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How the 1981-83 Chilean Banking Crisis was Handled

Mauricio Larrain

The Chilean government's quick, aggressive response to the banking crisis of 1981-83 involved an imaginative compromise between letting Chile's banks go bankrupt, or bailing them out. That compromise, and comprehensive long-term measures, have brought a quick recovery.

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The banking crisis in Chile in 1981-83 was widespread — representing about 60 percent of the banking system's total portfolio.

The crisis arose because of macroeconomic problems — which weakened borrowers' capacity to repay loans — and was exacerbated by unsound financial practices.

The government was faced with two extreme solutions: to let insolvent banks go bankrupt, or to bail them out, absorbing their losses. It chose an intermediate solution. The government and shareholders took over losses. Some institutions were liquidated, and others were rescued and rehabilitated, depending on their level of solvency. With few exceptions, depositors and foreign creditors took no losses.

The government used two types of mechanism to rehabilitate the banking system. One type was aimed at improving borrowers' capacity to repay loans to the banks (mainly across-the-board debt rescheduling and coverage for exchange rate losses). The other was aimed at rebuilding the banking system's capital base (mainly through the central bank's purchase of nonperforming loans, with shareholders obligated to repurchase those loans from future profits).

The government also strengthened banking supervision by improving loan portfolio analysis and increasing the transparency of financial transactions.

The decision to recognize and allocate losses quickly, and to implement comprehensive measures to resolve the banking crisis, were the key to Chile's success in surviving the crisis. Had allocation of losses been delayed, or solutions partial, losses would probably have increased and the system would not have recovered so rapidly.

Interest rates on loans, which reached almost 40 percent a year in real terms in 1981-82, declined to 7.7 percent by 1987. Returns on equity, negative in 1982, reached a healthy 13.7 percent in 1987. Chile's M2/GDP ratio is recovering.

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How the 1981-83 Chilean Banking Crisis was Handled

by
Maurício Larrain

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HOW THE 1981-83 CHILEAN BANKING CRISIS WAS HANDLED

Mauricio Larrain[1]

I. SUMMARY

1. This paper describes the different mechanisms used in Chile to handle the banking crisis of 1981-83. First, it gives some background on the origins of the crisis; second, it states its magnitude and the options considered to handle it; third, it describes the mechanisms implemented within the option that was chosen; and, finally, it provides an analysis of the results under both macroeconomic and financial sector perspectives.

2. The Chilean banking crisis is a case of widespread crisis, aggressively handled, having positive results. Problem banks that were either intervened or liquidated by the Government between 1981 and 1983 represented about 60 percent of the system's total loan portfolio. Spreads were increased by banking institutions to compensate portfolio losses associated with non-performing loans. These spreads steadily decreased from 11.2 percent in 1983 to 5.9 percent in 1987. Similarly, interest rates on loans, which reached almost 40 percent a year in real terms during 1981/82, declined to 7.7 percent in 1987. Return on equity, which was negative in 1982, reached a healthy 13.7 percent in 1987. Moreover, M2/GDP has been gradually recovering.

3. Although the Government has absorbed an important part of the costs of the banking crisis, the above results were achieved within a sound and increasingly stable macroeconomic environment. Inflation, which in 1983 reached 23.1 percent, dropped to 19.9 percent in 1987, and is expected to reach 12.7 percent in 1988. Real GDP, which in 1982 fell 14.1 percent, grew steadily at an average rate of 5 percent a year during 1984-87, with a much higher figure expected for 1988. Unemployment, which in 1982 peaked at 19.6 percent, declined to 9.6 percent in 1987, with an expected rate of 8 percent by the end of 1988. Moreover, the country is current in the service of its external debt which has a size close to its GDP.

4. The origins of the banking crisis are related, to a large extent, to the severe macroeconomic problems experienced by the country, and Latin America, especially from the end of 1981 through 1982. Macroeconomic problems substantially weakened the repayment capacity of large segments of Chilean borrowers. Borrowers were faced, in a short period of time, with an abrupt

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fall in domestic sales because of recession, an important change in relative prices, a sharp increase in interest rates, a substantial increase in the peso equivalent level of foreign currency-denominated debts, and with sudden termination of external credit. These problems weakened the repayment capacity of Chilean borrowers and forced banking institutions to absorb important losses, which in most cases wiped out their equity capital.

5. The negative impact of macroeconomic problems was in several cases aggravated by a surge of unsound financial practices. These unsound practices resulted from a regulatory environment where supervision and control did not keep pace; until very late, with other reforms in the economy. Of particular importance were loose lending practices, especially loan concentration in affiliated and usually highly leveraged industrial/financial conglomerates.

6. In the face of the widespread banking crisis the Government was faced with two extreme solutions: to let insolvent institutions go bankrupt or to bail out these institutions by absorbing their losses. The first solution would have created no direct costs for the Government, although it would have caused a chain of bankruptcies for two thirds of the banking system and large segments of borrowers. The second solution would have transferred costs to the Government and would have represented a complete departure from Chile's market-oriented economic policy. In the end, an intermediate solution was chosen. Losses were taken primarily by the Government and by shareholders. Moreover, some institutions were liquidated and others rescued and rehabilitated according to their degree of insolvency. With few exceptions, depositors and foreign creditors took no losses.

7. The mechanisms used by the Government to rehabilitate the banking system can be grouped into two categories: those directed at improving borrowers' repayment capacity, mainly across-the-board debt reschedulings and coverage against exchange rate losses; and those aimed at rebuilding the banking system's capital base, mainly the purchase of non-performing loans by the Central Bank (with an obligation for shareholders to repurchase these loans from future profits) and the direct recapitalization and subsequent sale to small investors of large intervened banks. In addition, the Chilean Government completely changed the focus of banking supervision by starting to concentrate on loan portfolio analysis, assessing the overall financial condition of each banking institution, and increasing transparency.

8. The decision to recognize and allocate the losses resulting from the banking crisis in a short period of time, together with the decision to implement comprehensive measures for its solution, has been key to the success of the Chilean experience.

If the allocation of losses had been delayed or the implemented solutions had been partial, rapid recovery of the banking system would not have been possible. Similarly, losses would most likely have increased.

