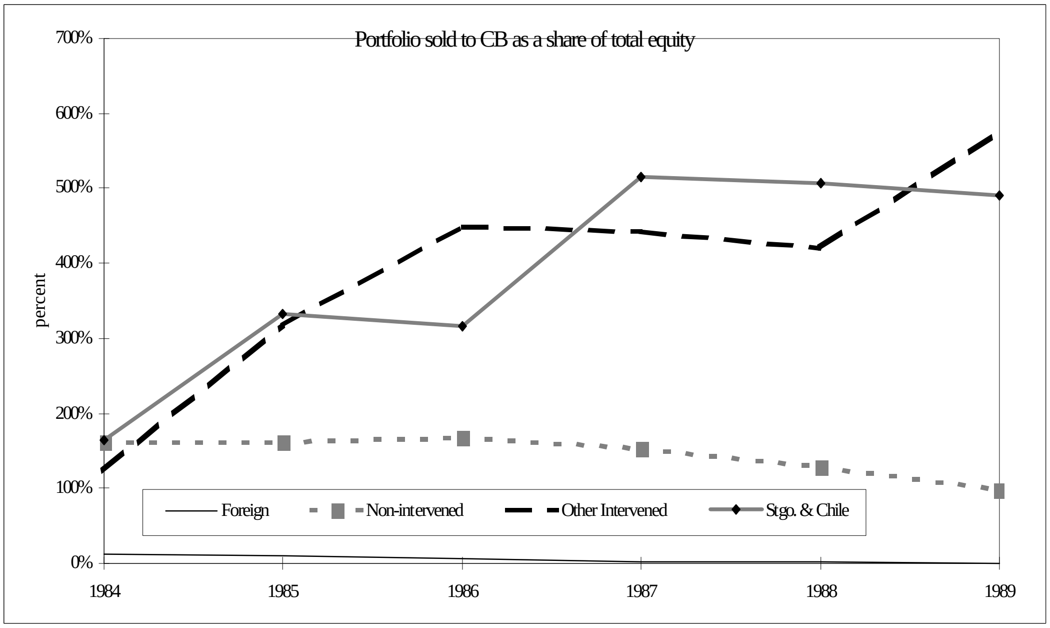
21 Even if the government was able to prevent the holding companies of the conglomerates from benefiting from the debt restructuring programs, their creditor banks could continue the rollover of their short-term loans and finance the service of their long-term loans because of the increased availability of funds.

Central Bank (5 percent). Even if the actual difference was lower than 2 percentage points, it was a spread high enough to improve profitability.[22]

Figure 3.5



Note: Stgo&Chile stand for *Banco Santiago* and *Banco de Chile*, the two largest private banks of the Chilean financial system, which were among the institutions intervened in January 1983.

In 1983 and 1984, a large amount of loans were sold to the Central Bank, and some more in 1985 (afterwards, the stock of these loans declined as the banks started to repurchased them). There were, however, important differences in the amounts sold by nonintervened, intervened and foreign banks, a reflection of differences in their initial conditions but also in government policies (figure 3.5). The relaxation of the rules for selling loans notwithstanding, banks were constrained to sell loans by their low capital base. In particular, for intervened banks, the restriction on the maximum amount of loans that could be sold to the Central Bank was binding and the government had to force their recapitalization. Moreover, the government often made adjustments in the rules that allowed the banks to get a better deal, either by increasing the net payments to the banks, or by delaying the repurchase of the loans. At some point later in the process banks were given a share on the proceeds from the recovery of the substandard loans that had been sold to the Central Bank. This measure was aimed at improving the recovery of these loans that were administered by the banks.

[22] The actual gain for banks was lower than 2 percent since they also had to use the 4-year promissory notes to repay CB emergency loans which in turn were at below market rates.

C. The domestic liabilities

Starting in early 1980, the composition of the total liabilities of the banking system changed rapidly (see Table 3.3). At the beginning, over 70 percent of its liabilities were with the public in the form of demand, savings and time deposits and also bonds. By the end of 1981, at the beginning of the crisis, the share of these domestic liabilities had declined to around 63 percent because banks were able to access foreign credit, which at that time accounted for 30 percent of total liabilities. By the end of 1983, at the bottom of the depression, the liabilities with the public had declined to 43 percent of total liabilities as a result of the large increase in the liabilities with the Central Bank, which then accounted for 25 percent of total liabilities. Until the end of 1986, the liabilities with the Central Bank continued to account for a high share, in the range of 25-30 percent of the total. In the crisis, the Central Bank played the role of intermediary because it mobilized domestic funds by issuing bonds and recycling some of the foreign debt originally contracted by private banks and companies.

Table 3.3

Sources of funds: share by type	**1979**	**1981**	**1983**	**1985**	**1987**	**1989**
Demand, Savings and Time Deposits	71.9%	63.1%	43.1%	39.0%	52.8%	68.2%
Other domestic liabilities	9.5%	6.3%	25.4%	30.3%	23.6%	16.8%
Loans from abroad and other foreign liabilities	18.6%	30.6%	31.5%	30.7%	23.6%	15.0%

That decline in the share of domestic liabilities with the public notwithstanding, their real value did not decline during the crisis. There was often a fear that other liabilities could substitute for them; first, when the access to foreign credit increased sharply before the crisis, and later during the crisis, when it was possible to have access to the Central Bank. Indeed, there were changes in the sources of the domestic liabilities with the public, in the type of liabilities and in their allocation by type of banks. Few changes were significant however; perhaps the most important one was the investment of the funds of the new pension system in time deposits with maturities longer than the average maturity of household deposits. Until January 1983, except for small depositors there was no explicit government's guarantee of the liabilities with the public (the voluntary system of deposit insurance set in late 1981 never became important). But when the government decided to liquidate 2 banks and 1 finance company it had no choice but to offer an explicit guarantee. The guarantee of the total amount of deposits was regarded an effective deterrence of a run against the remaining banks that were intervened but were not to be liquidated.

If the government's guarantee was important for preventing a run against the banks, the Central Bank's role in the intermediation and recycling of funds was important for maintaining the liquidity of the banking system. Before the crisis the idea of the Central Bank acting as lender of last resort was not well defined in the regulations.[19] However,

[19] For a long time, the debate about the Central Bank's functions and organization had been limited to its relation with the government. The 1980 Constitution explicitly provided for its independence from the Administration and prohibited the Bank to lend to it. However, these provisions did not become effective until the passing of the Central Bank Law of 1988, and during the crisis, the government relied on the

early on in the crisis, the Central Bank started to provide emergency loans to the banks. The loans were funded first by shifting the backing of the monetary base at the margin, and later by mobilizing domestic funds through the issue of bonds and by recycling the restructured foreign debt and the new monies received in the process of restructuring the foreign debt.

Although the funding of the loan portfolios during the crisis was never threatened, the cost of this funding was always a serious problem. Real interest rates on savings and time deposits had increased sharply in the year before the beginning of the crisis. Indeed the increase in these rates in early 1981 could be regarded as the first clear signal that the euphoria of 1980 was coming to an end. It is not possible to estimate the average cost of domestic liabilities from the financial statements. Expost the average cost of total liabilities, however, increased sharply in 1981 and 1982—from 11.7 percent in 1980 (the lowest level of the reform period) to 14.5 and 18.4 percent respectively (Table 3.4). Most of the increase was the result of the higher cost of domestic liabilities, although after the peso devaluation, ex-post the cost of foreign liabilities also increased.

Table 3.4

Cost of Total Liabilities in the Chilean Financial System: 1978-89 (%)

1978	14.1	**1982**	18.4	**1986**	6.2
1979	13.1	**1983**	11.3	**1987**	6.2
1980	11.7	**1984**	9.7	**1988**	5.2
1981	14.5	**1985**	9.0	**1989**	6.9

By late 1981, the reduction of interest rates on deposits to the mid-1980 levels was considered a prerequisite to prevent a banking crisis. There was not much agreement, however, on what the government could do to reduce interest rates other than issuing currency. At that time, the idea of distressed borrowing by the debtors of the banking system, which assumed the complicity of their creditor banks, started to gain support, but it was not clear how it could be prevented. In late 1981, the large inflow of foreign credit had failed to reduce domestic interest rates, and in early 1982, some banks attempted to jointly force a reduction in deposit rates but they abandoned the idea rapidly. Later the devaluation of the peso created its own pressures on interest rates, even if ex post their real values were not as high as their expected values. In July 1982, the government expected that the sale of non-performing loans to the Central Bank would slow down distressed borrowing, but with no avail. Increasingly, the government was focusing its attention on reducing the deposit rates to control the expansion of the banking crisis and to create the conditions for a recovery of economic activity.

In December 1982, the government opted for pressing banks to cap their interest rates on 30-days deposits to a level slightly higher than that of the Central Bank's liquidity facility. The rate 'suggested' by the government implied a low but positive real return on deposits. In practice, compliance with this maximum 'suggested' rate became a condition to

Bank to implement its policies. Also, prior to the crisis the CB role as a LOLR was somehow limited due to the fix exchange rate system.

have access to the Central Bank's liquidity facility, but it was not strictly enforced, especially at times of strong pressures on interest rates (and in November 1984, it was explicitly abandoned for a couple of weeks). The effectiveness of this policy, which was officially abandoned in June 1987, has been hard to assess because its implementation coincided with other policies that ended the distressed borrowing of 1982, in particular the measures of January 1983.

As shown in figure 3.6, real interest rates on time deposits declined in the first quarter of 1983, and then they remained under five percent until 1990. The acceleration of inflation after the devaluation of the peso and the subsequent changes in relative prices poses again a serious problem to use ex-post rates as proxies for ex-ante rates. The decline in real interest rates, but not its size, is confirmed by the lower interest rates on *UF*-denominated bonds, deposits and loans (see figure 3.7). By late 1986, real ex-post rates on 90-days deposits and interest rates on *UF*-denominated one-year deposits were converging at 4 percent per year. This level was lower than the level at which they were converging in late 1980, when suddenly the trend reversed and both rates started to increase up to a peak of over 20 percent in mid 1982.

