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Issues in Managing and Sequencing Financial Sector Reforms Lessons from Experiences in Five Developing Countries*

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Abstract

A review of the experience of five developing countries in reforming their financial systems illustrates the benefits and risks, and provides lessons on the factors which contribute to successful financial sector reforms. Financial sector reforms need to be supported by active monetary policy, and the adoption of new monetary control procedures early in the reform program; reforms should be sequenced consistently with the broader program of macroeconomic adjustment. The pace of liberalization of interest rates and credit should also take account of the solvency of financial and nonfinancial firms. A minimal system of prudential regulation is an essential element of successful financial sector reform.

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I. Introduction

1. Introduction

This paper reviews the experience of a sample of developing countries in liberalizing their financial systems to identify the factors which contribute to successful financial liberalizations. Two broad questions are addressed: (1) are there specific components of financial sector reforms that are best implemented at specific stages of a broader stabilization-cum-reform program, and (2) is there an appropriate sequencing of various detailed components of financial sector reforms?

The research reported in this paper should be viewed in the context of two other relevant areas of work. First, increasing emphasis has been placed on the role of financial market conditions--in contrast to the traditional emphasis on money--in influencing real economic activity. Many authors have argued that credit market conditions and balance sheet developments (such as debt-equity ratios, ratio of net worth to liabilities, etc.) can have important effects on output and investment. 1/ In addition, the information asymmetries and the resulting market failures (equilibrium credit rationing, credit market collapse, bank runs, weak secondary markets, etc.) imply the possibility that government can, through appropriate regulations, improve on the types of contractual arrangements that would arise in an unfettered private economy. 2/ This paper draws on this analysis to interpret the developments in the sample of countries under review.

The second relevant area of work is that on the sequencing of broad economic reforms. 3/ This literature has suggested broad propositions on the optimal sequencing of economic reforms including: (1) that

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1/ See, for example, Gertler (1988). See also V. Sundararajan (1985, 1987) on the impact of debt-equity mix of nonfinancial firms on saving, investment and growth.

2/ For example, Cho (1986) shows that development of equity markets should accompany the liberalization process in order to overcome credit rationing of productive projects due to information frictions. Also, recent literature on banking crisis (Sundararajan and Baliño (1990)) show that structural measures to strengthen prudential regulations and correct portfolio weaknesses in the financial sector are important for the effectiveness of stabilization policies, in particular monetary policies.

3/ The literature on interaction between financial reforms (both domestic markets and external capital accounts) and stabilization programs is quite extensive. On the Southern Cone, see Corbo and De Melo (1985) and Connolly and Gonzalez-Vega (1987), Calvo (1983), and Corbo, De Melo and Tybout (1986). For the Pacific Basin countries, see Cheng (1986). See also Diaz-Alejandro (1985), Fry (1988), and McKinnon (1989) for a more general discussion.

macroeconomic stabilization is a prerequisite to successful structural adjustments; (2) that the liberalization of domestic financial markets should precede the removal of controls on international capital flows; and (3) that trade liberalization and real sector adjustments should precede capital account liberalization. The investigation in this paper complements this analysis by focusing on specific aspects of financial sector reform.

Several components of the financial sector are considered, namely: (1) reforms of the interest rate regime; (2) the development of money markets and market-based monetary control procedures; (3) reforms of prudential regulations and supervisory system; (4) recapitalization and restructuring of weak financial institutions; (5) measures to strengthen competition among banks; (6) reform of selective credit regulations; and (7) the development of long-term capital markets. Legislative reforms and organizational changes are also touched on briefly.

The study examines experiences with financial sector reform in five countries: Argentina (1976-81), Chile (1974-80), Indonesia (1983-88), Korea (1980-88), and the Philippines (1980-84). Conditions prior to embarking on economic and financial reforms ranged from severe financial repression, distortion in prices and economic imbalances (for example, in Argentina), to more progressive financial sectors and smaller economic and structural distortions (for example, in some Asian economies). In all the countries the activities of financial institutions were tightly controlled prior to financial reforms with a high degree of policy-induced segmentation between different types of financial institutions.

The paper is organized as follows: the rest of Section I provides an overview or the paper; Section II reviews the financial sector reform experiences of five countries; and Section III presents the main conclusions.

2. Overview 1/

a. Countries' experiences with sequencing reforms

Reform followed no unique sequencing in the countries examined and the time frame for implementation varied substantially. A deregulation of interest rates and credit controls occurred early on in the reforms in Argentina, Chile, and the Philippines. These countries experienced significant financial deepening but also faced problems of a loss of control over domestic financial aggregates following their financial reforms. Indonesia and Korea liberalized administered controls over bank credit more gradually, and did not experience the same loss of control.

1/ The following summary is taken from Johnston (1991).

While policies to reduce segmentation between financial institutions and to lower barriers to entry, were initiated early in the reform process in most countries, the policies had mixed effectiveness in promoting competition. In Argentina and, initially, in Chile, there was increasing concentration of ownership. The liberal entry policies for new financial institutions in the Philippines and Indonesia increased competition significantly but also created a vulnerable component of the banking system and were ultimately unsustainable.

As regards the liberalization of the capital account, exchange controls had been liberalized prior to the financial reforms in Indonesia and the Philippines. This increased competition and accelerated the reforms. However, larger capital flows may have added to instability in liquidity and made control over domestic monetary conditions somewhat more difficult. Argentina and Chile only gradually relaxed their exchange controls, but both countries faced substantial capital outflows because of uncertainty about their exchange rates, which became significantly overvalued. In these circumstances, capital controls were generally ineffective in preventing the outflows and thus in supporting domestic interest rate policies. Korea maintained tight exchange controls until relatively late in its financial reform.

Korea was the only country that actively promoted its capital market as part of its financial reform. Capital market development played little part in the reforms in Argentina and the Philippines, and Indonesia developed its capital market only in the later phase of reform. A capital market boom accompanied the Chilean reforms, but this was mainly related to temporary financial conditions, and the boom and subsequent stock market collapse accentuated financial instability following the reforms.

The critical need for effective prudential supervision was identified only late in the reform process in many countries, as was the need to reform deposit insurance as a means of increasing discipline on financial institutions. New prudential regulations were introduced in the initial stage of the reforms in Argentina and Chile, however, their effectiveness was weak.

In three countries--Argentina, Chile, and the Philippines--financial liberalization was followed by a financial crisis that disrupted the financial sector and was accompanied by a sharp contraction in gross domestic product (GDP) and a reversal of the financial deepening that initially followed the financial reforms. It is important to stress that there was no direct connection between financial liberalization and financial crisis and the countries' experiences need to be seen in the broader context of the success of their stabilization policies. In Argentina, the fiscal deficit was not contained; the real exchange rate appreciated sharply; and the substantial capital outflows reflected a general lack of confidence in the economy. In Chile, the fiscal deficit was reduced but the real exchange rate appreciated to unsustainable levels, resulting in speculation against the peso and capital outflows resulting in very high real interest rates that impaired the value of the banks' assets. The banking crisis in the Philippines was preceded by a crisis in the balance of payments and a moratorium on external debt payments that seriously damaged investor confidence.

In contrast, Korea had a successful real sector adjustment that included exchange rate depreciation and fiscal correction, resulting in a strengthening of the balance of payments and capital inflows. In addition, the authorities adjusted nominal interest rates actively in line with inflation in order to prevent sharp increases in real interest rates. In Indonesia, the fiscal deficit was reduced and the authorities were active in managing financial sector liquidity and avoiding sharp fluctuations in interest rates in the face of speculative flows of capital.

b. <u>Lessons for managing and sequencing financial sector reforms</u>

In all countries, except Korea, financial liberalization was followed by a period in which credit growth exceeded the growth of deposits, and in most of these countries, the gap between the growth of credit and the growth of deposits widened following the reforms. In other words, the financial reforms were immediately followed by a widening in the gap between private expenditure and income. Unless carefully managed this can add to inflation and put pressure on the balance of payments.

The initial tendency for credit to grow more rapidly than deposits is not perhaps surprising where credit growth was previously constrained by direct controls with an excess demand for credit. Once the direct controls are removed, financial institutions respond by meeting the excess demand and credit expands rapidly. In the pre-reform period, deposits were not limited by direct controls and so a similar excess demand did not exist. With reform, deposit growth, therefore, responds more slowly as a portfolio response to the new liberal financial situation.

The countries' experiences also suggest, however, that the tendency for credit to grow more rapidly than deposits is only a temporary phenomenon when the authorities maintain positive real interest rates. Following the initial stock adjustment--reflecting the initial excess demand--credit growth slows down. Deposit growth continues in response to the ongoing financial deepening, and after some time, the growth of deposits and credit converge, allowing for balanced growth with a higher level of overall resource mobilization.

In order to manage the growth of credit and interest rates in the post reform period, the authorities need to have available effective indirect instruments of monetary control to replace the direct controls. Hence, a reform of monetary control procedures should occur very early in the reform process. The use of these instruments can also be catalysts in the development of money markets and can promote financial sector competition. 1/ However, it also has to be recognized that to the extent that the initial credit growth reflects a one-time adjustment to a new equilibrium position, an attempt to constrain credit demand solely through interest rates could result in very high real interest rates. This would carry attendant risks for real economic growth, the maintenance of an appropriate exchange rate, and thus external adjustment and stability of the financial sector.

The need to rely on tight monetary policy to maintain macroeconomic balance--which is why real interest rates are raised to a high level--would be reduced by a larger fiscal adjustment or an increase in foreign resources, or both. Although, the post-liberalization adjustment in credit probably cannot be avoided, it can be phased through a continued use of types of direct controls that would more closely align credit growth with the otherwise lagging growth of bank deposits. Credit ceilings that allow banks to increase credit only in response to increases in deposits might achieve the desired phasing, while reducing disincentives to deposit mobilization. These ceilings need to be supported by positive real interest rates and an adjustment in the indirect instruments of monetary policy. A phased approach was followed in Korea and Indonesia and succeeded in reducing private resource imbalances.

Not only did real interest rates rise with financial reform, but the reforms tended to widen initially banks' gross lending margins. These margins reflected a number of influences. The removal of interest rate controls allowed banks to price credits and risks more appropriately, and this may have acted to raise margins, since controlled lending rates were usually set too low. Against this, reserve requirements were normally lowered as part of the reforms that reduced the cost wedge between deposit and lending rates. However, authorities generally should reduce rapidly the costs to financial institutions of reserve and liquid asset requirements, and increase reliance on indirect monetary controls.

The speed and nature of interest rate liberalization also has to take into account the financial structure of nonfinancial firms and the pace with which problem banks and their debtors can be restructured. If nonfinancial firms are highly leveraged, any sharp increase in real interest rates could further weaken the repayment capacity of these firms and the condition of banks. The preferable option would be to recapitalize the banks and restructure their portfolios. This may require budgetary transfers and, therefore, a larger fiscal adjustment in support of the financial reforms. Without such transfers, the ability to control interest rates may become a critical issue; and it may then be desirable to liberalize bank interest rates only gradually, while pushing ahead with industrial sector restructuring and the recapitalization of banks.

1/ See Johnston and Op de Beke (1989).

The major common elements of the financial crises were the unsound liability structures of nonfinancial firms prior to reform (reflecting, e.g., subsidized credit and insider loans); changes in relative prices that influence the viability of borrowers; and weaknesses in the institutional structure of banking that facilitated risk taking, including weak prudential regulation and banking supervision. Certain characteristics of the reform may have contributed to the crises. First, the very rapid growth of bank credit following the liberalization may have strained the credit approval process and resulted in an increase in lending to more risky projects. This was a particular problem because of extensive lending to interrelated entities, and the lack of regulation of loan classification, provisioning, and interest capitalization. Second, in some cases the abruptness of the financial liberalization did not give the private financial institutions time to develop the necessary internal monitoring and credit appraisal processes or for the public sector banks to develop a more commercial approach. Third, information systems--accounting, financial disclosure rules, company analysis, credit-rating systems, etc.--that are necessary for efficient allocation of resources were not developed. At the same time, public supervision was not developed, and, because of explicit or implicit deposit guarantees, depositors were largely indifferent to bank credit risks. Insolvent banks were able to attract deposits and to disguise their true financial positions by continuing to pay interest and dividends out of deposit receipts.

Early and timely attention to developing vigilant bank supervision and well-designed prudential regulations could have helped detect and contain the buildup of financial fragility. In some countries, financial reform was accompanied by a strengthening in prudential regulations; however, implementation of the regulations was weak and some critical regulations--for example, restrictions on lending to interrelated entities, on loan classification and provisions, and on accounting rules on interest accruals--did not exist and others were rescinded because of inability to implement them. This underlines the importance of not only having adequate regulations but also the capacity to implement them. Such a capacity is in part technical, but also requires the absence of political interference. The achievement of such a capacity takes time and often involves the strengthening of key public institutions, particularly the Central Bank, as part of the process of financial reform.

c. Summary of conclusions

In summary the main conclusions are:

First, a minimal system of prudential regulation is necessary before embarking on financial sector reforms in order to support efficient credit allocation and to safeguard against a financial crisis that could undermine monetary control and macroeconomic adjustment;

Second, key monetary control reforms and supporting reforms to develop money markets must be initiated early in the reform process. This reflects the critical importance of maintaining macroeconomic control during the reform period while simultaneously allowing for the removal of the various discriminatory controls on interest rates, credit, and financial institutions' portfolios that is essential in the development of a market-oriented financial system; and

Third, the speed of the liberalization of interest rates and credit controls needs to take account of the extent to which fiscal and external policies are available to support monetary policy in achieving overall macroeconomic balance. Fiscal and external policies need to support the initial increases in resource pressure that can follow financial liberalization.

II. Five Developing Country Experiences with Financial Reform and Liberalization

1. Introduction

This chapter presents the experiences with financial sector reform and liberalization of five countries: Argentina, Chile, Indonesia, Korea, and the Philippines. In presenting the individual country experiences we have sought to standardize data presentation and to develop some key indicators. Inevitably, with data drawn from many different sources, series are not fully comparable across different countries. Appendix Table 31, provides a detailed description of the data.

The indicators of financial sector development include various measures of private financial assets: currency, M2, M3 and private financial assets. M2 is defined as currency in circulation plus deposit liabilities of the banking system. M3 is defined as M2 plus deposit liabilities with nonbank financial institutions (NBFIs). Private financial assets, the broadest measure of liquidity presented, is defined as M3 plus identified holdings of other financial assets by the private sector (such as treasury bills, and central bank bills where they exist). The relative movements in these aggregates are indicative of portfolio shifts within the financial sector, while their growth rates and the trends in their ratios to GDP are indicative of economic monetization and the development of financial markets.

Financial institutions credit to the private sector and central bank credit to financial institutions are also presented. The former is an indicator of the development of financial sector intermediation, while the latter is an indicator of the extent of official involvement in the operations of financial institutions. When the Central Bank provides a larger part of the funding for credit to the private sector, the credit allocation decisions of the Central Bank--through its refinancing and rediscount policies--necessarily have a strong influence on private credit allocation decisions regardless of whether there are explicit controls.

The growth of financial institution credit to the private sector relative to the growth of private deposits with financial institutions is an indicator of the change in the use and mobilization of domestic financial resources from the private sector. A more rapid growth of credit to the private sector than of private sector deposits could signify pressures on domestic resources which would worsen the balance of payments unless offset by a reduction in the fiscal deficit or larger capital inflows.

Other indicators include real interest rates, GDP growth rates, number and types of financial institutions, gross lending margins, international interest rate differentials, and excess bank reserves. For those countries that have faced a financial crisis selected indicators of these crises are also shown.

The presentations for each country describe the pre-reform financial structure and the broad economic circumstances that were associated with the financial reforms. The financial sector reform measures and their sequencing are then presented. This is followed by an examination of the consequences of reforms using the indicators that have been developed. Finally, a number of broad conclusions are drawn from each country's experience. Comparative indicators from the five countries and the lessons from their different liberalization experiences are further examined in Section III.

2. Argentina

a. Pre-reform, 1974-76

The Argentinean economy of the mid-1970s was characterized by distortions in relative prices, a highly disorganized and repressed financial system, multiple exchange rates and restricted international capital flows. GDP growth was negative in 1975 and 1976; inflation was increasing (to 443 percent in 1976); the fiscal deficit reached 12.5 percent of GDP in 1976; and there were increasing balance of payments pressures. 1/

Argentina's financial sector was severely repressed and dominated by commercial banks (see Tables 1 and 2). The numerous NBFIs were mostly very small. Government ownership (Federal, state, and municipal) of banks and

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1/ The economic problems had a long history and can be traced to inward-looking economic policies characterized by tariff protection, policy-induced transfers from the agricultural to the industrial sectors, and central control over the allocation of resources that began in the mid-1930s.

Table 1. Argentina: Structure of Financial System; 1976-83

	1976		1977		1978		1979		1980		1981		1982		1983	
	Head Offices	Branches	Head Offices	Branches	Head Offices	Branches	Head Offices	Branches	Head Offices	Branches	Head Offices	Branches	Head Offices	Branches	Head Offices	Branches
Total no. of financial institutions	692	3,171	723	3,298	721	3,621	496	4,106	469	4,119	449	4,199	413	4,364	402	4,641
Commercial banks	111	2,906	112	2,951	150	3,101	211	3,720	207	3,714	199	3,787	197	3,957	203	4,336
Government	29	1,580	30	1,617	30	1,637	30	1,688	30	1,715	30	1,741	31	1,742	31	17
Private domestic	64	1,100	65	1,132	102	1,250	161	1,814	151	1,784	137	1,705	133	1,869	140	2,140
Foreign owned	18	226	17	202	18	204	20	218	26	215	32	341	33	346	32	341
Investment banks	4	0	4	0	3	0	4	0	3	0	3	0	3	0	3	0
Government	0	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
Private domestic	4	0	3	0	2	0	2	0	1	0	1	0	1	0	1	0
Foreign owned	0	0	0	0	0	0	1	0	1	0	1	0	1	0	1	0
Development banks	2	33	2	33	2	33	2	33	2	33	2	33	2	32	2	33
Other government-owned financial institutions																
Mortgage banks	1	51	1	52	1	52	1	52	1	52	1	53	1	53	1	53
Credit cooperatives	1	40	1	40	1	39	1	40	1	40	1	49	1	50	1	51
Other private financial institutions																
Credit cooperatives	424	13	423	34	377	173	104	13	92	24	92	26	76	23	71	24
Finance companies	80	40	80	58	138	147	142	205	135	216	126	218	111	214	102	208
Savings and loan associations	0	0	35	52	35	56	31	43	28	40	25	33	22	35	19	36
Consumer credit association	69	88	65	78	14	20	0	0	0	0	0	0	0	0	0	0
Number of firms traded on the Buenos Aires Stock Exchange	309		303		296		287		278		263		248		238	
Stock market capital/ GDP (%)	...		...		...		...		2.50		3.70		4.10		6.00	
						(Quarterly averages; in millions of 1985 Australs)										
Government paper in circulation																
Treasury bills	1.11		1.36		2.09		1.66		2.11		1.08		1.43		...	
Government bonds (Indexed)	1.62		1.21		1.45		1.43		1.19		1.15		0.14		...	
Other 1/	0.88		0.45		0.27		0.32		0.33		0.19		0.79		0.91	

Sources: World Bank (1984); IFC, Emerging Stock Market Fact Book, 1989; Central Bank of Argentina, "Memoria Annual".

1/ Between 1978-80, includes variable interest rate and fund mobilization bonds. Between 1981-83, includes monetary absorption and consolidation bonds.

Table 2. Argentina: Selected Financial Indicators, 1974-86

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
							(In millions of Australs; 1985 prices)						
Total financial assets	13,567	11,156	9,313	11,692	11,980	13,375	12,709	13,496	12,002	13,475	12,918	8,587	9,534
Currency	3,531	3,581	2,184	2,049	2,302	2,108	2,188	1,992	2,150	2,554	2,397	2,015	2,093
Deposits	8,103	6,156	5,563	7,500	7,715	9,503	8,596	8,544	8,099	9,562	8,848	5,818	6,663
Financial sector credit to private sector	11,425	10,229	7,726	10,308	10,742	12,792	15,090	21,003	25,959	29,309	29,902	9,770	10,272
Central bank credit to financial institutions	11,583	11,018	8,451	1,179	444	265	1,594	2,762	11,914	7,822	7,338	4,551	6,890
							(Percentage annual change)						
Total financial assets		-17.77	-16.52	25.54	2.47	11.65	-4.98	6.20	-11.08	12.28	-4.13	-33.53	11.03
Currency		1.42	-39.03	-6.16	12.33	-8.41	3.78	-8.97	7.96	18.77	-6.14	-15.95	3.88
Deposits		-24.03	-9.63	34.82	2.88	23.17	-9.54	-0.61	-5.21	18.06	-7.46	-34.25	14.53
Financial sector credit to private sector		-10.46	-24.47	33.41	4.22	19.08	17.97	39.19	23.59	12.91	2.02	-67.33	5.13
Central bank credit to financial institutions		-4.88	-23.29	-86.04	-62.37	-40.35	502.18	73.25	331.34	-34.35	-6.19	-37.97	51.38
							(In percent)						
Private financial assets/GDP	34.39	26.88	22.96	28.86	32.58	34.67	33.26	37.38	32.65	35.18	31.68	21.69	24.39
M2/GDP	30.79	25.17	20.91	24.73	27.99	30.53	29.03	31.96	31.12	33.72	31.08	21.29	23.89
Currency/deposits	40.97	56.36	38.77	27.37	30.08	22.16	24.98	20.95	24.38	25.91	23.89	31.63	29.01
Credit to private sector/GDP	28.47	24.32	19.04	25.46	29.23	33.16	39.49	58.17	74.46	88.34	81.75	24.81	26.28
Proportion of private sector credit financed by the central bank	105.78	114.17	122.45	12.31	4.05	1.94	10.16	11.21	37.10	21.32	18.06	43.17	56.13
Change M2/Gross domestic savings	...	60.66	51.34	56.61	65.15	89.74	66.52	94.98	95.52	121.57	...	...	...
Gross domestic savings/GDP	20.76	24.41	31.49	30.29	27.78	22.57	20.55	17.83	20.17	22.21	...	...	...
Real GDP growth rate	6.25	-0.74	-0.23	6.39	-3.22	7.02	1.49	-6.66	-4.95	3.00	2.56	-4.54	5.46
Real deposit rate	-5.45	-57.40	-71.26	-1.44	-16.30	-15.43	-10.65	23.98	-15.04	-15.91	-33.70	-49.00	-15.78
Gross interest rate margin	5.94	20.65	13.89	65.45	42.14	15.00	18.90	54.57	26.29	42.17	76.00	77.95	27.87
Average required reserves	100.00	100.00	100.00	45.00	39.70	24.75	11.83	13.38	57.50	100.00	...	...	...
Total number of financial institutions	...	...	692	723	721	496	469	449	413	402	...	...	...

Sources: Central Bank of Argentina; IMF International Financial Statistics; and staff estimates.

other financial institutions was substantial (as measured by the number of branches of government-owned financial institutions) and the financial structure was constrained by strict central bank approval requirements for new banks and for the opening and closing of branches.

The Deposit Nationalization Law of 1973 forced banks to deposit all financial savings with the Central Bank (a de facto 100 percent reserve requirement). Banks could only lend from their capital and reserves, and from access to central bank funds, mainly in the form of selective and subsidized credit to priority sectors. Interest rates on bank deposits and loans were set by the monetary authorities, as were their fees and commissions.

As a result of the controls, real interest rates became increasingly negative between 1974 and 1976 (see Table 3), and financial savings through banks and financial institutions declined in real terms, and as a percentage of total financial sector liabilities. An informal money market, based mostly on enterprise promissory notes expanded rapidly; the size of this market in 1976 was estimated at 40 percent of the interest-bearing deposits of the banking system (Fernandez, 1985). The ratio of currency to deposits was very high and the ratios of M2 and M3 to GDP fell sharply. Only about half of the private savings were monetized by commercial banks (see Table 2), 1/ and credit extended by financial institutions to the private sector fell in real terms (on average by 17 percent per annum during 1974-76) reflecting the decline in central bank credit to financial institutions, and declines in the real value of financial institutions' capital. Central bank resources were increasingly directed to finance public deficits and between 1974-76 an average of 68 percent of the fiscal deficit was financed by the Central Bank.

b. Financial sector reform, 1977-80

In the context of an economic adjustment program aimed at curbing inflation, limiting the economic role of the Government and promoting the international integration of the economy (through the reduction of tariffs and exchange controls), the Argentinean authorities introduced a range of measures to reform the financial system. Figure 1 summarizes the main measures and the sequencing of the financial reforms.

