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Decentralized Creditor-Led Corporate Restructuring

Cross-Country Experience

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Abstract

Countries that have experienced banking crises have adopted one of two distinct approaches toward the resolution of nonperforming assets—a centralized or a decentralized solution. A centralized approach entails setting up a government agency—an asset management company—with the full responsibility for acquiring, restructuring, and selling of the assets. A decentralized approach relies on banks and other creditors to manage and resolve nonperforming assets.

Dado and Klingebiel study banking crises where governments adopted a decentralized, creditor-led workout strategy following systemic crises. They use a case study approach and analyze seven banking crises in which governments mainly relied on banks to resolve nonperforming assets. The study suggests that out of the seven cases, only Chile, Norway, and Poland successfully restructured their corporate sectors with companies attaining viable financial structures. The analysis underscores that as in the case of a centralized strategy the prerequisites for a successful decentralized restructuring strategy are manifold. The successful countries significantly improved the banking system's capital position, enabling banks to write down loan losses; banks as well as corporations had adequate incentives to engage in corporate restructuring; and ownership links between banks and corporations were limited or severed during crises.

This paper—a product of the Financial Sector Operations and Policy Department—is part of a larger effort in the department to examine the resolution of financial crises. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Rose Vo, room MC9-624, telephone 202-473-3722, fax 202-522-2031, email address hvo1@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at mdado@worldbank.org or dklingebiel@worldbank.org. October 2002. (53 pages)

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I. Introduction

In recent decades, many countries have experienced banking problems reflected in high levels of non-performing loans that required a major and expensive overhaul of their banking systems. By one count, 112 episodes of systemic banking crises occurred in 93 countries since the late 1970s (Caprio and Klingebiel 2002). The proper management and disposition of impaired assets is one of the most critical and complex tasks of successful and speedy financial restructuring. Successful asset management policies can facilitate bank restructuring by accelerating the resolution of non-performing assets and can promote corporate restructuring by providing the right incentives for voluntary debt restructuring.

The two alternatives for asset management strategies include setting up a government agency with the full responsibility for acquiring, restructuring, and selling of the assets (the centralized approach) or letting banks and other creditors manage their own non-performing assets (the decentralized approach). Empirical studies and/or cross country analyses on the usefulness and success of either strategy remain sparse. While a companion paper evaluated experiences with centralized asset management companies (AMCs) (Klingebiel 2000), this paper will focus on experiences with banking crises where the responsibility for the workout of bad debt was mainly left with the banks.

We apply a case study approach and analyze seven banking crises during which governments mainly relied on banks to resolve non-performing assets. Our study suggests that out of the seven cases, only Chile, Norway and Poland successfully restructured their corporate sectors with companies attaining viable financial structures. The analysis underscores that the prerequisites for a successful decentralized restructuring strategy are manifold. The successful countries significantly improved the banking system's capital position enabling them to write down loan losses; banks as well as corporations had adequate incentives to engage in corporate restructuring; and ownership links between banks and companies were limited or severed during the crises.

The remainder of the paper is organized as follows. Section II illustrates the two alternative approaches to financial restructuring. Section III presents the analysis of seven country cases in which governments mainly relied on decentralized creditor restructuring to deal with debt resulting from banking crises. Section IV concludes.

II. Approaches to Corporate Restructuring

Two approaches to financial corporate restructuring can be distinguished (Sheng 1996). Countries can use either (i) a centralized government-led approach via asset management companies; or (ii) a decentralized creditor-led restructuring strategy.

Under a *centralized, government-led* approach, asset recovery is centralized in one public agency (asset management company, AMC). A specialized agency may be required because the task of dealing with non-performing loans is fundamentally different from that of making loans. Transferring assets to a centralized asset management company may also increase leverage over debtors and break perverse ownership links between banks and corporations allowing for better collections on loans. Notwithstanding these advantages, recent country experience shows that it is difficult to insulate an asset management company holding a large share of corporate claims against political pressures. Moreover, a transfer of the loans breaks the links between banks and corporations—relationships made valuable by banks' access to corporate information. And if an asset management company fails to actively manage the assets it holds, it can undermine credit discipline in the entire system. The evidence on how successful AMCs have been is mixed (Klingebiel 2000).

Box 1: The Use of Asset Management Companies in the Resolution of Banking Crises – Cross Country Experience

In the past, asset management companies (AMCs) have been employed to address the overhang of bad debt in the financial system. Two main types of AMCs can be distinguished: AMCs set up to help and expedite corporate restructuring and AMCs established as rapid asset disposition vehicles. A review of seven cases reveals that AMCs have a mixed record. In two out of three cases, corporate restructuring AMCs did not achieve their narrow goals of expediting bank and/or corporate restructuring. These experiences suggest that AMCs are rarely good tools to expedite corporate restructuring. Only the Swedish AMC successfully managed its portfolio, acting in some instances as lead agent in the restructuring process. It was helped by some special circumstances, however: the assets acquired were mostly real estate related, not manufacturing (that are harder to restructure), and were a small fraction of the banking system (which made it easier for the AMC to maintain its independence from political pressures and to sell assets back to the private sector). Rapid asset disposition vehicles fared somewhat better with two out of four agencies, namely Spain and the US, achieving their objectives. The successful experiences suggest that AMCs can be effectively used, but only for narrowly defined purposes of resolving insolvent and unviable financial institutions and selling of their assets. But even achieving these objectives required many ingredients: a type of asset that is easily liquifiable (real estate), mostly professional management, political independence, a skilled resource base, appropriate funding, adequate bankruptcy and foreclosure laws, good information and management systems, and transparency in operations and processes. In the Philippines and Mexico, the success of the AMCs was doomed from the start as the governments transferred politically motivated loans and/or fraudulent assets to the AMCs which are difficult to be resolved or to be sold off by a government agency susceptible to political pressure and lacking independence. Both of these agencies did not succeed in achieving their narrow objectives.

Source: Klingebiel, 2000.

The *decentralized, creditor-led work-out* approach relies on banks and other creditors to resolve non-performing loans. Since banks have the institutional knowledge of the borrower, and since their own survival depends on asset recovery, they may be better able and willing to maximize recovery value and avoid future losses. Furthermore, banks can provide new loans in debt restructuring.

Box 2: Advantages and Disadvantages of Decentralized Creditor led Approach to Financial Restructuring

Advantages

- Ensures that the informational capital that banks have accumulated on their borrowers is preserved.
- Leaving loans in banks may provide better incentives for recovery and for avoiding future losses by improving loan approval and monitoring procedures.
- Leaving loans in banks avoids the general deterioration of payment discipline that can occur if assets are transferred to an AMC which fails to properly manage them.
- Banks can provide additional financing which may be necessary in the restructuring process.
- Political considerations in restructuring decisions are limited as the actual restructuring is left to the private sector and not transferred to a public agency which may be prone to political pressure.

Disadvantages

- Economies of scale – i. e. consolidation of scarce work out skills and resources – are not achieved.
- Ownership links between banks and corporations are not dealt with and may thus impede corporate restructuring.
- May prove a distraction for banks' core business of "making loans".
- Banks typically are not good at restructuring which requires different types of skills.

The remainder of the paper looks at the experience of banking crises where the responsibility for the debt workouts was mainly left with the banks.

III. Cross Country Experience with Decentralized-Creditor Led Restructuring

A. Methodology

Sample selection. We adopted a two step approach in selecting country cases for our detailed analysis. First, on the basis of a survey of past banking crises (Caprio and Klingebiel 2002), we identify twelve cases in which governments largely adopted decentralized creditor-led strategies. These are seven emerging market economies (Argentina, Brazil, Chile, Colombia, Thailand, Turkey, Venezuela), two industrialized countries (Japan and Norway) and three transition economies (Hungary, Poland and Slovenia). Second, we conduct an extensive investigation of the availability of detailed information and data on the resolution process. In five out of the 12 cases, we have insufficient detailed information to undertake a thorough analysis as we do not have complete information on corporate restructuring strategies including the scope of corporate distress, applied work-out mechanism, and financial data on the corporate sector and banking sector. These country cases are Brazil, Colombia, Slovenia, Turkey and Venezuela. We therefore analyze seven country cases which include two industrialized countries [Japan (1991–present) and Norway (1987–93)], three emerging market economies [Argentina (1980-82), Chile (1981-86), and Thailand (1997–present)][1] and two transition countries [Hungary (1991-95) and Poland (1992-95].

[1] It is important to point out here that the analysis of the Thai case has to a preliminary evaluation as the crisis started in 1997, and the latest corporate data we have for Thailand dates from mid-2001.