Figure 3.6

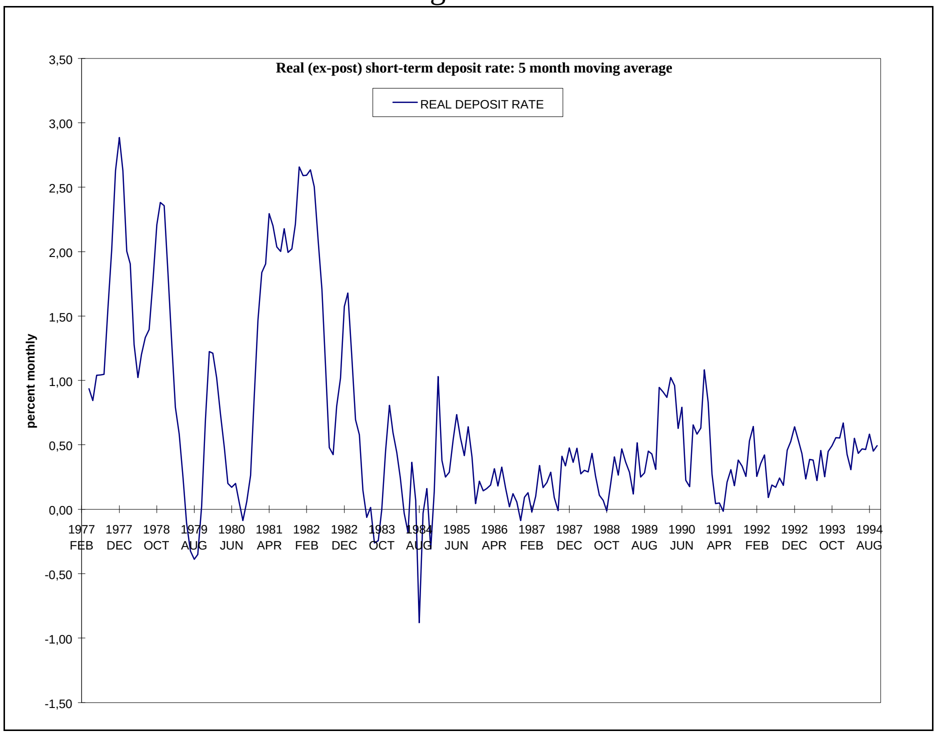
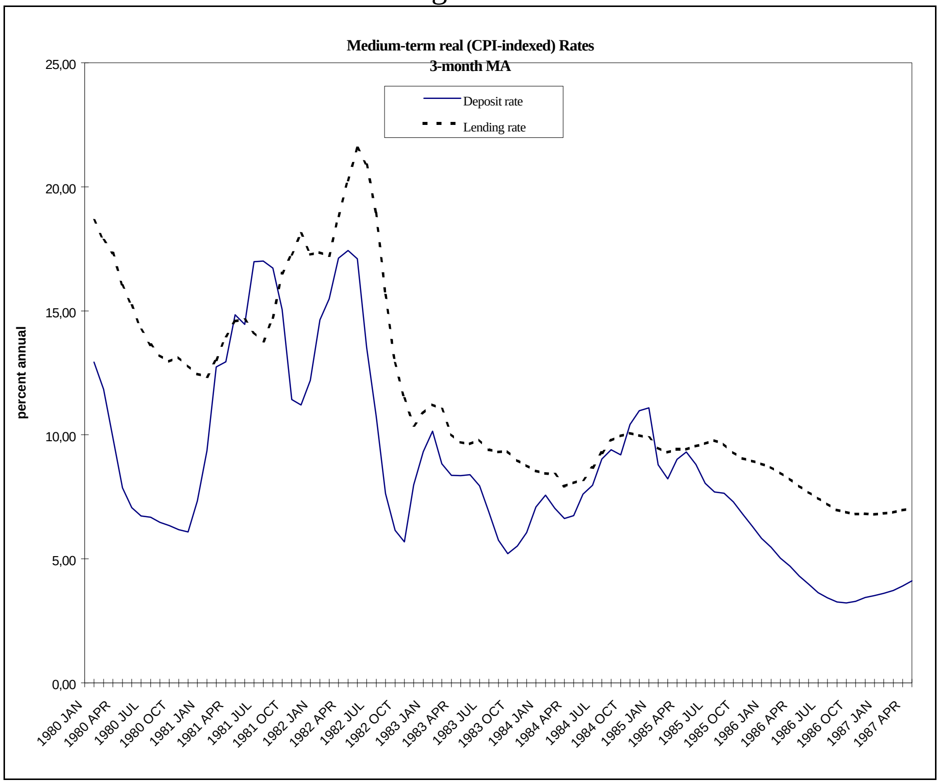


Figure 3.7



That decline in interest rates led to a similar decline in the average cost of the total liabilities. After reaching a peak of 18.4 percent in 1982, their average cost declined continuously to a level of 6.2 percent in 1986 (Table 3.4). The declining trend in the average cost of liabilities reflected both the decline in domestic rates and the decline in international rates. The average interest rate on foreign credit—measured by LIBOR+ spread—had increased up to 17.7 percent per year in 1981, but then it declined steadily until 1986 to 6.7 percent per year.

Between 1983 and 1986, both the interest rates on loans and the average return rate on the banks' asset portfolios declined sharply. The decline in interest rates on both domestic and foreign funds was rapidly reinforced by lower spreads, so real interest rates on loans were under 8 percent per year in 1986 (see figures 3.6, 3.7, and 3.8). And the lower loan rates reduced the average return on the asset portfolios (including loans and other investments) from a high rate of 23 percent in 1982 to 8.5 percent in 1986 (table 3.5). Thus, the series on real interest rates, average cost of total liabilities and average return on the asset portfolios show a consistent pattern through the crisis. The low levels of late 1980 (in relation to early 1976) were followed by large increases up to the end of 1982, and then by a sustained decline, with the levels in late 1986 already lower than those of late 1980. Moreover, the interest rate spreads that had increased somewhat in 1981 and 1982 declined rapidly to the 1980 levels, and by 1986, they were below these levels.

Figure 3.8

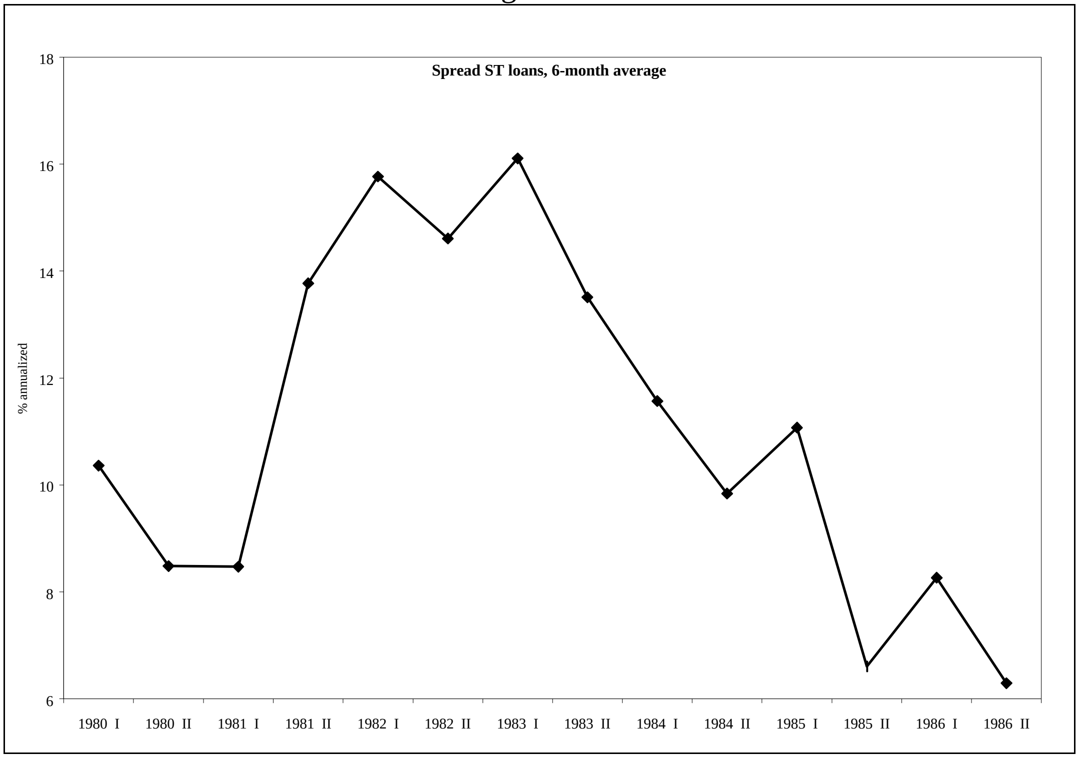


Table 3.5

Average Return on Bank's Asset Portfolios

1978	20,5	**1982**	22,7	**1986**	8,5
1979	19,8	**1983**	12,8	**1987**	8,9
1980	18,4	**1984**	10,5	**1988**	7,8
1981	20,1	**1985**	11,3	**1989**	10,0

D. The foreign liabilities

Chile's foreign debt increased rapidly between 1979 and 1981, when private banks became an important mechanism for accessing the international capital markets—medium and long-term foreign debt increased by US$241M in 1975, US$810 million per year in 1976-79, and US$2,523MM per year in 1980-81 (see Table A.4 in the annexes) [20]. By the end of 1981, the foreign liabilities of the banking system amounted to US$7.1 billion, of which US$400 million were due by *Banco del Estado*, the only remaining state-owned bank, and around US$3.0 billion by the two largest private banks intervened in January 1983. At the end of 1986, it was reduced to US$6.1 billion, of which US$1.3 billion were due by *Banco del Estado*, and around US$1.0 billion by those two private banks. In the five years up to the end of 1986, there were some important changes in the country's foreign debt and its composition:

[20] Except for trade credit short-term debt was prohibited. During 1980-81 public sector debt decreased.

(a) The foreign liabilities of the banking system accounted for 46 percent of the country's foreign debt in 1981, but only 30 percent in 1986.

(b) The increase in the country's foreign debt between 1981 and 1986 was accounted by the new money from international banks (part of the restructuring of the outstanding debt) and the increased access to funds from official sources.

(c) The public sector's share in the total foreign debt increased from one to two thirds between the end of 1981 and the end of 1986. In addition, the government had to guarantee a large part of the banking system's debt with foreign creditors. If the latter is added to the public sector debt, at the end of 1986, the public sector debt amounted to over 80 percent of the country's foreign debt.