The liberalization of interest rates commenced in 1976 when interest rates on certificates of deposit (CDs) were freed. This was followed in 1977 by a major financial sector liberalization and reform of monetary control instruments. In 1977, all bank deposit and loan rates were liberalized, the controls on bank credit were removed, the 100 percent reserve requirement was reduced (initially to 45 percent and then lowered

1/ The decline in private savings with the banking system also reflected the presence of indexed government bonds that were popular as a hedge against inflation.

Table 3. Argentina: Interest Rate Structure, 1974-88

(Percent per annum) 1/

	1974	1975	1976	1977 3/	1978	1979	1980	1981	1982 4/	1983	1984	1985	1986	1987 5/6/	1988 6/
Nominal															
Deposit rates 2/	16.77	20.27	56.09	172.12	130.58	119.48	79.38	153.50	124.97	273.22	381.79	293.79	60.10	143.55	386.89
Loan rates 2/	22.71	40.92	69.98	237.57	172.72	134.48	98.28	208.07	151.26	315.39	457.79	371.74	87.97	162.95	...
Gross margin	5.94	20.65	13.89	65.45	42.14	15.00	18.90	54.57	26.29	42.17	76.00	77.95	27.87	19.40	...
Real 7/															
Deposit rates	-5.45	-57.40	-71.26	-1.44	-16.30	-15.43	-10.65	23.98	-15.04	-15.91	-33.70	-49.00	-15.78	5.28	9.97
Loan rates	-0.64	-50.08	-68.71	22.27	-1.01	-9.65	-1.24	50.66	-5.11	-6.40	-23.25	-38.90	-1.12	13.67	...
Differential with devaluation adjusted international rates 8/															
Deposit & US LIBOR	...		-1142.59	38.67	44.93	38.94	38.64	-600.23	-509.21	-69.11	-230.52	-569.71	-7.47	0.26	46.83
Loan and US prime	...		-1148.69	102.03	85.95	52.52	55.92	-560.87	-495.33	-32.03	-163.54	-506.89	18.19	16.89	...
CPI inflation	23.50	182.30	443.17	176.09	175.49	159.51	100.76	104.48	164.78	343.82	626.72	672.15	90.10	131.33	342.73

Source: IMF, International Financial Statistics; Central Bank of Argentina.

1/ For 1974-82, quarterly average. For 1983-88, monthly average.
2/ Data for 1974-76 are form Gaba (1981) as reported by Baliño (1987).
3/ Quarterly average of second half of 1977.
4/ From July 1982-November 1987, rates reported are the regulated rates.
5/ Loan rates: monthly average of January-October 1987.
6/ From November 1987-December 1988, deposit rates are the average paid on interest free deposits of various maturities.
7/ Deflated by average annual CPI inflation. Real=(1+nominal)/(1+inflation)-1
8/ Adjustment formula used: (1+LIBOR)*(1+actual devaluation)-1.

Figure 1. Argentina: Sequence of Financial Reform

		1976	1977	1978	1979	1980	1981
I.	Deregulation of the Financial Sector						
a.	CD rates freed						
b.	All interest rate ceilings abolished						
c.	Lending autonomy to financial institutions						
d.	Elimination of 100 percent reserve requirements						
e.	Elimination of approval requirements for new banks						
f.	Branching restrictions eased						
II.	Strengthening of Regulatory, Supervisory and Legal Systems						
a.	Minimum capital requirements						
b.	Maximum financial liabilities to capital ratios set						
c.	Limits on individual borrowing						
d.	Elimination of 100 percent deposit insurance						
e.	Reform of supervisory system						
III.	Reform of Monetary Control Instruments						
a.	Lowering of reserve requirements						
b.	Auctions of treasury bills for monetary control						
c.	Reform of rediscount facilities						
d.	Payment of interest on reserve requirements through Interest Equalization Fund						
IV.	Restructuring of Financial Institutions (Liquidations, Mergers, Reorganization, etc.)						
V.	Other Reforms and Adjustment						
a.	Capital account restrictions eased						
b.	Initiation of adjustment program						

progressively to 10 percent by 1980), and interest was paid on required reserves held against time deposits through a newly established Interest Equalization Fund. Selective credit practices were abandoned (except for export-oriented loans), and selective rediscounts were replaced with a single discount window with the discount rate set at a penal level compared with market rates. 1/ Treasury bills, which had been available on tap at predetermined interest rates, were auctioned with the aim of managing financial sector liquidity. Because of the effects on liquidity distribution of the change in the reserve requirement and rediscount policy, transitional arrangements included special temporary rediscount lines for some banks and special deposit requirements with the Central Bank for some other banks.

Concurrent with the financial liberalization, new prudential regulations were instituted. These included: changes in the definition of minimum capital requirements; maximum ratios of assets and liabilities to total capital and reserves; and limits on loans to any single borrower in terms of both the borrower's and the lender's capital and reserves. 2/ The minimum requirements for opening new bank branches were eased and the need for prior central bank approval was eliminated. Also, new regulations facilitated the establishment of new financial institutions and the restructuring of old ones. Later, in 1979, the deposit insurance scheme was reformed. Full insurance coverage was removed from all but the smallest deposits, the maximum amount of insured deposits was indexed, insurance premiums were set (previously the Central Bank bore all the cost), and foreign exchange deposit insurance was completely eliminated. 3/ In 1981, financial institution supervision was reorganized through the introduction of new accounting, auditing and reporting standards, and the responsible department of the Central Bank was reorganized.

c. Effects of the financial sector reforms, 1977-80

First, the reforms did not have a major effect in improving the structure of the financial sector. Although, the reforms were associated with some restructuring, this was not associated with a significant improvement in financial sector competition or efficiency, and banks' administrative costs remained high (averaging about 8 percent of total loans). The differential between deposit and lending rates widened following the liberalization, and although it narrowed subsequently--partly in response to the progressive reduction in required reserve ratios--the differential generally remained above its pre-reform level (Table 3). This

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1/ As a result, central bank credit to financial institutions fell sharply as a proportion of the total bank credit to the private sector (see Table 2).

2/ The former limit was eliminated in 1979.

3/ The maximum amount was adjusted retroactively following the onset of the financial crisis (see below).

reflected increasing concentration in the financial sector. 1/ Also the capital markets were not developed and the number of companies traded and their capitalization on the Buenos Aires stock exchange fell after the reforms (Table 2). Also the Government continued to resort to the banking system for finance (see Tables 1 and 4) so that the real stock of government securities outstanding did not increase.

Second, real deposit and lending rates rose sharply from the highly negative pre-reform levels, and real loan rates became temporarily positive in 1977 (Table 3).

Domestic deposit and loan rates also rose substantially above U.S. dollar interest rates, after adjusting for the ex-post devaluation of the exchange rate. Although capital movements into and out of Argentina were gradually liberalized, 2/ remaining restrictions constrained the scope for international interest rate arbitrage and allowed the domestic/international interest differentials to persist. 3/ The remaining exchange controls also protected the inefficient domestic financial system.

Beginning in 1978, the authorities had sought to reduce inflation by posting a devaluation schedule (*tablita*) for the exchange rate that lagged behind the general price increases. The success of such a policy required credibility and monetary and fiscal discipline. However, these were ambiguities surrounding the *tablita* which weakened its credibility. 4/ Fiscal deficits were large and growing, and averaged 12.8 percent of GDP between 1978-82, and monetary financing of the deficits was inconsistent with the pre-announced rates of devaluation. The ensuing inflation (that averaged 153 percent in 1977-80) appreciated the real exchange rate by 64 percent between 1977 and 1980, and fueled expectations of a breakdown of the *tablita* and contributed to the sharp rise in real interest rates in

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1/ While the number of commercial banks nearly doubled (and the total number of bank branches increased by one third), the number of NBFIs declined leading to a fall in the total number of financial institutions (Table 1) and there was increasing concentration of bank ownership.

2/ Between 1976 and 1978, the previous system of multiple exchange rates was unified, foreign loans were allowed at prevailing foreign exchange rates (with no government insurance), and all foreign exchange transactions up to a determined limit per transaction were permitted. (The limit was gradually increased to US$20,000 in September 1978.)

3/ Other reasons for the persistence of these interest differentials include a risk premium arising from foreign exchange rate devaluation expectations (Blejer, 1982), and the unequal access to foreign credit between various private borrowers and between private and public borrowers (Petrie and Tybout, 1985).

4/ The schedule was sometimes not adhered to; it was frequently changed in mid course, and was sometimes kept open ended.

Table 4. Argentina: Summary of Financial Sector's Operations, 1974-86

(In millions of australes valued at 1985 prices) 1/

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
Domestic liabilities													
Central Bank													
Currency	3,531	3,581	2,184	2,049	2,302	2,108	2,188	1,992	2,150	2,554	2,397	2,015	2,093
Commercial banks	9,610	8,234	7,112	9,682	10,465	12,510	11,933	13,798	10,128	11,178	13,519	6,874	7,807
Deposits	8,103	6,156	5,563	7,500	7,715	9,503	8,596	8,544	8,099	9,562	8,848	5,818	6,663
Demand	3,736	3,959	2,755	1,957	1,617	1,613	1,474	1,048	1,526	1,325	937	992	841
Savings	3,425	1,837	1,286	623	733	688	846	...	742	1,731	1,855	1,468	1,348
Time 3/	942	360	1,521	4,919	5,366	7,202	6,276	7,496	5,831	6,506	6,056	3,358	4,474
Foreign exchange	0	0	0	0	0	124	586	1,377	1,789	1,375	4,219	667	976
Other financial institutions	1,540	795	922	1,815	1,843	1,735	1,762	2,199	658	684	348	162	200
Deposits	1,065	621	750	1,518	1,666	1,584	1,513	1,865	545	551	243	154	193
Sight	180	215	134	102	91	...	...	...	...	...	...	...	...
Savings	655	264	162	139	30	8	8	...	26	68	54	41	25
Time 3/	229	142	454	1,277	1,546	1,576	1,506	1,865	518	483	189	113	168
Domestic credit	15,583	14,032	9,050	11,994	13,336	15,986	18,976	28,133	38,565	63,804	82,164	22,370	27,784
Central bank credit	16,192	16,056	11,218	3,710	2,267	1,257	2,986	4,224	20,111	35,321	46,789	16,643	19,347
Public sector 4/	4,400	5,215	2,481	2,065	899	350	1,545	2,854	7,911	14,898	19,089	6,602	8,187
Credit to financial sector	11,583	11,018	8,451	1,179	444	265	1,594	2,762	11,914	7,822	7,338	4,551	6,890
Commercial banks	9,958	9,068	7,056	644	403	221	1,363	2,417	10,377	6,906	6,607	...	...
Rest of financial sector	1,625	1,950	1,395	535	41	44	231	345	1,537	915	731	...	...
Commercial bank credit	8,658	7,159	4,609	7,480	10,169	13,481	15,393	23,487	27,513	32,507	43,312	9,732	12,441
Public sector 4/	-475	-226	-565	-568	180	852	588	3,566	6,061	7,320	10,697	763	1,994
Private sector	9,292	7,915	5,649	7,775	9,109	11,064	13,192	19,101	24,548	28,351	29,321	9,539	10,069
Domestic currency	...	...	...	...	...	...	...	...	10,863	10,012	8,501	5,829	6,704
Foreign currency	...	...	...	...	...	...	...	...	13,686	18,339	20,820	3,711	3,365
Other financial institution credit	1,900	1,888	1,532	1,909	1,520	1,530	1,768	2,142	1,474	651	888	368	584
Public sector 4/	...	-353	-260	-158	29	30	15	65	94	60	38	8	8
Private sector	2,133	2,315	2,077	2,533	1,633	1,728	1,898	1,902	1,410	958	581	231	203

Sources: IMF, International Financial Statistics; and staff estimates.

1/ For the pre-1985 period, pesos were transferred to australes at the rate of 10 million pesos to the austral.
2/ From 1984, includes private sector holdings of central bank paper.
3/ For 1981, data for time deposits include savings deposits. After 1982 includes accrued interest payments.
4/ Includes net credit to Central Government and to the rest of the public sector. For commercial banks (after 1979), includes foreign exchange loans to official sector.

1981, prior to abandoning the *tablita* in 1982. The real sector's health was damaged by the appreciation in the exchange rate and the sharp increase in real interest rates.

Third, there was a shift in monetary and credit aggregates. The liberalization of bank deposit rates encouraged a shift out of currency into bank deposits, and the currency to deposit ratio fell sharply and the ratio of broad money to GDP increased (Table 2). The growth of bank credit to the private sector increased and was considerably higher than the growth of private sector bank deposits. This was reflected in a fall in the ratio of private savings to GDP. To control the credit expansion and increase deposit mobilization, monetary policy should have been tightened by raising interest rates; however, by 1978, real interest rates had again become negative. 1/

Fourth, the rapid expansion in bank loan portfolios exposed banks to increasing risks, and combined with the rise in nominal interest rates resulted in a sharp increase in problem loans (Table 5). Enterprises' debt to equity ratios also rose with the freer access to bank credit, which increased their vulnerability to a rise in real interest rates. When real interest rates rose in 1981, the result was a sharp increase in distress borrowing.

d. Financial sector crisis

In March 1980 a major bank failed. The ensuing reshuffling of bank deposits (to banks perceived as relatively safer), and the drying up of the interbank market placed serious strains on the financial system. By May 1980, the Government was forced to intervene in three further institutions, and by March 1981 a total of 62 financial institutions, holding approximately 20 percent of total deposits, were intervened and liquidated.

The financial sector crisis reflected a number of factors. While the prudential regulations instituted in 1977 were fairly comprehensive, the implementation of the regulations and bank supervision was inadequate. 2/ Only in 1981, four years after the financial reforms were initiated, was the supervisory system strengthened. In the interim, bank supervision had weakened--for example, the number of institutions inspected each year by the Central Bank had fallen to only 10 percent from 23 percent before the financial reforms--and the share of problem loans in bank portfolios had increased fivefold.

1/ Section III discusses the dynamics of deposit and credit growth following liberalization.
2/ For a more detailed discussion, see Baliño (1987).

Table 5. Argentina: Manifestations of the Financial Crisis, 1977-81

	1977	1978	1979	1980	1981
Real exchange rate (1975 = 100)	95	65	50	32	53
Debt/Equity					
Normal firms	85.00	90.00	85.00	128.00	162.00
Liabilities of bankrupt firms (deflated by WPI)	3,985	10,099	16,452	20,024	35,800
Problem loans/bank's portfolio (in percent)	1.52	2.22	2.62	9.13	...

Sources: IMF International Financial Statistics; Fernandez (1985); The World Bank (1984); and Baliño (1987).

The weaknesses in prudential supervision were aggravated by the comprehensive official deposit guarantees and the associated moral hazard problems; 1/ in 1979 the comprehensive deposit guarantees were replaced with partial guarantees. The moral hazard problem became more acute in the early 1980s, as the financial institutions that eventually failed began offering the highest deposit rates in order to mobilize resources to meet their customers' distressed borrowing and to meet interest payments on deposits.

In the aftermath of the financial crisis, the authorities completely reversed the liberalization measures in 1982, with the aim of redistributing wealth from depositors to borrowers through sharply negative interest rates. Interest rates on most deposits were re-regulated, the 100 percent reserve requirement was reintroduced on most deposits, and the Central Bank became the major source of funds to the financial sector through its rediscount policy. 2/ As a result, there was a complete reversal of the financial deepening trends established during financial liberalization, 3/ real interest rates became highly negative and gross margins between deposit and lending rates widened.

1/ Implicit or explicit deposit guarantees have been emphasized as a source of financial sector instability by many economists. The existence of the guarantees meant that depositors were not responsible for the behavior and losses of the financial institutions, and depositors thus lacked the incentive to impose discipline on the financial institutions. On Argentina, see Diaz Alejandro, 1985 and Fernandez, 1985.

2/ The major elements of the new law were the following: all deposits accepted after June 1982 were subject to 100 percent reserve requirements. Three different types of bank deposits were allowed: short-term deposits accrued regulated interest payments, carried government guarantees and no limits were set on the amount of these deposits that each bank could accept; longer term deposits received free interest rate, were not guaranteed, but the amounts mobilized by each bank were subject to limits; and one-year indexed deposits received government guarantees and were not subject to mobilization limits. On the lending side, the stock of private sector debt was to be refinanced out of a rediscount "basic loan" facility (*prestama basico*) from the Central Bank. The Central Bank introduced another rediscount window (*prestamo addicional*) to on-lend to banks their required reserves for new loans. The interest rate for refinance and additional loans was equal and was set at negative real levels. In addition, banks could make unregulated interest rate loans using only their capital, foreign exchange resources, and free-interest deposits. Indexed loans could be made only from indexed deposits.

3/ The ratios of money and financial assets to GDP fell while the ratio of currency to deposits increased as the role of financial institutions in mobilizing deposits declined.

e. Conclusions

The financial reforms in Argentina, 1977-80, illustrate the risks of a financial sector liberalization when other structural and macroeconomic policies are inadequate to support the liberalization. At the structural level, the competitiveness and depth of the financial system were not promoted significantly by the reforms, which largely resulted in a reshuffling of existing institutions and ownerships rather than a fundamental reorganization. New instruments and markets in securities were not part of the reform. Consequently, the financial system remained uncompetitive and underdeveloped, and borrowers continued to rely mainly on bank borrowing. Also, prudential controls were not developed, while deposits were guaranteed by the state. As a result, the efficiency of credit allocation was weak and the portfolios of bad loans increased among the banks.

Macroeconomic policy contributed to the failure of the liberalization. The liberalization of direct credit controls allowed for a rapid expansion of bank credit, as interest rates were not raised sufficiently to restrain private credit expansion. Concurrently, the government deficit was increasing, and gross domestic savings declined as a percent of GDP. The overvaluation of the exchange rate under the policy of following the *tablita* aggravated the external position and weakened the financial position of enterprises. Monetary policy was eventually tightened in 1981, but resulted in a financial crisis because of the weak position of banks and enterprises.

3. Chile

a. Pre-reform

The Chilean economy of the early 1970s was characterized by weak GDP growth, domestic and external imbalances, and extensive controls on trade, capital flows, and enterprises. In 1973, GDP fell by 5.6 percent, the fiscal deficit reached 21 percent of GDP, and the inflation rate was approximately 500 percent.

The pre-reform financial sector consisted of 20 government-owned domestic commercial banks, one foreign-owned commercial bank, and a limited number of NBFIs. The financial sector was highly regulated through interest rate ceilings, quantitative controls on banks, substantial directed credit and restrictions on operations of financial institutions. Real interest rates were negative.

b. Reform and stabilization

The Chilean authorities followed programs of stabilization between 1974 and 1981. An initial effort at stabilization through reducing the fiscal deficit and restricting money supply growth, coincided with major international shocks (particularly, the decline in copper prices) and resulted in GDP contracting by 12.9 percent in 1975. Subsequently, the foreign exchange rate became the main anti-inflationary instrument, 1/ the fiscal deficit was gradually reduced until it showed a surplus in 1979, and monetary operations were used mainly for smoothing liquidity. Inflation declined from 212 percent in 1976 to 20 percent in 1981, and real GDP growth recovered; however, the real exchange rate appreciated which made the policy unsustainable. 2/

Concurrent with the stabilization program, sweeping liberalization measures were enacted covering the spectrum of economic activities, including an opening of the current account and a gradual liberalization of the capital account between 1976 and 1982. 3/ These reforms had as objectives the international integration of the Chilean economy and improving the price mechanism.

The main elements of the financial sector reform and their sequencing are summarized in Figure 2. First, the measures included financial sector restructuring. In 1974, all but one of the 20 domestically owned commercial banks were privatized; in 1975, new regulations were introduced allowing the creation of new financial institutions; in 1976, the distinction between banks and NBFIs was removed and foreign banks could liberally open branches and purchase Chilean banks; and in 1981 the distinction between commercial and development banks was abolished. Between 1977-80, banks became generally freer to borrow abroad. 4/

1/ The peso was revalued against the U.S. dollar by 10 percent in both 1976 and 1977; then a policy of preannounced devaluations (the *tablita*) was attempted in 1978 only to be replaced in 1979 with a fixed exchange rate.

2/ Between December 1978 and December 1981 the real exchange rate appreciated by approximately 30 percent because of a weak inflation performance. This reflected in part the system of backward wage indexation, which increased real wages at times when inflation was declining. See Edwards (1983) and Corbo (1985).

3/ The order of liberalization of the foreign sector has been much discussed in the Chilean case, in which liberalization of the capital account lagged substantially behind that of current account transactions. Quantitative controls on current transactions were abolished and tariffs rationalized and lowered by June 1979 to a uniform 10 percent (excepting automobile imports). It has been argued that this was the correct sequence that maximized the chances for adequate macroeconomic control (see McKinnon (1982), Edwards (1984), and Calvo (1986)).

4/ In September 1977, commercial banks were authorized to use Article 14 of the exchange law for their capital inflows, subject to a quantitative restriction limiting the maximum monthly inflow to 5 percent of the capital and reserves of each bank. In June 1979, the global limits to external borrowing by commercial banks were eliminated and in April 1980, all quantitative restrictions were eliminated. The only restriction on external borrowing was the overall prudential control that limited total bank borrowing to twenty times the capital and reserves of the bank.

Figure 2. Chile: Sequence of Financial Reform

		1974	1975	1976	1977	1978	1979	1980
I.	Deregulation of the Financial Sector							
a.	Short-term money market rates freed	■						
b.	Most commercial banks privatized	■						
c.	Barriers to entry lowered		■					
d.	Subsidized and selective credits reduced		■					
e.	Quantitative credit controls removed		■					
f.	Interest rates liberalized		■					
g.	Saving and dollar deposit rates indexed		■					
h.	Only real interest received is taxable		■					
i.	Easing of restrictions on scope of activities			■				
j.	Foreign bank branches allowed			■				
k.	Commercial banks free to borrow abroad			■	■	■		
II.	Strengthening of Supervisory, Regulatory and Legal Systems							
a.	Disclosure requirements enforced	■						
b.	Capital requirements raised and indexed	■						
c.	Introduction of noncompliance penalties	■						
d.	Limits on concentration of bank ownership	■				1/		
e.	Jurisdiction of supervisory authorities widened	■	■	■				
f.	Limits on credit to a bank customer rationalized							■
g.	Doubling of maximum firm shares a bank can hold							■
III.	Reform of Monetary Control Instruments							
a.	Foreign exchange rate primary monetary target		■					
b.	Interest paid on reserve requirements		■					
c.	Reserve requirements lowered and unified					■		
d.	Interest payments on reserve requirements phased out					■		
e.	Auctions of central bank credit and treasury bills introduced			■				

1/ Measure rescinded.

Second, several measures were introduced relatively early to strengthen banking supervision and regulation as part of the financial reform. In 1974, minimum capital requirements were raised and penalties imposed for noncompliance, restrictions were placed on the concentration of bank ownership and banks' disclosure, and reporting requirements were strengthened. Between 1974 and 1976 the jurisdiction of the supervisory authorities was widened to include all financial institutions. However, important weaknesses in the supervisory and regulatory framework remained. The restrictions on concentration of bank ownership were difficult to enforce and were removed in 1978. Only in 1980-81, after the financial crisis had developed (see below), were limits imposed on banks' lending to interrelated and individual entities (including purchases of shares), and loan classification and provisioning rules established. Further measures to tighten bank supervision were subsequently approved in 1982 and in 1986 (see below).