Information sources. Our analysis relies on published reports and World Bank internal documents. We supplement these sources with extensive interviews with country experts familiar with the details of the individual country cases.

Case studies. We use a case study approach and carry out an analysis that is aimed at characterizing the incentive structure under which banks and firms operated – or initial conditions – at the onset of the crisis and five years after the crisis started. While institutional changes are not always easy to implement, especially when they need parliamentary approval—as in the case of bankruptcy regimes—this period should provide governments in those countries where the incentive framework is not conducive to corporate restructuring with sufficient time to improve the framework.

We proceed by first summarizing the main characteristics of the specific banking crisis – type of distress, size of the nonperforming loans at the peak of the banking crisis and scope of corporate distress to get a better understanding of the type and severity of the banking crises in the sample countries. We continue by analyzing the incentive framework that banks and corporations are subject to at the beginning of the crisis and then examine the changes governments made to the framework five years after the start of the crisis. We focus particularly on four components of the incentive framework that have been found in the literature to be important to encourage banks and corporations to engage in meaningful corporate restructuring: (i) banks' capital positions and therefore their ability to withstand losses; (ii) the accounting and (iii) legal framework in which banks and corporations are operating as it indicates to what extent banks and corporations have (correct) incentives to come to the negotiating table and reach solutions that result in sustainable corporate financing patterns; and (iv) existing ownership links between banks and corporations (Claessens, Klingebiel and Djankov 1999). Extensive ownership links between banks and corporations would weaken either incentives to engage in meaningful corporate restructuring.

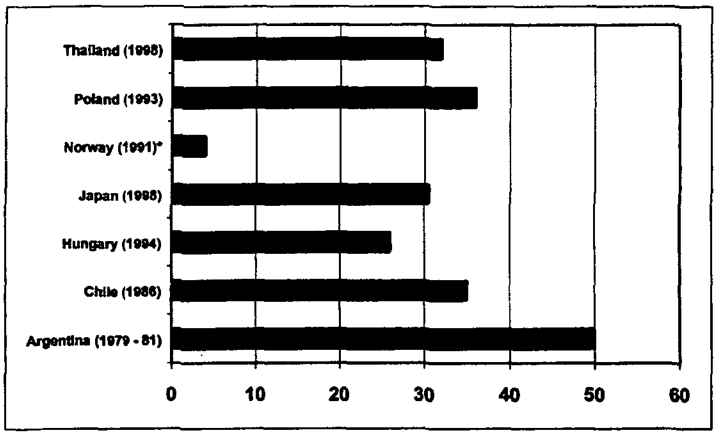
Evaluating outcomes. The aim of corporate restructuring is to attain viable financial structures within a reasonable timeframe. Therefore we judge the success or failure of a decentralized restructuring strategy on the financial health of the corporate sector and evaluate to what extent the restructuring has led to financially viable corporate sectors five years after the onset of the crisis.

B. Main Characteristics of Banking Crises

Figure 1 and Table 1 (below) provide information on the type and scope of distress in the seven country cases. All countries in the sample experienced systemic financial crises, that is, a major part of the banking system of each sample country was affected and its aggregate capital base was exhausted.

The scope of distress in the corporate sector is partly reflected in the share of non-performing loans (NPLs) at the peak of the crises (Figure 1). The level of non-performing loans can therefore be used as a rough proxy for the extent of corporate distress. Figure 2 indicates that levels of NPLs were significant in all sample countries at the height of the crisis – exceeding 30 percent of banking system assets – with the exception of Norway and Hungary. Argentina's financial sector appears to have been hit the hardest among the sample countries with NPLs amounting to over 50 percent of banking system assets (Caprio and Klingebiel 2002).

Figure 1. Peak Level of Nonperforming Loans (NPLs) as Percent of Total Banking System Loans



Note: * denotes NPLs as percent of total banking assets.
Source: Caprio and Klingebiel 2002: International Monetary Fund, International Financial Statistics

The increase in the number of bankruptcies (Table 1) also reflects the extent of corporate distress. Among the countries for which data were available, the most significant increase in bankruptcies was recorded in Argentina, where bankruptcies rose by 76% in the first year of the financial crisis (Balino 1991). In Hungary and Poland, over 50 percent of the banking system's non-performing loans were owed by loss-making state enterprises that made up over half of the enterprise sector and were related to the transition from central planning to a market economy (World Bank 1996).

Table 1. Characteristics of Banking Crises

Country	Type of distress	Corporate sector distress
Argentina (1980–82)	Private sector debt	The peak rate of increase of business failures was 76% in 1980, the first year of the crisis (Balino 1991).
Chile (1981–86)	Private sector debt	Estimated increase in number of bankruptcies from 81 in 1975 to 810 in 1982 (Velasco 1991).
Hungary (1991–95)	Debts owed by state-owned enterprises, mainly, to state-owned banks.	Gross enterprise losses increased from less than 1% of GDP in 1988 to 14% in 1992. By 1993, 50% of 70,000 enterprises (mainly in industry) were loss makers. The largest loss-makers accounted for 60% of total enterprise losses and 50% of overdue bank debt (World Bank 1997a).
Japan (1991– ongoing)	Private sector debt	Corporate balance sheets deteriorated over the 1990s and ROEs dropped from 7.5% in late 1980s to an average of 2.8% in the 1990s (International Monetary Fund 2000).
Norway (1987–93)	Private sector debt (corporate and household)	Bankruptcy rates rose by 40% a year during 1986-89. Bank losses concentrated in primary sectors (14%), mining & export-oriented manufacturing (15%) and real estate (13%) (Norway's Royal Ministry of Finance and Customs 1992).
Poland (1992–95)	Debts owed by state-owned enterprises, mainly, to state-owned banks.	In 1992, 67% of enterprises remaining in state hands were loss makers, mostly in heavy industry (World Bank 1993).
Thailand (1997– ongoing)	Private sector debt (real estate)	In 1997, 32.6% of corporations could not service their debts (Claessens, Djankov, Klingebiel 1999).

Source: Compilation by authors.

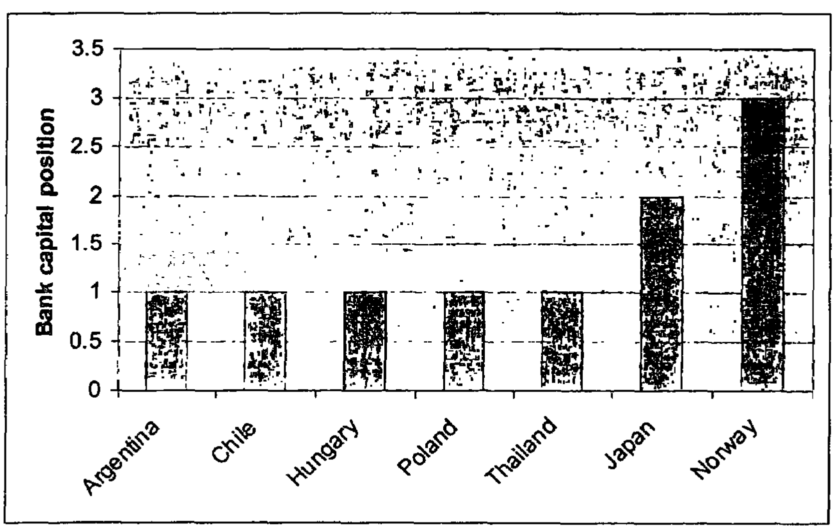
C. Assessment of the Incentive Framework at the Onset of the Crisis

We analyze the incentive framework at the onset of the crisis by evaluating (i) banks' capital positions; (ii) accounting framework and (iii) legal framework; and then (iv) existing ownership links between banks and corporations.

a. Banks' capital positions. To engage in meaningful corporate restructuring banks need to be adequately capitalized as they need capital to write down loans. To determine the level of capitalization in our sample crises countries, or in other words, the incentives of banks at the initial stage of the crisis to engage in any meaningful corporate restructuring, we classify the crises countries into four categories according to the risk adjusted capital level of their financial institutions. Since the level of non-performing loans in the banking system is highly correlated with the level of capital, we also use the level of non-performing loans (NPLs) if information on capital adequacy is not available. We classify financial institutions' capital base as follows. A four indicates that banks are well capitalized as their capital adequacy ratio is beyond eight percent and non-performing loans in the banking system are beyond five percent of total banking system loan. At the other end of the spectrum a one denotes a system in which banks are clearly insolvent as their reported capital level is below two percent of risk adjusted capital or total banking system NPLs exceed 25 percent. In four (Argentina, Chile, Hungary, Poland and Thailand) out of the sample of seven countries, individual banks were severely undercapitalized and mostly insolvent with an adjusted capital adequacy ratio of minus two percent.