II. THE CRISIS AND ITS ORIGINS

2.1 Liberalization and Growth

9. After Chile's economic situation had run out of control--annualized inflation above 1,000 percent, black market exchange rate over ten times the official rate, negative net international reserves, and fiscal deficit close to 25 percent of GDP--the Government that took office in 1973 decided upon a complete change in economic policy. Several measures were taken to open the economy to foreign competition and to increase the role of the market in resource allocation. Accordingly, import duties were gradually reduced and other barriers to imports dismantled; the domestic currency was strongly devalued; and price controls were eliminated. Fiscal deficits were brought under control as well.

10. Following the 1974/75 efforts to stabilize the economy and the development of a strong set of economic incentives, economic activity started a steady growth. Real GDP grew at an average rate of 7.2 percent a year between 1976 and 1981. Inflation declined, reaching its lowest level of 9.5 percent in 1981. Unemployment, after increasing as a consequence of the structural change experienced by the economy, started to decline in 1979, reaching its lowest pre-crisis level of 10.4 percent in 1980 (Table 1).

11. Starting in 1973 and consistent with the Government's overall economic policy, several measures were implemented to liberalize and increase the banking sector's efficiency. Controls on interest rates, which had been negative in real terms in various periods, were eliminated. Similarly, controls on the growth and allocation of credit were discontinued. Minimum reserve requirements were gradually lowered to 10 percent for demand deposits and 4 percent for time deposits. Barriers to entry into the market were softened and new charters were given to both domestic and foreign banks, the latter competing on the same basis as that of the former. Moreover, all banks which had been nationalized by the previous Government were sold back to the private sector on the basis of public biddings. As a result, Banco del Estado remained the only publicly owned commercial and development banking institution. In addition, access to foreign

Table 1 Selected macroeconomic indicators (1974-83)

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Real GDP growth rate (%)	5.7	-12.9	3.5	9.9	8.2	8.3	7.8	5.5	-14.1	-0.7
Real effective exchange rate (1980 = 100)[a]	83.6	113.4	103.0	101.7	115.4	115.2	100.0	86.0	98.2	117.5
Terms of trade (1980 = 100)[a]	N.A.	N.A.	N.A.	N.A.	N.A.	99.4	100.0	84.3	80.4	85.8
Current account/GDP (%)	-4.3	-11.8	2.0	-5.4	-7.6	-6.0	-7.1	-18.9	-14.7	-7.1
Fiscal deficit (-) or surplus/GDP[b]	-5.3	0.1	1.4	-1.1	-0.1	4.8	5.4	2.6	-1.0	-2.6
M2/GDP (%)[c]	9.3	10.0	10.5	11.8	14.2	14.9	19.3	23.7	25.7	19.3
Inflation (CPI) (%)	375.9	340.7	174.3	63.5	30.3	38.9	31.2	9.5	20.7	23.1
Unemployment (%)[d]	N.A.	N.A.	N.A.	11.8	14.2	13.6	10.4	11.3	19.6	14.6

Source: Central Bank Bulletin unless otherwise specified.

a. Source: Bank staff estimates.
b. Consolidated central government deficit or surplus.
c. M2 = M1 + Dp, where M1 = Money in circulation plus drawable money of private sector. Dp = Time deposits at more than 30 days of private sector, excluding time savings.
d. Source: National Institute of Statistics.

borrowing by private banks and businesses was gradually permitted, with the Government offering no guarantee to foreign reditors. Banks were not allowed to take the foreign exchange risk associated with these funds which instead was passed on to the final borrowers.

12. As a result of these measures, the banking sector, experienced a period of rapid growth and increased efficiency as did the real sector. M2 over GDP rose from 9.3 percent in 1974 to a peak of 25.7 percent in 1982 (Table 1; Graph 1). Spreads started a steady decline, coming down from an extremely high 46.1 percent in 1974 to their lowest pre-crisis level of 6.8 percent in 1980 (Table 2; Graph 2). Lending interest rates followed a similar trend, experiencing continued declines since 1976, reaching their lowest pre-crisis level of 12.2 percent a year in real terms during 1980 (Table 2; Graph 3). Access to foreign borrowing brought foreign liabilities, as a proportion of total liabilities, from 14.4 percent in 1978 to a peak of 35.8 percent in 1982 (Table 2; Graph 4). Banking institutions also became more leveraged, with the ratio of total liabilities over capital and reserves doubling between 1978 and 1983 (Table 2).

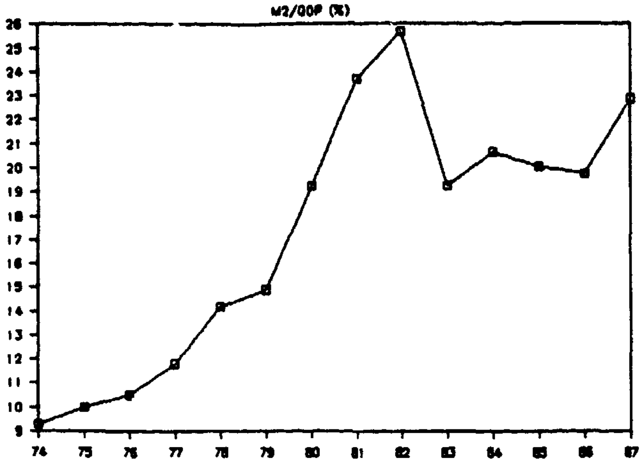
13. In this deregulated environment, competition increased and new products were offered to savers and investors. The total number of banking institutions, including finance companies, increased by about 50 percent between 1977 and 1981. Four new domestic banks and 16 foreign banks were established during this period. The market continued to be dominated by private domestic banks which controlled 67.8 percent of the market by 1983. The rest was controlled by the publicly owned bank (18.1 percent), foreign banks (12.8 percent) and finance companies (1.3 percent). Since then, foreign banks have continued to increase their market participation (Table 3).