Indeed, the management of the foreign debt was critical to the recovery of the economy in general, and of the banking system in particular. To a large extent, its management was conditioned by the events of January 1983, when to liquidate a few banks the government decided that the domestic and foreign creditors of these banks would have to recognize a 30 percent loss of their claims. Their foreign creditors (all international banks) reacted immediately by not renewing Chile's trade credit lines. Given the impossibility of accessing alternative sources of foreign funds, the government had no choice but to guarantee that part of the outstanding debt that was restructured and all the new monies to refinance part of the interest payments. Subsequent restructuring agreements also included a government's guarantee on that part of the debt being restructured and any new money, but the creditor banks accepted to pay a fee for this guarantee. More important, subsequent agreements also dealt with the reality of an emerging secondary market for this debt that, in turn, became the basis for the so-called debt reduction programs. By 1985, this market was well organized, and for a few years Chilean debt was traded at discounts in the range of 30-40 percent of book value.

Formally, debt reduction programs started when the Chilean government allowed national and foreign investors to use in Chile the debt certificates bought in the secondary market. The certificates could be used for the capitalization of a Chilean company or the repayment of an outstanding debt with Chilean banks, or they could be sold to the original debtor at a price negotiated by the parties. The programs evolved rapidly into the ones described in Table 3.6. The rules distinguished between programs for national investors (Article 18 of the Foreign Exchange Transactions Law) and foreign investors (Article 19 of the Foreign Exchange Transactions Law and Decree Law 600 on Foreign Investment). The distinction was to ensure that national investors did not have access to the official foreign exchange market and that foreign investors were to comply with all rules governing foreign investment. The restriction on the access to the foreign exchange market notwithstanding, national investors were required to buy a quota from the Central Bank that was established both to control the process and to allow the Central Bank to capture part of the discount.

Table 3.6: Formal Mechanisms of Debt Reduction

	Debt repurchases		Debt capitalizations	
	Chapter XVIII	Chapter XVIII Annexes 4 and 5	Chapter XIX	Capitalizations D.L. 600
Main characteristics	Indirect debt repurchases by nationals	Annex 4: Repurchase of a company's debt by nationals to capitalize that company. Annex 5: Repurchase of Central Bank debt on behalf of mortgage debtors to reduce their local debts	Debt-equity swap by foreign investors—debt of a firm different from the one in which the investment takes place.	Debt-equity swap by foreign investors—debt of the same firm in which the investment materializes.
Main restrictions	No access to official exchange market Necessary to have a quota auctioned by the Central Bank (1) Public agents and private financial firms not allowed purchasing their own debt directly (2)	No access to official exchange market Central Bank approval needed on a case-by-case basis (quota not required) Debtors not allowed repurchasing their own debts directly	Central Bank approval needed on a case-by-case basis Profit remittances permitted only after four years (3) Capital repatriation permitted only after ten years (3)	Same as Chapter XIX but with preferred legal and taxation status
Notes: (1) Quotas give the right to repurchase debt through an intermediary, and represent a way for the CB to capture part of the rent. (2) *Sharing clause* aimed at forcing repayments to be shared by all creditors in proportion to their outstanding debts. (3) Conditions slightly stricter for portfolio investment (mutual funds).				

Between 1985 and 1990, the formal programs described accounted for a reduction of over US$10.0 billion in the country's foreign debt, most after 1986 (see Figure 3.9). As detailed in Table 3.7, private banking system's debt accounted for 43 percent of the total reduction, and public financial institutions' debt for 32 percent. Most of the latter was debt taken over by the Central Bank in the restructuring of the country's foreign debt[21]. Thus, the share of foreign liabilities in the total liabilities of the banking system declined sharply after 1986. At the end of 1986 it was 29 percent, while in 1988 it had declined to 19 percent and by the end of 1999 to 15 percent**.** However, most of the reduction was concentrated in *Banco de Chile* and *Banco Santiago*, the two largest private banks intervened in January 1983 (Table 3.8).

The reduction of foreign debt benefited the debtor banks only to the extent that they were able to buy back their debts at a large discount. The benefit was determined by the cost of servicing the foreign debt relative to the cost of alternative sources of funds, and given the high cost of the latter, in principle a high discount was necessary to make the debt reduction beneficial. In addition to the regulation of the programs, the access to Central Bank's funding and the decline in domestic interest rates made debt reduction much more

[21] In addition to provide guarantees to the restructured debt that remained with private banks and companies, through voluntary debt swaps with the Central Bank the government took over some of the private sector's restructured foreign debt, as well as all the restructured foreign debt of the banks that were liquidated.

beneficial after 1986, even if the discounts were not as high as they had been earlier in the crisis. The direct benefit of debt reduction for Chilean debtors would have amounted to 8-12 percent of the par value of the repurchased debt, with the remaining discount benefiting the national or foreign investors and the Central Bank. The direct benefit for the Chilean banks can then be grossly estimated in the range US$340-520 million, with half of this amount accruing to *Banco de Chile* and *Banco Santiago*. In addition, some banks were able to obtain an indirect benefit from the business of being an intermediary (acting on behalf of national investors) in debt reduction transactions[22].

Table 3.7 Debt Reduction 1985-90: Composition by mechanism type

	DL 600	Chapter XVIII	Chapter XIX	Portfolio Swaps	Others	Total	Share
Public Sector		US$ millions, cumulative as of Dec. 1990					**40%**
- Financial		901.5	1403.8	32.7	905.8	3243.8	32%
- Non- Financial		230.9	104.1	37.7	447.7	820.4	8%
Private Sector							**60%**
- Financial	168.8	1911.2	2068.8	78.3	75	4302.1	43%
- Non- Financial	134.9	89.2	1.2	6.8	1497.3	1729.4	17%
Total	303.7	3132.8	3577.9	155.5	2925.8	10095.7	100%

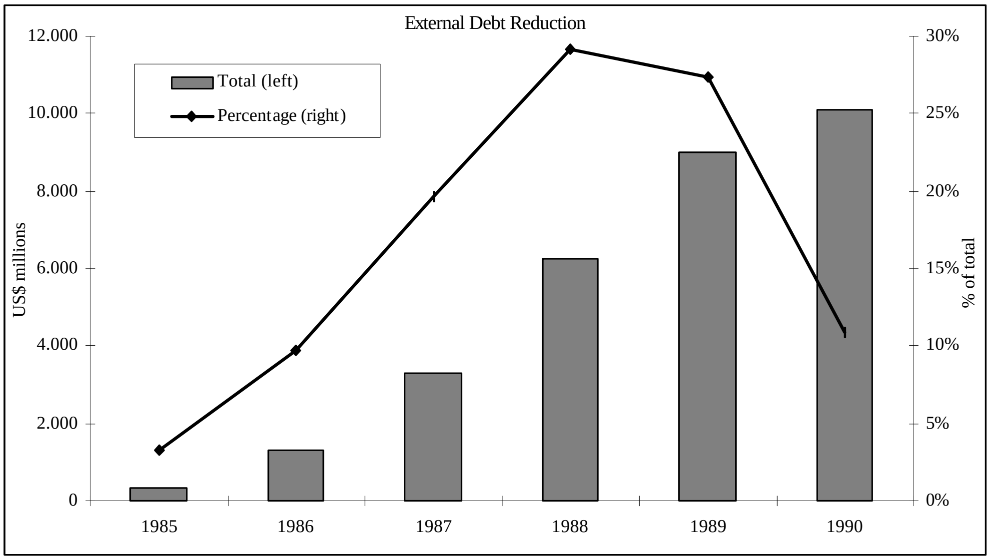
Table 3.8 Foreign Debt by type of financial institution

	Foreign Debt in US$ millions as of:		
	December 1982	December 1990	
	(A) Average per firm		Change (%)
Foreign banks (1)	26	21	-18%
Other domestic	102	103	1%
Other intervened	124	61	-51%
Santiago&Chile	1451	370	-74%
	(B) Total for each group		Change (%)
Domestic institutions	5906.6	1786.1	-70%
Foreign institutions (1)	486.6	463.0	-5%

Note: (1) Foreign banks are presented only for completeness here, but they are not relevant to the analysis of debt-reduction operations as their debt from abroad is not considered as Chilean foreign debt.

22 Apparently these banks were able to charge a transaction fee of 2 percentage points of the par value of the repurchased debt (Larraín, F., 1989).

Figure 3.9 Total Debt Reduction through formal mechanisms (cumulative 1985-90)



E. <u>The recapitalization of banks</u>

The implementation of the new rules for classifying loans and other investments in accordance with their risks had taken much longer than anticipated, and at the beginning of the crisis it was not well advanced. Also, the rules governing capital requirements and provisioning were still based on the size of total liabilities rather than on the risk composition of assets.[23] Independent of the traditional rules regarding capital requirements, when the crisis started the banks were not able to take losses, certainly not the large losses that the crisis imposed on them. The recognition of large losses would have led most banks to be undercapitalized even by the traditional standards and many would have shown a negative net worth.

The purchases of substandard loans by the Central Bank—see sub-section 3.B(3) above—was aimed precisely at postponing the recognition of loan losses. Although it did not increase banks' cash flows—initially it was a pure accounting transaction—the loan purchases avoided the recognition of solvency problems. Also, since banks were not required to maintain capital[24] or provisions weighted by the risk of their assets, the measure did not lead to important reversals of provisions or increases in capital-asset ratios based on asset quality improvements.

Except for the two largest private intervened banks (*Banco Santiago and Banco de Chile*) the recapitalization of banks was not an issue <u>during the crisis</u>—banks were able to continue their operations as long as their accounting capital was greater or equal to 5

[23] Note that at that time, capital requirements were not in general based on risk-weighted assets. This became fashionable worldwide after the 1988 Basle Accord.

[24] The standards set in the Basle Accord were implemented in Chile as recently as 1998, a decade after it began to be implemented in the developed countries.

percent of their liabilities. For those two banks capitalization was an issue also because the low capital base limited their capacity to sell non-performing and risky assets to the Central Bank. This problem was resolved for these two banks with their reprivatization—see section G below—and starting in 1985 they fully complied with the capital requirements. However, for all other banks—except foreign—capitalization started to be a problem in the aftermath of the crisis as banks began cleaning up their balance sheets and raising their provisions, and it remained a problem until 1989 (Table 3.9).