To illustrate this rating with a few numbers, the Chilean banking system had a negative net worth of 12.2 billion pesos in the first year of the crisis while it faced losses of 70 billion pesos by the second year of the crisis (Sheng 1996c). The shortfall in the capital of the seven banks in Poland participating in the restructuring program accounted for 18 percent of their assets at the start of the crisis (World Bank 1993). The collapse of the real estate and stock markets in Thailand rendered substantial shares of bank portfolios as nonperforming and as banking problems reached crisis proportions, the capital positions of banks weakened. According to 1998 market estimates of capital shortfalls for Thai banks, the latter would need US$30 billion to weather the crisis (World Bank 2000b). Japan's banks appeared to be better off in the mid-1990s with most of them reporting a risk adjusted capital adequacy ratio of between minus two to plus two percent (Kanaya and Woo 2000). But their capital positions did not improve significantly through the remainder of the decade (International Monetary Fund 1998). Out of the seven crises, countries Norway's banks appeared to be the best positioned in the initial phase of the crisis to deal with corporate distress. Their risk adjusted capital adequacy ratios were between two and eight percent.

Figure 2. Banks' Capital Positions Prior to Recapitalization



Notes: We group countries into four categories with regards to the capital adequacy position of their banks and or the level of non-performing loans in the banking sector. A four indicates that all banks in the system are well capitalized and that the adjusted capital adequacy ratio (CAR) of the banks exceeds eight percent or the minimum legal requirement whatever is higher and non-performing loans (NPLs) of the banking system are below 5 percent. A three indicates that banks are slightly undercapitalized with their CAR ranging between two and eight percent and overall banking sector NPLs are between 6 and 10 percent. A two indicates that banks are significantly undercapitalized with their CAR ranging from minus two to plus two percent and banking sector NPLs are between 10 and 25 percent. A one denotes a system in which banks are severely undercapitalized and insolvent with a CAR below minus two percent and NPLs exceed 25 percent.

Sources: Balino 1991; Borish, Ding and Noel 1996; Claessens 2001; Claessens, Djankov and Klingebiel 1999b; Kanaya and Woo 2000; Sheng 1996c; World Bank 1993; World Bank 2000b.

Table 2. Accounting Framework

Comparison of the accounting framework at the onset of the crisis and during the crisis				
Country	Loan classification	Loan provisioning	Interest accrual	Average
Argentina				
Onset	1	1	1	1.0
During	1	1	1	1.0
Chile				
Onset	3	2 to 3	2	2.5
During	4	3	4	3.7
Hungary				
Onset	3	2 to 3	2	2.5
During	4	3	3	3.3
Japan				
Onset	2	2	2	2.0
During	2	2	2	2.0
Norway				
Onset	3	4	4	3.7
During	4	4	4	4.0
Poland				
Onset	3	2 to 3	4	3.2
During	3	3	4	3.3
Thailand				
Onset	1	1	1	1.0
During	3	3	2	2.7

Note: Countries are scored on a scale from 1 to 4 for each indicator with 4 indicating best practice and 1 indicating furthest away from best practice.

Loan classification
1 = loan past due more than 360 days
2 = loan past due more than 180 days
3 = loan past due more than 90 days
4 = repayment capacity of borrower/forward looking

Specific loan loss provisioning:
1 = 0% substandard; 50% doubtful; 100% loss.
2 = 10 – 15% substandard; 50% doubtful; 100% loss.
3 = 20% substandard; 75% doubtful; 100% loss.
4 = present value of future cash flow or fair value of collateral.

Interest Accrual
1 = up to 6 months, no clawback.
2 = up to 3 months, no clawback.
3 = up to 6 months, with clawback.
4 = up to 3 months, with clawback

Sources: Argentina: Balino 1991; Chile: Barandiaran and Luders 2000, Larrain, M. 1989, Sanhueza 2000b; Hungary: Borish, Ding and Noel 1996, World Bank Various years(b); Japan: Kanaya and Woo 2000, International Monetary Fund 2000; Norway: Karlsen 2000; Poland: Borish, Ding and Noel 1996, World Bank Various years(a); Thailand: Claessens, Djankov and Klingebiel 1999b

b. Accounting framework for banks. Financial institutions incentives to engage in corporate restructuring is also influenced by the accounting framework under which they operate. Here loan classification and loan loss provisioning rules for banks determine to what extent banks can carry non-performing loans on their books without classifying them as such and can accrue uncollected interest. As a result, capital and income will be overstated and banks have limited incentives to engage in corporate restructuring since they can simply hide losses. The sample countries were scored according to how accounting rules compared with international best practice defined as follows: (i) loan classification according to the repayment capacity of borrower; (ii) loan provisioning based on the present value of future cash flow or fair value of collateral; and (iii) interest accrual rule requiring the recognition of overbooking of interest income when a delinquent loan is declared nonperforming (up to 90 days) (Claessens, Djankov and Klingebiel 1999b). Table 2 indicates that those rules were poor and trailed international best practice significantly in five (Argentina, Chile, Hungary, Japan and Thailand) out of seven country cases. Banks in Argentina and Thailand operated under a weak accounting framework that allowed them to postpone the recognition of loan losses and overstate their capital positions. Banks in Thailand had to classify a loan as non-performing only after it had not been serviced for 360 days. At the same time, they were allowed to accrue uncollected interest income for up to twelve months (Alba, Hernandez and Klingebiel 1999). In contrast, Norway's and Poland's accounting framework was significantly better in the initial phase of the crisis.

c. Legal framework. The bankruptcy system is crucial in disciplining borrowers and forcing them to come to the negotiating table with good restructuring proposals. Table 3 compares important features of the bankruptcy framework – so-called creditor rights – across the sample countries. As shown in Table 3, the legal framework in five of the sample countries contains two out of four creditor rights. Argentina only has one creditor right in its laws and Thailand affords creditors a relatively high protection – on paper, at least – by having three out of four creditor rights in its laws.

Table 3. Legal Framework and the Existence of Ownership Links

Country	Restrictions for going into reorganizations	No automatic stay on assets	Secured creditor paid first	Manager does not stay in reorganization	Sum of creditor rights index	Efficiency of judicial system index	Enforcement of creditor rights	Ownership structures
Argentina	0	0	1	0	1	6.0	0.6	2
Chile	1	0	1	0	2	7.2	1.4	1
Hungary	1	1	0	0	2	3.0	0.6	1
Japan	0	0	1	1	2	8.0	1.6	3
Norway	1	0	1	0	2	10.0	2.0	3
Poland	1	0	1	0	2	3.0	0.6	1
Thailand	1	1	0	1	3	3.2	0.9	1

Notes:

Legal framework. The score for the legal framework is measured as the *sum* of four indicators of creditor rights: (i) restrictions on organizations; (ii) no automatic stay on assets; (iii) secured creditors paid first; and (iv) management does not stay in reorganization. An indicator is scored as 1 if the particular creditor right is provided in the country' s commercial laws; otherwise, it is scored as zero. At the outset of their transition, Hungary and Poland had to develop (i) legal frameworks that were compatible with laws in market economies; and (ii) judicial institutions to enforce the new laws. Efficiency of judicial system index assesses the efficiency and integrity of the legal environment as it affects businesses, particularly foreign firms. (The scoring ranges from 1 to 10.) The enforcement of creditor rights is calculated as the product of the creditor rights and judicial efficiency indices divided by 10.

Ownership structure (Based on methodology developed by La Porta, Lopez-de-Silanes, and Shleifer 1999).
4 = Widely dispersed ownership (firms do not have any shareholders with voting rights exceeding 20 percent)
3 = Widely dispersed ownership and cross-shareholdings allowed (firms are allowed to own shares in corporations that belong to its chain of control)
2 = Controlling shareholder (corporations in which shareholders' voting rights exceed 20 percent) and no cross-shareholdings in publicly held corporate shareholder
1 = Controlling shareholder and at least one publicly traded company in the chain of control

Sources: La Porta, Lopez-de-Silanes, and Shleifer 1998 and 1999; Claessens, Djankov and Nenova 2000; World Bank 1985; Barandiaran and Luders 2000, Sanhueza 2000b; Kopanyi 2000b; International Monetary Fund 1999b; Karlsen 2000 and Norway's Ministry of Finance; authors' estimates.