2.2 Macroeconomic Problems

14. By the end of 1981, a six-year expansionary cycle had abruptly ended. Domestic and external factors contributed to acute macroeconomic problems. In June 1979 the Chilean peso was fixed in nominal terms to the US dollar in an attempt to bring domestic inflation down to international levels. Similarly, restrictions on foreign borrowing were further eased in an effort to force high domestic interest rates down to international levels. Also, a policy of automatic wage indexation was established. As both domestic inflation and interest rates lagged in adjusting to international levels, the Chilean peso became strongly overvalued and the large interest rate differentials made borrowing abroad extremely attractive. This situation encouraged an unsustainable boom financed by massive inflows of foreign credit. Exports were less competitive and domestic markets were flooded by cheap imports. Between the end

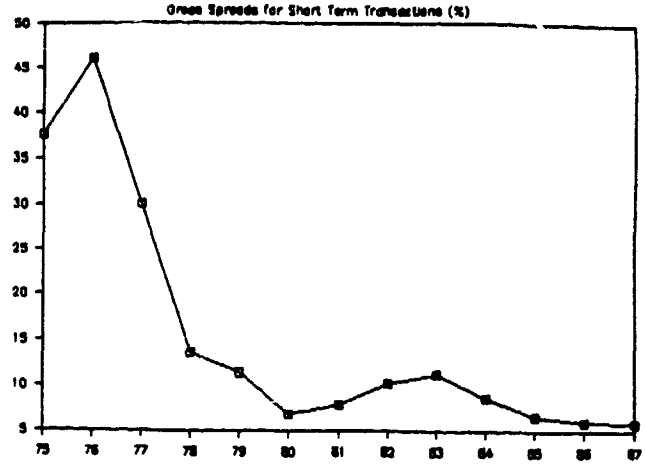
GRAPH 1

M2/GDP (%)



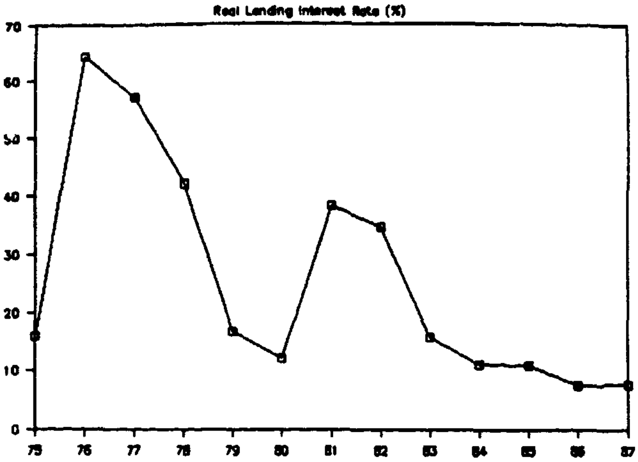
GRAPH 2

Gross Spreads for Short Term Transactions (%)



GRAPH 3

Real Lending Interest Rate (%)



GRAPH 4

Foreign Liab./Tot. Liab. (%)

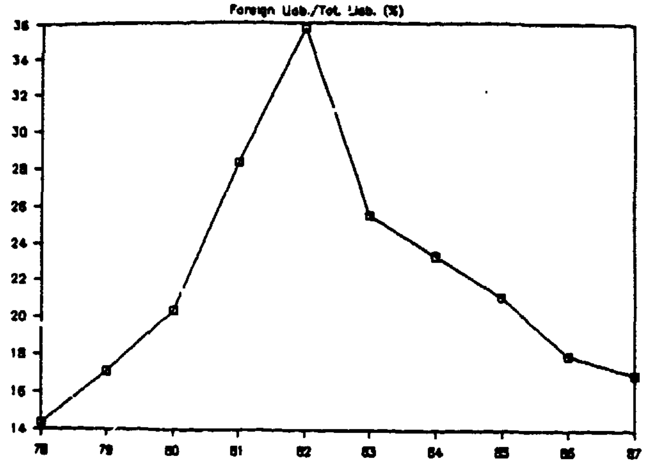


Table 2 Selected banking system indicators (1974-83)

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Lending interest rates (%)[a]		15.9	64.2	57.1	42.3	16.9	12.2	38.8	35.1	15.9
Spreads (%)[b]		37.6	46.1	30.1	13.6	11.4	6.8	7.9	10.2	11.2
Return on equity (%)			N.A.	N.A.	14.6	13.2	14.9	9.1	-2.7	2.8
Foreign liabilities/total liabilities (%)			N.A.	N.A.	14.4	17.1	20.4	28.5	35.8	25.6
Total liabilities/ capital & reserves			N.A.	N.A.	8.1	9.3	11.4	11.9	14.2	16.9
Growth in total loans & investments (%)[c]			N.A.	N.A.	N.A.	33.8	51.7	16.5	25.2	13.1
Past due loans/total loans (%)			N.A.	N.A.	0.0	1.6	1.2	2.3	4.1	8.4
Risky loans sold to the Central Bank/total loans (%)			-	-	-	-	-	-	4.1	10.0
Risky loans sold + past due loans/capital & reserve (%)			-	-	0.0	10.8	10.5	22.4	78.8	158.1

Source: Central Bank Bulletin and Superintendency of Banks (Informacion Financiera).

a. Annual real interest rate charged for short-term loans (compounded monthly).
b. Gross spread: Difference between short-term lending and deposit rates.
c. In real terms adjusted by CPI.

<u>Table 3</u> <u>Structure of the banking system</u> (1984-87)

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
<u>Number of banks</u>				<u>42</u>	<u>49</u>	<u>49</u>	<u>55</u>	<u>61</u>	<u>50</u>	<u>45</u>	<u>45</u>	<u>45</u>	<u>41</u>	<u>41</u>
Public	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Private domestic	19	18	19	20	21	21	23	24	20	18	18	19	16	15
Foreign	1	1	2	3	6	9	13	19	19	19	19	18	20	21
Finance companies	NA	NA	NA	18	21	18	18	17	10	7	7	7	4	4
<u>Total assets (%)</u>					<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
Public (%)					27.4	22.9	21.2	18.9	16.2	18.1	18.5	21.5	20.8	20.0
Private domestic[a] (%)					66.7	71.4	72.5	77.7	82.0	67.8	68.3	64.3	63.2	62.8
Foreign (%)										12.8	12.2	13.2	15.1	16.3
Finance companies (%)					5.9	5.7	6.3	3.4	1.8	1.3	1.1	0.9	0.9	0.9

<u>Source</u>: Superintendency of Banks (Informacion Financiera).

a. Includes Bancos de Fomento, IFICOOP and foreign banks (for 1978-82).

of 1979 and the end of 1981, Chile's private external debt tripled. The absorption of large capital inflows created an unsustainable current account deficit of 18.9 percent of GDP in 1981 (Table 1).

15. The country was led into a depression due to the loss of competitiveness in both export and import substitution sectors, the drop in terms of trade (especially in copper prices caused by the world recession and the rising dollar), the rise in international and domestic interest rates, and the abrupt cut of voluntary foreign credit to Latin America. In 1982, the Government was forced to devalue the Chilean peso and real GDP fell 14.1 percent (Table 1). Unemployment climbed to a record 19.6 percent in 1982, in part caused by the need of corporations to adjust to the depression by lowering employment since they were not permitted to reduce wages in real terms.