The government assumed that measures <u>other</u> than a direct request to increase capital would be more effective to restore the solvency of the banking system in the short- and medium-term. A request to increase capital would have taken some time to be met, likely longer than the time needed for the banks to start generating a cash flow surplus if the other government actions were effective and the economy started to recover. Indeed, each of the measures that improved the loan portfolios and ensured the funding of these portfolios at a low cost—debt-rescheduling programs for bank debtors, preferential exchange rate program for debtors in foreign currency—was expected to have a positive impact on the banks' cash flow.

Although it was not its main purpose, the program to sell substandard loans to the Central Bank also evolved into a measure that contributed to generate a surplus for banks. Indeed, about 10.5 percent of the banks' loan portfolios were sold under the new regime that guaranteed a profit of 2 percent per year (see section 3.B (3) above). Thus, starting in 1985 and for four years (the original maturity of the CB promissory note), banks made a certain profit per year of 0.21 percent on their loan portfolios (note that this profit was based on low quality assets that were transferred to the CB).

In addition to the measures to resolve the banking crisis and the recovery of the economy, the recapitalization of banks was facilitated by the income tax reform of 1984, although the size of its effect is not known. One of the main objectives of this reform was to provide an incentive for all companies <u>not</u> to distribute profits. The incentive was in the form of a marginal personal income tax higher for interest income than for dividends. This tax reform reversed a situation that existed since 1974, that put a premium on debt over equity financing because of double taxation on dividends.[25]

The tax reform soon had the intended effect of lowering the cost of equity capital relative to that of debt capital, when the latter was already high, encouraging therefore the reinvestment of profits into debt payment. The reform also provided tax incentives for the conversion of debt into equity—in addition to the discount obtained in the secondary international debt market discussed above—through a special tax credit given to investors in new shares (IPOs). The credit was proportional to the initial investment and consisted of a discount on the investor's tax base for all the years that he held the new shares, but the benefit was not transferable.

[25] For instance, for an individual in the 40 percent income tax bracket, investing in an asset through debt meant an actual tax on returns of 40 percent. For the same investment project financed through equity, however, until 1984 her actual tax rate was 46 percent. After 1984 her personal tax rate on this investment dropped to 37 percent (Hernández and Walker, 1993).

Indeed, bank profits were negative or disappeared during the crisis for all banks, and remained nil for all intervened banks until 1988—banks were required to use all their profits to provision for the repurchase of assets sold to the CB. However, all national banks (other than *Banco Santiago and Banco de Chile*) were able to raise their capital base immediately after their profits resumed (Table 3.9). In sum, the recapitalization of banks—other than the two named above—depended on their ability to generate profits that could be reinvested. To this end the 1984 tax reform played a crucial role by providing incentives for the capitalization of all firms, financial and not financial—i.e., the tax reform also facilitated the restructuring of debts in the corporate sector.

Table 3.9 Chilean Financial System: Financial Ratios

Equity/total assets	**1982**		**1984**	**1985**	**1986**	**1987**	**1988**	**1989**
Foreign banks	16.3%		7.1%	4.7%	4.8%	7.1%	9.1%	n.a
Non-intervened	9.9%		4.8%	*4.2%*	*4.0%*	*4.2%*	4.8%	5.2%
Intervened	7.5%		4.9%	5.2%	5.4%	4.7%	5.0%	5.7%
Santiago and Chile	5.8%		*4.0%*	5.4%	7.0%	5.1%	5.7%	6.1%
Others	7.9%		5.3%	5.1%	4.7%	*4.3%*	*4.4%*	5.3%
	1982	**1983**	**1984**	**1985**	**1986**	**1987**	**1988**	**1989**
Profits/equity								
Foreign banks	6.2%	-2.3%	0.0%	28.2%	8.5%	5.6%	7.2%	6.6%
Non-intervened	-9.6%	-8.5%	0.0%	0.8%	6.8%	9.0%	8.0%	23.0%
Intervened	-17.0%	-41.4%	-81.3%	-5.2%	0.0%	0.0%	0.0%	4.4%
Santiago and Chile	-4.2%	-84.6%	-148.8%	0.0%	0.0%	0.0%	0.0%	6.8%
Others	-19.9%	-27.0%	-58.8%	-7.0%	0.0%	0.0%	0.1%	2.1%
	1982	**1983**	**1984**	**1985**	**1986**	**1987**	**1988**	**1989**
Provisions/total assets(*)								
Foreign banks	1.86%	0.99%	1.49%	1.29%	1.15%	0.94%	0.72%	0.74%
Non-intervened	2.48%	2.38%	2.06%	1.75%	2.02%	2.48%	3.30%	3.76%
Intervened	2.24%	2.81%	4.11%	1.83%	3.59%	3.56%	7.23%	3.09%
Santiago and Chile	1.10%	nd	5.97%	3.45%	5.09%	3.66%	3.99%	4.05%
Others	2.53%	nd	3.49%	1.29%	2.56%	3.27%	8.00%	2.14%

(*) Comprises provisions to repurchase assets sold to the CB

F. The takeover of distressed banks and financial companies

Between 1981 and 1986, 21 financial institutions were intervened by the government and either liquidated or rehabilitated and privatized (see Table 3.11). Almost all of these interventions, and certainly the most important ones, occurred during 1981-83. In this section we analyze the rationale for these government actions.

In November 1981, four banks and four financial companies were intervened. Apparently the decision was based on the results of the risk assessments of their loan portfolios. The risk assessment exercises had started in early 1980 but it took a long time to identify the institutions that could not comply with the new regulations. Moreover, given the lags in collecting and analyzing the relevant information, it is likely that the assessments did not reflect properly the deterioration in the portfolios due to the rapid slowdown of the economy in the second half of 1981. At the time of the intervention, the government justified it by reference to the problems of each institution rather than to macroeconomic problems. In particular, the culprit were poor administration and banking practices such as excessive lending to related parties, poor provisioning associated with excessive credit growth, and large maturity mismatches (long-term portfolio funded with short-term deposits)[26]. Only two small banks and one financial company were intervened during 1982. Again the intervention was justified by reference to the specific problems of each institution, in particular a high concentration of loans with related parties, although by that time it should have been difficult to separate these problems from the effects of the economic depression.

The eleven interventions of 1981 and 1982 were concluded with the liquidation of the four smallest banks and the five finance companies, whereas the other two banks were soon sold to foreign investors. This was so because the government did not want to take the responsibility of capitalizing and managing the intervened institutions. Moreover, in the case of the two large banks intervened in November 1981, their resolution was facilitated because of the interest of well known foreign banks, with small branches operating in the country, to acquire their assets and liabilities.

The intervention of seven banks and one finance company in January 1983 was quite different from those of 1981 and 1982. The government's intention was to accelerate the resolution of the ongoing crisis first by sending a signal that both the owners and the creditors of distressed institutions would have to take some of the losses (thus, the justification for liquidating immediately two banks and the financial company). Second, it intended to stop the rollover of loans that had pushed interest rates to very high levels (hence, the justification for intervening the two largest private banks which were also the flagships of the two main economic groups). According to the data available at the time of the intervention, the government took over the administration of those banks and financial companies that were in a weaker financial position—those with losses in excess of their net worth. Starting in September 1982, the government had asked banks to classify their major debtors into viable and non-viable. In particular, after providing specific assumptions for the key macro variables, the government asked banks to make cash flow projections for the assets of each large debtor. Based on the projections banks had to estimate their potential losses. At the time the exercise was completed the estimated losses for all the institutions supervised by the Superintendency of Banks and Financial Institutions amounted to more than twice the institutions' total net worth. At this point it was decided that <u>all institutions whose losses exceeded three times their equity would be liquidated</u>, while the others would be capitalized and privatized. This led to the liquidation of two banks and one finance company, the merger of another bank, and the rehabilitation and privatization of the remaining four banks.

As shown in figures 3.10 through 3.12, the intervened financial institutions were less capitalized (or more leveraged) and less profitable than other banks and financial companies. However, with the exception of the two largest banks—*Banco Santiago* and *Banco de Chile*—they did not rely on foreign credit to finance their operations more than

[26] Only in one case—Banco de Fomento de Valparaíso—the main reason given was the financial difficulties of one of its major debtors which, in turn, was caused by it pursuing a risky investment strategy (*Estrategia*, November 10-15, 1981).

non-intervened banks. The two largest banks incurred in greater foreign indebtedness and were exposed to suffer larger losses in case of devaluation (though this was reflected in their credit risk instead of their currency risk). Also, as shown in table 3.10, the ratio of related lending was higher in the intervened banks, a conclusion that holds even after excluding *Banco Santiago* from the sample, the only bank with a share of related lending above 40 percent.