But for an insolvency system to be effective, creditors need to be able to rely on the judicial system to have these laws enforced. Therefore, Table 3 also provides information on judicial efficiency which assesses the efficiency and integrity of the legal framework on a scale from 1 to 10 with 10 indicating the highest degree of efficiency. As Table 3 indicates, among the crisis countries, Norway has the most efficient legal system. Japan's judicial system also ranked well followed by that of Chile and Argentina. Thailand trails the sample countries significantly indicating that enforcement of creditor rights faces serious impediments and limits creditor's ability to use the bankruptcy system as disciplining mechanism.[2] Hungary and Poland did not only have to carry out a fundamental transformation of their legal frameworks to make them compatible with laws in market economies, a process that was almost completed by the late 1990s but they also had to develop modern and efficient judicial institutions to be able to enforce them (World Bank 1996; Borish, Ding and Noel 1996a). Therefore, enforcement capacity was relatively weak during these countries' financial crises.

d. Ownership structures. The effectiveness of decentralized work-outs may also be hampered by ownership links between banks and corporations as the same party would be both debtor and creditor (Claessens, Djankov, Klingebiel 1999). Using a methodology developed by La Porta, Lopez-de-Silanes, and Shleifer (La Porta, Lopez-de-Silanes, and Shleifer 2002) we score countries on their prevailing ownership structure at the onset of the crisis on a scale from 1 to four with one indicating that one controlling shareholder and at least one publicly traded company is in the chain of control (for further detail see Table 3) and ownership links are pervasive. The results of the analysis reflected in Table 3 show that ownership of the corporate sector was relatively concentrated and significant direct ownership links between financial institutions and companies existed in four out of six countries for which information was available. These countries were Chile, Hungary, Poland and Thailand.

In Thailand, ownership of both financial and corporate institutions is concentrated in a limited number of families (World Bank 2000b). Chilean banks and companies enjoyed significant ownership links in the form of "grupos" or financial and manufacturing conglomerates which had acquired nearly all the largest manufacturing and banking firms in the mid 1970s (Velasco 1991). In the case of the transition countries – Hungary and Poland – the large shares of non-performing loans held by state-owned banks were largely the result of lending practices to state-owned enterprises (World Bank 1996).[3] The ownership structure in which the government was the main shareholder in both banks and enterprises continued during the early part of the transition. Also, that period was marked by continued lending on the part of state banks to loss-making state-owned enterprises even as the banking crises had emerged (World Bank 1996). The practice prevailed initially at least not only due to banks' limited capacity to assess credit risk but also to occasional interventions by their major shareholder – the government – to support socially sensitive state enterprises (Borish, Ding and Noel 1996a).

[2] Thailand has complemented its framework for corporate reorganization and asset resolution for large corporation with out-of-court, extra-judicial systems, the Corporate Debt Restructuring Advisory Committee. This committee and associated restructuring processes generally rely on the so-called London rules—principles for corporate reorganization first enunciated in the United Kingdom in the early 1990s. Since the London rules were not designed for systemic corporate distress, Thailand tried to tighten them in various ways to make those rules conducive to out-of-court restructuring (For greater detail, see Claessens, Djankov and Klingebiel 1999b).

[3] That is, credit under socialism was extended primarily on the basis of the government's assessment of a state enterprise's importance in the economy, rather than its profitability and ability to service its loans.

While direct ownership links are limited in Japan, its traditional *keiretsu* structure fosters not only long held ties among Japanese corporations belonging to the same industrial group but also close connections with particular financial institutions (International Monetary Fund 1999b). In Norway, direct and indirect ownership links between banks and corporations were limited at the onset of the crisis, therefore limiting disincentives for corporate restructuring.

Overall conduciveness of the incentive framework for corporate restructuring. To show the overall conduciveness of the incentive framework for corporate restructuring we construct a overall incentive framework index. This index reflects the unweighted average of the scores sample countries received on the four components of the restructuring framework at the initial phase of the crises. These four indicators are again: (i) the banking system's capital position; (ii) the accounting framework; (iii) the legal framework; and (iv) existing ownership links between banks and corporations. Table 4 shows that, except for Norway, the sample countries' banks and corporations operated within a weak overall incentive framework that was not particularly conducive for corporate restructuring at the onset of the crisis.

Table 4. The Overall Incentive Framework at the Onset of the Crisis

Country	Bank capital positions	Accounting framework	Legal framework	Ownership structure	Overall Framework Incentive Index
Argentina (1980-82)	1.0	1.0	0.6	2.0	1.2
Chile (1981-86)	1.0	2.5	0.7	1.0	1.5
Hungary (1991-95)	1.0	2.5	0.6	1.0	1.3
Japan (1991-ongoing)	2.0	2.0	1.6	3.0	2.2
Norway (1987-93)	3.0	3.7	2.0	3.0	2.9
Poland (1992-95)	1.0	3.2	0.6	1.0	1.5
Thailand (1997-ongoing)	1.0	1.0	0.9	1.0	1.0

Source: Tables 1 – 3 and Figure 1.

D. Government Efforts to Upgrade the Incentive Framework

The previous section indicated that the framework for decentralized restructuring showed significant weaknesses in most of our sample countries in the initial phase of the crisis. In this section, we evaluate to what extent countries improved the overall incentive framework to make it more conducive to and accelerate corporate restructuring. As mentioned earlier, in this analysis we will only consider changes made within a period of five year after the crisis began. While institutional changes are not always easy to implement, especially when they need parliamentary approval—as in the case of bankruptcy regimes—this period should provide governments with sufficient time to adjust the incentive framework for corporate restructuring. We focus our attention on the question to what extent governments strengthened the major components of the overall incentive framework, Annex tables 1, 2 and 3 provide a more detailed summary of governments' efforts or measures, to support financial and corporate restructuring.

a. Strengthening the loss absorption capacity of banks. In six out of the seven sample countries, (Argentina, being the exception) the authorities attempted to shore up banks' capital position by providing public funds. In all cases, governments used ex-ante upfront schemes rather than employing a recapitalization strategy with an ex-post recapitalization mechanism that links banks' recapitalization to corporate restructuring. Ex-ante recapitalization may be implemented quickly and can signal to the market that problems are being resolved. Provided that it is accompanied by substantive improvements in corporate governance and bank operations and is well monitored, it can be an up-front investment that leads ultimately to lower costs. But ex-ante recapitalizations also carry large risks. Governments routinely respond to such systemic bank solvency problems by injecting capital into insolvent banks, without requiring changes in governance and bank operations and the recapitalizations turn out to be futile. Banks will have better capacity to work out loans and to take losses, when recapitalized but they may still delay restructuring and roll over non-performing loans since they are able to attract new funds anyhow. And likewise, corporations may have little incentive to undertake necessary operational restructuring, if they have access to new funds anyway (Claessens 1998). Therefore, the success of these recapitalization schemes depend on the following three factors: (i) the size of the recapitalization scheme; (ii) the timeliness of the provision of capital; and (iii) the conditionality attached to the recapitalization schemes.

Size of the recapitalization schemes and repeated recapitalizations. In three out of seven cases – Chile, Hungary and Japan – the government failed to provide recapitalization schemes of sufficient size, making additional injections of capital necessary. Insufficient capital injections do not only reduce the loss absorption capacity of financial institutions but they also limit these institutions' incentives to engage in corporate restructuring as they await the next bail-out. In Chile, repeated loan purchases reinforced the perception by both debtors and creditors alike of the government's readiness to keep providing additional support (Barandiaran and Hernandez 1999; Brock 1999; Larrain, M. 1989; Sheng 1996c; Velasco 1991). Similarly, after three recapitalizations in Hungary, banks remained too poorly capitalized to be able to engage in earnest restructuring (World Bank 1999a; 1999b). Japan only provided public support to their banks seven years into the crisis. To date, Japan has implemented two rounds of recapitalizations – in 1998 and in 1999. Yet according to market observers, the Japanese banks continue to remain severely undercapitalized (Goldman Sachs 2002c).

Timing of the recapitalization schemes. As important as the size of the schemes is their timeliness. In five out of six cases – Chile, Hungary, Norway, Poland and Thailand—capital infusions took place within three years of the onset of their crises (Barandiaran and Hernandez 1999; Brock 1999; Larrain, M. 1989; Sheng 1996c; Karlsen 1994; Norway's Royal Ministry of Finance and Customs 1992; Velasco 1991; World Bank 1993; 1994; 1999a; 2000a). In contrast, Japan relied on economic growth to restore bank solvency for a seven year period (International Monetary Fund 1999a). During that time, Japanese banks were expected to recapitalize via increased earnings over time and this was to be made possible by government macroeconomic programs to stimulate growth, implicit forbearance and low interest rates. This approach did not result in stronger balance sheets for banks and enhanced their ability to take losses. The authorities took a more forceful approach to restructuring in the eighth year of the crisis that included government injection of capital into the banking system (Kanaya and Woo 2000).