2.3 Financial Sector Problems

16. Difficulties stemming from the macroeconomic situation were aggravated by a surge of unsound financial practices. These practices, especially loose lending practices and loan concentration in affiliated companies, were mainly the result of: (i) the lack of experience of domestic bankers in operating in a less regulated environment; (ii) the proliferation of highly leveraged industrial/financial conglomerates; (iii) weak supervision and control; and (iv) the de facto deposit guarantee for depositors.

17. After decades of working in a repressed financial environment where competition was scarce, real interest rates low or negative, and credit allocation largely determined by the Central Bank, most bankers were not prepared in 19.. to operate in a more liberal environment. As a result, several risks associated with the financial business were overlooked. Credit standards were inadequate, with intermediaries looking mainly to the historical knowledge of their borrowers or to their collateral, without paying due attention to their repayment capacity. Credit standards were further relaxed when banking institutions started a fierce struggle for market share in 1978. Moreover, the opening up of external borrowing led many banking institutions to lend in foreign currencies to borrowers operating in the nontradeable sector. Although banking institutions did not directly take on the foreign exchange risk--regulations prohibited this--they did take on credit risk. When devaluations of domestic currency took place, the repayment capacity of these borrowers evaporated and credits turned sour.

18. Several banks also concentrated their loan portfolio on affiliated companies that were not creditworthy. Some bankers needed to funnel funds to their own businesses in order to pay

for the shares of the banks they had bought from the Government. The privatization of the banking system after 1973/74 was made to a private sector which was undercapitalized as a consequence of the previous Government's economic policies. For this reason, several businessmen bought these banks without enough capital to pay for them and, as a result, turned to the same banks for the needed money. Moreover, many bankers attempted to use their financial institutions to facilitate a rapid expansion of their related industrial/financial businesses. In either case, the related businesses became extremely leveraged and were the first to be hard hit when the macroeconomic situation worsened. Loan concentration in affiliated businesses was a widespread practice as can be seen in Table 4.

19. Although Chile advanced substantially in liberalizing and increasing the efficiency of its banking system, it did not streamline its supervisory capabilities and prudential regulations at the same pace. In spite of the liberalization and increased competition, supervision continued to focus on reviewing compliance with accounting rules and related regulations, but did not concentrate on the overall risks affecting the operations of each bank. These risks became greater in a more competitive and deregulated environment. Important shortcomings were present in the analysis of loan portfolios, interest accruals, and provisions to cover potential loan losses. Loan diversification was also difficult to control. As a consequence, the Superintendency of Banks had difficulty in stopping unsound practices and in providing timely and reliable public information on the financial condition of each bank.

20. Although the Government had limited explicit guarantees for small depositors, depositors in general thought there was a _de facto_ 100 percent guarantee. This was explained in part by the bailout of depositors of an insolvent medium-sized bank--Banco Osorno--in 1977. This policy was reiterated in the eight insolvency cases that arose during 1981. Working under this assumption, depositors did not exert a strong pressure on riskier intermediaries. They just channeled their resources to those institutions paying the higher interest rates.

2.4 Magnitude of the Banking Crisis and Options

21. Macroeconomic problems and unsound financial practices combined to cause severe solvency and profitability problems in a large segment of the banking sector. Non-performing loans--the sum of past due loans and risky loans sold by banking institutions to the Central Bank--jumped from 2.3 percent of the total loan portfolio in 1981, to 8.2 percent in 1982, and further to 18.4 percent in 1983. The total volume of non-performing loans was actually much higher but not fully reflected in the figures because the large banks that were intervened in early

Table 4 Concentration of credit to related parties

Institution	As % of total loans Dec. 1982	As % of total loans Feb. 1983
Banks		
De Santiago	42.3	45.8
Nacional	25.7	30.1
Internacional	22.8	25.9
Colocadora Nacional de Valores	23.8	24.4
De Chile	18.6	19.7
Hipotecario de Fomento Nacional	18.5	18.9
Sud Americano	14.8	16.2
De A. Edwards	14.9	15.4
Credito e Inversiones	11.9	12.0
Concepcion	12.2	12.0
Del Pacifico	10.0	10.3
O'Higgins	9.1	8.9
Morgan Finansa	7.0	6.8
Osorno y La Union	5.6	5.9
Ind. y de Comercio Exterior	4.0	5.5
Del Trabajo	1.6	1.9
Finance Companies		
Corfinsa S.A.	20.8	22.4
Fusa S.A.	22.5	18.0
De Interes Social S.A.	15.4	18.0
LatinoAmericana De Desarrollo	7.6	7.9
Condell S.A.	6.8	6.4
Comercial	1.5	1.4
Mediterraneo S.A.	0.1	0.1
Davens S.A.	0.2	-

Source: Superintendency of Banks (Informacion Financiera).

1983 were not allowed to sell risky portfolios to the Central Bank until 1985/86. Only in 1986 was the full magnitude of the problem reflected with non-performing loans representing 35.4 percent of total loans. If expressed as a proportion of the banking system's total equity, non-performing loans increased from 22.4 percent in 1981, to 78.8 percent in 1982, and further to 158.1 percent in 1983. The peak of non-performing loans as a proportion of total equity was reached in 1986 then started to decline (Graph 5). Similarly, profitability showed a steep decline; return on equity fell from a healthy 14.9 percent in 1980 to a negative 2.7 percent in 1982, to recuperate afterwards (Graph 6).

22. Considering the magnitude of the problems facing the banking sector, there were two extreme alternatives: to let insolvent institutions go bankrupt--forcing domestic and foreign creditors as well as shareholders to take the losses--or to bail them out by absorbing their losses. In the first case, the Government would not take any direct losses; in the second case, losses for the Government would be maximized.