Third, there were major reforms to monetary and interest rate policy. Initially, in 1974, interest rates on short-term capital market transactions outside the commercial banking sector were liberalized, followed a year later by the liberalization of commercial bank interest rates. 1/ In 1975, quantitative controls on bank credit were abolished and selective credits to priority sectors were greatly reduced. An indirect system of monetary control was implemented, based on auctions of central bank credits and treasury bills, and a reform of the Central Bank's discount window. In 1976, interest was paid on required reserves. Subsequently, with the lowering of reserve requirements, 2/ and their unification across different financial institutions, the payment of interest on reserve requirements was phased out between 1977-80.

c. Results of the reforms 1975-81

The financial reforms resulted in an increase in the number of financial institutions (Table 6). The number of commercial banks rose from 21 in 1974 to 41 in 1981; 17 of the new banks were foreign owned. The number of bank branches also increased substantially. The liberalization of short-term capital market interest rates in 1974 also resulted in an initial increase in NBFIs--*financieras*.

1/ The 1974 interest rate liberalization gave rise to a new kind of financial entity--the *financieras*--which initially enjoyed great flexibility and a competitive advantage, given that interest rates on commercial bank deposits continued to be controlled. Initially, the *financieras* operated under little control, although in December 1976, problems in some of them prompted an increase in their supervision.

2/ Reserve requirements on bank time deposits were lowered from 47 percent in March 1977 to 4 percent in December 1980, and that on sight deposits from 75 percent to 10 percent over the same period.

Table 6. Chile: Structure of the Financial Sector, 1974-84

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
					(Numbers of institutions)						
Commercial banks	21	21	20	21	26	36	38	41	40	38	38
Domestic owned 1/	20	20	18	18	22	24	25	23	21	19	19
Foreign owned	1	1	2	3	4	12	13	18	19	19	19
Finance companies	...	...	26	18	21	18	18	13	9	7	7
Total	...	...	46	39	47	54	56	54	49	45	45
Capital Market					(In millions of 1985 pesos)						
Volume of traded stocks	3,400	3,410	3,827	10,142	19,728	26,287	56,115	32,016	16,531	8,009	6,638
					(Valued at 1980 prices)						
Index of stock prices	...	...	2	7	21	34	92	76	60	69	85

Sources: Velasco (1988); Superintendencia de Valores y Segures, Revista de Valores; and IMF, International Financial Statistics.

1/ Only one domestic bank was state owned after 1975.

However, the financial restructuring raised a number of problems. First, the privatization of the domestic banks was controversial. The regulations on the concentration on ownership were not enforced and were abandoned in 1978. As a result banks were purchased by large conglomerates. The high concentration of ownership, together with the lack of regulation on bank loans to interrelated entities, and the absence of loan classification and provisioning requirements were, major factors in the subsequent insolvency of financial institutions. Second, the financieras were less stringently supervised and regulated than commercial banks and in 1976, *financieras* faced increasing difficulties and eight failed. Only thereafter did the supervisory authorities institute a formal approval procedure for financial institutions or individuals receiving deposits from the public. 1/

Following the liberalization of bank interest rates in 1975 real interest rates increased sharply (Table 7). The gross differential between bank deposit and lending rates fell substantially but remained wide reflecting. A subsequent fall in the differential reflected the reduction in reserve requirements, and an increase in financial sector competition associated with the entry of foreign banks and the opening of the capital account. 2/

The private sector's holdings of financial assets initially contracted in real terms following the reforms (Table 8). The slow response to the liberalization measures may have reflected the adverse effects on confidence of the severe economic recession in 1975, and the continuing high inflation rate and negative real deposit rates in the immediate post-reform period. Once interest rates became positive after 1977, holdings of financial assets increased rapidly (in real terms) and money and financial asset to GDP ratios rose. The currency to deposit ratio fell steadily following the financial liberalization.

After the removal of controls on credit and interest rates, the growth of private credit was considerably faster than the growth of private bank deposits and financial assets. In particular, the growth of peso-denominated bank credit was much faster than the growth of peso-denominated bank liabilities, and by 1980 domestic currency credit of financial insti

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1/ Accounting procedures for *financieras* were tightened and capital requirements increased to 75 percent of these for commercial banks.

2/ Net private capital inflows to Chile rose from US$567 million in 1977 to US$4,469 million in 1981. However, the integration of the Chilean financial markets internationally remained weak and significant ex-post interest rate differential remained between Chilean domestic and international dollar rates, reflecting inter alia exchange rate uncertainty.

Table 7. Chile: Interest Rate Structure, 1975-87

(In percent per annum; monthly average 1/)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Nominal													
Loan rate	484	351	142	85	61	47	55	63	43	37	40	26	27
Deposit rate	...	136	89	63	46	38	42	47	28	26	32	19	25
Gross spread	...	215	54	22	16	9	12	16	15	11	9	7	2
Real 2/													
Loan rate	153	45	26	32	21	9	29	48	12	14	7	6	6
Deposit rate	...	-24	-2	16	9	2	19	34	1	5	1	-0	4
Differential with devaluation adjusted U.S. prime rate 3/	94	232	71	53	32	32	36	-53	11	-27	-17	6	2
Inflation rate (Percentage change in end of year CPI)	216	212	92	40	33	35	20	10	27	20	31	19	20

Sources: Central Bank of Chile; IMF, International Financial Statistics.

1/ Interest rates are those on short-term credit transactions and time deposits of commercial banks.

2/ Real = (1 - nominal)/(1 - inflation) - 1.

3/ Difference between the devaluation-adjusted U.S. prime rate and the domestic loan rate. Adjustment formula: (1 + prime rate)*(1 + devaluation) - 1.

Table 8. Chile: Selected Financial Indicators, 1974-86

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
						(In billions of 1985 pesos)							
Private financial assets													
Currency	70	54	57	62	77	88	93	98	86	81	84	80	91
Deposits	225	186	230	273	373	481	572	648	697	550	624	...	...
Commercial banks' credit to private sector	100	119	163	315	503	684	978	1,155	1,533	1,283	1,420	...	...
Central Bank credit to financial institutions	40	36	20	40	38	22	32	69	149	655	964	...	...
						(Annual percentage growth rates)							
Private financial assets													
Currency	...	-22.46	5.54	8.59	24.60	14.53	5.68	4.57	-12.12	-5.15	3.04	-5.11	14.33
Deposits	...	-17.35	23.43	18.55	36.72	29.01	18.92	13.27	7.54	-21.05	13.42	...	...
Commercial banks' credit to private sector	...	18.94	37.02	93.10	59.74	36.04	43.02	18.12	32.68	-16.32	10.73	...	...
Central bank credit to financial institutions	...	-10.79	-42.99	98.63	-6.40	-41.89	46.80	113.97	115.12	340.90	47.14	...	...
						(In percent)							
M2/GDP	16.04	17.10	17.54	17.55	19.52	20.79	23.58	26.71	31.67	25.87	28.59	...	...
Currency/Deposits	30.87	28.96	24.76	22.68	20.67	18.35	16.31	15.06	12.31	14.78	13.43	...	...
Credit to private sector/GDP	5.43	8.46	9.96	16.51	21.81	24.98	34.67	41.40	62.05	52.56	57.40	83.39	111.70
Proportion of total financial sector credit financed by the Central Bank	25.00	20.45	9.36	10.56	7.05	3.04	3.21	5.84	8.88	46.14	60.61	...	...
Change in M2/Gross domestic savings	78.05	139.11	56.62	71.52	59.17	51.27	46.50	50.94	69.79	9.87	61.16	37.82	...
Gross domestic savings/GDP	22.28	11.14	17.11	12.62	14.47	14.96	16.82	12.37	9.39	12.53	12.56	16.47	18.42
Real GDP growth rate	0.97	-12.91	3.52	9.86	8.22	8.28	7.78	5.53	-14.09	-0.71	6.34	2.45	5.66
Annual real deposit rate (%)	...	...	-24.46	-1.79	16.48	9.40	1.96	19.02	33.78	0.51	5.21	0.69	-0.40
Gross interest rate margin (%)	...	...	215.50	53.69	22.10	15.51	9.03	12.11	15.81	14.80	11.10	8.80	7.20
Reserve requirement 1/	...	...	47 2/	20	20	...	4	4	4	4	4	4	4
Total number of financial institutions	21	21	46	39	47	54	56	54	49	45	45	...	...

Sources: Central Bank of Chile, and International Monetary Fund, International Financial Statistics.

1/ Reserve requirement on 1-to-3-month time deposits applicable at December of year.
2/ Applicable since March 1977.

tutions exceeded domestic currency deposits compared to only 40 percent prior to the reforms (Table 9). 1/ The rapid growth of bank credit was not prevented initially by loan rates which were highly positive in real terms in the post-reform period, but the growth of credit declined subsequently, suggesting a lagged adjustment.

A number of explanations have been provided for the growth in private credit. Initially, the credit growth was associated with borrowing by Chilean conglomerates (*grupos*) which were active in takeovers and in asset price speculation. Facilitated by the ownership structure of the banking sector, and inadequate bank supervision, enterprise shares were used as collateral for bank credit and share and property prices experienced a speculative boom. Later, as the business sector started facing difficulties (resulting from the overvalued currency and the high financing costs) there was distressed borrowing by enterprises, and the capitalization of interest payments became common.

Despite the rapid growth of the private credit, the ratio of savings to GDP gradually increased between 1977-80, as the growth of private credit was partly offset by a reduction in the government fiscal deficit. Part of the increase in private credit was used for the purchase of publicly owned enterprises that were privatized.

d. Financial crisis

In the early 1980s, the Chilean authorities faced a financial crisis. By 1981, two years after fixing the exchange rate, the degree of over-valuation of the real exchange rate had become significant and ultimately unsustainable, There was massive speculation against the peso, and interest rates rose sharply as the authorities did not sterilize the capital out-flows. The increase in interest rates combined with the exchange rate overvaluation led to widespread business bankruptcies. This was accompanied by a run on a major bank and government intervention in several smaller financial institutions. The situation was sharply aggravated in 1982 when the stock market crashed, leaving many corporations insolvent, as they had borrowed using shares as collateral. Also in 1982, the peso was devalued damaging further the solvency of the business sector which was heavily indebted with foreign loans.

1/ In Chile domestic currency lending differed substantially from total private lending because a major proportion of the increase in private bank credit was foreign currency denominated, and financed by foreign currency borrowing abroad. (Banks were prohibited from taking open foreign exchange positions.) This was encouraged by high domestic interest rates which were significantly above international interest rates after adjusting for the ex post change in the exchange rate.

Table 9. Chile: Summary of Financial Sector's Operations, 1974-86

(In billions of 1985 pesos)

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
Domestic liabilities													
Currency	70	54	57	62	77	88	93	98	86	81	84	80	91
Deposits of financial institutions	225	186	230	273	373	481	572	648	697	550	624	...	...
Demand	101	67	57	64	74	92	115	61	76	80	68	...	...
Time 1/	5	24	64	103	185	285	305	459	482	440	507	...	...
Savings and other deposits	76	52	75	74	87	83	128	108	96	...	...	...	...
Foreign currency deposits	43	44	33	32	27	21	24	19	43	30	49	...	...
Other deposits 2/	429	268	102	88	82	127	227	240	348	167	194	992	1,122
M2	295	240	287	335	450	569	665	745	782	631	708	...	...
Money	171	121	114	126	151	180	208	159	162	161	152	...	...
Quasi-money	124	119	173	209	299	389	457	587	621	470	556	...	...
Domestic credit													
Central bank credit													
Public sector	740	741	552	582	522	508	375	201	184	160	292	...	...
Commercial banks	40	36	20	40	38	22	32	69	149	655	964	...	...
Commercial banks' credit	160	174	217	383	537	722	1,006	1,182	1,673	1,419	1,590	...	...
Public sector	60	56	54	68	34	39	28	27	140	137	169	...	...
Private sector	100	119	163	315	503	684	978	1,155	1,533	1,283	1,420	...	...
Domestic currency credit 3/	...	...	107	199	288	405	600	727	894	...	...	...	...

Sources: Central Bank Of Chile; IMF, International Financial Statistics; and staff estimates.

1/ For 1983 and 1984, includes savings deposits.
2/ Includes forward sales of foreign exchange, liabilities held by CEPAC, and private capital and surplus. For 1979-87, also includes central bank and mortgage bonds. After 1985, also includes deposits.
3/ Staff estimates.

Table 10 provides a number of indications of the extent of the financial crisis. In 1982 about 20 percent of total bank loans were judged to be nonperforming; by 1986, this proportion had increased to about 60 percent by 1986. Six commercial banks and eleven *financieras* failed during 1981-83, and the authorities had to intervene in another seven banks and one *financiera*.

Two features of the post-reform Chilean financial system facilitated excessive risk-taking and unsound lending practices. First, as noted, the supervisory framework was weak until 1980. Second, banks were not subject to discipline by depositors. Although explicit peso deposit guarantees did not exist in Chile until January 1983, there appears to have been a widespread perception that the Government would rescue depositors in the event of a bank crash. 1/ It has also been argued that firms borrowed excessively because they expected a government bailout. 2/

The authorities reaction to the crisis is summarized in Table 11. 3/ The crisis resulted in a temporary reversal of some of the liberalization measures, and a strengthening of regulations and supervisory arrangements. With the transfer of problem loans to the Central Bank, the Central Bank became a major provider of liquidity to the banking system. 4/ In December 1982 the Central Bank initiated a policy of guiding interest rates through posting "suggested" deposit rates (set on the basis of expected inflation plus a premium).

The strengthening of bank supervisory arrangements in 1982 included a more precise definition of the limit on loans to a single enterprise that took into account the interlocking ownership of firms. Commercial banks were prohibited from investing in equity capital, agricultural land, merchandise, or livestock, and from accepting equity stock as loan collateral.

1/ This perception was reinforced at the time of the collapse of Banco Osorno in 1976, when the government granted a 100 percent bailout of depositors and other creditors. See Velasco (1988).

2/ See Arellano (1983).

3/ The main elements of support arrangements include the provision of preferential exchange rates for the nonfinancial sector for the purpose of external debt repayments, and subsidized foreign exchange swaps for banks; across-the-board reprogramming of "sound" loans by financial institutions with interest rates and maturities subsidized by the Central Bank; purchases of portions of the "bad" portfolio loans of the nonintervened institutions by the Central Bank with the promise that they would be repurchased in a prespecified period of time--by 1986, 31 percent of the total loans of the financial system were owned by the Central Bank; and the transfer of assets of the intervened banks to a publicly owned entity which recapitalized the banks and resold them to the general public.

4/ In 1984, central bank credit amounted to 110 percent of bank deposits and 45 percent of the deposit and foreign liabilities of financial institutions.

Table 10. Chile: Indicators of Financial Crisis, 1974-86

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1986
GDP growth (in percent)	0.01	-12.90	3.50	9.80	8.20	8.30	7.80	5.70	-14.30	-0.70	...
Number of bankrupt institutions											
Commercial banks	...	...	2	...	...	...	...	2	2	2	...
Finance companies	...	...	...	8	...	3	5	...	...	...	...
Companies	...	...	...	...	2	4	15	29	75	...	...
Establishments	75	81	131	224	312	344	415	431	810	...	...
Loans defaulted/Total loans (in percent) 1/											
Commercial banks	1.40	2.80	1.70	1.40	1.20	1.10	0.90	2.40	8.20	18.70	...
Finance companies	...	...	...	...	...	...	...	2.10	8.10	18.50	...
Estimated percentage of total loans judged as problemetic 2/	...	...	...	...	...	...	...	16.00	21.00	54.00	62.00

Sources: Velasco (1988); World Bank Data; Central Bank of Chile; IMF, International Financial Statistics.

1/ For 1981-83, loans defaulted include "risky portfolio" portfolio loans sold to Central Bank.

2/ Calculated as: the ratio of the sum of loans sold to the Central Bank, reprogrammed loans and overdue loans to total Commercial bank loans less loan provisions.

Table 11. Chile: Major Elements of the Financial Sector Rescue Program, 1982-87

Measure	Year(s)	Details
1. Sale of bad loan portfolio to the Central Bank of Chile (CBCH)	June 1982-1986	In June 1982 CBCH bought bad bank loans in exchange for zero-interest bills. From February 1984, banks could sell loans to the CBCH up to 2.5 times their November 1983 capital, and in the worst cases up to 3.5 times their November 1983 capital. Portions of payments made in interest-bearing bills and repurchase of bills were to come out of shareholders' dividends.
2. Preferential exchange rates	Sept. 1982-Feb. 1987	These rates were provided to troubled nonfinancial private sector firms to service their foreign liabilities.
3. Foreign exchange swaps	Jan. 1984-June 1985	Subsidized foreign exchange swaps were provided by the CBCH to commercial banks.
4. Loan reprogramming	April 1983-June 1984	"Productive" loans to the private sector were reprogrammed at subsidized rates with CBCH providing the interest subsidy and the liquidity to the bank.
5. Recapitalization	January 1985	Assets of intervened banks were transferred to a publicly owned holding company and banks recapitalized. Shares of recapitalized banks were subsequently sold to the public at favorable prices.

Source: World Bank

The Superintendency of Banks also began to develop a formal system of rating financial institutions. 1/ In 1986, a new banking law further strengthened banking supervision, while permitting banks to establish subsidiaries to engage in new lines of financial business (mutual funds, leasing companies, and credit cards), and related nonfinancial businesses. 2/

e. Conclusions

The financial liberalization in Chile illustrates the risks in financial reform even with fiscal adjustments and a restrictive monetary policy. In spite of the highly positive real interest rates after the financial reforms, private credit growth was very rapid and faster than the growth of private sector deposits. This partly reflected the weak prudential regulations that permitted a rapid credit expansion to nonviable projects and subsequent distress borrowing on account of the persistence of high real lending rates. The impact of the faster growth of credit than deposits on the investment-savings balance was reduced by the cut in the fiscal deficit. However, the rapid credit growth associated with a high concentration of bank ownership and inadequate supervision resulted in a perpetuation of high real interest rates and a serious banking crisis.

Although the authorities in Chile initially revised their prudential regulations, prudential controls were poorly designed, and poorly implemented, particularly with respect to the concentration of ownership, restrictions on bank loans to interrelated entities, and loan classification and provisioning requirements. There was also little market discipline on the banks, because of implicit deposit guarantees. Also, weak prudential controls and rapid growth of credit allowed banks and borrowers to become overexposed, and when financial conditions tightened in 1981, this resulted in a financial crisis.

1/ In the case of banks classified as unstable or poorly managed, the Superintendency of Banks was empowered to regulate the banks' new lending, rolling-over of existing credit, and collateral requirements.

2/ Under the 1986 Banking Law, information disclosure requirements were strengthened and the supervisory body was required to publish information on banks; supervision regulations were changed into laws; and a precise definition of a bank client was introduced as a means of curbing the problem of interrelated borrowing. The deposit guarantees introduced during the crisis were to be phased out with only sight deposits and small savings to be eligible for guarantee. A more elaborate definition of an insolvent bank was introduced, mechanisms of solving bank/creditor disagreements were elaborated, and new grounds on which a bank could be intervened were instituted. Capital requirements were also tightened.

4. Indonesia

a. Pre-reform, 1978-82

Indonesia achieved high rates of growth during the seventies based largely on oil exports. For the period 1978-82, real GDP growth averaged 7 percent, and gross domestic savings and investment 28 percent and 27 percent of GDP, respectively. Savings were generated largely through the oil revenues accruing to the Government and were redistributed to the economy via government policies affecting resource allocation, production, price setting, and financial sector decisions. However, the efficiency of investment was declining and private savings were low. 1/ In 1982, as a result of the decline in the prices of oil, real GDP growth slowed to 2.2 percent and the current account registered a deficit.

The structure of the Indonesian financial sector is summarized in Table 12. The five state commercial banks dominated the financial sector accounting for an average of 76 percent of total financial sector assets, followed by private and foreign banks, accounting for 7-9 percent each; NBFIs accounted for only about 4 percent of the total. Activity on the Indonesian stock market, established in 1977, was limited. 2/ Indonesia had a convertible currency (Rupiah), followed a managed float indexed to a basket of currencies, with free capital mobility.

The financial sector was highly, and asymmetrically, regulated which resulted in a high degree of policy induced segmentation. State banks were subject to ceilings on most deposit and lending interest rates, but had a number of advantages over other financial institutions. 3/ Foreign and private domestic banks and NBFIs were free to set their rates. The Central Bank automatically rediscounted priority loans (liquidity credit) at highly subsidized rates and in 1982 the liquidity credits amounted to 27 percent of total bank credit. Detailed credit ceilings applied to all individual banks based on the category of bank, category of assets, previous performance, and aggregate monetary targets. The permissible activity of each type of

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1/ Investment efficiency was deteriorating with the Incremental Capital Output Ratio (ICOR) increasing from 5.27 in 1978 to 9.73 in 1982.

2/ Although equity issues provided the enterprise with tax advantages, they also involved complex disclosure requirements, minimum dividend rates (equal to bank deposit rates), and a maximum trading range for most stocks. Bond trading was allowed in 1977 though no trading occurred until 1983. In 1982, the value of stocks issued reached Rp 60 billion (US$90 million). Trading volume was weak.

3/ State banks' interest revenues were tax exempt; they had larger and easier access to liquidity credits; their deposits were guaranteed; and they had a virtual monopoly over government and other public sector banking activities.

Table 12. Indonesia: Structure of Financial Sector, 1979-88

	March 1979		March 1982		March 1985		March 1987		Dec.1988
	Office	Branch	Office	Branch	Office	Branch	Office	Branch	Office
Total number of financial institutions	...	1,149	215	1,240	214	1,397	228	1,559	237
Deposit money banks	127	1,149	118	1,240	116	1,397	113	1,559	117
Commercial banks	94	981	87	1,029	85	1,160	81	1,265	86
State owned	5	687	5	712	5	749	5	780	5
National privately owned	78	274	71	297	69	390	65	464	70
Foreign owned	11	20	11	20	11	21	11	21	11
Development banks	28	156	28	197	29	224	29	251	28
State owned	1	11	1	19	1	22	1	22	...
Regional	26	144	26	177	27	201	27	228	...
Private	1	1	1	1	1	1	1	1	...
Savings banks	5	12	3	14	2	13	3	43	3
State owned	1	8	1	12	1	12	1	15	1
Private	4	4	2	2	1	1	2	28	2
Nonbank financial intermediaries	...		97		98		115		120
Investment finance company	9		11		11		11		11
Development finance company	3		3		3		3		3
Insurance company	...		83 1/		84 2/		101 3/		106

Source: Bank Indonesia, Report for the Financial Year, several issues.

1/ Figure for 1981.
2/ Figure for 1984.
3/ Figure for 1986.

financial institution was restricted 1/ and regulations on licenses and branch openings differed according to the type of institution. NBFIs were subject to neither interest rate nor credit ceilings, and development banks, while restricted in the scope of their operations, had generous access to liquidity credit. The interbank market was thin and segmented.

Prudential regulations and banking supervision were weak in the pre-reform period, and significant reforms in these areas began only in the late 1980s. Banks supervised by Central Banks, were categorized according to the four levels of "soundness", based on capital, liquidity and compliance with credit regulations, and private national banks were subject to extensive information and reporting requirements. However, reliable information was lacking, and basic regulations on capital adequacy, loan concentration and provisioning, interest accrual rules, etc., were inadequate. NBFIs were under the jurisdiction of the Ministry of Finance.

Monetary policy was based on interest rate controls, credit ceilings, and access to central bank liquidity credits. The effectiveness of the Central Bank refinance policy was weakened by its development-oriented objective, and the automaticity of such credit. Moreover, because of the liberal supply of liquidity credits and binding credit ceilings, at times the state banks accumulated excess reserves.

The implication for interest rates and financial assets of the asymmetrical financial regulation and system of direct monetary control are shown in Tables 13 and 14. The administratively fixed state bank deposit rates were negative in real terms, and considerably below the corresponding private national banks' rates. As a result, the share of domestic currency deposits accounted for by state banks fell from 82 percent to 56 percent between 1978 and 1982. The rigid structure of interest rates was at times inconsistent with banks' liquidity position and with free capital mobility. 2/ International interest rate differentials resulted in large swings in bank liquidity and a volatile call money market rate.

1/ For example, only ten of the private national banks were allowed to engage in foreign exchange transactions, only selected private national banks had access to liquidity credits, foreign banks were only allowed to extend credit to customers in the Jakarta area, development banks specialized in priority sectors and regions, and state banks were prohibited from extending credit to joint ventures.