Conditionality. Government can attach two types of conditionality to the disbursement of public funds. Governments can either link disbursements to a repayment schedule (with penalties for non-compliance) and/or to financial and operational restructuring criteria that banks have to meet to be eligible for receiving funds. Except for Hungary, all of the public recapitalization schemes attached some conditionality to the disbursement of funds. The public recapitalization programs in Chile and Poland required time-bound repayments by the banks to the government. In Chile, the government recapitalized banks through repeated direct purchases of substandard loans with zero coupon notes under a ten year repurchase agreement. The banks in turn had to commit to repurchasing all loans sold to the central bank. Banks had to redeem 5 percent of the recapitalization bonds every six months. Under Poland's enterprise and bank restructuring program, seven commercial banks received new capital in the form of fifteen year government restructuring bonds that had to be repaid every six months. Banks were, however, allowed to sell the bonds after three years. In both cases, banks' inability or failure to service their obligations would have resulted in government sanctions. For example, conciliation agreements under Poland's program carried penalties for non-compliance and the authorities required the supervisory boards of the participating banks to establish incentive compensation schemes that linked managers' bonuses to banks' profits (van Wijnbergen, 1994).

In Norway and Thailand, public funds were injected into banks only after the write down of shareholder capital, thereby resulting in a (potential) severe dilution of ownership. In addition, the capital injections of banks in Norway were also made contingent upon operational restructuring. For example, banks participating in the recapitalization programs had to substantially reduce the number of branches and the level of operating costs so as to raise bank profitability and thereby help the banks sustain their capital adequacy. Thailand's program included the option for the government to require changes in bank management. In Japan, the long delayed government recapitalization required banks to meet two criteria to qualify for public funds – positive net worth and the ability to generate long-term profits (Kanaya and Woo 2000).

Results of the public recapitalization efforts. Public recapitalization schemes appeared to have been successful, i. e. resulting in sustainable financial structures in banks in three out of the six countries (second column of Table 5). These are Chile, Norway and Poland. Despite initially underestimating the extent of the crisis and engaging in several rounds of recapitalization, the Chilean government considerably strengthened the capital base of the banks enhancing their ability to withstand losses (Brock 1999; Velasco 1991). Five years into the crisis, the banking system moved from a capital shortfall to an equity surplus and banks reached capital levels between two and eight percent (Skarmeta 1999).

In Norway, the government injected public funds into one large commercial bank and three large savings banks as well as a number of smaller savings banks. Capital levels in banking institutions improved with risk adjusted capital adequacy ratios reaching beyond eight percent and system wide NPLs dropping significantly. The commercial banking system's risk adjusted capital adequacy ratio rose from 7 percent during 1981-85 to 10.58 percent in 1993. The share of commercial banks' after-tax profits in total assets improved from –0.3 percent in 1987 to 1.2 percent in 1994. Commercial bank losses as a share of total loans fell from its peak of 5.2 percent in 1991 to 0.2 percent by 1994.

The capital provision in Poland led to adequate capital levels (the risk adjusted capital adequacy ratios in these banks ranging from 2 to 6 percent) in the seven banks participating in the restructuring program and allowed them to write off a significant portion of unrecoverable debts (World Bank 1997b; 2000a). The public recapitalization program allowed the seven banks to achieve a capital adequacy ratio of 12 percent by 1995, i.e., three years after the crisis began. For the banking system as a whole, the share of NPLs to total loans declined from 28 percent in 1992 to 10 percent in 1997, i.e., five years after the onset of the crisis. By 1998, all seven banks were sold to foreign investors.

The public schemes were less successful in the other three sample countries that provided public funds for recapitalizations. Three capital injections (1991-93) in Hungary continued to leave banks undercapitalized and their overall capital positions did not improve (compare Table 5). The recapitalization programs were neither conditioned on operational restructuring of the banks or changes in bank management nor did they provide sufficient incentives to banks to address corporate distress. While the third scheme required banks to sign consolidation agreements, the latter did not include specific quantitative performance criteria nor specific remedial measures that, not surprisingly, rendered the agreements ineffective. In 1995, i.e., four years after the onset of the crisis, a new Hungarian government moved towards a strategy of bank privatization, largely through sales to foreigners, to improve banks' capacity to sustain losses. The government also made great strides in privatizing the enterprise sector. Nevertheless, Hungarian banks reached adequate capital levels towards in 1998—despite repeated recapitalizations—seven years after the onset of the crisis and only after 60 percent of the banking system had been sold to foreigners (World Bank 1999a; 1999b).

In Japan, the government's strategy to engage in capital forbearance left banks severely undercapitalized five years after the onset of the crisis, the timeframe of this study. Public recap schemes initiated in 1998 and 1999 continued to leave banks severely undercapitalized and while the second round of recapitalizations was conditioned on improvements in the operating environment of the financial institutions, it did not result in these institutions undertaking serious corporate restructuring efforts (Goldman Sachs 2002c). At the beginning of 2002, the market estimate of non-performing loans in the Japanese banking system stood at 35 percent of outstanding loans (Goldman Sachs 2002c). Therefore, even today, eleven years after the onset of the crisis, banks remain significantly undercapitalized.

Thailand's commercial banks were reluctant to take advantage of government recapitalization because of the resulting dilution of ownership and the requirement for change of management. The recapitalization program offered banks Tier 1 capital support conditioned on these banks adhering to stringent conditions including meeting strict loan loss provisioning standards and changing bank management. This market based approach ensured that public funds would have only been provided when shareholders had been wiped out. Notwithstanding, banks that needed fresh capital could delay the application for such assistance since they were allowed to recapitalize on a flow basis and comply with more stringent capital adequacy requirements at a later point in time. As a result, only two non-intervened private banks have accessed public funds. Instead, banks have raised expensive capital on their own. Still in the end they remain substantially undercapitalized because of high levels of non-performing loans. By 2002, system wide NPLs stood at one-third of total loans (Standard and Poors 2002).

Additional mechanism for debt relief. In addition to capital infusions, governments have employed schemes to bail out specific groups of private debtors which are essentially equivalent to bank recapitalization. However, such efforts create disincentives for borrowers to make earnest efforts to repay their debts.[4] The loan reprogramming programs in Chile led to moral hazard problems as borrowers expected more generous debt relief to be forthcoming (Barandiaran and Hernandez 1999; Brock 1999; Sheng 1996c). Repeated refinancing schemes in Argentina in 1982 did not help avert the deterioration in bank solvency that contributed to the second financial crisis that began in 1989 (Giorgio and Sagari 1996; Velasco 1991).

b. Correcting deficiencies in the accounting framework. The third column in Table 5 indicates that the accounting framework improved in five out of seven countries. The adoption and enforcement of forward-looking loan classification soon after the crisis began brought Norway's framework fully to international best practice. Norway was also one of two countries (the other being Poland) that applied "best practice" provisioning rules for restructured debt, wherein the restructured loan is reclassified as performing and the specific provisions are lifted after a period of regular debt servicing (Karlsen 2000). At the other extreme, accounting rules remained unchanged in Argentina by the end of the crisis of the early 1980s and its framework remained farthest from best practice throughout the crisis period (Balino 1991). Japan also left its accounting framework unchanged five years into the crisis. Only in 1998, seven years after the onset of the crisis, did Japan introduced forward looking loan classification rules making it in principle more difficult for institutions to hide their losses.

Improvements to the regulatory regimes of Chile, Hungary, Poland, and Thailand, in that order, brought their frameworks closer to best practice although some rules still trailed behind best practice. Chile's bank regulations and the new banking law of 1986 which emphasized market information dismantled the 1982-84 practices of explicit regulatory forbearance to ease the crisis (Sheng 1996c). Hence, Chile's framework improved significantly five years after the crisis began. Hungary's amendment to the banking law in 1994, the fourth year of the crisis,

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[4] Argentina and Chile provided public debt relief to private debtors through repeated programs of across-the-board debt restructurings or debt reduction. These included exchange rate guarantee schemes, de-dollarization of debts (in which the government assumes foreign exchange losses of dollar denominated loans), or restructuring of loan terms for firms that meet certain eligibility criteria. In some instances, debt relief was extended to consumer and mortgage loans by rescheduling interest and repayment terms. In the case of Argentina, the authorities relied on a merger/liquidation strategy for bank restructuring and alleviation of indebtedness of the private sector (through across-the-board refinancing programs) to avert further bank failures. The programs entailed refinancing by the central bank of the loans of private borrowers, that is, extending loan maturities at favorable interest rates. While the government did not recapitalize banks, it helped them by bailing out private borrowers.

resulted in a major upgrading of its accounting framework, including the introduction of forward-looking loan classification and provisioning norms. Thailand significantly upgraded its classification and provisioning requirements and somewhat tightened interest accrual rules in 1999 bringing the overall accounting framework much closer to international best practice. Yet, immediate loan reclassification for restructured debt was allowed, freeing up previously made provisions after a debt workout (World Bank 2000b).