Figure 3.10

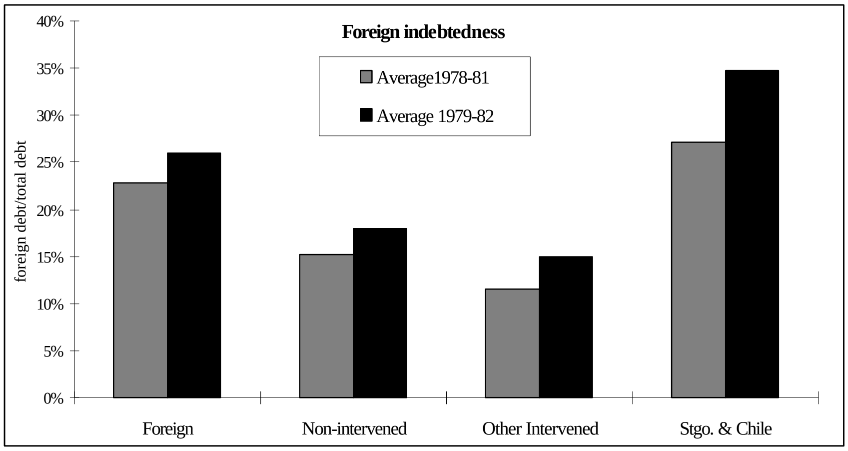


Figure 3.11

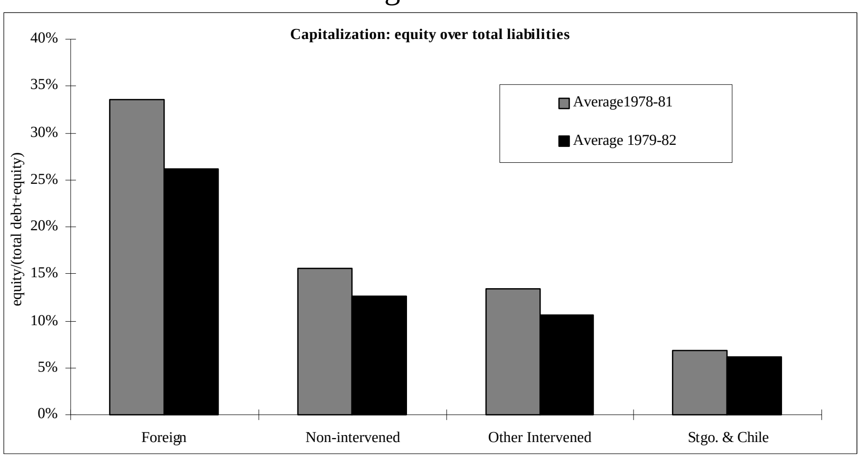


Figure 3.12

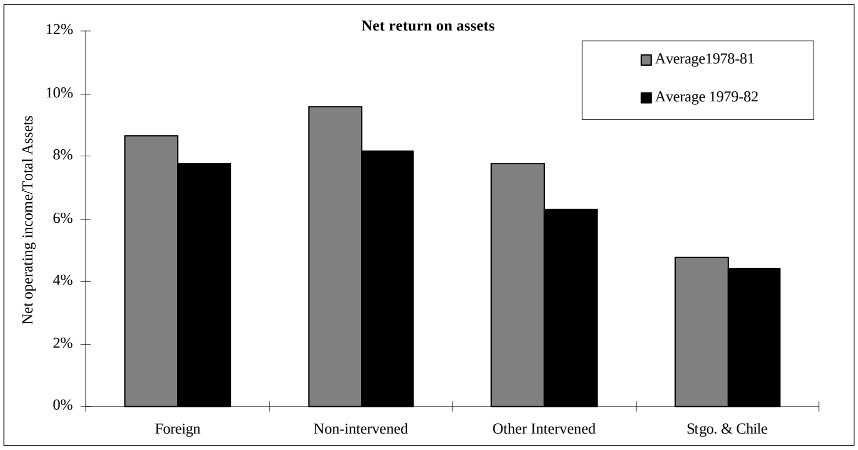


Table 3.10 Share of lending to related parties (% of loan portfolio)

	June 1982	December 1982	February 1983
Intervened banks (6)		24.0	25.6
Other banks (10)		11.8	12.6
Banks belonging to a conglomerate			
Intervened (6)	23.0	22.0	25.6
Others (7)	15.1	15.0	15.0

Note: numbers in brackets is the sample size.

Concerning the banks that were intervened but not liquidated, the government attempted to ensure that their cash flows were going to improve substantially in a short period of time. The government decided that the economic cost of closing them was higher than their rehabilitation cost, which was mainly based on their size (*too big to fail*) and the potential negative effect on depositors' confidence in the financial system. Concerning the institutions that were liquidated[27], the decision was based on the fact that the cost to rehabilitate them was believed to be higher than the potential benefits. In the case of the institutions intervened in 1981-82 and later on liquidated, no losses were imposed on depositors. In the case of the 3 institutions intervened in 1983 and liquidated, domestic creditors suffered a loss equal to 30 percent of their claims (as mentioned above, foreign depositors were compensated in full by the government).

[27] With losses larger than three times their equity.

Table 3.11 Financial Institutions Intervened

Institution Name	Year Intervened	Outcome
Banco de Linares	1981	Liquidated
Banco de Fomento de Valparaíso		Liquidated
Banco de Talca		Sold to foreign interests
Banco Español-Chile		Sold to foreign interests
Compañía General Financiera		Liquidated
Financiera CASH S.A.		Liquidated
Financiera de Capitales S.A.		Liquidated
Sociedad Financiera del Sur S.A.		Liquidated
Banco de Fomento del Bío-Bío	1982	Liquidated
Banco Austral de Chile		Liquidated
Adelantos y Créditos S.A.F.		Liquidated
Financiera CIGA S.A.	1983	Liquidated
Banco Unido de Fomento		Liquidated
Banco Hipotecario de Chile		Liquidated
Banco Colocadora Nacional de Valores		Merged
Banco Internacional		Rehabilitated and privatized
Banco de Chile		Rehabilitated and privatized
Banco Santiago		Rehabilitated and privatized
Banco Concepción		Rehabilitated and privatized
Financiera Davens S.A.	1986	Liquidated
Financiera Mediterráneo		Liquidated

G. The reprivatization of the two largest banks

In 1985, the government decided to privatize several enterprises which had been state property before the Allende government and which it had opted not to privatize in the 1970s. The new phase of privatization led to a reduction in the share of public enterprises in GDP from 24 per cent in 1981 to 16 per cent in 1988. The government relied on four mechanisms to privatize the enterprises: (i) competitive bidding for stock packages, (ii) *capitalismo popular* (sale to small investors), (iii) *capitalismo laboral* (sale of shares to employees of the enterprise[28]), and (iv) *capitalismo institucional* (sale of shares to the newly created privately administered pension funds). In the case of highly indebted enterprises, debt for equity swaps also allowed their sale to foreign investors.

The government had always intended to return the ownership, control and management of the intervened banks to private investors. In particular, it was eager to privatize the two largest banks, *Banco de Chile* and *Banco Santiago*,[29] to ensure their recapitalization and the improvement of their loan portfolios. These two objectives were linked. By May 1985, the cumulative losses of the two banks[30] amounted to 11 and 26 per

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[28] In most cases employees paid the shares using their individual *separation compensation accounts*. These accounts accumulated the sums that the employees would receive as severance payments when leaving the company. The most common compensation packages comprised one monthly wage for each year the individual had worked in the company.

[29] These two banks represented in March 1983, about 35 per cent of the loan portfolio of the entire banking system, and about 41 per cent of the loan portfolio of the private banking system. The difference between these two figures is given by the share of Banco del Estado.

[30] These figures comprise the stock of bad assets that up to that date had been transferred (sold) to the

cent of total assets, respectively. Moreover, the losses were expected to rise as the clean up process proceeded further—by March 1986, *Banco de Chile*'s cumulative losses amounted to 22 per cent of total assets, and for *Banco Santiago* to 33 per cent. Thus, the two banks were technically bankrupt and needed to be recapitalized. Besides, banks were allowed to sell bad assets to the Central Bank for up to 3.5 times of their capital, and the recapitalization would allow them to increase the sale of additional nonperforming assets, improving their portfolios.

In early 1985, the government decided to increase the capital of the two banks. The capitalization took place by issuing shares for around US$235 million and US$148 million for *Banco de Chile* and *Banco Santiago*, respectively[31]. These amounts increased their accounting equity by about 132 and 96 per cent, but excluding the accumulated losses. As shown in Table 3.12 below, the capital increase allowed the two banks to sell additional bad loans to the Central Bank for an amount equivalent to 30 per cent of the loan portfolios[32].

Table 3.12: Assets sold to the CB

Banco de Chile	**1984**	**1985**	**1986**
Assets sold to CB over total loans (%)	7.7	35.48	39.03
Banco Santiago			
Assets sold to CB over total loans (%)	18.97	47.97	52.46

Source: Superintendency of Banks and Financial Institutions.

The privatization of *Banco de Chile* and *Banco Santiago* was implemented through *capitalismo popular*, that is, through the sale of new shares to small investors. Rather than to maximize revenue, the government's intention was to maximize the number of new shareholders, so ownership would not be concentrated as it was before the intervention. The government shared the view that the concentration of ownership in the conglomerates or *grupos economicos* had been an important cause of the crisis—at the end of 1982, the related portfolio of *Banco Santiago* was estimated at about 45 per cent of total loans, and that of *Banco de Chile* at about 20 per cent (Larraín, 1989). Since the crisis had eroded the credibility of market-oriented policies, the government looked for new ways to establish private ownership again in the financial sector.

The sale of the two newly viable banks implied that 88 percent of *Banco de Chile*'s total capital was raised from the new shareholders, and about 95 percent of *Banco Santiago*'s. However, this capital did not take into account the accumulated losses from the substandard loans sold to the Central Bank—later known as the subordinated debt—so *de facto* the old shareholders owned a much lower share of the banks. Actually, the old

Central Bank (see section 3.B (3) above).

31 The capital increases arose also from the transformation into equity of the emergency loans granted by the Central Bank to these institutions in previous years.

32 For *Banco de Chile* this represented to US$ 1,023 million (in December 1990 dollars), which together with the recapitalization for US$ MM 235.25, allowed to eliminate the net worth deficit estimated at about US$1,597 million in early 1985, creating a viable bank (Hachette and Luders, 1993).

shareholders could not be paid dividends until they had repurchased all the substandard loans sold to the Central Bank. The new owners, or *capitalistas populares*, owned preferred stock and were entitled to receive dividends for up to 30 per cent of the bank profits.

To undertake the privatization of the two banks, *CORFO*—the same government agency that owned and controlled the banks during the Allende government and was in charge of all state enterprises during the military government—was authorized to grant loans to all potential buyers at a zero real interest rate. The credits were for 15 years and for up to 95 per cent of the value of the stock. The credits were indexed to past inflation but with no interest, and with one-year grace period for repaying the principal. Indeed, to guarantee that ownership was going to be widely spread, a ceiling was established on the total amount of the stock a person could buy. The maximum amount was linked to his/her tax returns (taxes paid) during the past three years, with a ceiling of about US$32,000 per investor. In addition, investors received tax benefits for the purchase of stock and discounts for early repayment of the loan. Thus, there was a large subsidy for investing in the two banks, proportional to the marginal tax bracket of each taxpayer. For instance, for *Banco de Chile* the subsidy was estimated at 40 per cent for a taxpayer with a marginal tax rate of 15 per cent (Hachette and Luders, 1993).

The rationale for linking the purchase of stocks to total taxes paid in previous years and the other tax benefits was to reimburse domestic investors in proportion to their contribution, as taxpayers, to the resolution of the banking crisis. Also, to offset the general distrust to invest in securities due to the experience of the crisis, the government attempted to ensure the profitability and safety of the new shares.