2/ The deposit rate yield curve of the state banks was rigidly fixed and sloping upward. This represented a distortion in that state banks could not flexibly react to recurrent liquidity movements caused by capital flows. For example, between 1978 and 1981 when banks had huge amounts of excess liquidity, the spread between short- and long-term interest rates should have been much lower than in 1982 when banks experienced a liquidity crunch caused by exchange rate devaluation expectations and capital outflows.

Table 13. Indonesia: Interest Rate Structure

(In percent per annum)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Nominal rates											
One-year time deposit 1/											
State banks	9.00	9.00	9.00	9.00	9.00	9.00	18.75	20.00	15.00	15.00	17.60
Private national banks	...	15.00	18.00	24.00	24.00	25.00	20.00	24.00	18.00	17.00	19.70
Foreign banks	...	...	...	...	...	17.00	18.50	22.00	16.50	18.00	18.00
Average loan 2/											
State banks	...	...	...	...	...	17.70	18.20	19.90	19.00	18.40	19.70
Private national banks 3/	...	...	...	...	...	27.30	24.90	28.20	25.50	24.15	24.50
Foreign banks	...	...	...	...	...	22.20	21.30	26.40	22.20	22.20	23.10
Money market											
Call money 4/	5.96	12.79	14.74	15.95	17.13	17.85	16.40	13.20	13.30	14.80	15.10
SBI cut-off rate 5/	...	...	...	...	...	...	15.00	16.00	14.00	14.00	...
BI discount 6/	...	...	...	...	...	...	17.50	21.00	18.50	18.50	17.00
SBPU discount 7/	...	...	...	...	...	...	...	20.50	17.00	17.10	...
Real rates 8/											
12-month time deposit 1/											
State banks	0.82	-7.88	-7.64	-2.89	-0.44	-2.49	7.51	14.58	8.67	5.24	8.85
Private national banks	...	-2.81	-0.02	10.48	13.26	11.82	8.64	18.40	11.50	7.07	10.79
Foreign banks	...	...	...	...	...	4.66	7.28	16.49	10.09	7.98	9.22
Average loan 2/											
State banks	...	...	...	...	...	5.29	7.01	14.49	12.45	8.35	10.79
Private national banks 3/	...	...	...	...	...	13.88	13.08	22.41	18.59	13.61	15.23
Foreign banks	...	...	...	...	...	9.31	9.82	20.69	15.47	11.83	13.94
Money market											
Call money 4/	-1.99	-4.68	-2.78	3.30	6.99	5.42	5.38	8.09	7.06	5.06	6.53
SBI cut-off rate 5/	...	...	...	...	...	...	4.11	10.76	7.72	4.32	-7.44
BI discount 6/	...	...	...	...	...	...	6.38	15.54	11.97	8.44	8.29
SBPU discount 7/	...	...	...	...	...	...	...	15.06	10.56	7.16	-7.44
CPI inflation	8.11	18.33	18.02	12.24	9.48	11.79	10.46	4.73	5.83	9.28	8.04
Spreads											
SB - PNB deposit	...	-6.00	-9.00	-15.00	-15.00	-16.00	-1.25	-4.00	-3.00	-2.00	-2.10
SB - FB deposit	...	...	...	...	...	-8.00	0.25	-2.00	-1.50	-3.00	-0.40
Call money - SB deposit	-3.04	3.79	5.74	6.95	8.13	8.85	-2.35	-6.80	-1.70	-0.20	-2.50
SB loan - SB deposit	...	...	...	...	...	8.70	-0.55	-0.10	4.00	3.40	2.10
PNB loan - PNB deposit	...	...	...	...	...	2.30	4.90	4.20	7.50	7.15	4.80
FB loan - FB deposit	...	...	...	...	...	5.20	2.80	4.40	5.70	4.20	5.10
Deposit yield curve 9/	3-3	3-3	3-3	3-3	3-3	3-3	0.75-0	1-1	0.5-0	0.5-0	0.3-0.1
Call money - LIBOR 10/	-60.09	-1.86	-1.77	-6.19	-3.96	-39.07	-2.86	0.03	-42.73	7.59	5.30

Note: SB = state banks; PNB = private national banks; FB = foreign banks

Sources: BI, Report for Financial Year, several issues; IMF, International Financial Statistics; Indonesia. National Financial Statistics; data provided by the Indonesian authorities.

1/ For each category of banks, rate reported is maximum rate offered for March of year.
2/ Average rate charged for working capital loans to nonpriority sectors.
3/ Simple average of rates for foreign and nonforeign exchange private national banks.
4/ Weighted average of rate for the first quarter of year.
5/ Rediscount rate of 30-day SBI bill prevailing at end of March of year.
6/ Rate prevailing at end of March of year.
7/ Rate of BI rediscount rate of SBPUs prevailing at the end of March of year.
8/ Real = (1 + nominal)/(1 + inflation) - 1
9/ Difference between state banks' time deposit rates of maturities: (12 months-6 months) - (24 months - 12 months).
10/ Differnce between call money rate and the devaluation adjusted overnight Dollar LIBOR rate. Adjustment formula used: (1 + LIBOR)*(1 + devaluation) - 1.

Table 14. Indonesia: Selected Financial Indicators, 1978-88

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
					(In millions of 1985 rupiahs)						
Private financial assets	8,781	9,930	12,811	14,111	14,711	17,267	19,062	23,476	26,483	29,876	34,523
Currency	2,751	2,898	3,447	3,604	3,794	3,864	3,888	4,460	5,044	5,017	4,999
Deposits	6,030	7,032	9,364	10,507	10,916	13,403	15,174	19,016	21,439	24,860	29,525
Financial sector credit to private sector	4,835	5,377	6,829	8,585	10,769	12,585	15,300	18,014	21,367	25,242	31,822
Central bank credit to financial institutions	1,892	2,139	2,806	3,772	7,274	7,209	10,514	10,769	12,690	13,438	17,068
					(Annual percentage rate of growth)						
Private financial assets	...	13.09	29.01	10.14	4.25	17.38	10.39	23.16	12.81	12.81	15.55
Currency	...	5.34	18.94	4.53	5.29	1.83	0.62	14.72	13.09	-0.54	-0.37
Deposits	...	16.62	33.16	12.21	3.89	22.79	13.21	25.32	12.74	15.95	18.77
Financial sector credit to private sector	...	11.21	27.01	25.71	25.44	16.87	21.58	17.74	18.61	18.14	26.07
Central bank credit to financial institutions	...	13.11	31.13	34.46	92.83	-0.89	45.84	2.43	17.84	5.89	27.01
Private financial assets/GDP	17.40	16.53	17.74	17.15	18.21	20.25	20.91	24.78	29.25	30.17	...
M2/GDP	16.56	15.81	16.86	16.56	17.64	19.82	20.54	24.36	28.60	29.50	...
Currency/deposits	45.63	41.22	36.82	34.30	34.76	28.83	25.62	23.46	23.53	20.18	16.93
Credit to private sector/GDP	9.58	8.95	9.46	10.43	13.33	14.76	16.78	19.02	23.60	25.49	...
Proportion of financial institutions' credit financed by central bank	39.10	39.08	41.08	44.14	67.60	57.56	62.23	54.93	55.49	50.40	51.38

(Continued)

Table 14. (Concluded). Indonesia: Selected Financial Indicators, 1978-88

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
						(In percent)					
Excess rupiah liquidity/total deposits	9.08	10.11	8.72	6.02	1.27	3.31	2.47	-0.02	0.49	0.56	0.32
Change in M2/ Gross domestic savings	11.04	15.23	19.23	10.31	7.93	17.22	12.31	19.43	18.56	18.88	
Gross domestic savings/GDP	27.41	27.41	29.17	33.34	27.63	28.33	30.48	28.47	24.95	29.09	
Real GDP growth rates	7.84	6.26	9.88	7.93	2.25	4.19	6.03	2.53	3.99	3.59	...
State banks' real deposit rate (%)	0.82	-7.88	-7.64	-2.89	-0.44	-2.49	7.51	14.58	8.67	5.24	8.85
Gross interest rate margin	...	...	...	...	...	8.70	-0.55	-0.10	4.00	3.40	2.10
Total number of financial institutions	...	...	...	...	215	...	...	214	...	228	237

Source: IMF, International Financial Statistics; Bank Indonesia, Report for the Financial Year.

Foreign currency deposits, which were not subject to interest rate controls, grew rapidly, and by 1982 accounted for 26 percent of total bank deposits.

b. Adjustment and financial sector reform

After 1982, the Indonesian authorities adopted programs of adjustment that included exchange rate devaluations in 1983 and 1986, fiscal retrenchment (especially in public investments), progressive deregulation of trade and industry, and financial sector reform. These measures enabled the economy to maintain GDP growth while achieving a significant reduction in external and domestic imbalances, and growth in private investment and in non-oil exports.

The main financial sector reforms and their sequencing are illustrated in Figure 3. The financial sector reforms began in June 1983 with the elimination of credit ceilings and interest rate controls on most categories of deposits and all but priority loans, and an extensive modification of the liquidity credit facility. Indirect instruments of monetary control were introduced and discount window policy was reformed in February 1984. Open market operations using regular auctions of central bank certificates (SBIs) became the main monetary instrument, and the cut-off interest rates in the auctions of SBIs became the Central Bank's main operational target. Two discount windows were operated--one for short-term funds to assist banks facing temporary liquidity problems, and the second offering long-term credit to help banks facing significant maturity mismatches. 1/ 2/ The reserve requirements were not used in part because of the uneven distribution of liquidity between financial institutions.

In February 1985, new money market instruments (SBPUs--essentially banker's acceptances) were introduced with the objective of reducing segmentation in the interbank market, facilitating the injection of liquidity, and lengthening the maturities of interbank transactions. A publicly owned investment company was also established as a market maker in money market papers, with a liberal line of credit from the Central Bank to finance the SBPUs discounted by the company. Between 1984 and 1986, the rates on SBIs and SBPUs showed little variability. 3/ Commencing in mid-1987, following a deterioration in the external sector, monetary policy

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1/ The uncertainty concerning their future interest rate movements following deregulation led to a reduction in the average deposit maturity of state banks. Also, the planned reduction in long-term refinance due to the reform of the liquidity credit facility was also expected to accentuate the maturity mismatch and adversely affect the supply of term finance.

2/ Usage of these discount windows was limited until the end of 1984 when a liquidity crunch (see text) forced banks to exceed their access limits.

3/ An exception occurred in September and October 1984 when the cut-off rate for SBIs increased to 18 percent due to extraordinary pressure on bank liquidity that resulted from speculation against the rupiah.

Figure 3. Indonesia: Sequence of Financial Reform

	1983	1984	1985	1986	1987	1988
I. Deregulation of the Financial Sector						
a. Credit ceilings abolished	▒					
b. State banks free to set interest rate structure	▒					
c. Reform of liquidity credit facility	▒					
d. Limited easing of restrictions on scope of financial institutions' activities				▒	▒	▒
e. Substantial reduction of liquidity requirement						▒
f. Public enterprises allowed limited dealings with non-state banks						▒
g. Relaxation of licensing and branching requirements						▒
h. Equalizing tax treatment of time deposits, CDs, and equity						▒
i. Financial institutions allowed to raise capital through equity						▒
j. New private stock exchanges licensed						▒
II. Strengthening of Regulatory, Supervisory, and Legal Systems						
a. Setting lending limits to single borrowers/companies						▒
b. Responsibility for supervising rural banks shifted to BI						▒
c. Improved supervisory monitoring system						▒
III. Reform of Monetary Control Instruments						
a. Establishment of two new rediscount windows		▒				
b. Introduction of auctions of central bank bills (SBIs) for monetary control		▒				
c. Development of banker's acceptances (SBPUs)			▒			
d. Investment house established to intermediate the money market 1/			▒			
e. Active money market interventions through repurchase agreements and daily SBI auctions 1/					▒	▒

1/ In January 1989, the role of the investment house was replaced by establishing a network of 15 dealers in SBIs and SBPUs through whom interventions were implemented.

shifted to protecting the exchange rate, and as a result the interest rate on SBIs and SBPUs became more flexible. The authorities gradually withdrew the committed lines of credit to the investment company for financing the automatic discount of SBPUs and began developing daily money market operations at their own initiative based on competitive daily auctions of one-week SBIs or one-week repos in SBPUs. Further refinements to the daily operating procedures were instituted in early 1989 to foster greater depth in the money markets.

The Central Bank continued as a major supplier of credit to the financial system and the share of central bank credit in total financial institution credit to the private sector increased on average following the reforms (Tables 14 and 15). This factor inhibited financial sector competition and the development of the money and interbank markets. Thus, while the capital and money markets especially expanded with the issue of short central bank and private papers, these markets remained small compared to credit provided through financial institutions (Table 16). In early 1990, the Central Bank announced the end of most subsidized refinance facilities with the objectives of encouraging a more efficient banking system and of improving monetary control.

Apart from some limited easing of restrictions on the various financial institutions' scope of operations after 1985, 1/ the reform measures did not initially ease barriers to entry, and the total number of financial institutions remained largely unchanged between 1983 and 1988. However, in 1988 the Indonesian authorities announced further major reforms of the financial sector. These included the relaxation of restrictions on banks and nonbank financial institutions in establishing new branches, and on the creation of new private and joint-venture banks; 2/ the unification of reserve requirements among various classes of banks and its reduction from

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1/ State banks were allowed to extend loans to joint-venture enterprises, and foreign banks to be involved with enterprises located outside Jakarta, by purchasing securities issued, respectively, by joint ventures and enterprises outside Jakarta, provided that these securities are endorsed by private banks or NBFIs.

2/ The measures included: (a) all (except foreign) commercial banks were permitted freely to open new branches throughout the country; (b) NBFIs and foreign banks were permitted to open one branch in each of seven cities: (c) joint-venture banks could be established by foreign banks already operating in Indonesia; and (d) new private banks became eligible for licenses. Rural banks could also upgrade their status to private bank (outside main cities and municipalities), conditional on a certain operational history.

Table 15. Indonesia: Summary of Financial Sector Operations, 1978-88

(*In millions of 1985 rupiah*)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Domestic monetary liabilities											
Currency	2,751	2,898	3,447	3,604	3,794	3,864	3,888	4,460	5,044	5,017	4,999
Deposits of:											
Deposit money banks	5,993	6,994	9,307	10,442	10,846	13,317	15,071	18,882	21,231	24,559	29,131
Demand	2,647	3,140	4,442	5,446	5,345	4,832	5,045	5,560	5,747	5,859	6,429
Time and savings	2,341	2,150	2,352	2,878	3,222	5,430	6,689	9,607	10,730	14,034	16,819
Foreign currency	584	1,256	1,865	1,549	1,816	2,648	3,083	3,376	4,334	4,034	5,221
Import	386	400	581	422	388	280	228	268	380	367	548
Other	35	49	66	148	75	127	26	71	40	264	114
Other financial institutions	37	38	57	65	70	86	103	134	208	301	394
Private financial assets	8,781	9,930	12,811	14,111	14,711	17,267	19,062	23,476	26,483	29,876	34,523
M2	8,359	9,493	12,174	13,624	14,253	16,901	18,731	23,074	25,895	29,208	33,582
Money	5,398	6,038	7,889	9,050	9,139	8,696	8,933	10,020	10,791	10,876	11,427
Quasi money	2,960	3,455	4,284	4,574	5,113	8,205	9,798	13,054	15,104	18,332	22,155
Domestic credit											
Central bank	7,721	7,511	7,711	8,575	11,937	11,124	12,475	12,039	15,648	16,510	20,656
Public sector	5,829	5,372	4,905	4,802	4,663	3,915	1,962	1,270	2,957	3,073	3,589
Financial sector	1,892	2,139	2,806	3,772	7,274	7,209	10,514	10,769	12,690	13,438	17,068
Deposit money banks	1,878	2,118	2,736	3,607	6,996	6,786	9,971	10,041	11,861	12,592	16,307
Other financial institutions	13	22	70	165	278	423	542	729	829	846	760
Deposit money banks	4,838	5,475	6,829	8,547	10,760	12,525	16,896	19,607	22,868	26,664	33,217
Public sector	17	120	70	135	278	390	2,144	2,326	2,334	2,422	2,156
Private sector	4,821	5,355	6,759	8,412	10,482	12,135	14,752	17,281	20,534	24,242	31,061
Domestic currency	4,798	5,291	6,574	8,219	10,054	11,305	14,038	16,443	19,105	23,163	29,429
Foreign currency	24	64	186	193	428	830	714	837	1,429	1,079	1,631
Other financial institutions	13	22	70	173	286	450	548	734	833	1,000	761

Source: IMF, *International Financial Statistics*.

15 percent to 2 percent; 1/ permission for public enterprises to deposit up to 50 percent of their deposits with non-state banks; and a strengthening of prudential regulations and supervision. Measures were taken, inter alia, to limit the concentration of bank lending, extend central bank supervision to the rural banks and NBFIs, and develop a comprehensive supervisory monitoring system.

Several measures were also enacted later to strengthen the money and capital markets. The maturity of SBIs and SBPUs was increased. Interest income from bank deposits became subject to withholding taxes, thus equalizing the tax treatment with other debt and equity instruments. In January 1989, as part of the October 1988 policy package, Bank Indonesia organized a syndicate of 15 private banks and NBFIs to act as dealers and agents for the issuance of SBIs in regular weekly auctions and as market makers in the secondary market. All money market operations of Bank Indonesia began to be implemented through this dealer network. In addition, in January 1990, wide-ranging reforms of institutional and regulatory aspects of capital markets were initiated, including, inter alia, privatization of the stock exchange.

The removal of the credit ceilings, interest rate controls, and discriminatory regulations on different financial institutions advantaged the more efficient private banks, and their balance sheets considerably more rapidly than the state banks in the post-reform period (Table 16). 2/ The pressures of competition led to a narrowing of interest margins 3/ and led the national commercial banks to adopt modernization programs in order to compete more effectively with the private banks.

1/ The large reduction in reserve requirement was used in part to compensate for the effect of introducing 15 percent tax on interest incomes on time deposits and certificates of deposits. In addition 80 percent of the surplus reserves following the reduction in required reserves were to be invested in special three and six month SBI's at fixed interest rates.

2/ In the pre-reform period the growth of total assets of the state-owned and national private banks had been broadly similar as both had been constrained by credit ceilings. The greater interest rate freedom of national private banks had meant that they had a more rapidly growing deposit base, but the state banks were compensated through greater access to liquidity credit from the central bank.

3/ Deposit rates of state banks increased immediately after the reform. The gap between state banks' 12-month deposit rates and those of private banks declined from 16 percent in 1983 to 1.25 percent in 1984, increasing thereafter to remain in the 2-4 percent range. Such a gap is explained by the tax advantages accorded to deposits held with state banks.

Table 16. Indonesia: Development of the Financial Sector

(In millions of 1985 Rps; end of March of each year)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	Average Rate of Growth (in percent) 1979-82	1983-87
Gross assets of financial sector 1/	8,734	10,352	12,684	15,391	18,425	22,435	24,364	30,469	35,137	37,505	21	15
Commercial banks	8,164	9,655	11,794	14,169	17,004	20,799	22,359	27,844	31,841	34,753	20	16
State owned	6,546	7,860	9,650	11,758	14,040	16,540	17,328	21,184	23,745	25,548	21	13
National privately owned	814	928	1,093	1,392	1,754	2,405	3,221	4,402	5,810	6,970	21	32
Foreign owned	803	866	1,050	1,019	1,210	1,854	1,811	2,258	2,285	2,235	11	15
Development banks	262	326	423	569	631	681	805	1,004	1,109	1,083	25	12
Nonbank financial intermediaries	308	371	467	653	790	954	1,200	1,621	2,188	1,670	27	19
Investment and Finance Company	...	...	381	542	652	777	952	1,299	1,841	1,252	16	18
Development Finance Company	...	...	86	110	138	177	248	322	347	383	13	23
Money and capital markets												
Central bank paper (SBI) 2/	...	...	...	...	...	...	108	389	1,443	811		
Money market paper (SBPU) 2/	...	...	...	...	...	...	...	182	546	...		
Stocks 3/	...	32	27	12	78	41	--	--	--	--		
Bonds 3/	...	...	--	--	--	179	73	130	47	113		

Source: Bank Indonesia, Report for the Financial Year, several issues.

1/ Excludes savings banks and insurance companies.
2/ Figures represent (monthly) average outstanding value of instruments. SBIs and SBPUs were introduced in 1984 and 1985 respectively.
3/ Figures represent value of year's issues. No stock was issued in 1978. Bonds were introduced in 1983.

A rapid growth of bank credit in 1984 initially followed the removal of credit ceilings. Real lending rates did not rise initially as the increase in bank deposit rates to positive real levels was absorbed through a reduction in lending margins. Concurrently, the growth of bank deposits fell, reflecting a sharp increase in capital outflows in response to expectations of further rupiah devaluation. The loss of bank liquidity was financed through a large expansion in central bank credit to the banking system and nominal interest rates were maintained broadly unchanged. 1/ In spite of these developments, gross domestic savings rose as a percent of GDP reflecting the fiscal correction. 2/ In 1985, credit growth fell in response to a slowdown in the economy and a sharp rise in real lending rates to historically very high levels.

The reforms promoted a significant increase in financial sector efficiency and intermediation. The ratios of private financial assets, M2 and private bank credit to GDP all increased substantially, while the ratio of currency to deposits fell steadily in the post-reform period. Commercial bank holdings of excess reserves, which had averaged 7 percent of deposits in 1978-82, fell to about 1 percent in 1983-88, reflecting both the rapid growth of bank credit and the development of short-term markets that facilitated banks' day-to-day cash reserve management.

The first phase of financial reforms in Indonesia did not involve banking system instability. In part, this seemed to reflect the absence of major relative price distortions, prompt adoption of adjustment policies, and a tighter management of interest rate levels during the liberalization. 3/ Real GDP continued to expand during and after the financial reforms, and serious problems of industrial reorganization and bankruptcy did not arise. Competition-enhancing policies were also adopted only at a later stage in this reform process when banking supervision reforms were also initiated. Also the initial phasing out of subsidized liquidity credit was not very effective, which provided more time for the banking system to adjust. Further, the absence of explicit deposit insurance might have helped contain problems of moral hazard.

1/ This episode can be contrasted with the experience in Chile in 1981 when real interest rates were allowed to rise sharply in response to a similar loss of confidence in the value of the exchange rate.

2/ The ratio of the fiscal deficit to GDP was 2.6 percent in 1983, and this became a surplus of 0.9 percent in 1984.

3/ Sharp increases in average real lending rate did not occur in part because of continued availability of subsidized liquidity credit, and the authorities focus on targeting interest rates in the immediate post reform period. Only following significant pressures in the exchange market in 1986/87, did greater interest rate flexibility obtain.

c. Conclusions

The first phase the financial reforms in Indonesia involved removal of direct credit and interest rate controls, and a shift toward a more market-oriented system of credit allocation and monetary control. However, the Central Bank continued to refinance a very large proportion of commercial bank credit, and many portfolio and entry regulations limiting competition remained. The second phase of deregulation, that began in October 1988, significantly altered the financial system structure, with a substantial reduction in directed credit, and a major increase in the number of financial institutions. 1/ The regulatory segmentation between different financial institutions was reduced leading to a substantial increase in financial sector competition. Gross lending margins and banks' holdings of excess liquidity generally fell and remained relatively low. However, the second phase of deregulation highlighted, the weaknesses in prudential regulations and banking supervision. 2/

Macroeconomic and monetary management were essential complements to the financial reforms. The temporary liquidity crisis in 1984 and in 1987--due to the speculative capital outflows--was managed through adequate short-run flexibility in interest rates, while more permanent shifts in money and credit behavior were accommodated through targeting interest rates. The expansionary impact of the initial surge in private sector credit following the liberalization was offset by a fiscal surplus, and the potentially destabilizing macroeconomic consequences of the rapid credit expansion were avoided. The increase in real interest rates to substantially positive levels following the reforms also appeared to be an important factor in the successful evolution of the financial system. The reforms resulted in a rapid growth of financial intermediation, with sharp increases in both the money to GDP and credit to GDP ratios, and a decline in the currency to deposit ratio.