Table 5. Comparison of the Restructuring Framework for Banks and of the Financial Results for the Corporate Sector
(at the onset of the crisis (in brackets) and five years into the crisis)

	Framework for decentralized restructuring						Result
Country	Bank capital positions	Accounting framework	Efficiency and enforcement	Ownership structure	Overall index	Improvement in overall index	Financial condition of corporate sector
Argentina (1980-82)	(1) 1	(1.0) 1.0	(0.6) 0.6	(2) 2	(1.2) 1.2	+ 0.0	(1) 1
Chile (1981-86)	(1) 3	(2.5) 3.7	(0.7) 0.7	(1) 3	(1.5) 2.8	+ 1.3	(2) 3
Hungary (1991-95)	(1) 1	(2.5) 3.0	(0.6) 0.7	(1) 3	(1.3) 1.9	+0.6	(1) 2
Japan (1991-ongoing)	(2) 2	(2.0) 2.0	(1.6) 1.6	(3) 3	(2.2) 2.2	+ 0.0	(2) 2
Norway (1987-93)	(3) 4	(3.7) 4.0	(2.0) 2.0	(3) 3	(2.9) 3.3	+ 0.4	(3) 4
Poland (1992-95)	(1) 3	(3.2) 3.3	(0.6) 0.7	(1) 3	(1.5) 2.5	+ 1.0	(1) 3
Thailand (1997-ongoing)	(1) 2	(1.0) 2.7	(0.9) 0.9	(1) 1	(1.0) 1.7	+ 0.7	(2) 2

Source: Tables 2–4; Borish, Ding and Noel 1996; Claessens 2001; Claessens, Djankov and Klingebiel 1999a and 1999b; European Bank for Reconstruction and Development 1998; Kanaya and Woo 2000; Karlsen 2000; Sheng 1996c; World Bank 1985; World Bank 2000b.

*c. **Improving the legal framework.*** None of the countries in our sample made significant changes to their formal bankruptcy regime and therefore a number of weaknesses in the formal bankruptcy law were not eliminated (see fourth column Table 5).

However, four out of seven countries complemented their formal framework for reorganization and debt workouts with out-of-court extra-judicial procedures to accelerate restructuring. In the 1980s, Chile used private arbitration to resolve liquidations and bankruptcies as an alternative to the outdated and slow judiciary system (Barandiaran and Luders 2000). In the absence of fully developed liquidation and bankruptcy legislation as well as a skilled and efficient court system, Poland launched its well known program of bank and enterprise conciliation in 1993 that allowed enterprises to enter into time-bound, out-of-court, bank-led conciliation agreements aimed at restructuring and/or asset resolution. At the same time, the government required banks to initiate bankruptcy or liquidation procedures if they failed to reach agreement with their nonperforming enterprise borrowers (World Bank 1993).

Out-of-court programs in Hungary and Thailand appeared to have been less successful. Hungary tried to circumvent an overburdened court system with a conciliation program but it failed due to a lack of transparent rules and penalties for non-compliance. This resulted in persistent interventions by competing government ministries which completely undermined the out-of-court process (Kopanyi 2000a; World Bank 1997a). A weak structure and inadequate enforcement of the out-of-court framework adopted in Thailand have not facilitated restructuring. At the end of 1999, thirteen percent of the restructured cases reverted to non-performing status in just a few months (Claessens, Djankov and Klingebiel 1999b). Thailand also established a separate bankruptcy court that was intended to increase the efficiency of judicial procedures in bankruptcy cases to address the main weakness in its formal bankruptcy regime in early 1999. Following the establishment of the court, the number of bankruptcies in Thailand still remained low, however, and fraught with difficulties (Foley 2000).

Table 6. Features of Out-of-court Corporate Restructuring

	All or most banks signed on to accord	Accord provides for formal arbitration with deadlines	Accord imposes penalties for noncompliance
Argentina	No	No	No
Chile	No	Yes	n.a.
Hungary	Yes	No	No
Japan	No	No	No
Norway	No	No	No
Poland	Yes	Yes	Yes
Thailand	Yes	Yes	Yes

Note: In Chile, private agents were allowed to resolve bankruptcies by hiring specialized private consulting firms.
Sources: Barandiaran and Luders 2000; Kopanyi 2000a; World Bank 1997a; World Bank 1993; Claessens, Djankov and Klingebiel 1999b.

d. Severance of ownership links. As the fifth column of Table 5 suggests, in Chile, Hungary and Poland where direct ownership links were significant impediments to restructuring, the introduction of new regulations, public recapitalizations and foreign entry into the financial system effectively severed or at least significantly reduced ownership links. In these crisis countries the government used the crisis as an opportunity to change ownership structures and sever ownership links that can hamper corporate restructuring. After the crisis emerged, Chile began to tighten limits on cross-ownership between financial institutions and corporations but more importantly, started to enforce them (Sheng 1996c).[5] Moreover, foreign entry into the banking system further severed ownership links between corporations and banks (World Bank 1997c; 1999b). Recapitalization programs in Hungary effectively nationalized banks and wiped

[5] Banks were required to reduce loans to related companies to no more than 5 percent of their total portfolios. By the last year of the crisis, a new banking law attempted to eliminate the practice of related lending and defined more precisely the concept of "client".

out the equity of state-owned enterprises that were also the banks' main borrowers, thus breaking the ownership links between the two entities (Abel and Szakadat 1997; Borish, Ding and Noel 1996a). The Polish government prohibited the seven bank participants of the recapitalization program from making new loans to non-performing borrowers (i.e., state-owned enterprises) (World Bank 1993). All seven banks were sold to foreign investors within five years of the launch of the conciliation program. The subsequent privatization of the banks in Hungary to foreign investors had a more profound impact ultimately than the repeated public injections of capital (World Bank 1997c; 1999b). To the contrary, in Thailand bank and corporate restructuring continued to be hampered by direct ownership links. And while direct ownership links are limited in Japan, indirect links or the *keiretsu* structure remained intact and continued to hamper bank and corporate restructuring.

Overall conduciveness of the incentive framework for corporate restructuring. Column 6 in Table 5 summarizes the overall conduciveness of the incentive framework for corporate restructuring in the sample countries five years after the onset of the crises. As the table illustrates, only Chile and Poland upgraded its incentive framework significantly to reach 2.8 and 2.5 respectively on a scale from one to four with four signaling a highly conducive environment for corporate restructuring. Norway, which started out with a relatively conducive regime, as indicated by its score of 2.8, improved its framework to 3.3 thereby nudging it closer to international best practice. The remaining four countries made only limited improvements to their framework leaving impediments to corporate restructuring largely unaddressed. Out of these four countries Argentina's framework remained furthest away from international best practice with a score of 1.2, followed by Thailand (1.7), Hungary (1.9), and Japan (2.2).

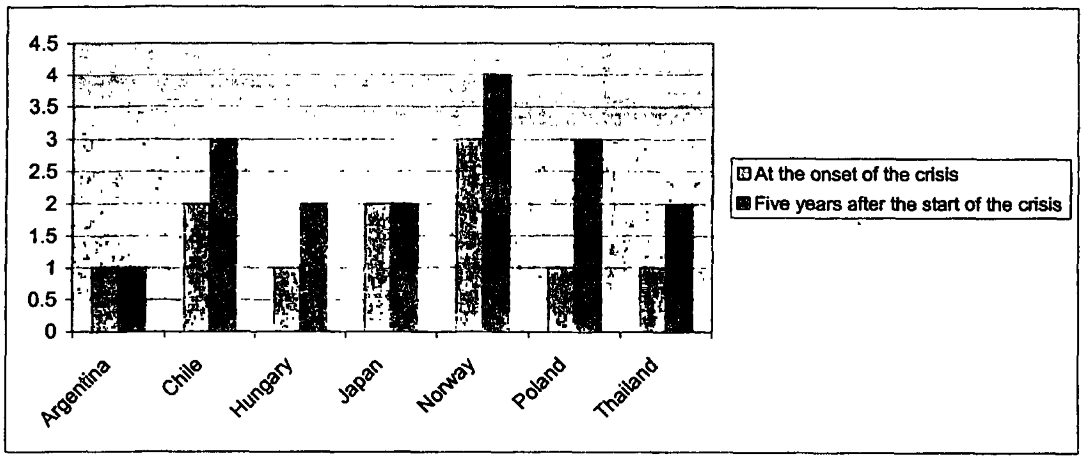
E. Results of the Restructuring Efforts

The aim of corporate restructuring is to attain viable corporate financial structures in a reasonable amount of time. Therefore, we determine that a country's decentralized restructuring approach was successful if it has led to viable financial structures of corporations within a five year time frame. We assess on a scale from one to four the financial situation of the corporate sector. The decentralized restructuring strategy is then judged to be successful if the overall sector either scores a three or a four meaning that the weighted average interest coverage ratio of corporations exceeded three and that the share of companies with an interest coverage ratio of below one is less than 20 percent.