As of April 1986, less than a year since the privatization program had started, the increase in total capital amounted to UF 5,765,500 (US$88.4 MM approximately) for *Banco de Chile*, and UF 4,262,688 (US$65.3 MM approximately) for *Banco Santiago*, equivalent to 51 and 60 per cent of the capital increase authorized by the government. Ownership of the new capital was spread among 12,900 shareholders for *Banco de Chile*, and 9,200 for *Banco Santiago*. However, as shown in table 3.13, by December 1986 the program was successfully completed for both banks. Through this program over 67,000 shareholders became *capitalistas populares* so the program succeeded in bringing about a low level of ownership concentration.

Table 3.13: Number of shares and ownership structure

	Banco de Santiago			Banco de Chile	
	Total number of shares (in millions)	Percentage held by largest 15 shareholders		Total number of shares (in millions)	Percentage held by largest 15 shareholders
Jun-84	600	98,23%	Jun-84	1.500	27,16%
Jun-85	600	100,00%	Jun-85	1.500	36,32%
Jun-86	6.840	5,19%	Jun-86	8.500	6,77%
Dic-86	12.000	10,14%	Dic-86	12.500	2,41%
Dic-87	12.000	10,14%	Dic-87	12.216	3,71%
Dic-88	11.700	8,09%	Dic-88	12.216	4,01%
Dic-89	11.700	8,51%	Dic-89	12.169	3,81%

As shown in figures 3.13 through 3.15, after the intervention and privatization by the government these two banks showed a steady improvement in efficiency, although the latter reflects both the recovery in economic activity—including the recovery in lending and borrowing and the presence of economies of scale—and a more rational and professional administration.

Figure 3.13

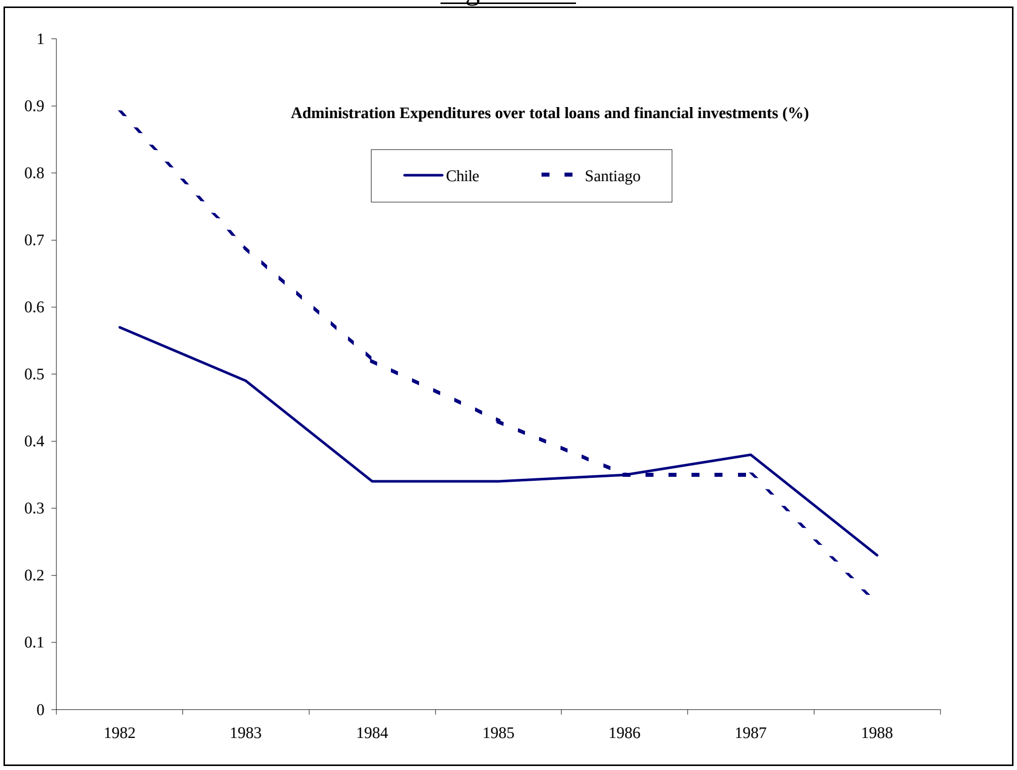


Figure 3.14

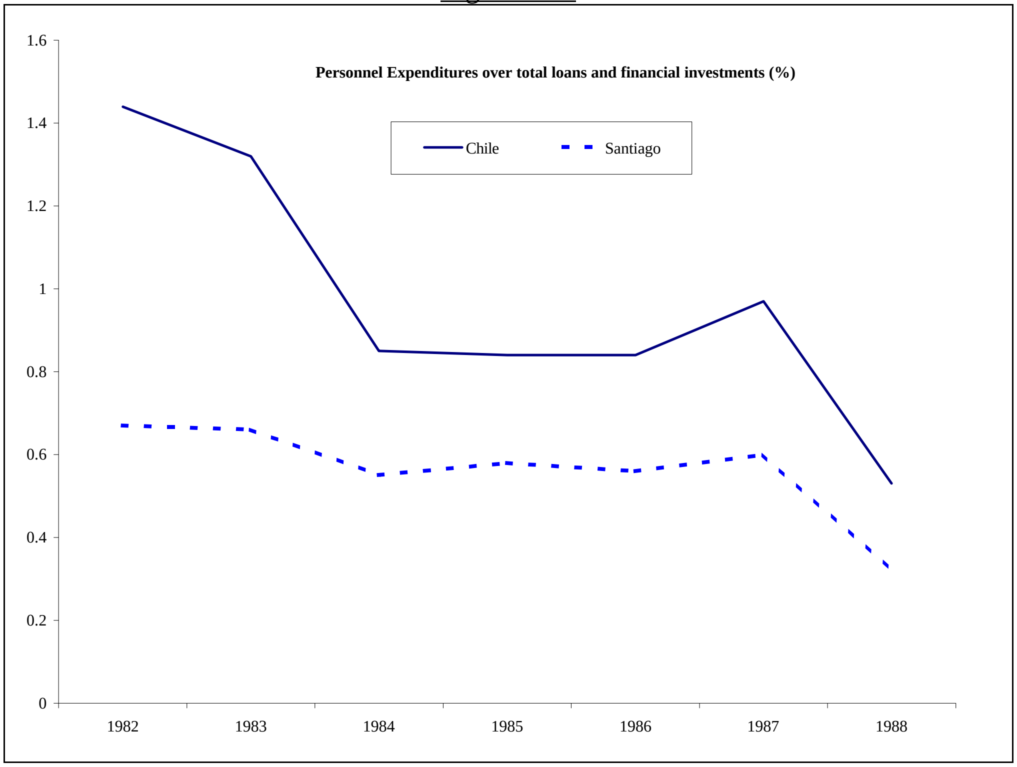
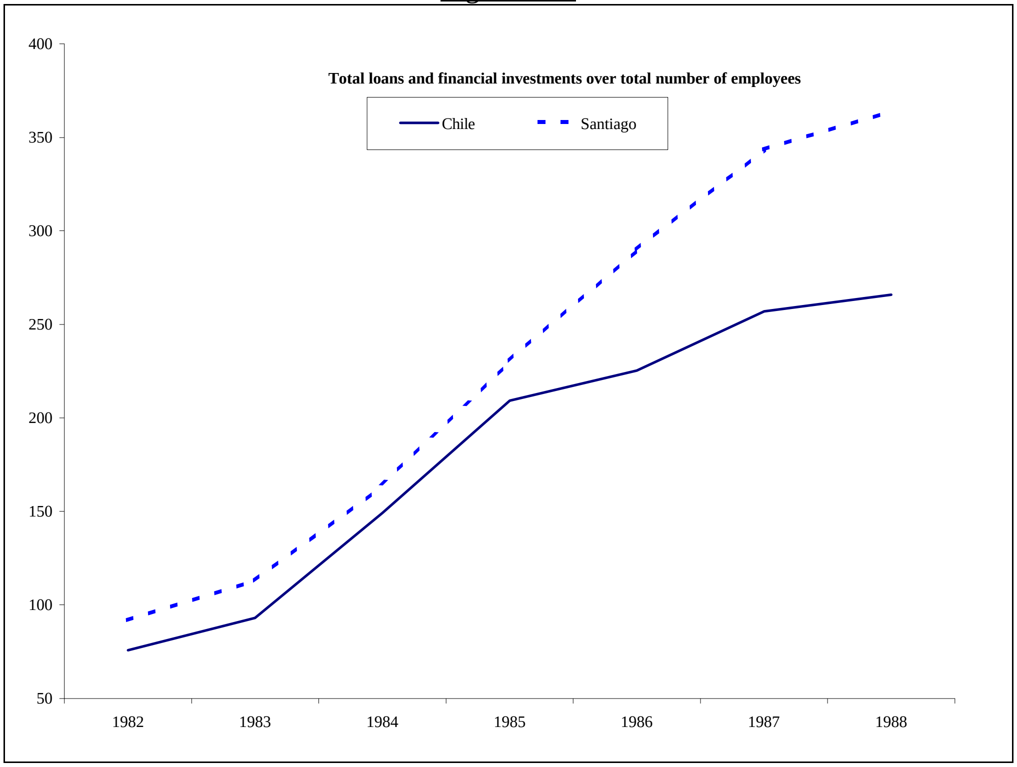


Figure 3.15



4. FINAL REMARKS

After 1984 the Chilean economy entered into a period of sustained high growth that lasted until late 1998. Sometime in 1988, per capita GDP exceeded the record level of 1981, and since then it has continued to grow at an average annual rate of about 5 percent. With hindsight, any assessment of the government intervention to resolve the banking crisis must identify the extent to which the intervention turned out to be critical for such high growth path. Unfortunately it is not possible to assess the contribution of government intervention and other factors first in the recovery and later in the sustained growth of the economy. For example, there is no simple answer to the question of how important the sharp improvement in the terms of trade was for the exceptional performance of 1987-89. Thus, rather than attempting to estimate the relative importance of the many factors that may have contributed to that performance, it is better to define the conditions under which that government intervention would have been critical.