The development of market-based instruments of monetary control was particularly challenging in Indonesia owing to repeated episodes of speculative outflows of capital. Also, money and capital markets evolved relatively slowly, partly reflecting the heavy involvement of the Central

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1/ The number of deposit money banks increased by 21, insurance companies by 11, and other credit institutions by almost 1,700 in the 12 months following the October 1988 reforms.

2/ Soon after the promulgation of the 1988 reforms, two private banks faced short-lived bank runs and liquidity problems that were contained through lender-of-last-resort support form Bank Indonesia. This episode served to underscore the need for a revamping of the supervisory processes. Substantial efforts have been initiated to address these problems. Programs for strengthening banking laws and prudential regulations, supervisory monitoring systems, and supervisory practices are underway. The state banks have reacted to the increased competition by implementing restructuring programs.

Bank in credit allocation and the limited interest rate flexibility until recently. Subsequent measures have aimed at further developing the money and capital markets, reducing the Central Bank's role in credit allocation, and streamlining the operating procedures of monetary policy and banking supervision.

The maintenance of a fairly liberal external capital account, and the implementation of major reforms of domestic capital markets only much later, contrasted sharply with conventional wisdom on reform sequencing. While capital inflows and outflows may have complicated the domestic monetary management, they speeded up the introduction of indirect monetary controls. Also, the problems remained manageable owing to the prompt fiscal adjustments, and exchange rate and interest rate flexibility.

5. Korea

a. Pre-reform

Korea's growth, which averaged more than 8 percent annually in the 1960s and 1970s depended on heavy government intervention that directed the economy according to detailed five-year plans. However, by the second half of the 1970s the economy became too large and sophisticated to be efficiently centrally directed. In the period 1975-80, GDP growth was slowing and was negative in 1980; 1/ fiscal and current account balance of payments deficits averaged 1.7 percent and 4.5 percent of GDP, respectively; the ratio of gross external debt to GDP rose from 40.5 percent to 44.7 percent; and inflation was increasing, reaching 29 percent in 1980.

The financial system consisted of nationwide, local and specialized banks, 2/ branches of foreign banks, various NBFIs, a capital market and an active informal credit or curb market. There were high barriers of entry for new banks and the number of domestic banks hardly changed between 1975 and 1980. The number of bank branches increased by 46 percent and the

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1/ The negative GDP growth for the first time in Korea's modern history reflected a political crisis, a disastrous harvest, unfavorable external developments, and adjustment policies aimed at correcting the current account deficit.

2/ The nationwide commercial banks had extensive networks throughout the country, while the local commercial banks had their branches confined to the province in which their head office is located. The commercial banks were engaged in long-term financing in addition to short-term banking operations. Each of the specialized banks was established under its special law with a specific mandate to complement the functions of the commercial banks.

number of foreign banks rose from 9 in 1975 to 33 in 1980 1/ (see Table 17). Banks were used by the Government to finance investment and to guarantee foreign investment in heavy industry.

The Government relaxed restrictions on entry of NBFIs in the mid-1970s as part of its efforts to restrict the curb market. 2/ Together with the less stringent restrictions on their activities, including higher interest rate ceilings (see below), the number and magnitude of NBFI's operations grew rapidly, and their share of total deposits increased from 20 percent to 28 percent between 1976 and 1980 (Table 18). The size of Korea's capital market was declining during 1977-1980 (Table 18) and the curb market remained active despite efforts to absorb it into the formal sector. 3/

The financial sector was highly regulated. Monetary policy was conducted through direct instruments of which the most important were interest rate and individual bank credit ceilings, the central direction of credit to specific sectors, varying the reserve requirement ratio, and subsidized central bank rediscount operations. The Central Bank's lending and rediscounting operations were also used as development instruments, resulting at times in inconsistencies between monetary control and development objectives, with the latter taking priority. Strict exchange controls facilitated monetary control through direct instruments. The monetary authorities were also closely involved in the personnel budgeting decisions of financial institutions (including privately owned banks but

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1/ Such an expansion was encouraged by the Korean authorities as a way to import banking technologies and facilitate the introduction of foreign capital.

2/ NBFIs comprised development banks, investment and savings companies, mutual savings and finance companies, and security investment trust companies.

3/ Although little is known about its operations it was estimated that its size reached W 1,000 billion in 1980, i.e., 6 percent of the economy's total liquidity (Kwack and Chung, 1986). The informal market was completely unregulated; it operated through mobilizing deposits of small savers and transferring them to large corporations mostly for working capital purposes. In 1972, an emergency presidential decree froze and attempted to rearrange all the loans in the market. The measure to establish nonbanks was also ineffective because of the simultaneous policy of low interest rate and the persistence of government intervention in the formal sector.

Table 17. Korea: Structure of Finance Sector, 1970-85

(Number of institutions)

	1970		1975		1980		1982		1985 1/	
	Main Offices	Branches	Main Offices	Branches	Main Offices	Branches	Main Offices	Branches	Main Offices	Branches
Banking sector 1/	27	85	31	503	54	713	67	925	77	1,238
Nationwide	6	32	6	361	5	475	6	599	7	840
Local	9	53	10	142	10	238	10	326	10	398
Specialized	6	...	6	...	6	...	7	...	7	...
Foreign branches	6	...	9	...	33	...	44	...	53	...
Nonbank financial intermediaries										
Investment and Finance Company	...	10		18		26		32		
Mutual Savings and Finance Company 2/	...	223		193		200		332		
Securities Investment Trust Company	1	1		3		3		3		
Merchant banks	...	...		...		...		6		
Insurance	...	...		...		...		6		
Credit unions	...	...		...		...		1,292		

Sources: Kwack and Chung (1986); Bank of Korea, Financial System in Korea.

1/ As of July 1988, the number of banks' main offices remains unchanged from its July 1985 level (except for one new foreign bank branch).
2/ Includes branches.

Table 18. Korea: Summary of Financial Sector Operations, 1976-88

(In millions of 1985 won)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Domestic liabilities													
Currency	1,832	2,342	2,928	2,911	2,618	2,355	2,780	3,013	3,186	3,286	3,579	4,196	4,526
Deposits													
Deposit money banks	10,428	12,846	14,733	15,645	15,883	16,570	19,179	21,312	22,489	25,661	30,128	35,234	40,202
Demand	2,344	3,028	2,844	2,991	2,707	2,289	3,584	4,059	3,870	4,302	5,080	5,506	6,271
Time, savings and foreign exchange	7,199	9,086	11,183	11,983	12,306	13,592	15,291	16,933	18,324	21,001	24,342	28,495	32,437
Import	886	732	707	672	870	689	304	320	294	359	706	1,233	1,493
Other financial institutions													
Time and savings	3,064	4,189	5,343	6,401	7,229	8,831	12,124	15,732	20,562	25,575	33,133	44,581	56,197
Private financial assets	15,324	19,377	23,004	24,957	25,730	27,755	34,093	40,057	46,237	54,522	66,839	84,011	100,925
M2	11,374	14,456	16,954	17,884	17,631	18,236	21,664	24,005	25,380	28,588	33,000	38,197	43,235
Money	4,175	5,370	5,772	5,901	5,325	4,644	6,374	7,072	7,056	7,587	8,659	9,702	10,798
Quasi money	7,199	9,086	11,183	11,983	12,306	13,592	15,291	16,933	18,324	21,001	24,342	28,495	32,437
Domestic credit													
Central bank credit													
Public sector	2,461	2,751	3,031	2,532	1,997	2,384	2,551	2,878	2,765	2,700	2,623	2,651	2,942
Deposit money banks 1/	1,858	1,736	2,529	3,422	3,448	3,920	4,487	5,446	7,226	9,071	9,322	9,640	8,062
Deposit money banks	12,590	14,501	18,705	21,879	23,924	25,025	29,788	33,635	37,749	43,345	48,705	54,250	57,178
Public sector	618	911	1,111	1,147	1,452	1,637	2,417	2,511	2,968	2,968	3,497	4,180	4.515
Private sector	11,972	13,590	17,594	20,732	22,472	23,389	27,372	31,124	34,781	40,376	45,208	50,070	52,663
Nonbank financial intermediaries	246	398	582	991	1,128	1,365	1,811	2,650	3,790	4,861	5,706	7,625	9,373
Public sector	57	61	94	94	102	131	165	180	258	286	207	129	19
Private sector	189	337	487	896	1,027	1,234	1,647	2,470	3,532	4,575	5,499	7,496	9,354
Money and capital markets													
Government bonds 2/	406	1,053	915	966	817	2,249	2,752	3,917	5,790	8,418	9,414	12,878	18,050
Traded stocks and bonds	...	8,805	9,825	6,476	4,281	5,648	10,053	5,668	5,637	7,142	11,768	23,803	49,836

Sources: IMF, International Financial Statistics; Bank of Korea, Monthly Statistical Bulletin.

1/ Loans to deposit money banks in domestic currency.

2/ Includes the monetary stabiliazation account, monetary stabilization bonds issued, and foreign exchange stabilization bonds issued.

less so in the NBFIs), and the introduction of new financial instruments required a lengthy approval process. Prudential regulations on banks were reasonably strict, but less so for NBFIs. 1/

The main characteristics of the pre-reform interest rate structure are shown in Table 19. Ceilings on deposit and loan interest rates were changed in response to inflation, nevertheless, real interest rates fluctuated by large amounts and were significantly negative in 1980-81. During the high inflationary period (1978-81), nonpreferential loan rates were raised by less than the corresponding increase in deposit rates, leading to a considerable decline in banks' gross lending spreads. Preferential lending rates were 8 to 10 percentage points below the nonpreferential rates. The interest rate ceilings on NBFI operations were higher than the corresponding ceilings on bank rates and NBFIs were better able to circumvent the interest rate ceilings through charging fees and commissions. The spread between the curb market rate and the bank deposit rates remained wide throughout the period 1975-80.

The combination of interest rate and credit ceilings, segmentation between the activities of different financial institutions, and directed credit led to an inefficient pricing and allocation of credit. The priority sectors (export, heavy chemical, and large industries) had preferential access to bank credit and faced lower borrowing costs than nonpriority sectors. However, the average rate of return on the capital invested in these sectors was 1-3 percent below that in the nonpriority sectors in the pre-reform period. 2/ The debt/equity ratio of the manufacturing sector increased considerably during the 1970s, in part reflecting the subsidized cost of bank borrowing.

Financial deepening as measured by increases in measures of financial assets relative to GDP was not significant during 1975-80, (see Table 20). The increase in the financial sector's activity was mostly accounted for by the less regulated NBFIs. The ratio of M2 to GDP was broadly flat in this period, while that of M3 increased, reflecting the faster growth of NBFI deposits. The ratio of currency to deposits was sensitive to nominal interest rates and fluctuated without any strong trend. At the same time, the growth of financial sector credit to the private sector was faster than

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1/ Supervision of commercial banks is conducted by the office of Bank Supervision and Examination (OBSE) of the central bank. The Ministry of Finance has responsibility for the supervision of NBFIs but has delegated this function to the OBSE. Prudential regulations of banks include minimum capital requirement, provisioning for doubtful debts according to OBSE instructions, and limits on the concentration of lending to a single customer of 25 percent of the financial institutions net worth.

2/ Cho and Cole (1986).

Table 19. Korea: Interest Rate Structure; 1975-88

(In percent; end of year data)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Nominal														
Deposits 1/	15.00	16.20	14.40	18.60	18.60	19.50	16.20	8.00	8.00	9.20	10.00	10.00	10.00	10.00
Loans 2/	15.50	18.00	16.00	19.00	19.00	20.00	17.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Loan (maximum)	...	...	...	...	...	...	...	...	...	11.50	13.00	12.00	12.00	12.08
Export loans 3/	7.00	8.00	8.00	9.00	9.00	15.01	15.00	10.58	10.00	10.00	10.00	10.00	10.00	10.13
Money market	...	...	18.09	19.32	18.86	22.85	18.14	14.17	13.00	11.39	9.35	9.70	8.92	9.62
Commercial paper 4/	...	...	...	...	...	...	39.70	14.00	13.00	12.50	12.05	12.10	11.90	10.00
CDs	...	...	...	...	...	...	...	...	...	11.00	11.75	11.00	10.75	...
Curb market	41.30	40.70	38.10	41.20	42.40	44.90	35.30	32.90	25.80	24.80	24.00	23.10	...	...
Real 5/														
Deposits 1/	-8.00	1.04	4.00	4.04	0.51	-7.36	-3.97	0.93	4.85	7.06	7.84	6.80	6.80	2.80
Loans 2/	-7.60	2.61	5.45	4.39	0.85	-6.98	-3.31	2.80	6.80	7.84	7.84	6.80	6.80	2.80
Loan (maximum)	...	...	...	...	...	...	...	...	...	9.31	10.78	8.74	8.74	4.75
Export loans 3/	-14.40	-6.09	-1.82	-4.39	-7.63	-10.85	-4.96	3.35	6.80	7.84	7.84	6.80	6.80	2.92
Money market	...	...	7.36	4.66	0.73	-4.77	-2.38	6.71	9.71	9.21	7.21	6.50	5.75	2.45
Commercial paper 4/	...	...	...	...	...	...	15.45	6.54	9.71	10.29	9.85	8.83	8.64	2.80
CDs	...	...	...	...	...	...	...	...	...	8.82	9.56	7.77	7.52	...
Curb market	13.04	22.35	25.55	23.86	20.68	12.33	11.82	24.21	22.14	22.35	21.57	19.51	...	...
Inflation (CPI)	25.00	15.00	10.00	14.00	18.00	29.00	21.00	7.00	3.00	2.00	2.00	3.00	3.00	7.00
Spreads														
Loan-Deposit 6/	0.50	1.80	1.60	0.40	0.40	0.50	0.80	2.00	2.00	2.30	3.00	2.00	2.00	2.08
Money market-Deposit	...	...	3.69	0.72	0.26	3.35	1.94	6.17	5.00	2.19	-0.65	-0.30	-1.08	-0.38
CD-Deposit	...	...	...	...	...	...	23.50	6.00	5.00	3.30	2.05	2.10	1.90	0.00
Curb market-Deposit	26.30	24.50	23.70	22.60	23.80	25.40	19.10	24.90	17.80	15.60	14.00	13.10	...	...
Loan-Export loan	8.50	10.00	8.00	10.00	10.00	5.00	2.00	-0.58	0.00	1.50	3.00	2.00	2.00	2.08
Deposit maturities 7/	...	...	-1.40	4.10	0.00	-1.80	1.40	-1.80	0.40	3.20	4.00	4.00	4.00	4.00
Loan maturities 8/	...	...	...	...	1 - 1	1 - 1	1 - 1	...	0 - 0	0 - 1.5	0 - 1	0 - 0	0 - 0	0 - 0
Deposit-LIBOR 9/	-12.98	10.63	8.35	9.75	6.51	-23.81	-14.83	-13.62	-8.42	-6.06	-7.01	1.74	9.98	13.98

Sources: IMF, International Financial Statistics; Bank of Korea, Monthly Statistical Bulletin; for curb market rates, Cho and Cole (1986).

1/ Ceiling rate on one-year term deposits.

2/ Rate for one-year loans extended to "other than superior enterprises". After 1984, series represents minimum loan rate.

3/ Subsidized rate on export-related investments.

4/ Interest rate of Grade (A) CDs. Rates reported are those effective at the date of the last central bank directive for year. As of December 1988, CDs have been merged with Investment and finance companies' bills sold without recourse.

5/ Real rate = (1 + nominal)/(1 + inflation) - 1

6/ Between 1984-88, loan rate used is the maximum loan rate.

7/ Difference between long term (more than 1 year) and short term (6-12 months) deposit rates.

8/ Difference between loan rates of maturities: (3 to 8 and 1 to 3 years)-(8-10 and 3-8 years).

9/ Three-months dollar LIBOR rate adjusted for actual devaluation. Adjustment formula: (1 + LIBOR)*(1 + devaluation) - 1.

Table 20. Korea: Selected Financial Indicators

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
							(In millions of 1985 won)						
Private financial assets	15,324	19,377	23,004	24,957	25,730	27,755	34,093	40,057	46,237	54,522	66,839	84,011	100,925
Currency	1,832	2,342	2,928	2,911	2,618	2,355	2,790	3,013	3,186	3,286	3,579	4,196	4,526
Deposits	13,492	17,035	20,076	22,046	23,113	25,400	31,303	37,044	43,051	51,236	63,261	79,815	96,398
Financial sector credit to private sector	12,162	13,927	18,081	21,629	23,499	24,622	29,018	33,594	38,313	44,951	50,707	57,566	62,017
Central bank credit to deposit money banks	1,858	1,736	2,529	3,422	3,448	3,920	4,487	5,446	7,226	9,071	9,322	9,640	8,062
							(Annual percentage change)						
Private financial assets	...	26.45	18.72	8.49	3.10	7.87	22.83	17.49	15.43	17.92	22.59	25.69	20.13
Currency	...	27.86	25.03	-0.60	-10.07	-10.02	18.47	7.99	5.74	3.13	8.92	17.25	7.88
Deposits	...	26.26	17.85	9.81	4.84	9.90	23.24	18.34	16.22	19.01	23.47	26.17	20.78
Financial sector credit to private sector	...	14.51	29.83	19.62	8.65	4.78	17.85	15.77	14.05	17.33	12.81	13.53	7.73
Central bank credit to financial institutions	...	-6.55	45.69	35.30	0.74	13.70	14.46	21.38	32.68	25.54	2.77	3.41	-16.37
							(In percent)						
Private financial assets/GDP	40.46	43.86	44.21	44.04	48.13	50.76	59.44	62.64	65.53	72.20	79.29	89.14	...
M2/GDP	30.03	32.72	32.59	31.56	32.98	33.35	37.77	37.54	35.97	37.86	39.15	40.53	...
Currency/Deposits	13.58	13.75	14.59	13.20	11.33	9.27	8.91	8.13	7.40	6.41	5.66	5.26	4.70
Credit to private sector/GDP	32.11	31.52	34.75	38.17	43.95	45.03	50.59	52.54	54.30	59.53	60.16	61.08	...
Proportion of DMB credit financed by Central Bank	14.75	11.97	13.52	15.64	14.41	15.66	15.06	16.19	19.14	20.93	19.14	17.77	14.10
Change in M2/Gross domestic savings	32.55	35.21	30.16	22.71	30.39	28.49	33.44	17.99	8.49	16.60	17.68	17.43	...
Gross domestic savings/GDP	23.15	26.37	28.10	27.49	23.06	23.42	23.92	27.65	30.24	30.79	34.39	37.06	...
Real GDP growth rates	13.22	10.91	10.90	7.38	-3.03	7.41	5.68	10.94	8.65	5.40	11.68	11.07	...
Real deposit rate (in percent)	1.04	4.00	4.04	0.51	-7.36	-3.97	0.93	4.85	7.06	7.84	6.80	6.80	2.80
Gross interest rate margin (in percent)	1.80	1.60	0.40	0.40	0.50	0.80	2.00	2.00	2.30	3.00	2.00	2.00	2.08
Total number of banking institutions	534 1/	...	...	...	767	...	992	...	...	1,315	...	...	1,316

Sources: IMF, International Financial Statistics; and Bank of Korea, Annual Report.

1/ Figure for 1975.

the growth of private claims on financial institutions and the ratio of private credit to GDP rose sharply. The proportion of total bank credit to the private sector financed through central bank credit to financial institutions was also increasing.

b. Financial reform, 1980-88 .

The financial reforms in Korea were part of a broader economic adjustment program that included currency devaluation, tight monetary policy, contractionary fiscal policy, strict wage guidelines, and increases in administered prices. Simultaneous with the stabilization and financial reform programs, the Korean authorities also liberalized international trade and rationalized public investments. The Korean economy, assisted by an improving world economy, responded well to the adjustment program. Export-led GDP growth averaged 8 percent and inflation averaged 6 percent per annum during 1981-88. The current account registered a surplus starting in 1986, which permitted a substantial improvement in the external debt situation.

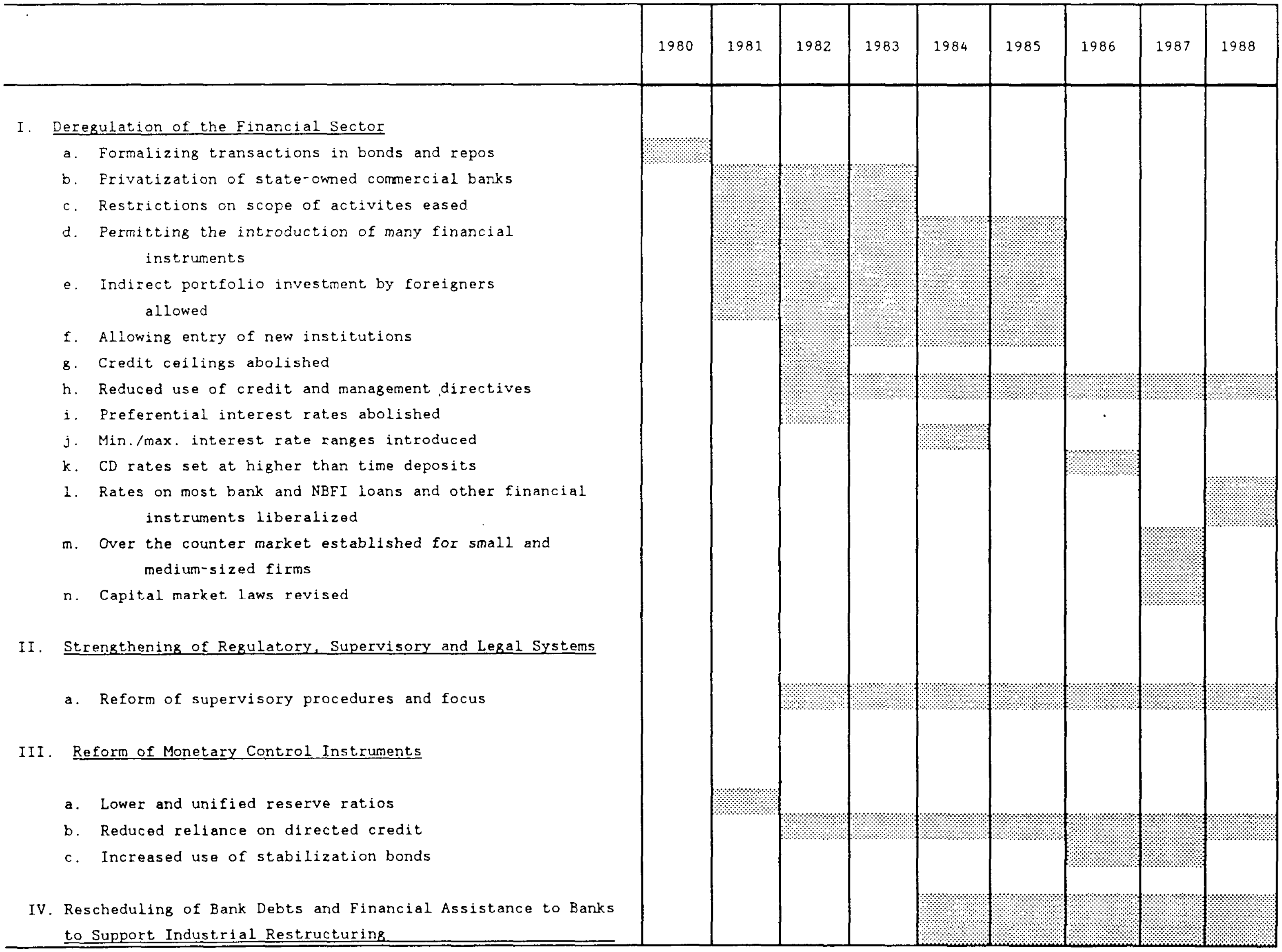
The decision to liberalize the financial markets reflected concern that imbalances in the economy were aggravated by the misallocation of financial resources. The objectives of the reforms was to develop financial management systems that would promote more effectively free enterprise and private initiative. However, officials proceeded slowly with financial liberalization for a number of reasons. There was concern that if interest rates were liberalized too quickly, persisting inflation expectations would raise interest rates sharply and damage the industrial sector, which was highly leveraged. There was also concern that too liberal a financial system could result in interrelated ownership of banks and a concentration of lending to large industrial conglomerates. 1/ The financial reform measures included institutional reform to improve financial sector competition, limited liberalization of interest rates and credit allocation, and some shift toward indirect monetary control procedures. The reforms and their sequencing are summarized in Figure 4.