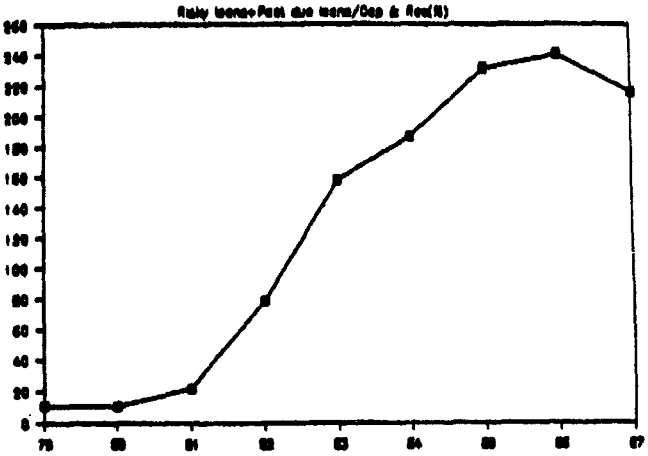
23. In the end, an intermediate solution was reached where the Government absorbed an important part of the losses through different mechanisms to restore the system's profitability--with cost sharing by shareholders and, to a very limited extent, by depositors. The alternative of allowing two thirds of the system go bankrupt was discarded because of the time it would have taken to restore confidence and rebuild the system so it would support the adjustment that was taking place in the real sector of the economy. A complete bailout was also discarded because the cost of the crisis would have been totally absorbed by the Government and market discipline would have been abandoned.

2.5 The 1981/82 Interventions

24. During the end of 1981 and 1982, 11 financial institutions were intervened--their management taken over--by the Government and subsequently liquidated. These institutions represented some 14.5 percent of the system's total loan portfolio (Table 5). In all of these cases, depositors were compensated and losses taken by both shareholders and the Government. Shareholders lost their equity investment and the Government absorbed all differences between the value of assets and liabilities, excepting equity.

GRAPH 5

Risky loans+Past due loans/Cap & Res(%)



GRAPH 6

Return on Equity (%)

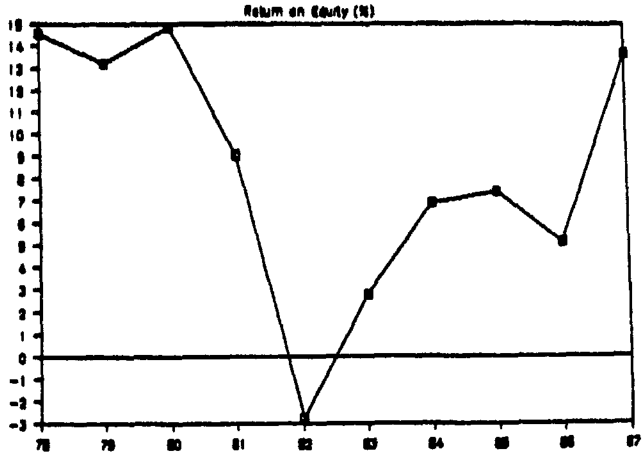


Table 5 Institutions intervened and liquidated

	Nov. 1981	1982	Jan. 1983
Total	8	3	8
Banks	4[a]	2[a]	7[b]
Financial companies	4[a]	1[a]	1[a]
Loans of institutions intervened or liquidated/total loans (%)	13	1.5	45

a. First intervened and subsequently liquidated.
b. Two banks liquidated; one intervened and subsequently merged; four intervened and subsequently rehabilitated and privatized.

25. In the case of the two largest banks intervened during this period, the route followed was a more or less traditional one of transferring during a weekend their most important assets and liabilities to new purchasing banks of recognized solvency (in this case two well known foreign banks operating small branches in the country). These institutions were put into receivership, with the receiver immediately transferring part of the assets and liabilities to the acquiring institutions. Depositors then suffered no disruption. In these cases, macroeconomic problems had little effect. These two largest insolvent banks had been experiencing loan portfolio problems before the macroeconomic crisis. They both had severe operational problems together with an excessive loan concentration in highly indebted affiliated companies.

2.6 The 1983 Banking Crisis

26. By the end of 1982 the magnitude of the macroeconomic crisis was apparent and the banking system's profitability and solvency seriously weakened. Several institutions were insolvent. In January 1983, the Government decided to intervene the insolvent institutions (seven banks and one finance company) and immediately liquidate the three of them experiencing the largest problems. In the five remaining cases--which included the system's two largest private banks--the decision was made to rehabilitate them under the assumption that the costs of these rehabilitations would be outweighed by the benefits. These five banks were not only affected by the macroeconomic situation but had also heavily concentrated their loan portfolios in affiliated companies. Concentration fluctuated between 12 percent and 45.8 percent of their total loan portfolios.

27. In the case of the three financial institutions that were liquidated, the Government offered to purchase the credits of both domestic and foreign creditors (domestic deposits or foreign loans) at 75 percent of their face value. Domestic depositors took advantage of this facility and sold their credits at that discount. Nevertheless, foreign creditors exerted severe pressure to get full compensation in several cases conditioning their foreign trade credit lines and participation in possible external debt reschedulings to full repayment. In the end, these foreign liabilities were guaranteed by the Government within the overall restructuring of the external debt.

III. MECHANISMS USED TO REHABILITATE PROBLEM BANKS

3.1 Background

28. Four main mechanisms were implemented by the Government in early 1983 to relieve borrowers, the banking system in general,

and to rehabilitate and privatize the institutions intervened by the Government: (i) debt-relief schemes for borrowers, including preferential exchange rates for repaying their dollar-denominated debts, across-the-board debt reschedulings, and dedollarization of certain debts; (ii) purchase of risky loans by the Central Bank with a repurchase obligation on the part of banks' shareholders; (iii) recapitalization and subsequent sale of intervened banks to small investors; and (iv) streamlined supervision and prudential regulations. Besides these four mechanisms, an explicit deposit guarantee was offered by the Government to all depositors to restore confidence in the system while the effects of these mechanisms were taking place.

29. While the above-mentioned mechanisms represent an effort at recognizing and allocating losses, the first policy initiatives aimed chiefly at deferring the problem. At the end of 1981 and first part of 1982 the extent of the crisis was still not clear. Considering the difficulties faced by the banking system as temporary, several measures were adopted, providing banking institutions with increased accounting flexibility to reflect their losses. These included: (i) authorization to banking institutions to record as past due, loans that had been in arrears for 90 days instead of 30 days, as was the traditional practice; (ii) extra time for banking institutions to build up sufficient provisions to cover potential loan losses; (iii) establishment of a 5-year period to absorb losses resulting from the sale of goods and real estate that had been foreclosed; and (iv) exceptions to the maximum debt-to-equity ratio of 20, including authorization to banking institutions to account gradually for the increase in liabilities as a result of the devaluation of the domestic currency, authorization to consider as capital up to 25 percent of the provisions for risky loans, and authorization to absorb annual losses against paid-in capital in a five-year period.