Notwithstanding the importance of external shocks in explaining the recession of 1982-83, some domestic forces played a key role in causing it and/or in amplifying the impact of the external shocks. To the extent that government actions and policies were a major domestic cause of the recession, the intervention to resolve the banking crisis should be seen as a simple correction of the negative effects of such actions and policies. The net effect of all government actions and policies during this period was likely negative. If the long-term growth path of GDP was grossly unaffected, then the temporary loss of output and income in 1982-88 was indeed a large cost that exceeded the benefit of a higher income during 1980-81. This would amount to argue that governmental actions engineered an unsustainable boom whose correction demanded costly actions, with a negative net effect over the entire cycle. Except for the choice of instruments, it would have been similar to earlier attempts to engineer a boom through expansionary fiscal policies.

However, if forces beyond government control caused the recession, the intervention to resolve the banking crisis would have been beneficial. This assumes that the recession was largely the result of external shocks and that in the absence of a government intervention the banking crisis would have lasted much longer. In this case, the benchmark to assess the magnitude of the benefit should be the low level of output in 1983. In contrast to the 1975 depression when the large external shock affected directly the public finances and forced an extraordinary fiscal adjustment, in 1982-83 the external shock affected directly the private sector and forced an adjustment that was possible only because of government intervention. The intervention was needed because the weaknesses of the legal and political institutions led to a pervasive expectation of a government bailout, and therefore to a Ponzi game. To break this game, the government had no choice but to intervene, and to do it massively.

The many studies of the recession notwithstanding, it is not possible to assess the relative importance of the two sets of forces as causes and triggers of the recession. It appears, however, that independent of the ultimate causes of the recession and the events that triggered it, the expectation of a government bailout was a critical determinant of its magnitude as it delayed the resolution of conflicts between some borrowers and their creditors. In comparison with other experiences, the expectation of a devaluation of the Chilean peso did not trigger the recession and it hardly had a large impact on its magnitude. When the government finally abandoned its fixed exchange rate policy in June 1982, there was a short period in which the expectation of a further depreciation of the Chilean peso aggravated the ongoing recession, but more important, the devaluation exacerbated the expectation of a bailout.

The recession and the banking crisis made evident the need for additional reforms. The government's modernization program was already advanced when the recession started, but the new economic system had yet to be tested. In the years until the end of the military government (March 1990), new reforms were undertaken and at least some would have had a large impact on the performance of the economy during the late 1980s. The new banking law (1986) attempted to correct the main weaknesses of the system that emerged in the late 1970s, and it contributed to the stability of the banking system when the government privatized—in 1985-86—the two largest banks intervened in January 1983. The new income tax law of 1984 provided effective incentives to increase the private savings ratio in the late 1980s and to change the financial structure of Chilean companies. And the copper stabilization fund (1985) signaled the government's intention of smoothing out its own expenditure over time. These and other reforms strengthened greatly the foundations for high and sustained economic growth, and government intervention to solve the banking crisis could have been a sort of prerequisite to undertake them.

In 1988, per capita GDP recovered its record level of 1981. It was not a fast recovery, but it was faster than the recovery of other Latin American countries that suffered similar banking crisis. As shown in Figure 4.1, the crisis in Uruguay took one year longer, while Argentina stayed stagnant until 1991 as the 1985 recovery turned to be temporary. More important, the path of economic growth of the three countries has been quite different: in 1984-96, the (simple) average for Argentina and Uruguay was less than half the growth experienced by Chile (Figure 4.2). In the early 1980s, it was common to look at the three countries as having gone through similar process of failed financial liberalization, but as the record of the past fifteen years has shown, the foundations of the Chile's banking system were stronger than those of Argentina and Uruguay. Government intervention was needed to break the Ponzi game, but once it was broken, it did not take long to strengthen the foundations.

In sum, the debate on the causes of the crisis notwithstanding, as the crisis deepened government intervention became inevitable. Thus, the benefit of this intervention was there for the government to realize it by relying on cost-effective instruments. Compared with other countries in similar situations, the policies adopted by Chile appear to have been more effective in triggering a faster and more sustainable recovery. Nevertheless, two questions should still be answered: first, how costly the intervention was, and second, how the cost could have been reduced.

The fiscal cost of the different programs to resolve the financial crisis was high. Indeed, as shown in Table 4.1, the cumulative cost of each program fluctuated from 2.4 to

14.7 percent of GDP, with a total fiscal cost equivalent to around 42 percent of GDP over 1982-89.[33] However, despite the large fiscal or quasi-fiscal deficits of government intervention, the programs amounted largely to a redistribution of income within the country. Independent of any judgement on fairness about this redistributive effect, about 86 percent of the fiscal cost were a transfer between nationals and the remaining 14 percent a transfer to foreign creditors. In addition to this transfer to foreign creditors, the economic cost of government intervention included the cost of administering the different programs. It is difficult to estimate this cost with accuracy, however. Assuming that programs 1, 3, and 5 were relatively ‘expensive’ to administer, each one with a cost equal to 10 percent of the fiscal cost, and the others relatively cheaper at half that amount, the total administrative cost would amount to 8.73 percent of GDP.[34] This, we believe, is an upper limit of the administrative cost, and likely the actual cost was much lower.

The fiscal and administrative costs of government intervention were indeed high. As shown by the fine-tuning of the programs, the fiscal cost could have been lower, albeit not much, especially the transfer to foreign creditors. In 1983-85, the government was in a weak bargaining position with foreign creditors because of the limited access to alternative sources of foreign capital. The many programs, and their subsequent fine-tuning, were not the result of a comprehensive and consistent plan but the reaction to economic and political developments. Perhaps such a plan would have allowed to reduce somewhat the fiscal cost of the programs that benefited bank debtors directly, in particular the preferential exchange rate program. There was however no choice between bailing out the bank debtors directly or indirectly through the banks. Because of private ownership of the banks, the programs were aimed directly at benefiting the bank debtors; otherwise, the government could have hardly controlled the final use of the funds and would have been forced to take over several other banks.

In sum, at least by the end of 1982, government intervention was a foregone conclusion and its net benefit was conditioned on the cost effectiveness of the actual programs. Even if the fiscal costs of domestic transfers were larger than actually needed, the recovery probed to be a rapid and sustainable one. Also, the economic costs of the transfers to foreign creditors and the administration of the programs hardly could have been lower.

[33] This cost is due to the external shock, the macro policies (i.e., the devaluation) and poor banking practices, all of which contributed through different channels to the banking crisis.

[34] These estimates are not based on any rigorous method and are rather subjective. The aim of showing them is to have an order of magnitude of what we believe could have been the actual cost of administering the different programs.

Table 4.1 Financial Crisis, cumulative cost (1)

Program	Cumulative Cost (% GDP)	Comments
1. Rescheduling of domestic debts	2.7 (2)	Transfer to nationals
2. Preferential exchange rate to domestic debtors in foreign currency	14.7	Transfer to nationals
3. Liquidation of insolvent financial institutions	11.0	Transfer to nationals
4. Purchase of Banks' and Finance Companies' non-performing (substandard) assets	5.7	Transfer to nationals
5. Rehabilitation and privatization of banks intervened by the government (*Santiago and Chile*)	2.4	Transfer to nationals
6. Foreign exchange losses (3)	6.1	Transfer to foreigners
TOTAL	**42.6**	

Notes: (1) The cost is measured as the cost each year divided by that year's GDP, and then summed over the entire 1982-89 period. (2) Preliminary and subject to revision. (3) Losses incurred by the Central Bank after it assumed the foreign debt of the financial institutions that were liquidated.
Sources: Eyzaguirre and Larrañaga (1991); Marshall and Schmidt-Hebbel (1994); Sanhueza (1998).

Figure 4.1: Real GDP (index 1980=100)

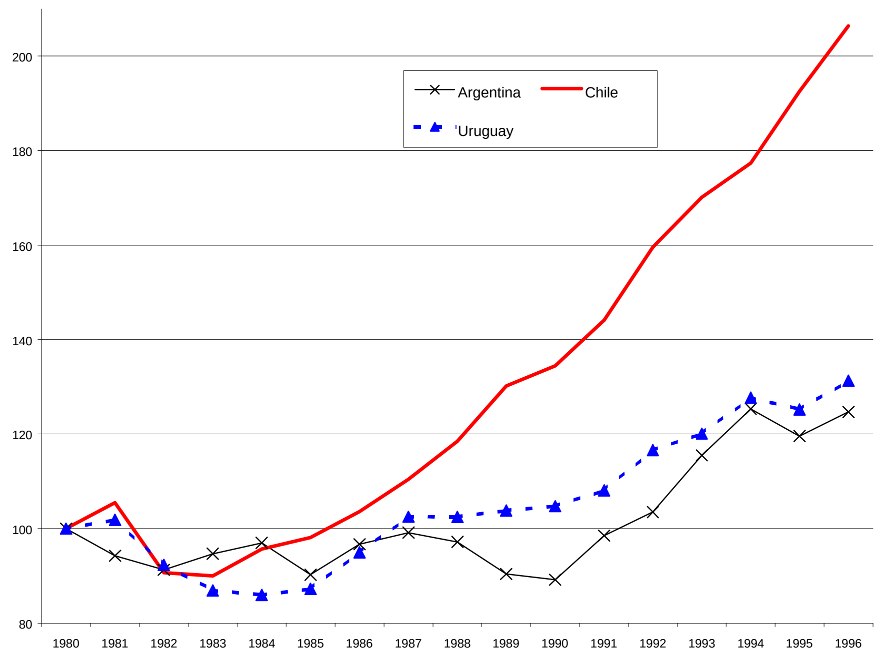
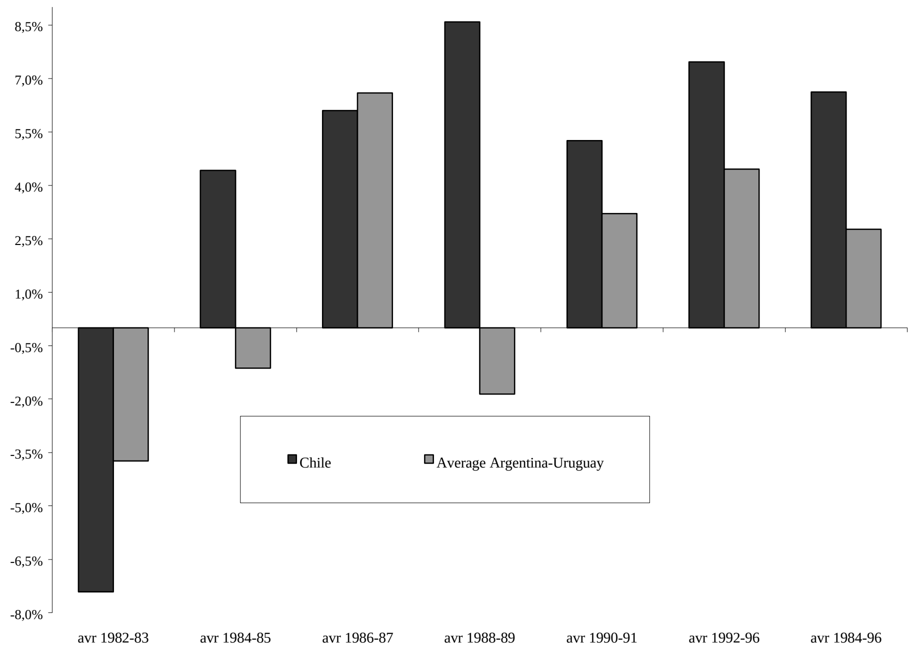