Between 1981 and 1983 all five nationwide government-owned commercial banks were privatized. 2/ Simultaneously, approvals were given for the establishment of two new nationwide commercial banks and one specialized bank. In addition (especially after 1982), a large number of foreign bank branches and NBFIs were allowed to be established and some regulations limiting competition among various types of financial institutions were eased (mostly by allowing all institutions to deal in the newly introduced financial instruments). In 1980, rules regulating bond transactions and

1/ For a fuller account of official objectives behind the financial reform see Choi (1984) and Lee (1986).

2/ The "de-nationalization" law limited the percentage of a bank's share that individuals or enterprises could hold. Nevertheless, it is believed that ownership concentration by large industrial conglomerates "Chaebul," occurred (Cho and Cole (1986)).

Figure 4. Korea: Sequence of Financial Reform



repurchase agreements were instituted, and between 1981 and 1984 approval for a wide range of financial instruments was given including indirect portfolio investments by foreigners. 1/ In 1987, an over-the-counter market for shares of small and medium-sized firms was established, and laws governing the capital market were revised. The emphasis of bank supervision shifted from monitoring routine operations to monitoring procedures of credit analysis, bank portfolios, and the enforcement of prudential ratios, and included annual, unannounced, on site visits to each financial institution.

In 1981 the Central Bank substantially reduced reserve requirement ratios to 3.5 percent and unified them for different financial institutions and types of deposits. In 1982, individual credit ceilings on nationwide commercial banks were abolished, 2/ and directives influencing the daily operations of financial institutions were discontinued, and beginning in 1982 directed credit to priority sectors was progressively reduced. Rediscount mechanisms and varying reserve requirement ratios became the major instruments of monetary control, to be replaced in importance in 1986 by open market operations in the form of issues of "Stabilization Bonds."

The interest rate liberalization measures included the following. In 1982, the interest rate differential between general and preferential loans was reduced and some preferential rates were eliminated. In 1984, in order to allow banks to better differentiate credit risk, loan interest rate ceilings were replaced by an allowable range for interest rates. (The range between the maximum and minimum rates varied from 1.5 percent to 3 percent over the period 1984-1988.) In 1986, CD rates were raised to higher levels than those on ordinary time deposits. In December 1988, rates on most bank and NBFI loans (with the exception of government subsidized loans), CDs, commercial papers, financial debentures, and fund-type instruments were liberalized. Moreover, the term structure of controlled interest rates was realigned according to maturity and type of financial institution.

c. Consequences of liberalization

The size of the formal financial sector expanded, by the addition of two nationwide commercial banks (and a sharp increase in total bank branches), and other financial institutions (see Table 17). Financial intermediation in the formal sector grew sharply, although because of more restrictive controls on banks, the expansion continued to favor NBFIs (see Table 18). By 1986, NBFIs had surpassed banks in terms of overall mobilization of deposits. The ratio of M2 to GDP increased from 33 percent in 1981 to 40 percent in 1987, while that for M3 increased from 50 percent to

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1/ Examples of these instruments were corporate bonds, commercial papers, CDs, cash management accounts, bond management funds, trust accounts, and beneficiary certificates.

2/ However, overall ceilings on credit established by the Monetary Board remained in effect.

89 percent in the same period (see Table 20). A major part of the increase in both ratios occurred in 1982 as a reaction to the problems in the curb market. 1/ In addition, the size of the Korean capital market grew rapidly, especially after the capital market reforms of 1987. By 1988, the ratio of the total value of stocks and bonds traded on the Korean Securities Market to private financial assets had reached 50 percent (see Table 18).

The increasing depth of the financial system was reflected in greater financial sector competition. The allocative efficiency of financial resources, as measured by the uniformity in the rates of return on capital in different sectors, showed considerable improvements over the period 1981-88. The structure of interest rates also became more uniform following the interest rate reforms with a narrowing in differentials between NBFI and bank deposit rates, between curb and official market rates, and between interest rates on credits to priority sectors and maximum loan rates (Table 19). Nevertheless, the interest rate structure remained closely controlled, which continued to limit banks' ability to differentiate among maturities and risks when setting interest rates. With successful disinflation, the whole interest rate structure turned positive by 1982 and remained so through 1988.

Various legislative boundaries between banks and NBFIs precluded the complete elimination of segmentation. NBFIs continued to be allowed higher interest rate ceilings, and the burden of directed credit was heavier on the banks than on NBFIs. Following the reforms, central bank domestic currency credits to financial institutions rose initially, reaching 22 percent of total bank credit to the private sector in 1985 (compared with 18 percent in 1980) as the authorities used this to support their directed credit policies. However, the importance of directed credit and reliance on the Central Bank subsequently declined (Table 20).

Between 1980 and 1986, rediscount mechanisms, directed credit and interest rate ceilings remained the major tools of monetary control. Reserve requirements were changed only once up to 1986 after their reduction and unification in 1981. After 1986 the rediscount and directed credit policies became insufficient for monetary control owing to the accumulation of net foreign assets which threatened monetary stability. In 1986 and 1987, the Central Bank sold stabilization bonds (equivalent to 108 percent and 76 percent of the increases in net foreign assets in each year, respectively), increased reserve requirements and tightened its rediscount mechanisms to manage the foreign inflow.

1/ Although no data are available, it is believed that the curb market's size shrank, reflecting the higher official interest rates, smaller direct intervention in the formal market, and increased corporate reliance on self-financing, as well as the loss of confidence associated with an incident of fraud in 1982.

d. Conclusions

Financial sector reform in Korea was a gradual and managed process. Overall, financial sector intermediation increased sharply following the financial reforms, and there was an improvement in the efficiency of credit allocation in the context of a successful stabilization program, supported by interest rates which were maintained substantially positive in real terms. The authorities did not allow a complete liberalization of interest rates, and they continued to direct credit, to provide substantial refinance to the banking system in support of the industrial sector 1/ and to differentiate between different types of financial institutions. The banks remained under tighter control compared to NBFIs and increasingly lost market share to the NBFIs. As a result, traditional instruments of monetary policy which relied on control through the banks became ineffective and the Central Bank had to resort increasingly to indirect monetary control instruments for effective monetary control. In addition, because the NBFIs were less closely regulated their rapid growth has been a source of concern for the stability of the financial system.

6. The Philippines

a. Pre-reform, 1975-81

Between 1975-81, the GDP growth averaged 5.5 percent per annum reflecting expansionary domestic policies. Gross domestic investment averaged about 30 percent of GDP, compared with gross domestic savings of 25 percent of GDP. Private investment constituted the major component of total investment and was financed by subsidized and directed credit. The peso followed a managed float since 1973 and its rate to the U.S. dollar was kept stable between 1975-80. The capital account was significantly liberalized during 1972-75.

1/ A large part of the central bank's loans to commercial banks during 1985-87 carried low interest rate and supported the financial assistance schemes for ailing industries. This was part of a government imposed industry restructuring of enterprises in shipping and overseas construction sector, and over 50 other enterprises that were designated for rationalization and financial restructuring during 1984-88.

The financial sector included several types of banks--commercial, thrift, rural, and specialized--and NBFIs (Table 21). 1/ As a result of strict barriers to entry, 2/ the total number of commercial banks remained essentially unchanged between 1975-80. By 1980, there were 28 domestic commercial banks and four foreign banks. The domestic commercial banks were free to pursue an aggressive branching policy, and their total number of offices increased by 50 percent between 1975 and 1980. Barriers to entry were lower for thrift and rural banks (mostly servicing small customers and farmers), and between 1975-80 their number grew rapidly. Nevertheless, their share in total assets remained small.

Commercial banks were the largest component of the financial sector accounting for around 45 percent of its total assets (Table 22). Within the commercial banks, the importance of government-owned banks was declining, and their share of financial sector assets fell from 14.6 percent in 1975 to 11.3 percent in 1981. The specialized banks 3/ share of total assets increased form 9.7 percent to 11.9 percent between 1975-81, while the share of financial assets accounted for by NBFIs declined by about 4 percent over this period.

The activities of different financial institutions were closely defined by law. Rural banks had to limit their activities to "small" clients (with the term "small" meticulously defined) while the operations of thrift and specialized banks were strictly defined in terms of purpose, collateral, and maturity. A strict separation existed between investment and regular banking activities with only investment houses allowed to underwrite government and corporate securities. With few exceptions, commercial banks were the only entities allowed to accept and manage demand and checking accounts.

1/ NBFIs included investment houses which engaged in underwriting, portfolio management, and stockbroking, as well as quasi-banking functions. The latter largely consist of borrowing funds through the issuance of debt instruments. Such deposit substitutes, which were also issued by commercial banks, largely took the form of acceptances, promissory notes, certificates of assignment, and trust certificates. Other financial institutions included insurance companies (both private and public), trust companies, and the government social security system.

2/ In the early 1970s, a prohibition was instituted on the entry of new commercial banks, with the objective of consolidating and improving the efficiency of the already existing financial institutions. Consistent with this prohibition was the relaxing of banks' branching activities. An exception to this rule allowed a number of foreign banks, offshore banking units (OBUs), thrift, and rural banks to enter. Due to the perceived need for more financial activities, the prohibition did not include NBFIs.

3/ Three were in operation during the period. Two were active in implementing the industrial and agricultural policies of the Government. The third operated according to Islamic principles and was intended to service a predominantly Muslim region.

Table 21. Philippines: Structure of Deposit Money Banks, 1975-86

(Number of institutions)

	1975		1980		1981		1986	
	Head Offices	Total Offices	Head Offices	Total Offices	Head Offices	Total Offices	Head Offices	Total Offices
Total banks	**892**	**2,156**	**1,164**	**3,364**	**1,216**	**3,652**	**1,025**	**5,359**
Commercial banks	33	996	32	1,503	33	1,732	30	1,765
Domestic owned 1/	33	996	28	1,499	29	1,728	26	1,712
Foreign owned	...	...	4	4	4	4	4	4
Thrifts	88	259	144	673	140	631	116	661
Rural banks	768	834	985	1,096	1,040	1,167	877	1,117
Specialized banks	3	67	3	92	3	122	2	100
Nonbanks 2/						**1,820 3/**		**2,494**

Source: Central Bank of the Philippines, Annual Report.

1/ Includes nine "unibanks" in 1986.
2/ Includes nonstock savings and loans associations, mutual building and loan associations, and private insurance companies.
3/ Figure for 1982.

Table 22. Philippines: Development of the Financial Sector, 1975-87

(In billions of pesos; end of year)

	1975	1980	1981	1982	1983	1984	1985	1986	1987 1/	Annual Average Growth Rate (percent) 1975-81 2/	1982-86
Gross assets of the financial sector											
Total assets	123	315	362	432	554	694	755	731	743	18	16
Central Bank	26	65	72	92	131	206	252	314	316	15	35
Commercial banks	53	138	164	191	248	289	283	249	254	20	10
Privately owned	35	85	103	111	142	161	168	167	178	20	11
Government owned	18	35	41	53	65	80	70	35	29	16	2
Foreign owned	...	19	21	27	41	48	45	47	47	...	19
Thrifts	2	11	12	13	16	15	15	18	17	24	8
Rural banks	3	6	7	8	10	9	9	9	10	16	7
Specialized banks	12	34	43	53	65	79	88	29	27	25	2
Nonbank financial intermediaries	27	60	64	75	93	96	108	113	119	12	12
Insurance	12	30	33	41	45	50	61	71	75	15	17
Investment companies	10	26	24	26	25	20	24	23	24	7	--
Trust banks	3	2	1	1	2	1	2	1	2	-29	20
Other	2	2	6	7	21	25	21	18	18	100	41
Money and financial markets											
Total value of money market transactions	...	...	...	942	1,111	...	506	520	...	...	...
Total value of stock market transactions	...	...	...	2	10	...	12	58	...	...	...

Sources: The World Bank (1988); Central Bank of the Philippines, Annual Report.

1/ June 1987.
2/ A constant annual rate of growth was assumed for 1975-80.

All interest rates (deposit, lending, and interbank rates including those of NBFIs) were subject to ceilings. These ceilings, and the central bank discount rate, were altered in response to shifts in inflationary pressures. Rates were lowered in 1978 as inflation abated, and increased in 1979 with the resurgence of inflation (Table 23). However, in 1979 and 1980, interest rate adjustments were not sufficient to compensate for increasing inflation and this resulted in real interest rates becoming highly negative. Interest rate determination became more flexible after 1980 when the usury laws (that mandated a maximum of one interest rate change per year) were abolished.

The Central Bank issued a number of directives to influence bank lending activities, and its rediscounts were used primarily to execute selective credit policies at highly subsidized rates. Financial activity was also directed through minimum loan ratios to selected sectors (mostly agriculture and agro-industries), and high degrees of government influence in the credit program of state-owned commercial and specialized banks. Liquidity was controlled mainly through operations in central bank certificates of indebtedness (CBCIs), beginning in the mid-1970s. 1/ CBCIs had a final maturity of seven years and were issued through a monthly auction. The Central Bank, also entered into repurchase agreements in CBCIs. Treasury bills existed but were not used extensively for monetary control. Reserve requirements were not varied for monetary control. 2/

Bank supervision was performed by the Central Bank, while some NBFIs were supervised by the Securities and Exchange Commission. Supervision efforts focused on ensuring that each financial institution was operating within its prescribed domain of activities. Prudential regulations included a high minimum capital requirement for commercial banks, capital to risk asset ratios for all institutions, limits on equity investments in enterprises as a ratio of a financial institution's capital and reserves, and limits on borrowing by directors, officers, stockholders, and their related interests (known as DOSRI requirements). Limited deposit protection was provided with an insurance limit of Peso 10,000 per depositor (equal to US$1,300 in 1980).

During the 1970s, supervisory regulations were relaxed. Capital to risk asset ratios were lowered from 15 percent in 1972 to 10 percent in 1973, and after 1980 ratios as low as 6 percent became permissible as the authorities sought to provide banks with greater leverage to expand their asset portfolios. The rules regarding maximum credit to DOSRIs (set in 1973 equal to a bank's total capital) were also relaxed.

1/ Foreign exchange swaps with commercial banks also became an active instrument beginning in 1982.

2/ Reserve requirements for the banking sector against the peso (demand, time, and savings) deposits were 20 percent.

Table 23. Philippines: Interest Rate Structure; 1976-88

(Percent per annum)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Nominal													
Time deposit (2-3 months)	8.50	8.50	8.50	8.67	12.25	13.72	13.74	13.58	21.17	18.91	11.25	8.20	11.32
Loan 1/	12.00	12.00	12.00	14.00	14.00	15.34	18.12	19.24	28.20	28.61	17.53	13.34	15.92
CBP discount rate	6.00	6.00	4.00	11.00	4.54	6.69	6.30	8.05	12.11	11.50	9.63	9.08	8.94
Call money rate	...	12.00	10.50	13.60	11.90	15.50	12.30	16.60	28.30	16.90	12.20	11.80	14.20
Treasury bill (3 months)	10.20	10.90	10.90	12.30	12.20	12.50	13.80	14.20	28.60	26.70	16.10	11.60	14.70
Real 2/													
Time deposit (2-3 months)	-0.64	-1.27	1.09	-7.54	-5.03	0.56	3.19	3.23	-19.40	-3.40	10.42	4.25	2.35
Loan 1/	2.56	1.91	4.35	-3.01	-3.55	1.99	7.17	8.37	-14.73	4.47	16.66	9.20	6.58
CBP discount rate	-2.93	-3.55	-3.11	-5.56	-11.56	-5.65	-3.55	-1.80	-25.43	-9.43	8.81	5.10	0.16
Call money rate		1.91	2.95	-3.35	-5.33	2.14	1.89	5.97	-14.66	-5.04	11.36	7.72	5.00
Treasury bill (3 months)	0.92	0.91	3.32	-4.45	-5.08	-0.52	3.25	3.79	-14.46	2.92	15.23	7.52	5.46
Inflation (CPI)	9.20	9.90	7.33	17.53	18.20	13.08	10.22	10.03	50.34	23.10	0.75	3.79	8.76
Spreads													
Loan - Call money	...	0.00	1.50	0.40	2.10	-0.16	5.82	2.64	-0.10	11.71	5.33	1.54	1.72
Loan - Time deposit	3.50	3.50	3.50	5.33	1.75	1.62	4.38	5.66	7.02	9.70	6.28	5.14	4.61
Loan - Discount	6.00	6.00	8.00	3.00	9.46	8.64	11.82	11.19	16.09	17.11	7.90	4.26	6.98
Loan - Treasury bill	1.80	1.10	1.10	1.70	1.80	2.84	4.32	5.04	-0.40	1.91	1.43	1.74	1.22
Deposit yield curve 3/	...	...	...	...	5.0/NA	5.0/NA	4.3/2.8	4.0/2.3	13.3/3.0	11/0.0	3.7/3.3	...	...
Deposit - LIBOR 4/	0.13	2.98	0.19	-3.60	-4.01	-9.19	-8.73	-29.19	-45.53	-1.88	-5.82	0.06	0.57

Source: IMF, International Financial Statistics; IMF/IBRD (1980); The World Bank (1986).

1/ Average loan rates for all maturities charged by deposit money banks.
2/ Deflated by CPI inflation using: real = (1 + nominal)/(1 + inflation) - 1.
3/ Difference between deposit rates of maturities: (Savings - 1-year deposit)/(2-year deposit - 1-year deposit).
4/ Three-month dollar LIBOR adjusted for actual devaluation. Adjustment formula: (1 + LIBOR)*(1 + devaluation) - 1.

Certain indicators point to financial deepening during the pre-reform period. Between 1976 and 1981 the ratio of currency to deposits declined from 13.5 percent to 10 percent, the ratio of M2 to GDP increased from 21.5 percent to 28.8 percent, and the ratio of M3 to GDP increased from 35.2 percent to 39.9 percent. The ratio of private credit to GDP was also rising (Table 24).

The segmented financial sector, interest rate controls and directed credit all restricted financial sector efficiency and competition. The main objectives of financial sector reform were to improve competition and to rationalize financial decisions by making them sensitive to market forces through liberalizing interest rates and reducing operationally restrictive policies.

b. <u>Financial reform, 1980-84</u>

The reform of the Philippines' financial sector spanned the period 1980-84. Measures included a breakdown of the segmentation of the activities of different financial institutions, a gradual liberalization of interest rates, and the move toward an indirect system of monetary control. The main elements and the sequencing are summarized in Figure 5.

A number of functional distinctions between the different financial institutions were removed in July 1980. A commercial bank with a minimum capital of ₱ 500 million could become a universal bank (unibank), authorized to engage in a greatly expanded range of financial services, most important of which was to invest in the equity of nonfinancial enterprises. Smaller commercial banks were also permitted to engage in equity financing through the creation of venture capital subsidiaries. Rural and private development banks were authorized to engage in regular commercial banking operations (with the exception of accepting demand and foreign exchange deposits). Investment houses were authorized to take on trust functions, engage in limited foreign exchange operations, and were granted access to the central bank rediscount facility in certain circumstances.

A phased liberalization of interest rates began in 1980, with the removal of the interest rate ceilings on deposits with maturities greater than two years. The removal of ceilings on other interest rates followed: on loan rates with a maturity greater than two years in 1981: on remaining deposit rates in 1982; and on remaining loan rates in 1983. In 1982, a prime rate monitoring system was instituted and the compilation of a deposit reference rate (the Manila Reference Rate--MRR) was initiated. 1/ In 1983, the central bank rediscount rate was brought into line with the 90-day MRR.

1/ The prime rate refers to rates charged by borrowers of highest credit ratings on 90-day loans greater than ₱ 0.5 million. The MRR was designed to indicate rates available for deposits of various maturities. The MRR has been used increasingly for establishing lending rates.

Table 24. Philippines: Selected Financial Indicators

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
						(In millions of 1985 pesos)							
Total financial assets 1/	...	...	...	...	...	...	316,879	337,733	238,929	240,828	270,887	320,114	...
M3	197,897	219,978	252,704	257,664	272,404	273,432	281,242	302,569	212,955	184,528	178,482	195,223	220,536
Currency	23,509	25,463	28,685	27,547	25,833	26,092	25,821	36,287	26,834	24,072	29,093	33,902	35,807
Deposits	174,389	194,515	224,019	230,117	246,571	247,340	255,422	266,282	186,121	160,456	149,388	161,321	184,729
Financial sector credit to private sector	172,767	194,189	225,387	249,525	243,561	298,579	310,276	359,164	240,884	154,700	104,053	121,892	132,074
Central bank credit to financial institutions 2/	27,240	21,054	34,157	44,548	53,209	60,716	62,770	70,166	58,377	51,476	22,678	22,295	20,887
						(Percentage annual change)							
Total financial assets 1/	...	...	...	...	...	...	...	6.58	-29.25	0.79	12.48	18.17	...
M3	...	11.16	14.88	1.96	5.72	0.38	2.86	7.58	-29.62	-13.35	-3.28	9.38	12.97
Currency	...	8.32	12.65	-3.97	-6.22	1.00	-1.04	40.53	-26.05	-10.29	20.86	16.53	5.62
Deposits	...	11.54	15.17	2.72	7.15	0.31	3.27	4.25	-30.10	-13.79	-6.90	7.99	14.51
Financial sector credit to private sector	...	12.40	16.07	10.71	-2.39	22.59	3.92	15.76	-32.93	-35.78	-32.74	17.14	8.35
Central bank credit to financial institutions 2/	...	-22.71	62.23	30.42	19.44	14.11	3.38	11.78	-16.80	-11.82	-55.94	-1.69	-6.32
						(In percent)							
Private financial assets/GDP	...	...	...	...	...	...	45.69	47.51	35.91	39.31	43.52	47.26	...
M3/GDP	35.17	37.69	40.34	39.48	40.55	39.91	40.55	42.56	32.01	30.12	28.67	28.82	30.31
M2/GDP	21.54	24.84	27.82	27.98	30.03	28.77	30.17	33.58	27.67	26.11	25.30	25.62	27.23
Currency/Deposits	13.48	13.09	12.80	11.97	10.48	10.55	10.11	13.63	14.42	15.00	19.47	21.02	19.38
Credit to private sector/GDP	30.71	33.27	35.98	38.23	36.26	43.58	44.74	50.53	36.21	25.25	16.72	17.99	18.15
Proportion of financial institution credit financed by the Central Bank	12.82	8.87	12.62	15.21	18.62	17.91	17.47	16.98	20.49	25.31	14.41	13.68	11.50
Excess reserves (avg.)/Required reserves	...	...	...	...	5.00	2.30	3.78	-1.43	-1.50	-7.52	-11.41	0.82	...
Change in M2/Gross domestic savings	...	24.66	26.12	21.87	28.43	11.35	19.58	30.28	20.15	10.45	-1.25	18.41	29.63
Gross domestic savings/GDP	25.86	24.15	23.94	24.03	24.73	24.07	22.43	22.55	18.85	16.26	16.53	17.49	17.88
Real GDP growth rates	7.92	3.74	7.33	4.18	2.92	2.00	1.23	2.49	-6.40	-7.91	1.59	8.83	7.39
Real deposit rate (%)	-0.64	-1.27	1.09	-7.54	-5.03	0.56	3.19	3.23	-19.40	-3.40	10.42	4.25	2.35
Gross interest rate margin (%)	3.50	3.50	3.50	5.33	1.75	1.62	4.38	5.66	7.02	9.70	6.28	5.14	4.61
Total number of financial institutions	...	...	...	...	1,164	1,216	...	...	...	...	1,025	...	...

Sources: IMF, International Financial Statistics; IMF/IBRD (1980); The World Bank (1986); Central Bank of Philipines, Annual Report; Nascimento (1989).

1/ Includes nonbank holding of government and central bank securities.
2/ For 1983-86, includes financial institutions' reserve deficiencies.