30. Although accounting regulations were relaxed, non-performing loans continued to accumulate and the Central Bank decided to purchase these non-performing loans from banking institutions. This mechanism--which was the basis for an expanded program of purchase of non-performing loans described below--was basically an accounting procedure to provide banks with extra time to build up required provisions. The Central Bank agreed to buy non-performing loans up to an equivalent of 100 percent of the equity base of banking institutions. It paid for these loans with a promissory note maturing in ten years. Banking institutions were required to repurchase these non-performing loans before the promissory note became due. As a result of this operation, banking institutions did not need to provision against non-performing loans. Nevertheless, there was no transfer of real resources to these banks.

31. During 1984 and 1985--when the positive effects of measures discussed below were being felt--the accounting flexibilities above were dismantled. Banks were required to provision all non-performing loans still remaining on their balance sheets, to accelerate the absorption against capital of cumulative losses, and to dispose of foreclosed items in a shorter period of time.

3.2 Debt Relief Measures

(a) Preferential Exchange Rate

32. To reduce the negative impact on foreign currency borrowers of the substantial devaluation that took place in June 1982--after almost three years of a fixed exchange rate between the Chilean peso and the US dollar--the Central Bank established a preferential exchange rate for foreign currency denominated debts. The preferential exchange rate was to be adjusted by inflation from the level prevailing in August 1982 so it would remain constant in real terms. Accordingly, the amount of the preference--i.e., subsidy--was equal to the difference between the higher official exchange rate prevailing at the moment a debt was to be paid and the level of the preferential exchange rate. Debtors had to pay their debts to banking institutions at the official rate but immediately qualified for the Central Bank subsidy.

33. Although the Central Bank subsidy initially was paid in cash, it was gradually restricted afterwards, until its final elimination in February 1987. At first, the subsidy was paid in cash which represented a heavy subsidy for borrowers as well as monetary expansion from the Central Bank. Subsequently, the Central Bank began to pay this subsidy with negotiable interest-bearing bonds. Since these bonds could be repurchased by the Central Bank at a discount rate in the secondary market, this modification reduced the amount of the subsidy. In June 1985, when the difference between the official and preferential rate was about 30 percent, the Central Bank decided to discontinue this program in an 18-month period. During this period, the difference between both rates was reduced at a rate of 1/18th a month. Eventually, both rates became unified in February 1987.

34. The preferential exchange rate program represented a strong relief to the solvency and profitability of foreign-currency indebted borrowers. This was the program that had the largest cost for the Central Bank.

(b) The 1983 Across-the-Board Debt Rescheduling

35. Although the preferential exchange rate program meant an important relief for borrowers, most of them--especially those indebted in domestic currency--could not repay their debts at the

prevailing high interest rates (over 30 percent a year in real terms) and short maturities. For this reason, in April 1983 the Central Bank decided to instruct banking institutions to provide across-the-board debt relief for at least 30 percent of the debt of their "productive" borrowers. Productive borrowers were those with debts other than consumer loans, mortgage loans, foreign trade related loans, loans to holding companies and, except for certain restrictions, loans to related companies. Loans granted to borrowers considered financially unviable were also excluded.

36. The conditions of these debt reschedulings were very favorable. Maturities were extended up to ten years and interest rates reduced to a maximum of 7 percent a year in real terms. Repayment of the principal had a grace period of five years, while interest rates had a grace period of one year. Borrowers in foreign currency were also eligible to reschedule their debts under the same conditions, with the provision that the 7 percent interest rate was to be calculated over the respective foreign currency. Banking institutions received matching rescheduling funds from the Central Bank as compensation. The difference between the existing interest rates on the banking institutions' loan portfolios and the Central Bank mandatory 7 percent was to be covered by the latter. Accordingly, banks did not suffer liquidity problems or losses arising from the reduced rates.

37. The first across-the-board debt relief scheme had an important impact on the cash flow position of rescheduled borrowers. Because of the grace period for both the principal and the interest rate, borrowers could continue operating at least for one year as if they had no debt at all.

(c) The 1984 Across-the-Board Debt Rescheduling

38. In June 1984, the 1983 debt relief scheme was expanded. The proportion of debt that could be rescheduled was increased and terms further eased. Interest rates were lowered to 5 percent for the first two years, 6 percent for years three, four, and five, and 7 percent from the sixth year onwards. Maturities could not be less than 5 years or more than 15 years (10 years for large companies). For large borrowers, there were other restrictions, including limitations on the use of operating profits. Debts already rescheduled in 1983 could also be rescheduled under the expanded scheme.

(d) Rescheduling of Mortgage and Consumer Loans

39. In 1983 the Central Bank also instructed banking institutions to refinance their mortgage and consumer loans. Again, the Central Bank provided matching funds to banking institutions so their liquidity and profitability were not affected. In the case of mortgage loans, the amounts to be

rescheduled included unpaid installments since 1981. Borrowers were also allowed to reduce their installments for the period 1983-87. Borrowers were required to repay the rescheduled amounts after the end of their original mortgages, at an annual real interest rate of 8 percent. In 1984, this program was also expanded and interest rates lowered to 6 percent a year (4 percent for smaller mortgages). In the case of consumer loans, a similar but more limited system was established, excluding fixed interest rate loans.

(e) Dedollarization of Debts

40. In September 1984, small- and medium-sized borrowers in foreign currency were offered the opportunity to prepay their debts with a new credit in domestic currency. The exchange rate used was the preferential exchange rate and the terms were similar to those used in the June 1984 across-the-board rescheduling. Accordingly, small- and medium-sized borrowers were released from the exchange rate risk. The cost of this program was also absorbed by the Central Bank.

41. Size of the Debt Relief Measures. According to the Superintendency of Banks' estimates, the amount of loans that were rescheduled and their previously described mechanisms represented about 25 percent of the banking system's total loan portfolio.

3.3 Purchase of Risky Loans by the Central Bank

42. Non-intervened banks, although helped by the relaxation of accounting regulations and by the positive effects of debt relief schemes, still faced acute problems. Risky loans were placing several of these banks at the edge of bankruptcy while spreads and lending rates continued to increase. The banking system was not recovering at the required pace to support the restructuring of the real sector of the economy. Further help was needed.