Figure 4.2: Growth Rate, average for different periods (% per year)



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ANNEXES

TABLE A.1

Sample 1978-1982

Foreign Institutions 1978-82	Intervened Institutions 1978-82	Non-Intervened Institutions 1978-82
AMER. EXPRESS INT. BANKING CORP.	BANCO AUSTRAL DE CHILE	AGROBANCO DE CHILE
BANCO DE COLOMBIA	BANCO CONCEPCION	B. HIPOT. Y DE FOMENTO NAC.
BANCO DE SANTANDER	BANCO DE CHILE	BANCO CONTINENTAL
BANCO DO BRASIL	BANCO DE SANTIAGO	BANCO DE A. EDWARDS
BANCO EXTERIOR S.A.	BANCO DE TALCA	BANCO DE CONSTITUCION
BANCO REAL	BANCO ESPANOL-CHILE	BANCO DEL PACIFICO
BANCO SUDAMERIS	BANCO INTERNACIONAL	BANCO DEL TRABAJO
BANCO URQUIJO DE CHILE	BCO. DE FOMENTO DE VALPARAISO	BANCO MORGAN FINANSA
BANK OF AMERICA	BCO. FOMENTO DEL BIO-BIO	BANCO NACIONAL
BCO. DE LA NACION ARGENTINA	BCO. HIPOTECARIO DE CHILE	BANCO O'HIGGINS
BCO. DO ESTADO DE SAO PAULO S.A. (BANESPA)	BCO. REGIONAL DE LINARES	BANCO SUDAMERICANO
CENTROBANCO	BCO. UNIDO DE FOMENTO	BCO. CHILENO YUGOSLAVO
CHICAGO CONTINENTAL BANK	COLOC. NAC. DE VALORES	BCO. COMERC. DE CURICO
CITIBANK N.A.		BCO. DE CREDITO E INV.
REP. NAT. BANK OF NEW YORK	CIA. GRAL. FINANCIERA S.A.	BCO. EMPRESARIAL DE FOMENTO
THE BANK OF TOKYO LTD.	FIN. ADEL. Y CREDITOS S.A.F.	BCO. IND. Y DE COM. EXTERIOR (BICE)
THE CHASE MANHATTAN BANK N.A.	FIN. MEDITERRANEO S.A.	BCO. ISRAELITA DE CHILE
THE FIRST NAT. BANK OF BOSTON	FINANCIERA CASH S. A.	BCO. OSORNO Y LA UNION
THE HONG KONG & SHANGHAI BANKING CORP.	FINANCIERA CIGA S.A.	
	FINANCIERA DAVENS S.A.	CORP. FINANCIERA ATLAS S.A.
	FINANCIERA DE CAPITALES S.A.	FIN. DE INTERES SOCIAL S.A.
	SOC. FINANCIERA DEL SUR S.A.	FIN. DE LOS ANDES S.A.
		FIN. LAT. DE DESARROLLO S.A.
		FIN. PAPELES Y CARTONES S.A.
		FINANCIERA COMERCIAL S.A.
		FINANCIERA CONDELL S.A.
		FINANCIERA CORFINSA S.A.
		FINANCIERA FUSA S.A.
		FINANCIERA MELON S.A.
		FINANCIERA TASCO
		INST. DE FINAC. COOP. LTDA. (IFICOOP)
		NACIONAL FINANCIERA S.A.

TABLE A.2

Sample 1983-1984

Foreign Institutions 1983-84	Intervened Institutions 1983-84	Non-Intervened Institutions 1983-84
AMER. EXPRESS INT. BANKING CORP.	BANCO CONCEPCION	BANCO CONTINENTAL
BANCO DE COLOMBIA	BANCO DE CHILE	BANCO DE A. EDWARDS
BANCO DO BRASIL	BANCO DE SANTIAGO	BANCO DEL DESARROLLO
BANCO EXTERIOR S.A.	BANCO ESPANOL-CHILE	BANCO DEL PACIFICO
BANCO REAL	BANCO INTERNACIONAL	BANCO DEL TRABAJO
BANCO SUDAMERIS	COLOC. NAC. DE VALORES	BANCO MORGAN FINANSA
BANCO URQUIJO DE CHILE		BANCO NACIONAL
BANESPA	FIN. MEDITERRANEO S.A.	BANCO O'HIGGINS
BANK OF AMERICA	FINANCIERA DAVENS S.A.	BANCO OSORNO
BCO. DE LA NACION ARGENTINA		BANCO SUDAMERICANO
CENTROBANCO		BCO. DE CREDITO E INV.
CHICAGO CONTINENTAL BANK		BCO. HIPOT. DE FOMENTO NACIONAL
CITIBANK N.A.		BCO. IND. Y DE COM. EXTERIOR (BICE)
REP. NAT. BANK OF NEW YORK		
THE BANK OF TOKYO LTD.		CORP. FINANCIERA ATLAS S.A.
THE CHASE MANHATTAN BANK N.A.		FINANCIERA COMERCIAL S.A.(FINANCO)
THE FIRST NAT. BANK OF BOSTON		FINANCIERA CONDELL S.A.
THE HONG KONG & SHANGHAI BANKING CORP.		FINANCIERA CORFINSA S.A.
		FINANCIERA FUSA S.A.

TABLE A.3

Sample 1985-1989

Foreign Institutions 1985-89	Intervened Institutions 1985-89	Non-Intervened Institutions 1985-89
AMER. EXPRESS INT. BANKING CORP.	BANCO CONCEPCION	BANCO CONTINENTAL
BANCO DE COLOMBIA	BANCO DE CHILE	BANCO DE A. EDWARDS
BANCO DO BRASIL	BANCO DE SANTIAGO	BANCO DEL DESARROLLO
BANCO EXTERIOR S.A.	BANCO ESPANOL-CHILE	BANCO DEL PACIFICO
BANCO REAL	BANCO INTERNACIONAL	BANCO DEL TRABAJO
BANCO SANTANDER CHILE	COLOC. NAC. DE VALORES	BANCO MORGAN FINANSA
BANCO SUDAMERIS		BANCO NACIONAL
BANCO URQUIJO DE CHILE	FIN. MEDITERRANEO S.A.	BANCO O'HIGGINS
BANESPA	FINANCIERA DAVENS S.A.	BANCO OSORNO
BANK OF AMERICA		BANCO SECURITY
BCO. DE LA NACION ARGENTINA		BANCO SUDAMERICANO
CENTROBANCO		BCO. DE CREDITO E INV.
CHICAGO CONTINENTAL BANK		BCO. HIPOT. DE FOMENTO NACIONAL
CITIBANK N.A.		BCO. IND. Y DE COM. EXTERIOR (BICE)
MANUFACTURERS HANOVER BANK CHILE		
REP. NAT. BANK OF NEW YORK		CORP. FINANCIERA ATLAS S.A.
THE BANK OF TOKYO LTD.		FINANCIERA COMERCIAL S.A.
THE CHASE MANHATTAN BANK N.A.		FINANCIERA CONDELL S.A.
THE FIRST NAT. BANK OF BOSTON		FINANCIERA CORFINSA S.A.
THE HONG KONG & SHANGHAI BANKING CORP.		FINANCIERA FUSA S.A.

TABLE A.4 CHILE: FOREIGN EXCHANGE FLOWS (IN MILLIONS OF US$; ANNUAL AVERAGES OF NOMINAL VALUES)

	1965-1969	1970-1974	1975	1976-1979	1980-1981	1982-1983	1984-1986	1987-1988	1987-1989
1.- INFLOWS		1191	1576	3512	7590	5303	4944	7528	
Exports, Merchandise	902	1284	1590	2649	4279	3769	3885	6138	n.a
Net Long-Term Capital****	n.a	-134	-81	849	2911	2028	1007	1192	1008
Net Short-Term Capital*	n.a	41	68	14	400	-494	52	199	253
2.- OUTFLOWS		1191	1576	3512	7590	5303	4944	7528	
Imports, Merchandise	778	1307	1708	3006	6145	3244	3114	4414	
Net Non-Factor Services****	n.a	-186	-202	-152	-415	-280	-315	-325	-288
Factor Services**	n.a	-189	-357	-491	-1215	-1955	-1981	-1888	-1968
Accumulation Reserves	n.a	n.a	-211	592	731	-877	-82	386	
Others, net***			638	558	2344	5170	4208	4941	
3.- MEDIUM AND LONG-TERM DEBT									
TOTAL									
At the beginning of the period	1299	2547	4026	4267	7507	12553	14832	17814	
At the end of the period	2547	4026	4267	7507	12553	14832	17814	15452	
Nominal Increase per year	250	296	241	810	2523	1140	994	-1181	
Increase per year (%)	14,42	9,59	5,99	15,17	29,31	8,70	6,30	-6,87	
PRIVATE NON-GUARANTEED									
At the beginning of the period	484	770	443	670	2736	8138	6742	3435	
At the end of the period	770	443	670	2736	8138	6742	3435	2361	
Nominal Increase per year	57	-65	227	517	2701	-698	-1102	-537	
Increase per year (%)	9,73	-10,47	51,24	42,15	72,46	-8,98	-20,13	-17,09	

* Only Government and deposit banks. The first period calculated is 1972-1974.
** Net of unrequited transfer.
*** Includes other short-term capital inflows and all other inflows and outflows
**** The first period calculated is 1972-1974

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