Figure 4 illustrates that the corporate sectors in only three out of the seven sample countries attained viable financial structures within a five year timeframe. In Chile, Norway and Poland corporate distress was significantly reduced during the crisis period and corporations were put on a sounder financial footing. The remaining four countries—Argentina, Hungary, Japan and Thailand—were less successful in encouraging creditor led workouts and therefore the firms in these countries still exhibited substantial distress five years after the onset of their respective crises.

While Chile started out with a weak overall incentive framework for corporate restructuring, the country updated several components of the framework significantly by strengthening the capital base of the banking system, upgrading the accounting framework and severing ownership links between banks and corporations. After underestimating the extent of the crisis initially, the Chilean government launched successive and massive programs to recapitalize the banks and to bail out borrowers in order to resolve the crisis. However, Chile's experience also showed that the government's lack of a realistic assessment of corporate distress proved very costly since repeated recapitalization and debt relief schemes served to reinforce the perception by creditors and borrowers that the government would continue to provide additional assistance (Barandiaran and Luders 2000). The programs for bailing out borrowers created a serious moral hazard problem that initially deterred rapid corporate restructuring. Following several across-the-board rescheduling programs in 1984-85, the corporate sector started to show signs of profitability and improved financial conditions (Barandiaran and Hernandez 1999). The quick pace of the economic recovery was similarly a reinforcing factor for corporate restructuring.

Figure 4. The Financial Health of the Corporate Sector



Note: We rate the financial health of the corporate sector according to two factors. One, the sector weighted interest coverage ratio and second, the share of companies with an interest coverage ratio of less than one. We assess the financial situation of the corporate sector on a scale from one to four based on data availability for either of the two factors and therefore we classify corporations into four categories. A one denotes a situation in which the weighted average interest coverage ratio of all firms is below one and/or the share of companies with an interest coverage ratio of one or less is higher than 30 percent. A two denotes a situation in which the weighted average interest coverage ratio of all firms is between three and one and/or the share of companies with an interest coverage ratio of one or less is between 21 and 30 percent. A three denotes a situation in which the weighted average interest coverage ratio of all firms is between five and three and/or the share of companies with an interest coverage ratio of one or less is between 11 and 20 percent. A four denotes a situation in which the weighted average interest coverage ratio of all firms exceeds five and/or the share of companies with an interest coverage ratio of one or less is less than ten percent. *Sources:* Argentina: World Bank 1985; Chile: World Bank 1987; Hungary and Poland: Pohl, Anderson, Claessens and Djankov 1997; Japan: Goldman Sachs 2002a; Norway: staff calculations using Bloomberg data; Thailand: Claessens 2001.

The absence of ownership links and the existence of a well functioning legal framework in Norway were favorable initial conditions for restructuring – as evident in its overall incentive structure's score of 2.9 (see Table 4). Adequately capitalized banks as well as the improvements in banks' operations and in the accounting framework during the crisis period provided creditors and borrowers with the incentives to engage in restructuring. Among the seven countries, Norway's framework – which scored the highest of the country cases (3.3) –was the best placed for applying the decentralized approach. While it is difficult to separate the effects of proper incentives from the economic recovery that began in the last year of the crisis, the financial positions of both banks and corporations quickly turned around.

While the incentive framework was relatively weak in Poland at the start of the crisis (compare Table 5), the government enhanced the framework by significantly augmenting bank capital positions and accounting regulations and severing ownership links between banks and corporations. Moreover, the bank and enterprise restructuring program included conditions on bank recapitalization and time-bound limits on debt workouts. Poland succeeded to reduce the bad debt problems of the seven participating banks and managed to encourage some operational restructuring by enterprises during the period of the program. The restructuring program led to improved quality of borrowers, increase in bank equity, improved bank lending and strict prudential rules (International Monetary Fund 1999c). Nevertheless, two Bank studies have concluded that operational restructuring as a result of the debt workouts occurred at a much slower pace than expected (Gray and Holle, 1996a; World Bank 1997b). In the end, the quick resumption of growth in Poland, as GDP rose at an average 6 percent per year in 1993-96, helped accelerate enterprise restructuring (World Bank 1997c; 2000a; Barbone 2000).

The decentralized corporate restructuring strategies that governments adopted in Argentina, Hungary, Japan and Thailand were and in some cases are still severely hampered by an inadequate incentive framework. In these countries, corporate debt levels continued to be high and companies' financial structures remained weak, five years into the crisis.

Argentina's overall incentive framework was barely strengthened such that the framework was still not conducive for corporate restructuring five years after the onset of the crisis. The government aggressively implemented a costly strategy of bailing out insolvent borrowers. Along with such strategy, the authorities relied on liquidations or forced mergers of financial institutions to resolve the crisis. Despite these efforts, the corporate sector was persistently in financial distress (World Bank 1985) and the government failed to address weaknesses in the capital position of banks, accounting rules and legal framework amidst a fragile macroeconomic environment.

With a weak incentive framework (a score of 1) at the outset (compare Table 5), Hungary relied heavily on public injections of capital to strengthen the incentives for restructuring. However, repeated public recapitalizations – without strengthening bank incentives and supervision nor empowering the out-of-court system – did achieve little progress in enterprise restructuring. Five years later, Hungary's banking problems continued to remain unresolved and the financial position of the corporate sector continued to be weak. The situation improved markedly only after the authorities changed course four years after the crisis began and opted not only for bank privatization but also for a comprehensive reform of the regulatory framework and serious macroeconomic adjustment (World Bank 1997a). Following the wide-reaching and aggressive privatization program of the Hungarian economy, a World Bank country study concluded that, towards the end of the decade: (i) most firms have restructured their operations although those that remained state-owned have restructured the least; and (ii) foreign direct investment has been the key to the pace and scope of enterprise restructuring in Hungary (World Bank 1999b).

Weakly capitalized banks, inadequate accounting framework and indirect ownership links persisted in Japan, encumbering the decentralized approach. For seven years after the crisis began, the authorities relied on growth to restore the health of the corporate and financial sectors. The authorities largely pursued accommodating fiscal and monetary policies to stimulate growth hoping that such a strategy would resolve the problems in the corporate and banking sectors. Undercapitalized banks were allowed to languish for quite an extended period. This strategy only delayed the much-needed restructuring. For most of the crisis period, the incentive framework for corporate restructuring hardly improved as it scored 2.2 at the onset and five years hence. Only in 1998 the government began to take a more aggressive approach and started to strengthen the framework for restructuring in earnest with a public recapitalization program. This was followed by improvements in the accounting rules and their enforcement. Nevertheless the corporate sector continues to be weak and non-performing loans in the banking sector are again on the rise (Goldman Sachs 2002c).