Figure 5. Philippines: Sequence of Financial Reform

	1980	1981	1982	1983	1984
I. <u>Deregulation of the Financial Sector</u>					
a. Large commercial banks can become "unibanks"	■				
b. Smaller commercial banks could acquire equity	■				
c. Thrift, rural and private development banks can engage in limited "commercial banking operations"	■				
d. Investment houses can engage in trust functions, foreign exchange operations and have access to CBP rediscount	■				
e. Long-term deposit rates freed	■				
f. Long-term loan rates freed		■			
g. Short-term deposit rates freed			■		
h. Prime rate monitoring system introduced and MRR system expanded			■		
i. Short-term loan rates freed				■	
II. <u>Strengthening Regulatory, Supervision and Legal Systems</u>					
III. <u>Reform Monetary Control Instruments</u>					
a. More active variation of interest rate ceilings	■				
b. Attempt to give primacy to treasury bills in monetary operations		■			
c. Reduction of reserve requirements			■		1/
d. Adjustment of rediscount rate in line with market rates				■	
e. Access to CBP rediscounts rationalized			■		
f. New liquidity window for "normal" needs				■	
g. New central bank bills issued					■
h. Shift to base money as intermediate target					■
IV. <u>Financial Restructuring to Assist Distressed Financial & Non Financial Firms</u>		■	■	■	■

1/ Rescinded.

The reform of monetary policy instruments began in 1981 with a decision to phase out CBCIs in an attempt to rationalize the government securities market, and to give primacy to treasury bills as the monetary control instrument. This was not initially successful and, in 1984, two new central bank bills were issued. In 1982, a plan was instituted to reduce reserve requirements on peso deposits by 1 percent every six months to 16 percent by 1985. However, owing to the financial crisis (see below), the plan was frozen in 1983 and reserve ratios were raised in 1984 to 24 percent in order to contain liquidity pressures. In 1983, limits on financial institutions' access to central bank rediscounts were introduced, the number of rediscount facilities was substantially reduced, and a new liquidity window was designed to meet the liquidity needs of financial institutions under "normal conditions." In 1984, and following the adoption of a floating exchange rate regime, base money replaced net domestic assets of the Central Bank as the principal intermediate target of monetary policy.

c. Consequences of reforms and financial crisis

The immediate result of the financial liberalization was a sharp increase in financial sector credit to the private sector, which, in the period 1981-83, far outstripped the growth of deposits with the financial system, in spite of the increase in interest rates to positive real levels (see Table 25). The more rapid growth of credit than deposits was associated with a fall in gross domestic savings to GDP and an increase in banks' gross lending margins (Table 24). Combined with weaknesses in the post-reform supervisory framework, (see below) the rapid credit expansion contributed to the subsequent financial crisis. Concurrently, the ratios of financial assets, M2 and M3 to GDP increased and a larger proportion of private savings was intermediated through the financial system. There was also a sharp increase in the number of financial institutions.

During 1981-86, the Philippines faced a major financial sector crisis. Table 26 provides a number of indicators of this crisis. 1/ In 1981 a crisis of confidence--triggered by fraud in the commercial paper (CP) market--resulted in large-scale defaults by CP borrowers, and bankruptcies among a number of NBFIs and their holding companies. The crisis of confidence spread to rural and thrift banks as investors shifted their funds

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1/ See Nascimento (1990) for a detailed analysis of the financial sector crisis in the Philippines.

Table 25. Philippines: Summary of Financial Sector Operations

(In millions of 1985 pesos)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Currency	23,509	25,463	28,685	27,547	25,833	26,092	25,821	36,287	26,834	24,072	29,093	33,902	35,807
Deposits of:													
Money banks	151,259	171,114	196,135	200,336	215,210	214,932	222,757	239,457	174,079	146,895	136,168	146,510	167,044
Demand	26,715	31,076	31,068	28,987	31,379	26,707	22,023	23,841	14,570	11,710	13,247	16,190	16,551
Time and savings	53,863	66,584	82,503	79,700	83,489	94,526	112,422	117,275	94,048	88,405	93,159	99,249	117,267
Foreign currency	17,087	21,895	32,031	46,363	61,009	49,758	48,990	61,320	48,617	35,755	21,964	24,186	28,455
Deposit substitutes	45,225	43,146	40,529	35,854	31,399	36,926	33,734	31,658	12,769	8,609	4,839	3,821	2,228
Import	8,369	8,413	10,003	9,432	7,934	7,014	5,588	5,363	4,073	2,416	2,959	3,065	2,543
Other financial institutions													
Time and savings deposits	23,130	23,401	27,884	29,782	31,361	32,408	32,665	26,824	12,042	13,561	13,221	14,810	17,685
Private financial assets 1/	...	...	...	...	...	316,879	337,733	238,929	240,828	270,887	320,114	...	
M3	197,897	219,978	252,704	257,664	272,404	273,432	281,242	302,569	212,955	184,528	178,482	195,223	220,536
M2	121,174	145,019	174,287	182,596	201,709	197,084	209,256	238,722	184,070	159,942	157,464	173,527	198,080
Money	50,224	56,540	59,753	56,533	57,212	52,799	47,844	60,128	41,404	35,782	42,341	50,092	52,358
Quasi money	70,950	88,479	114,534	126,063	144,498	144,284	161,412	178,594	142,665	124,160	115,123	123,434	145,722
Domestic credit													
Central bank credit	46,185	40,977	57,863	67,319	74,395	89,932	102,550	128,214	102,520	87,741	79,770	68,646	57,680
Public sector 2/	18,946	19,923	23,706	22,771	21,186	29,216	39,780	58,468	44,482	37,790	59,376	46,351	36,793
Financial sector	27,240	21,054	34,157	44,548	53,209	60,716	62,770	69,746	58,038	49,951	20,395	22,295	20,887
Commercial banks	17,798	10,991	20,656	29,212	35,757	39,779	37,265	32,475	23,792	21,901	10,960	13,804	13,955
Other financial institutions	9,442	10,064	13,501	15,336	17,452	20,937	25,505	37,272	34,246	28,050	9,435	8,491	6,932
Deposit money banks credit	161,815	178,937	206,343	224,663	237,720	250,980	267,027	305,787	210,362	151,135	123,259	141,251	158,226
Public sector 2/	31,436	35,270	36,530	35,485	35,364	33,265	42,869	46,871	38,803	35,795	34,719	36,277	44,928
Private sector	130,379	143,667	169,813	189,178	202,357	217,715	224,158	258,916	171,559	115,340	88,540	104,974	113,298
Other financial institutions	50,719	58,485	64,397	68,207	48,024	88,033	92,203	104,949	72,932	46,209	18,272	21,754	23,419
Public sector 2/	8,331	7,963	8,822	7,860	6,820	7,169	6,085	4,701	3,607	6,849	2,758	4,836	4,643
Private sector	42,388	50,522	55,575	60,346	41,204	80,864	86,119	100,248	69,326	39,360	15,513	16,918	18,775

Source: IMF, International Financial Statistics.

1/ Total financial assets include M3 and the nonbank holdings of government securities.
2/ Includes holdings of government securities.

Table 26. Philippines: Indicators of the Financial Crisis

	1970	1975	1980	1981	June 1982	1983	1984	1985	1986	1987
Number of bank failures 1/	6	7	24	30	8	7	26	44	26	22
Commercial banks	3	1	--	--	--	--	--	2	--	1
Thrifts	...	...	--	4	2	1	16	6	--	3
Failed bank assets/Total assets (in percent)										
Commercial banks	1.9	1.0	--	--	--	--	--	1.2	--	4.0
Thrift banks	5.2	--	--	0.4	0.3	1.3	10.8	35.4	--	5.0 2/
Rural banks	0.3	0.3	1.1	1.2	0.2	0.2	0.4	1.9	1.4	1.0
Past due loans										
Total loans (in percent)	16.7	19.2	11.5	13.2	13.0	8.9	12.7	16.7	19.3	...
Commercial banks	...	...	11.9	13.1	11.5	7.5	11.0	15.6	18.4	...
Capital/Outstanding loans (in percent) 3/	...	...	12.1	13.6	14.4	12.9	16.7	16.1	17.7	...
Number of bank deposit accounts (in millions)	...	5.3	21.0	22.6	24.9	25.6	23.7	20.2	19.5	18.6
Commercial banks	...	...	10.1	13.3	15.1	15.2	14.0	12.6	12.4	11.8
Thrift banks	...	3.3	7.2	5.1	5.5	5.8	5.0	3.1	2.7	2.5

Source: Nascimento (1990).

1/ For 1970 and 1975, data refer to cumulative amounts during 1970-74 and 1975-79, respectively. Data on bank failures exclude the five commercial banks in distress which have been acquired by government financial institutions.
2/ Date for September 1982.
3/ Capital defined as "net worth" or unimpaired capital plus free reserves.

into higher quality assets, and caused a number of these institutions to fail. 1/ These failures were followed in 1982 and 1983 by intensified government assistance to financial and nonfinancial institutions, including emergency lending and equity contributions to public financial institutions, and the takeover of troubled private financial and nonfinancial institutions by government financial institutions. This alleviated the crisis for a time.

In 1984 a sharp deepening of the crisis occurred. An unstable political environment in the first half of 1983 was followed by a balance of payments crisis and a government-announced moratorium on external debt payments to foreign commercial banks. A financial panic followed and resulted in runs on financial institutions including commercial banks, a flight to currency, large-scale capital outflows and a contraction in financial intermediation. Between September 1983 and September 1986, private sector credit fell in real terms by 53 percent. A further contraction of banking system credit occurred, when some 30 percent of the banking system's total assets (representing the nonperforming loans of two government-owned commercial and development banks) were transferred to a government agency (the Asset Privatization Trust). In all, 3 commercial banks, 128 rural banks, and 32 thrift institutions failed during the crisis, while 2 large government-owned financial institutions became de facto insolvent, requiring restructuring supported by the transfer of non-performing assets. Thus, the increase in the number of financial institutions following the reforms was reversed (Table 21). 2/ The fiscal and real sector consequences of the crisis were substantial.

Following the crisis, the Central Bank increased its credit to financial institutions, which rose from about 19 percent of total credit to the private sector in 1981-82 to 32 percent in 1985. This proportion fell back to 19 percent in 1986 as nonperforming assets of banks were transferred to the Asset Privatization Trust, which was a government agency. In spite

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1/ Capital markets were also hurt by the crisis and the ensuing recession. The value of trading on the stock markets plunged from ₱ 4.65 billion in 1980 to ₱ 1.3 billion in 1981 and the trading value remained low until the end of 1986.

2/ Following the 1980 bank reform, there was a surge in the number of commercial banks' offices which increased by 15 percent in one year. During the crisis, three commercial banks closed and the total number of offices declined from the 1981 level. Between 1980 and 1981, both the number of rural bank headquarters and offices substantially increased, but by 1986, failures and merger activities resulted in the number of these banks declining by 16 percent. Despite the failures in both rural and thrift banks, liberal branching policies during the crisis resulted in their total number of offices rising between 1981-86. Finally, a major publicly owned specialized bank failed during the crisis.

of the increase in central bank assistance, the growth of reserve money was kept under control through money market operations in central bank and treasury securities.

The extensive nature of the crisis can partly be traced to a failure to enforce supervisory rules on DOSRI credit, inadequacies in the rules on provisioning for overdue loans, various banking irregularities exacerbated by the political environment, and excessive risk taking by bank holding companies through newly created and inexperienced subsidiaries. The Central Bank did not establish firm provisioning rules, and practices regarding the accrual of interest on overdue loans varied greatly between banks. There was asymmetry in the supervision of various categories of financial institutions: banks and near banks were supervised by the Central Bank, while many NBFI subsidiaries were afforded weaker monitoring by the Securities and Exchange Commission. The liberal entry policies for rural and thrift banks created a vulnerable component of the banking sector. Lending rules to customers associated with banks were effectively ignored and excessive interrelated and risky lending occurred. Accounting and operating rules (including those for the provisioning for bad debt) were not codified or transparent. Troubled banks exploited this weakness by accruing interest on nonperforming loans and distributing book profits.

Following the financial crisis there was a dramatic fall in the ratio of bank credit to the private sector from 51 percent of GDP in 1983 to 25 percent in 1985. Explanations for the fall based on the reduction in the supply of deposits to banks due to bank runs, or a fall in demand for bank loans because of the economic recession, leave a large part of this decline unexplained (Table 27). For example, the decline in the supply of loanable funds available to banks, because of deposit withdrawals and a reduction in central bank credit, amounts only to one third of the decline in banking system credit during 1984-85. Similarly, while the ratio of banking system credit to GDP fell by 26 percent during 1984-85, the ratio of total investment to GDP fell by only 11 percent, while private consumption did not fall as a percent of GDP.

The dramatic fall in private credit from financial institutions seems even more surprising given the estimated size of overdue bank loans. These amounted to 13 percent of total loans in 1981, rising to 19 percent by 1986 (Table 26), which is not high in comparison to other countries that have faced financial crises and do not imply severe insolvency of the banking system. 1/ Moreover, real lending rates became negative in 1984 and 1985.

1/ Nevertheless, pervasive misallocation of credit and the true magnitude of banking distress became evident subsequently when two large government financial institutions were restructured.

Table 27. Philippines: Determinants of Financial Sector Credit; 1984-86

(Annual changes in ratios to GDP; in percent)

	1984	1985	Total 1984-85
Total financial sector credit	-15.20	-10.43	-25.63
Public credit	-0.88	0.53	-0.35
Private credit	-14.32	-10.96	-25.28
Supply of loanable funds	-7.30	-1.09	-8.39
Domestic currency deposits	-6.20	-0.72	-6.92
Central bank credit to the financial sector	-1.10	-0.37	-1.47
Total investment	-9.75	-1.56	-11.30
Private fixed investment	-3.21	-0.78	-3.99
Public fixed investment	-3.20	-1.46	-4.66
Changes in stocks	-3.34	0.68	2.65
Residual (1) - (2)	-7.90	-9.34	-17.24
Residual (1) - (3)	-5.45	-8.87	-14.33
Memorandum item:			
Private financial assets	-9.64	2.99	-6.65

Source: IMF, International Financial Statistics.

The "unexplained" portion of the decline may reflect voluntary credit rationing by financial institutions. The interest rate developments in the period seem to substantiate this hypothesis. Even though between 1984 and 1985 nominal loan rates rose sharply, the spread with the rate on the treasury bills was negative in 1984 (Table 23). Banks seemed to prefer to invest in safer government securities and to ration credit to the private sector rather than raise their loan rates--an apparent case of "adverse selection." 1/ By 1986, the growth of credit to the private sector had begun to recover (after taking account of the transfer of bad loans to the Asset Privatization Trust) and banks' gross interest margins, which had risen sharply during the crisis, began to fall.

d. Conclusions

The post-reform developments in the Philippines reflect a complex set of circumstances. Initially, the liberalization was associated with increases in financial intermediation and the number of financial intermediaries, and a sharp expansion in credit to the private sector. The subsequent financial crisis resulted in substantial portfolio shifts between assets and a severe interruption to financial sector development.

Perhaps the most striking feature of the Philippine experience was the drastic reduction in banking system credit following the crisis, which was much more dramatic than in either Argentina or Chile although the bad loan problems appeared to be more severe in those countries. The reasons for the differences may include the degree of (explicit or implicit) government guarantees, and in the severity of the macroeconomic and political shocks.

Financial liberalization affords banks the freedom to act too conservatively as well as imprudently, and both can have serious implications for the real economy. The initial imprudent behavior--particularly the excessive risk taking by bank holding companies, and the insider and politically motivated credits--and the subsequent switch to excessive caution, both acted to magnify macroeconomic shocks. In the deflationary phase, the scope for the Central Bank to moderate the financial shocks following the crisis by easing monetary policy was limited by the domestic stabilization and external adjustment objectives even though the excessive contraction in credit eventually caused the real economy to undershoot. This illustrates some of the difficulties of embarking simultaneously on financial sector reform and macroeconomic adjustment.

1/ The phenomenon of adverse selection can be understood with reference to uncertainty over the future. The financial viability of enterprises (in the midst of a recession) was unclear and further increases in loan rates could have worsened the financial position of firms and attracted riskier forms of lending (e.g., distressed borrowing, riskier borrowers, etc.), thus reducing the expected future returns to banks and inducing the banks to ration credit.

III. Lessons in Managing Financial Liberalization

This section seeks to draw out the major lessons for managing and sequencing financial sector liberalization from the experiences in the five countries examined in Section II. Subsection 1 examines the implications of financial liberalization for the various financial aggregates and indicators of the financial sector, and presents a stylized model of the dynamic adjustments following financial liberalization and the implications for managing the macroeconomic risks following liberalization. Subsection 2 examines the risks for financial sector stability following liberalization, and the lessons for managing these risks. Subsection 3 draws out some conclusions for interest rate liberalization and the reform of monetary instruments.

1. Monetary dynamics of financial reforms

a. Financial indicators and aggregates

Table 28 presents the differences between the average values of indicators of financial sector development for the three years before and after the initiation of major financial sector reforms. Table 29 shows the average values of the indicators for the three years after the reforms were introduced. In all of the countries for which a comparison is possible, 1/ financial reform was accompanied by increases in real interest rates and in the ratios of money, financial assets and credit to the private sector, to GDP, and a fall in the ratio of currency to deposits. A failure to allow for the increased financial intermediation following financial liberalization could result in policy that is tighter than anticipated when targets are set at the level of the banking or financial system. However, targets set at the level of the Central Bank, which do not allow for a possible shift out of currency into bank deposits, and a change in the behavior of excess reserves, could result in a looser than anticipated policy.

In all of the countries studied, except Korea, financial liberalization was followed by a period in which credit growth exceeded the growth of deposits with financial institutions (Table 29). In two of the countries 2/ (Argentina and the Philippines), the difference between the growth of credit and the growth of bank deposits increased following the reforms. Hence, the financial reform may have initially increased private resource imbalances.

1/ Pre-reform data are not available for Chile.

2/ Pre-reform data are not available for Chile. However, the magnitude of the growth of credit in the post-reform period in Chile suggests that it would also be included in this group of countries.

Table 28. Change in Financial Indicators Between
Pre- and Post-Reform Periods

(Differences in averages for three years after and before reforms; in percent) 1/

	Argentina (1977)	Chile (1974)	Indonesia (1983)	Korea (1981)	Philippines (1980)
Growth of					
Private financial assets 2/	20.0	--	1.3	8.6	-4.7
Credit to private sector 2/	31.3	--	-6.8	-3.2	0.8
Difference between growth of private deposits and credit to private sector 2/	-9.5	--	7.9	11.7	-7.0
Private financial assets/GDP	5.4	--	1.3	17.1	1.6
M2/GDP	3.6	--	7.5	4.6	1.1
Currency/Deposits	-20.0	--	-11.1	-4.9	-1.7
Credit to private sector/GDP	10.0	--	8.7	13.5	8.0
Proportion of financial institutions' credit financed by the central bank	-108.0	--	5.6	2.0	5.8
Gross domestic savings/GDP	-1.9	--	-2.1	1.0	-0.6
Real GDP growth	--	--	-2.5	3.3	2.9
Real deposit rate	30.6	--	13.9	5.2	3.1
Gross interest margin	11.9	--	1.1	1.7	-0.8

Source: Country tables: Selected Financial Indicators.

1/ The data for the commencement of the reforms is shown in parentheses.
2/ In real terms, i.e., after deflation by the CPI.

Table 29. Development of Financial Indicators in the Post-Reform Period

(Averages for three years following the reforms, in percent)

	Argentina (1977)	Chile (1974)	Indonesia (1983)	Korea (1981)	Philippines (1980)
Growth of					
Private financial assets 1/	2.8	-16.4	15.3	18.5	4.6
Credit to private sector 1/	13.6	46.5	19.3	15.9	13.8
Difference between growth of private deposits and credit to private sector 1/	-8.9	-40.0	-2.4	3.4	-10.2
Private financial ssets/GDP	33.5	27.4	25.0	62.5	36.4
M2/GDP	29.2	17.5	24.6	37.0	22.6
Currency/Deposits	25.7	11.6	24.2	8.2	12.7
Credit to private sector/GDP	34.0	17.4	19.8	52.5	43.8
Proportion of financial institutions' credit financed by the central bank	5.4	13.5	55.6	16.8	20.5
Gross domestic savings/GDP	23.6	13.6	28.0	27.0	23.4
Real GDP growth	1.8	0.2	4.2	8.4	2.2
Real deposit rate	-14.1	-8.7	10.3	4.3	0.5
Gross interest margin	25.4	89.7	1.1	2.1	3.4

Source: Country tables: Selected Financial Indicators.

1/ In real terms, i.e., after deflation by CPI.

The rapid growth of credit is perhaps not surprising following the removal of interest rate and credit controls that had previously restricted credit growth. However, the resulting increased pressure on resources could result in a larger current account balance of payments deficit unless offset by a smaller public sector deficit. Hence, successful financial sector reform, while maintaining macroeconomic balance, may require a reduction in the fiscal deficit, and/or an initial attraction of foreign resources to cover the balance of payments deficit. The latter may depend on the development of the domestic money and capital market as well as positive real rates of returns and an appropriate exchange rate and exchange regime.

In Korea and Indonesia, the growth of private credit relative to deposits slowed in the post-reform period compared to the pre-reform period, and the reforms therefore appear to have reduced the private resource imbalances compared to the pre-reform situation. Financial reform in Korea was a much more gradual process than in other countries in the sample and the authorities continued to maintain extensive control over credit through the national commercial banks. Also, in Indonesia the Central Bank continued to exercise significant influence on overall credit growth through selective refinance and other policies that limited initially the extent of competition in the banking system.

The five countries' experiences suggest that the impact of financial liberalization on the cost of funds to borrowers needs careful management. Not only did real interest rates rise with financial reform, but the reforms initially widened banks' gross lending margins (Table 28). These margins reflected a number of influences. The removal of interest rate controls allowed banks to price credits and risks more appropriately and this may have acted to raise margins since controlled lending rates were usually set too low. Against this, reserve requirements were normally lowered as part of the reforms which reduced the cost wedge between deposit and lending rates. In addition, financial sector competition was increased through the reduction of barriers to entry and segmentation between different types of financial institutions, and this should also serve to reduce the lending margins. The observed increase in gross margins, therefore, seemed to reflect the impact of two factors: a rise in risk premiums and, possibly, the limited increase in competition in credit markets despite increased competition in deposit and money markets, both factors leading to sluggish response of lending rates.

The speed of adjustment of financial indicators following the liberalization is examined in Table 30. This table compares the average value of the indicators for the first and three post-reform years. In the three countries that maintained positive deposit interest rates on average in the post-reform period, credit growth slowed down after the first post-reform year; whereas in Argentina where real deposit and lending rates were negative on average, credit growth accelerated following the reforms.

Table 30. Differences in Financial Indicators Between Three-Year Averages After the Reforms and One Year After the Reforms

(In percent)

	Argentina (1977)	Chile (1974)	Indonesia (1983)	Korea (1981)	Philippines (1980)
Growth of:					
Private financial assets 1/	0.4	13.4	4.9	-4.3	4.6
Credit to private sector 1/	9.3	27.6	-2.3	-2.0	-8.8
Difference between growth of private deposits and credit to the private sector 1/	-7.5	-3.7	6.0	-2.0	12.5
Gross interest margin	-16.8	...	1.6	0.1	1.8
Memorandum item:					
Average real deposit rate	-14.2	-8.8	10.3	4.3	0.5

Source: Country tables: Selective Financial Indicators.

1/ In real terms, i.e., after deflation by CPI.

Credit growth accelerated also in Chile, despite very high and positive real lending rates that coincided with negative deposit rates. 1/ These experiences also suggest the importance of both the level and structure of real interest rates in influencing the resource imbalances in the post-reform period.

b. Dynamics of deposit and credit growth with financial liberalization

Countries' experiences suggest some conclusions about the dynamics of the growth of deposits and credit following financial liberalization. These are illustrated in Figure 6. In the pre-reform period deposit growth declines because of the negative real deposit rates and the overall repressed nature of the financial system in the pre-reform period. Credit growth is maintained through increasing liquidity support from the Central Bank. The lower deposit than credit growth is associated with increasing resource pressures in the pre-reform period.