43. In February 1984, the Central Bank decided to act directly on this problem and offered to purchase risky loans from financial institutions up to 150 percent of their equity capital as of November 1983. This percentage was subsequently expanded to 250 percent in the case of those banks that were required to increase their capital. Banks had to use the cash resulting from these sales to the Central Bank to either repay emergency loans previously granted by the Central Bank or to buy Central Bank promissory notes. These promissory notes bore a 7 percent annual interest rate in real terms and were redeemable over 16 quarters. The reduction or elimination of risky loans in the assets of these institutions restored their solvency and profitability at once. Moreover, the fact that the cash received by the

institutions had to be used to repay emergency loans or to buy Central Bank promissory notes neutralized monetary expansion.

44. Shareholders were bound to repurchase the risky loans from the Central Bank out of their profits. In this respect, it is important to highlight that these were shareholders' and not banks' liabilities. Shareholders were not allowed to receive any dividend from their investments until the purchase obligation was finished. The amount of risky loans to be repurchased was adjusted according to inflation plus a 5 percent surcharge. For this reason, this mechanism can also be considered as a credit from the Central Bank to shareholders to recapitalize their banking institutions, with an interest rate of 5 percent a year in real terms. Capital increases were exempted from the repurchase obligation and dividends could be received in proportion to the capital increase.

45. The administration of the purchased loan portfolio remained in each bank, which received a mandate from the Central Bank to administer and collect it. All collections had to be allocated to repurchase risky loans. Borrowers were not informed of the fact that their debts had been sold to the Central Bank. These arrangements made it unnecessary for the Central Bank to set up a special facility to administer the purchased loans. Moreover, borrowers could not take advantage of the fact that their credit was not with a private bank any more.

46. The purchase of risky loans by the Central Bank brought about a substantial improvement in the solvency and profitability of non-intervened banking institutions, since non-performing assets were heavily reduced or eliminated from their balance sheets. Confidence by depositors was also increased in the face of sounder institutions. Pressures over spreads and interest rates started to recede. According to the Superintendency of Banks' estimates, this mechanism lowered the proportion of risky loans to equity from 155 percent to 50 percent in the case of those banks that made use of it.

3.4 <u>Recapitalization of Intervened Banks ("Capitalismo Popular")</u>

47. Considering that proportionately higher losses affecting these banks and their uncertain future because of the intervention, the Central Bank did not agree to purchase risky loans from these banks until their financial condition was improved. The sale of risky loans to the Central Bank alone would not have been sufficient to return these banks to solvency. Therefore, a further capital injection was necessary. For this purpose, in early 1985 a law was enacted authorizing the Superintendency of Banks to require from banking institutions under intervention the necessary capital increases to make them financially viable.

48. To force the recapitalization of these intervened banks, the law established that the required capital increases should first be offered to existing shareholders for a short period of time and then to the public in general. Any stock not purchased by existing shareholders or the public could be purchased by the Government, which would pay by converting Central Bank emergency loans into equity. These stocks would be disposed of by the Government over a period not to exceed five years and at the rate of no less than 20 percent per year. Purchase of stock by the Government could not exceed 49 percent of the intervened bank's capital at any moment, so it could never control it. If the need for recapitalization was higher, the Government had first to sell part of its stock. Once the capital increase required by the Superintendency of Banks had been paid in, each intervened banking institution was entitled to sell risky loans to the Central Bank under the same mechanism applied to the banks not under intervention. As in the previous case, new shareholders were not bound by the repurchase obligation.

49. The Government offered ample credit facilities and subsidies to small investors to encourage them to purchase the stock of intervened banks. Investors had to pay only 5 percent as downpayment and the rest in a period not to exceed 15 years. The interest rate was zero in real terms and there was also a 30 percent discount on the principal for prompt payment. Dividends were tax-free. Moreover, investors could cancel these credits at any time by turning in their shares to the Government. A limit was set on these sales to ensure wide ownership ("capitalismo popular").

50. This procedure was used in the case of the two largest intervened banks (Banco de Chile and Banco de Santiago). Two other banks (Banco Concepción and Banco Internacional) were sold to other domestic investors and the smallest one (Banco Colocadora Nacional de Valores) was absorbed by Banco de Santiago. Between 1985 and 1987, the recapitalization and sale of the stock of these institutions was basically completed. At present, all these banks are under private administration with Banco de Chile and Banco de Santiago having about 39,000 and 16,000 shareholders, respectively.

3.5 Supervision and Prudential Regulations

51. Together with the above-mentioned mechanisms to restore solvency to problem banks, there was a complete shift in the focus of supervision towards credit risk analysis and assessment of the overall financial condition of each bank. Special attention was given to: (i) loan portfolio classification according to risk of default and loan provisioning; (ii) early warning systems; and (iii) information disclosure.

52. Early in 1980, a comprehensive program of loan portfolio classification according to risk of default was established. It was recognized that the most important risk to the solvency of a banking institution came from the loan portfolio, and that a sound assessment of the solvency and profitability of a bank could not be made without having a clear idea of the quality of its loan portfolio. Accordingly, banks were required to classify their loan portfolios in one of four categories according to the risk of default. The risk of default was to be determined considering three elements: (i) repayment capacity of the borrower; (ii) knowledge of the borrower and its previous creditworthiness record; and (iii) pledged collateral. To discourage unsound lending and to cover potential loan losses, banks were required to provision those loans that received a low classification. This represented a complete departure from the traditional principle that only past due loans should be provisioned.

53. A better knowledge of the quality of the loan portfolio was instrumental in the design of the different mechanisms to reschedule debts and recapitalize banks. It provided the necessary information to estimate the size of existing losses, to design the corrective action that was needed, and to assess the expected cost for the Government.

54. In 1982, when the system of the loan portfolio classification was well advanced in its implementation, an early warning system was also established. The system was based on financial ratio analysis and permitted to assess the current and projected financial condition of each bank. According to these assessments, banks were grouped in different risk categories. The variables considered to make this classification were adequacy of the capital, quality of the assets, quality of the management, profitability, and liquidity. The system was derived from the CAMEL system, the acronym for Capital, Assets, Management, Earnings, and Liquidity, used by the US regulatory agencies since the late 1970s.

55. Information disclosure was also considered a key element in a more deregulated banking system. With timely and reliable information depositors could better discriminate among different institutions and exert market discipline. Accordingly, the Superintendency of Banks gradually increased the disclosure of information, including detailed monthly balance sheets and income statements, and information on loan-portfolio concentration. Moreover, in 1983, the CAMEL indicators started to be published to facilitate the analysis of specific institutions and comparisons with the rest of the system.