After financial liberalization, both credit and deposit growth increase. However, the response of credit growth is initially more rapid than deposit growth. The decline in the real value of deposits in the pre-reform period has reflected a voluntary portfolio response to financial repression rather than specific controls. In the post-reform period there is a gradual portfolio adjustment by depositors to the new liberal financial situation. Credit growth, in contrast, was constrained by direct controls with an excess demand for credit. Once the direct controls are removed, financial institutions respond by meeting the excess demand for credit--usually by running down excess reserves that have built up under the direct credit controls--and credit expands rapidly. The initial effect of the financial liberalization is, therefore, to increase the resource imbalances.

The subsequent development in deposit and credit growth depends on the structure of real interest rates. If real interest rates are maintained positive by the authorities, the growth of credit slows down compared to the initial post-reform credit boom. The growth of credit may still remain higher than in the pre-reform period because of the general increased role of the financial sector in mobilizing and allocating resources following financial liberalization. The growth of deposits continues to increase, reflecting the lagged portfolio adjustment to the financial liberalization measures, the development of new financial instruments and institutions following the liberalization, and the reduction in central bank liquidity support of financial institutions which are therefore forced to mobilize deposits to meet credit demand. After some point the growth of deposits and credit converge allowing for balanced growth with a higher level of overall resource mobilization than in the pre-reform period.

1/ However, real rates turned strongly positive in Chile during 1978-83.

If real interest rates are kept negative by the authorities in the post-reform period, this encourages a more rapid growth of credit and slower growth of deposits. The maintenance of negative real rates requires expansionary central bank policies that finance the faster growth of credit than deposits. As a result, the growth of deposits does not catch up with the growth of credit and resource imbalances remain, and these may be wider than in the pre-liberalization period. Real interest rates are likely to become a more critical policy instrument in the post- than in the pre-reform period.

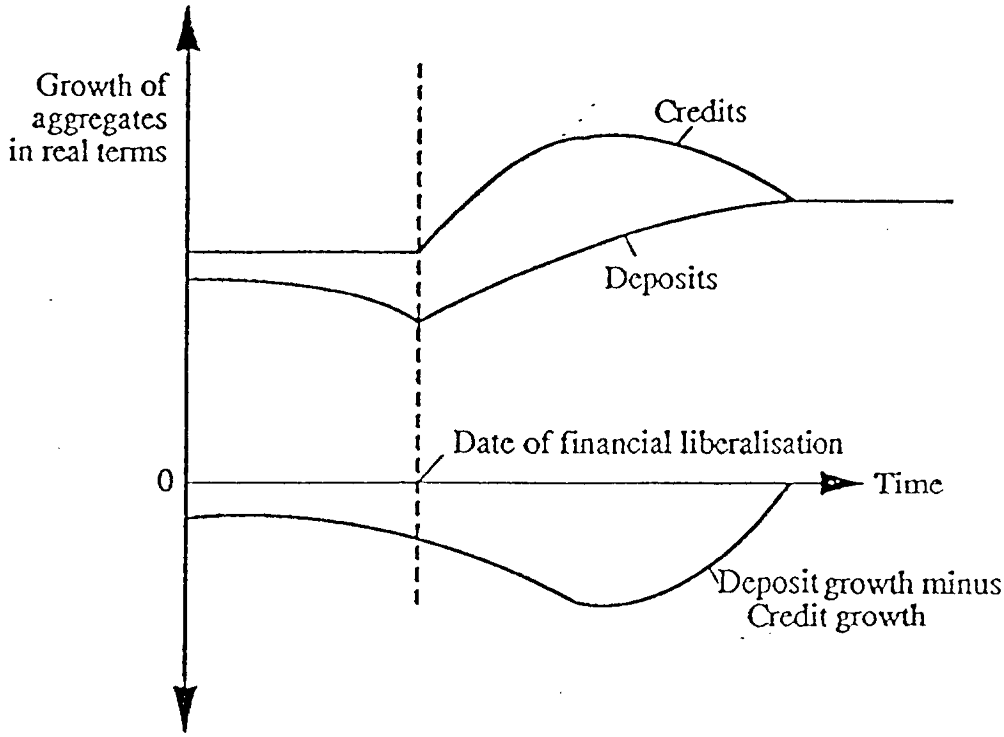
Even with the maintenance of positive real interest rates, there is likely to be an initial post-liberalization credit boom that can pose a threat to economic stability. The management of the credit boom is a critical element of successful financial liberalization. To the extent that the initial credit growth reflects a one-time stock adjustment to a new equilibrium position or reflects low or perverse interest elasticity of credit demand on account of distress borrowing and loans to related interests, an attempt to constrain credit demand solely through interest rates could result in very high real interest rates with attendant risks for the real economic growth and stability of the financial sector. Chile's experience in 1981 illustrates these risks. The economy-wide resource imbalance is reduced when financial liberalization is accompanied by a reduction in the fiscal deficit, which, therefore, reduces the need to raise interest rates to maintain overall macroeconomic stability. Alternatively, the impact of the faster domestic credit growth on the current account balance of payments could be accommodated through capital inflows or increased external borrowing. However, this option is not always available, especially when financial reform is part of a stabilization and adjustment program which aims at improving the balance of payments.

Another option could be to constrain the credit growth through the temporary continuation of some types of credit controls. The post-liberalization stock adjustment in credit probably cannot be avoided, but it could be phased using direct controls to be more closely aligned with the otherwise lagging growth of bank deposits. Credit ceilings which allow banks to increase credit only in response to increases in deposits might achieve the desired phasing, while reducing disincentives to deposit mobilization. 1/ These ceilings would have to be supported by positive real interest rates, an adjustment in the indirect instruments of monetary policy, and the development of suitable intermediate targets of monetary policy. A post-liberalization growth in credit that reflected distress borrowing, inelastic credit demand, and structural weaknesses in credit allocation would have to be addressed by restructuring bank portfolios, and strengthening banks' internal credit assessment and monitoring systems and banking supervision and regulation.

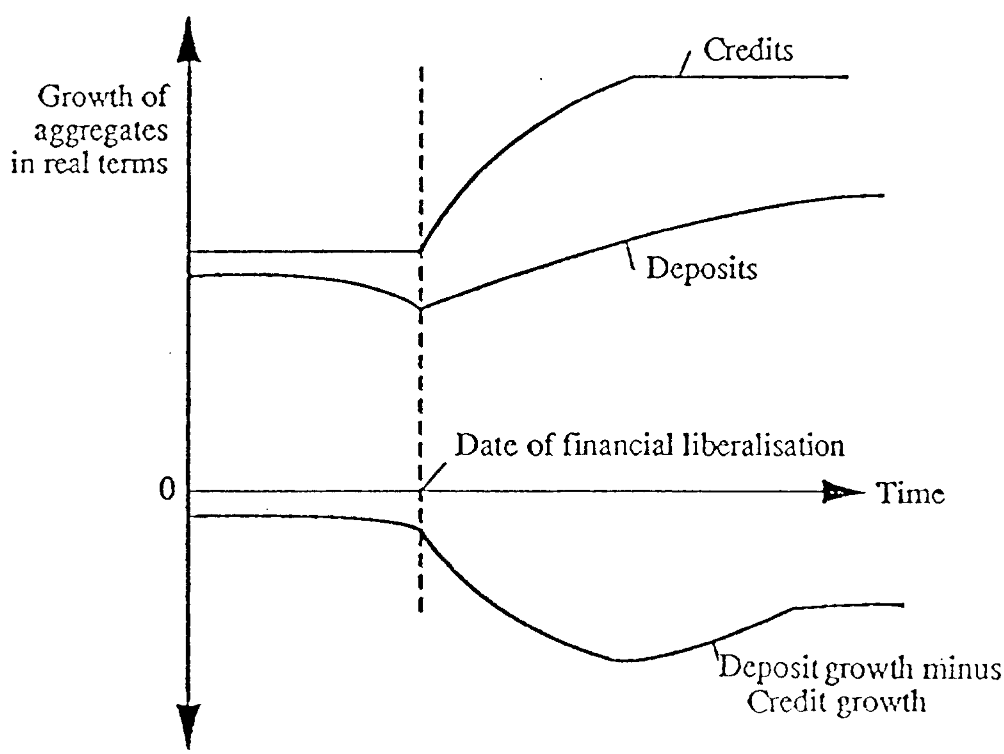
1/ For an example of a market-based system of administering credit ceilings, see Netherlands Bank (1989).

Figure 6: Dynamics of Credit and Deposit Growth with Financial Liberalisation

A. Positive Real Interest Rates



B. Negative Real Interest Rates



2. Financial reform and financial sector stability

In three of the countries, financial liberalization was followed by a financial crises that seriously disrupted the financial sector and was accompanied by a sharp contraction in real GDP. These crises reversed the financial deepening that had followed the initial financial liberalization and resulted in a complete reversal of the reforms in one country (Argentina).

The timing and intensity of the crises, the timing and scope of financial sector reform, and the linkages, if any, between reform and these crises, differed considerably in the cases examined in this paper. In Argentina and Chile the deregulation of interest rates had been completed and entry of branching restrictions relaxed by the mid-to-late seventies, while the financial crises were concentrated in the early eighties, coinciding with major shifts in macro-economic adjustment policies and external shocks. In the Philippines, entry regulations had been eased in the mid-to-late seventies, and the deregulation of interest rates began in 1981, just preceding the first episodes of the financial crisis. However, the weaknesses of problem banks that surfaced during the crisis had originated much earlier, but it took some time for the problems to be discovered due to the normal tendency of banks to reduce the transparency of their accounts in situations of distress.

The connection between financial sector reform and financial crisis is complex. The crises derived from an unstable macroeconomic environment, the development of unsound liability structures of nonfinancial firms prior to reform (due to subsidized credit, and following reform due to insider loans, loans to related interests, etc.), changes in relative prices that influence the viability of borrowers, and weaknesses in the institutional structure of banking (bank ownership structure that facilitated risk taking, and weak prudential regulations and banking supervision that condoned excessive risk taking).

The financial crisis in each country have features in common, particularly the insolvency of a number of financial institutions that were involved in lending to interrelated entities, and a very rapid growth of bank credit following the liberalization. Rapid credit growth itself strains the credit approval process and often results in an increase in lending to more risky projects. When this was combined with extensive lending to interrelated entities, the lack of rules regarding classification and provisioning for bad debts and interest capitalization, the result was banking insolvency. With a proper sequencing of financial sector reforms--including an early and timely attention to developing vigilant bank supervision and well-designed prudential regulations--the buildup of financial fragility might have been detected and contained. Concomitantly, the addressing of bank portfolio problems and preventing the growth of banking distress, supported by sound financial policies (timely and adequate fiscal adjustment, maintenance of real interest rates and relative price adjustments), would have helped to reduce the vulnerability of the financial system to the vagaries of the macroenvironment.

In two countries--Argentina and Chile--financial reform was, in fact, accompanied by a strengthening in prudential regulations. However, implementation of the regulations was weak and some critical regulations, for example, on lending to interrelated entities, on loan classification and provisions, and accounting rules on interest accruals, did not exist and others were rescinded because of inability to implement them. This underlines the importance of not only having adequate regulations but also an implementing capacity. 1/ The achievement of such a capacity takes time and often involves the strengthening of key public institutions particularly the Central Bank. In Argentina and Chile, financial liberalization was a more or less one-time change that did not permit the ongoing development of an implementing capacity. Moreover, the large number of other changes that were occurring in the financial systems probably helped to distract attention from monitoring financial institutions' detailed operations. For example, the frequency of on-site inspections declined in Argentina following the reforms. The abruptness of the financial liberalization also did not give the private financial institutions themselves the time to develop internal monitoring and credit appraisal processes that would have been necessary safeguards in the more liberal financial environment, nor did banking supervision ensure that bank management had the appropriate capacity for such monitoring and appraisal.

There was also evidence of "market failures". In practice, financial liberalization was not always associated with a reallocation of credit to new and more productive sectors. In some cases, existing borrowers, who already had access to preferential credit, were granted even larger facilities. In Argentina, explicit deposit guarantees existed, and in Chile, there appears to have been a general perception that deposits were implicitly guaranteed. Because of the guarantees, depositors were largely indifferent as to where they placed their deposits. At the same time, financial disclosure rules and markets in bank equity were poorly developed so that there was no adequate market signal of the riskiness of different financial institutions. This was especially a problem in those countries where ownership concentration was high and there was lending to interrelated entities, since owners had little incentives to disclose the true valuation of their institutions.

The situation in the Philippines may have differed from that in Argentina and Chile insofar as deposit guarantees and the settlement of deposit insurance claims were inadequate. In the Philippines, the banks were initially perceived as less risky than NBFIs and deposits were shifted toward the banks during the initial phase of the crisis. However, once

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1/ Such capacity is in part technical, but also requires the absence of political interferences.

confidence was lost in the banks, the inadequacy of deposit guarantees may have resulted in more severe deposit withdrawals and contraction in bank credit than in either Argentina or Chile. As discussed in Section III, the Philippines appears as an example of "adverse selection" where loss of confidence resulted in banks voluntarily rationing credit and maintaining loan rates at low levels relative to market rates in the expectation that this would improve their solvency and net returns. Liberalization provides the freedom for financial institutions to behave too conservatively as well as imprudently and both can have important effects on the real economy.

The soundness of financial institutions carries significant implications for the effectiveness of macroeconomic policies and the sequencing of reforms. The existence of weak banks--and the resulting contingent liabilities of the government owing to implicit insurance of deposit liabilities--has two major policy implications. Interest rate policies and real sector reforms face difficult constraints and lose their effectiveness if a significant group of financial institutions have sizeable nonperforming loans, and face persistent cash flow problems. This is because a weak banking system, burdened with rolling over the loans of weak firms or otherwise supporting them, cannot readily shift lending priorities to new activities and investments; higher interest rates on deposits will compound the cash flow problems, with higher lending rates merely worsening the bad debt problem. Insofar as banks are free to compete for deposits, weak banks will be pushed into borrowing to pay interest on deposits. Weak institutions also become a greater source of pressure on central bank credit or on money market funds, thereby affecting monetary control. In such an environment, a restructuring of weak institutions--recapitalization, mergers, liquidation, provision of interest subsidies, etc.--and a concomitant strengthening of key prudential regulations is needed simultaneously with, or even prior to, monetary control and money market reforms, the timing depending upon the seriousness of the bank's condition. Fiscal reforms have to be expedited to make room for the budgetary or monetary effects of various recapitalization and restructuring schemes that might be needed; and flexible monetary policy instruments should be developed--if not already in place--to absorb the excess liquidity that might be generated by the recapitalization measures.

In any event, a minimal set of prudential reforms--proper accounting rules for suspension of interest on nonperforming loans, a good loan classification system, and the associated provisioning rules, capital adequacy guidelines, limits on loan concentration, etc.--are very desirable, if not essential, to support real sector liberalization, to improve the allocative effects of interest rate policy, and to maximize the growth content of stabilization policies. This is because such prudential rules and guidelines have significant side effects on credit allocation and credit expansion and, therefore, could be utilized to support both expenditure reduction and expenditure switching policies that typically accompany adjustment programs. For example, it is easier to implement tight credit policies--and minimize any output loss associated with such policies--if bad loans are written off promptly, and poor loans are recognized quickly, thereby improving the mobility of credit. Fairly tight regulations on provisioning and interest accounting, based on loan performance and other appropriate criteria, could thus contribute both to a strengthening of the banking system and to ensuring greater efficiency and flexibility in credit allocation. Also, appropriate capital adequacy rules can complement stabilization policies by limiting asset expansion by banks in line with the availability of capital funds. These arguments suggest that certain key prudential reforms should accompany any move to liberalize or otherwise raise interest rates, and should ideally precede major real sector reforms.

3. Implications for interest rate liberalization and reform of monetary instruments

As the foregoing discussion indicates, financial sector reform and liberalization involves the monetary authorities in a highly complex set of issues. The experience of countries, particularly Indonesia and the Philippines, suggests that reforms of monetary control procedures and the measures to develop money and interbank markets should be pursued together and be implemented fairly early in the reform sequence under normal circumstances. First, the development of indirect instruments of monetary policy to replace direct credit controls contributes to efficiency and strengthens the adjustment effort. Second, interest rate liberalization--defined as the management and control of interest rates through indirect and market-oriented instruments of monetary policy rather than through direct administrative fixing of a wide range of interest rates--also calls for reforms of monetary control procedures. Third, the development of a money market in any case requires an active involvement of the Central Bank because only the Central Bank can ensure that there is a two-way market in bank reserves and short-term funds by avoiding situations of protracted excess reserves and alleviating shortage of reserves. In doing so, the Central Bank should learn to switch gradually from being the market to creating and supporting a market. That is, the Central Bank should not simply react to the initiatives of individual institutions to obtain funds or invest their excess reserves, but should anticipate the surpluses and deficits emerging in the market and provide reserves at its own initiative, leaving the market participants to seek each other out for funds during normal times. Since such reforms of operating procedures take time, certain initial steps should be in place early in the reform sequence--such as the development of new monetary instruments (treasury bills, or central bank bills), selling procedures for the instruments, changes in rules of access to central bank credit, reforms of the reserve requirements system, liquid asset ratios, etc. In fact, the early introduction of such reforms in Indonesia, the Philippines, Chile, and Argentina confirms this view.

The feasibility of interest rate liberalization depends not only on the existence of an adequate set of monetary policy instruments and the development of appropriate operating procedures, but also on the broader institutions and regulatory environment. The country experiences suggest that the controllability and the macroeconomic effects of interest rates following the liberalization will be affected by: (1) the degree of competition in the financial system, particularly in banking markets; (2) the degree of openness of the economy to capital flows; (3) the soundness of financial institutions; and (4) the financial structure of nonfinancial firms.

With the oligopolistic banking systems found in all of the sample countries, the speed of adjustment of deposit and lending rates to monetary policy was often slow, and the margin between deposit and lending rates also adjusted sometimes slowly. This was probably because the banks tended to price their loans based on average cost of funds, which adjusted to changes in the marginal cost of funds with a considerable lag. In such situations, moral suasion or regulatory limits on bank spreads might have been useful initially, while competition was strengthened over time through other policies. 1/

Typically, competition-enhancing policies based on changes in entry regulations, unification of regulations, mergers, divestitures, etc. can be pursued over time, while the momentum for interest rate liberalization could be maintained through regulatory safeguards such as limits on spreads, greater transparency in rates, and some prudential controls. Indeed, the liberalization of interest rates and the absence of direct credit controls is likely to provide an environment most conducive to an increase in financial sector competition and innovation. There is no pressing need to alter the banking industry structure as a precondition for initiating interest rate liberalization, although it is probably desirable that it occur simultaneously with the liberalization to reinforce competition in interest rate setting and financial services.

Nevertheless, the speed and nature of interest rate liberalization--and the phasing in of various prudential regulations--may have to be adjusted, taking into account the financial structure of nonfinancial firms and the pace with which problem banks and their debtors could be restructured. If the nonfinancial firms are highly leveraged, any sharp increase in real interest rates, or a sluggish fall in nominal rates while inflation falls, could further weaken the repayment capacity of these firms and aggravate the bank's condition. Under such circumstances, and if the resources are not available to recapitalize the banks and restructure their portfolios which would be the preferable option, controllability of interest rates may become a critical issue. It may then be desirable to liberalize bank interest rates only gradually, while encouraging greater competition and more rapid liberalization in other segments of financial markets. The experience of Korea, where firms are highly leveraged, suggests this approach.

1/ The sharp increases in banks' lending margins in Chile exacerbated the crisis.

The appropriate timing of reforms of selective credit policies depends on the scope of such policies, and the nature of market failures that justify such policies. Generally, it is better to shift interest rate subsidies offered through the Central Bank to the budget, and reduce the range of refinance facilities to a minimum needed for monetary control purposes. However, if banks are to be induced to continue to lend to certain high-risk sectors--as perceived by the banks--that were supported by central bank refinance policies, it may be necessary to increase the interest rate flexibility offered to banks, and reduce the costs of information and debt recovery. Also, instruments and markets to facilitate maturity transformation--including, especially longer-term capital markets--may have to be developed to avoid major disruptions to investment finance due to withdrawal of central bank support. The timing of Indonesian reforms of refinance policies illustrates this point. In that case, central bank support for term-lending by commercial banks was only withdrawn gradually while alternative policies to increase the supply of long-term capital were put in place. Insofar as the existence of such selective refinance policies cause significant expansion in the reserve base, the authorities would have to strengthen the instruments to absorb excess reserves and make sure that interest rates on selective refinance facilities are promptly adjusted in line with market rates. Moreover, policies to improve the allocation of selective refinance between financial institutions, such as through auctions, can help mitigate the allocative efficiencies and institutional distortions of the refinance.

Some countries have developed money markets and the markets for short-term instruments first before developing long-term markets. This is because money markets provide a more convenient vehicle to implement monetary policy in a market-oriented way. 1/ Also, the development of well-capitalized dealers in securities is easier in short-term instruments such as treasury bills and bankers' acceptances where the price risks are lower in comparison with long-term instruments. The dealership skills developed through short-term instruments can then be translated into long-term instruments over time. In any case, Central Banks should play and have played a major role in developing money and capital market intermediaries (brokers, dealers, and market makers) through liquidity and regulatory support (Indonesia is an example).

1/ In some other countries, such as Japan and Germany, the capital markets have been developed first to provide long-term finance and money markets have evolved with the switch to indirect monetary controls which has been relatively recent.

As regards the phasing of liberalization of bank deposit and loan interest rates, the Philippines preferred to liberalize long-term rates first, 1/ before moving on to short-term rates, while Indonesia and Korea liberalized interest rates of one group of intermediaries before proceeding to more complete liberalization. A gradual approach to interest rate liberalization involves accepting for a time continuing the efficiency in resource allocation, but it also appears to have offered a better opportunity to put in place the range of supporting reforms that would ensure the longer term effectiveness of interest rate liberalization.

1/ Such a policy may not work best if the general level of interest rates is expected to fall during the reform period. This is because banks which carry long-term liabilities, contracted previously at high interest rates, may be reluctant to reduce loan rates following the fall in liability rates.

Table 31. Definition of Data Measures Used for Each Country

Statistical Measures	Argentina	Chile	Indonesia	Korea	Philippines
*M2	Currency + DMB's demand, time, savings and foreign exchange deposits	Currency + commercial banks' demand, time, savings and foreign exchange deposits	Currency + DMBs' demand, time, savings, FX, and other deposits	Currency + DMBs' demand, time, savings, and FX deposits	Currency + demand, time, savings and FX deposits
*Private financial assets	M2 + deposits of other financial institutions	M2 + forward sales of FX + liabilities held by CEPAC (national savings institution) + central bank and mortgage bonds (1979-87)	M2 + DMB import deposits + other financial institutions' savings deposits	M2 + DMB import deposits + time and savings deposits of other financial institutions	M2 + DMB import deposits + deposit substitutes + other deposits (= M3) + nonbank holdings of government securities
*Currency to deposit ratio	Currency outside banks to deposits of all financial institutions	Currency outside banks to commercial bank deposits	Currency outside banks to deposits of all financial institutions	Currency outside banks to deposits of all financial institutions	Currency outside banks to deposits of all financial institutions
*Credit to private sector	By all financial institutions	By commercial banks	By all financial institutions	By deposit money banks and nonbank financial institutions	By deposit money banks and other banking institutions
*Proportion of credit financed by the central bank	Proportion of private sector credit financed by central bank credit to all financial institutions	Proportion of total commercial bank credit financed by central bank credit to commercial banks	Proportion of total credit financed by central bank credit to all institutions	Proportion of total credit financed by central bank domestic currency credit to DMBs	Proportion of total credit financed by central bank credit to all institutions
*Gross domestic savings	GDP - Private consumption - Public consumption	GDP - Private consumption - Public consumption	GDP - Private consumption - Public consumption	GDP - Private consumption - Public consumption	GDP - Private consumption - Private consumption
*Deflating index	Annual average change in CPI (1985 = 100) (for GDP growth: GDP deflator	Annual average change in CPI (1985 = 100) (for GDP growth; GDP deflator)	Annual average change in CPI (1985 = 100) (for GDP growth: GDP deflator)	Annual average change in CPI (1985 = 100) (for GDP growth: GDP deflator)	Annual average change in CPI (1985 = 100) (for GDP growth: GDP deflator)

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