56. A new banking law was passed in 1986 strengthening the monitoring and enforcement powers of the Superintendency of

Banks. Of particular importance was the new responsibility of the Superintendency to induce the recapitalization of a bank when its capital base is deteriorating. It establishes certain limits to a bank's capacity to accept demand deposits in an attempt to improve the stability of the system and reduce the risk of bank runs in case of bankruptcies. The law also improves the regulations on information disclosure and lending to related companies, and widens the business of banking institutions by allowing them to engage in the securities business through subsidiaries.

V. RESULTS

57. Considering the steady macroeconomic and financial sector improvements from 1984 to 1988, it can be argued that the way the Chilean banking crisis was handled was successful. Nevertheless, financial costs were not negligible. The definite financial costs are difficult to estimate because they were spread over several years. Then, depending on the fluctuations of the exchange rate or interest rates in the future, these costs can be further increased or reduced. For example, the mechanisms used to solve the crisis resulted in the Central Bank's having high foreign exchange exposure in return for domestic-denominated assets. If the domestic currency were to appreciate, losses would be reduced. Similarly, the fall in interest rates has reduced losses and has caused many borrowers to prepay rescheduled loans. Moreover, these financial costs have to be compared with the benefits associated with a more stable and strongly performing economy, further complicating any evaluation.

58. According to World Bank estimates the largest financial loss comes from the preferential dollar program, followed by the purchase of a risky loan portfolio, and debt reschedulings. Subsidies associated with "capitalismo popular" are smaller. These estimates are very sensitive to the proportion of risky loans sold to the Central Bank which will be repurchased (the previous estimation assumes that 70 percent of risky loans will be repurchased and that it will be necessary to write off only 30 percent).

59. The macroeconomic situation has steadily improved since 1984. GDP grew at an average rate of 5 percent a year between 1984 and 1987. The estimated growth for 1988 is about 7.4 percent. The current account deficit has been brought down from 10.7 percent of GDP in 1984, to 4.3 percent of GDP in 1987, and to an expected 1.2 percent of GDP in 1988. The fiscal situation is under control and the fiscal budget will experience a small surplus during 1988. Unemployment has also come down and should be about 8 percent in 1988. The economy continues to remonetize and inflation is estimated at 12 percent in 1988, about half of its 1984 level. The 1988 performance has been positively

affected by an important improvement in the terms of trade which have been influenced by the strong recovery in the price of copper (Table 6).

60. The structural change in the Chilean economy since the beginning of the crisis can also be observed by looking at the composition of the GDP. While the estimated GDP for 1988 is expected to be around 10 percent above the 1981 GDP, nontradeable sectors like construction and commerce are only 3 percent and 4.4 percent above the 1981 levels, respectively. Tradeable sectors show a much better performance with agriculture and forestry 20 percent above their 1981 level, mining 16 percent above, and industry 10.5 percent above.

61. The banking system showed very strong performance between 1984 and 1987 as well. Lending interest rates declined to almost 50 percent below their 1983 levels. Spreads show a similar trend. Profitability increased from 2.8 percent of return on equity in 1983 to 13.7 percent in 1987. Capital adequacy continues to improve and risky loans sold to the Central Bank plus past due loans are also decreasing (Table 7). The banking system is also increasingly taking advantage of the possibility of operating in the securities business. Several banks have already established mutual funds, leasing companies, brokerage facilities, and related business. Possibly the most important remaining challenge for several banks will be their obligations to repurchase the risky portfolios sold to the Central Bank.

62. In conclusion, it can be argued that the way the banking crisis was handled in Chile has permitted a rapid recovery of the banking system which has been supporting the overall recovery of the economy. The fact that there was the political decision to recognize the problem at an early stage and to absorb and allocate losses through comprehensive programs was instrumental in the success of the solution of the crisis. Although banking systems will never be isolated from the negative effects of macroeconomic crises, it is clear that a more competitive and deregulated banking industry, together with better supervision and prudential regulation, increased the resiliency of the system to face such problems.

Table 6 Selected macroeconomic indicators (1983-87)

	1983	1984	1985	1986	1987
Real GDP growth rate (%)	-0.7	6.3	2.4	5.7	5.7
Real effective exchange rate (1980 = 100)[a]	117.5	119.2	150.4	173.0	178.4
Terms of trade (1980 = 100)[a]	85.8	80.6	76.0	75.5	81.3
Current account/GDP (%)	-7.1	-10.7	-8.3	-6.5	-4.3
Fiscal deficit (-) or surplus/GDP[b]	-2.6	-3.0	-2.4	-1.0	-0.8
M2/GDP (%)[c]	19.3	20.7	20.1	19.8	22.9
Infltion (CPI) (%)	23.1	23.0	26.4	17.4	19.9
Unemployment (%)[d]	14.6	13.9	12.0	8.8	9.6

Source: Central Bank Bulletin unless otherwise specified.

a. Source: Bank staff estimates.
b. Consolidated central government deficit or surplus.
c. M2 = M1 + Dp, where M1 = Money in circulation plus drawable money of private sector. Dp = Time deposits at more than 30 days of private sector, excluding time savings.
d. Source: National Institute of Statistics. For 1985-87, last quarter (October-December) numbers have been used.

Table 7 Selected banking system indicators (1983-87)

	1983	1984	1985	1986	1987
Lending interest rates (%)[a]	15.9	11.3	11.0	7.6	7.7
Spreads (%)[b]	11.2	8.6	6.6	6.0	5.9
Return on equity (%)[c]	2.8	6.9	7.4	7.2	13.7
Foreign liabilities/total liabilities (%)	25.6	23.4	21.2	19.9	17.0
Total liabilities/capital & Reserves	16.9	23.4	23.7	20.8	17.5
Growth in loans & investments (%)[d]	13.1	19.1	25.8	-1.8	-3.7
Past due loans/total loans (%)	8.4	8.9	3.5	3.8	2.7
Risky loans sold to Central Bank/total loans	10.0	10.7	26.5	31.6	30.6
Risky loans sold + past due loans/capital & reserves (%)	158.1	186.3	231.2	240.6	215.6

Source: Central Bank Bulletin and Superintendency of Banks (Informacion Financiera).

a. Real interest rate charged for short-term loans (compounded monthly).
b. Gross spread: Difference between short-term lending and deposit rates.
c. Net profit figures for 1984-87 include the income used to repurchase the risky portfolio sold to the Central Bank.
d. In real terms, adjusted using CPI.

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