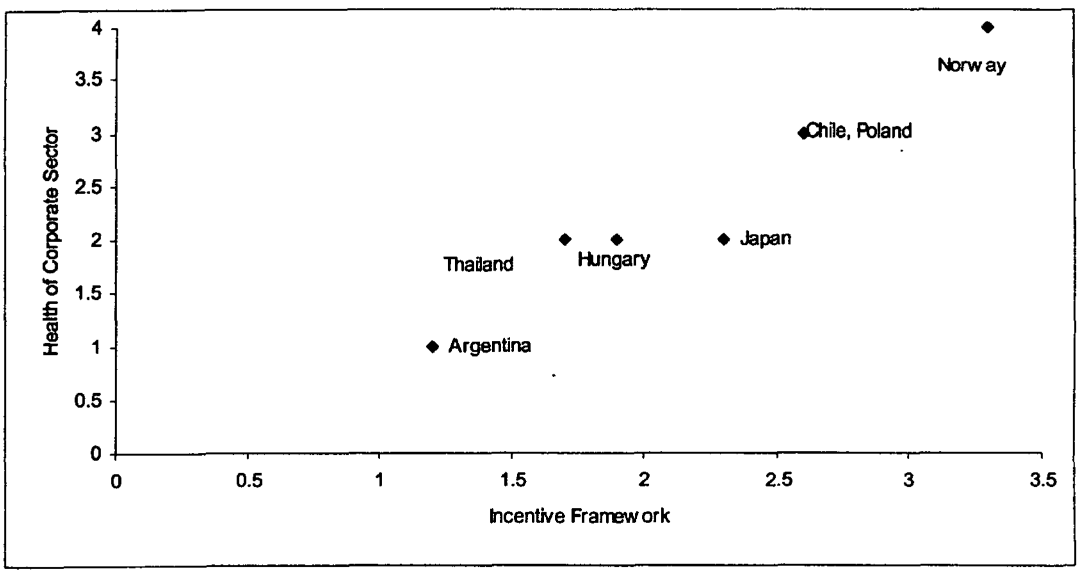
Thailand's overall incentive framework showed some improvement as the crisis ensued as the score for the overall index changed from 1.0 to 1.7. While the government was quick to offer the injection of public funds into the banking system, banks were slow to take this up as the government also allowed them to recapitalize on a flow basis via retained earnings and because the acceptance of public funds would have resulted in the dilution of ownership and or in a change in management. The capital inadequacy of banks is compounded by impediments caused by accounting rules that trail behind best practice, a weak enforcement of the legal framework and continued, although slightly reduced ownership concentration and ownership links between banks and corporates. Progress with corporate restructuring has been limited and, for the most part, banks have been willing to engage only in cosmetic restructuring of assets that are "easy to restructure". While the level of corporate distress improved significantly in Thailand compared to the onset of the crisis, a large share of companies continue to have weak financial structures and more than 24 percent of companies did not have enough cash to service their interest (Claessens 2001), in the middle of 2001, four years into the crisis.

IV. Conclusions

The scatter plot in Figure 5 indicates that the decentralized restructuring strategy resulted in viable financial structures of the corporate sector in those country cases where the incentive framework was conducive for bank-and corporate restructuring, i.e. countries scored relatively high on the incentive framework index. Firms in only three countries – Norway, Chile, and Poland attained viable financial structures through decentralized restructuring. The experience of Chile and Poland also suggests that weak incentives frameworks at the onset of a crises does not necessarily need to be a severe impediment to resolving corporate distress if governments upgrade the incentive framework significantly in a timely manner making it more conducive to corporate restructuring. As Figure 5 suggests the financial health of corporations in Argentina, Thailand, Hungary, and Japan did not improve significantly amidst an environment characterized by weak incentives for corporate restructuring.

The results of the country case studies point to the manifold prerequisites for the success of decentralized strategies. They require: (i) adequately-capitalized banks; (ii) proper incentives for banks and borrowers; and (iii) limited or no ownership links between banks and corporations (as otherwise the same party would be both debtor and creditor). The results also indicate that the speed with which governments improve the incentive framework for corporate restructuring is important to achieve sustainable financial structures of corporations and to accelerate corporate restructuring.

Figure 5. Success of Decentralized Corporate Restructuring Strategies



Financial institutions need to be adequately capitalized to have the loss absorption capacity to engage in sustainable corporate restructuring. If governments allow banks to recapitalize via increased earnings over a longer time horizon, either through implicit or explicit forbearance, banks' ability to engage in meaningful corporate restructuring is limited. Forbearance does not create stronger balance sheets necessary for the absorption of losses. Marginally capitalized banks often tend to engage in cosmetic restructuring such as maturity extension or interest rate reduction which may not lead to sustainable corporate financial structures. And, cross country experience shows that forbearance dilutes financial institutions' incentives to negotiate more forcefully with the controlling shareholder of distressed corporations.

Thus, decentralized strategies often require governments to help strengthen banks' capital position, if financial institutions deemed viable cannot obtain capital exclusively from private sources. One option governments can consider for strengthening banks' capital position is ex-post rather than ex-ante recapitalization. Experience, including that of Hungary, Japan, and Thailand has shown that recapitalizing banks ex-ante does not necessarily ensure that restructuring will take place, and may create considerable moral hazard. Ex-post recapitalization links government support to a financial institution's progress in debt restructuring. The most explicit form of ex-post recapitalization would be to implement a loss sharing rule by which the government would cover a certain percentage of the loss arising from corporate restructuring deals.

To put bite into the incentive framework for restructuring, governments need to tighten provisioning and classification rules for bank loans if these rules are not in line with international best practice and also adjust rules for corporations. It often also means requiring financial institutions to apply those rules uniformly to standard, restructured, or rescheduled loans and to ensure that classification is based on a borrower's demonstrated ability to repay.

Implementing tougher accounting requirements often present a trade-off for governments. Requiring financial institutions to more realistically mark their assets to market and to provision restructured debt properly has short-term repercussions on financial institutions' capital positions and often increase their capital needs. Yet, international experience shows that meeting these up-front costs early on improves banks' incentives for loan recovery and proper restructuring and may thus yield significantly lower fiscal costs ultimately (Honohan and Klingebiel 2000).

Effective insolvency systems facilitate the rehabilitation of enterprises and also provide an efficient mechanism for the liquidation of those enterprises that cannot be rehabilitated. In addition, rehabilitation procedures may help overcome coordination problems of different creditors if they allow courts to impose restructuring agreements over the objections of creditors. Moreover, in economies undergoing transition, making state-owned enterprises subject to insolvency laws sends a clear signal that there is a limit to the amount of public financial support the firms can count on.

A question, however, here is whether indeed rehabilitation can be achieved most effectively through the application of a formal procedure. In a systemic crisis in particular, many countries rely on liquidation proceedings as the principal mechanism for rehabilitating enterprises. The very existence of liquidation proceedings create incentives for an out-of court restructuring and because an enterprise can be sold as a going concern liquidation can provide an effective vehicle for rehabilitation (Hagan 2000; International Monetary Fund 1999).

If bankruptcy procedures are lengthy and weak, debtors have incentives to ride out the economic downturn without diluting ownership which may inhibit deeper restructuring. Well functioning legal procedures and good access to courts are therefore crucial. Even if an adequate bankruptcy law exists, cross-country experience shows that effective implementation of the framework is even more important. In particular, given the complexity and the urgency of insolvency proceedings, effective implementation requires judges and administrators who are efficient, ethical and adequately trained in commercial and financial matters (Hagan 2000; International Monetary Fund 1999).

Finally, ownership links between debtors and borrowers also hamper the effectiveness of decentralized work-out strategies. Extensive ownership links can lead to a deadlock of claims that may be difficult to break as the same party is both debtor and creditor.

Sources and Selected Bibliography

Abel, I., and L. Szakadat. 1997. "Bank Restructuring in Hungary." *Acta Oeconomia*: Periodical of the Hungarian Academy of Science; 49, No. 1-2:157-90. Hungary.

Alba, Pedro, Leonardo Hernandez and Daniela Klingebiel. "Financial Liberalization and the Capital Account: Thailand, 1988-97." World Bank Policy Research Working Paper, No. 2188. Washington, D.C.

Arellano, Jose Pablo, and Manuel Marfan. 1986. "Ahorro-Inversion y Relaciones Financieras en la Actual Crisis Economica Chilena." *Coleccion Estudios Cieplan* 20, 61-93.

Arnason, Birgir, Ousmane Dore, and Luis Catao. 1995. "Norway, Recent Economic Developments." International Monetary Fund Staff Countries Report, No. 95/26. Washington, D.C.

Balino, Tomas J. T. 1991. "The Argentine Banking Crisis of 1980." In Sundararajan, Vasudevan and Balino, Tomas J.T., eds. *Banking Crises: Cases and Issues*. International Monetary Fund, Washington, D.C.

Barandiaran, Edgardo and Leonardo Hernandez. 1999. "Dealing with Banking Crisis: Chile 1982-86." Mimeo.

_______, and Rolf Luders. 2000. E-mail to the author. April 8.

Barbone, Luca. 2000. Interview by author. April 12.

Belka, Marek. 1994. "Financial Restructuring of Banks and Enterprises in Poland." *Economic Policy in Transitional Economies*, 4; No. 3:71-84. Netherlands.

Berg, Jesper. 1995. "The Nordic Banking Crisis—Lessons to be Learned." Mimeo. International Monetary Fund Research Group. July. Washington, DC.

Berg, Sigbjorn A. 1997. "Bank Failures in Four Scandinavian Countries." Mimeo. Norges Bank. Stockholm.

_____, Barbro Hexeberg. 1994. "Early Warning Indicators for Norwegian Banks: A Logit Analysis of the Experiences from the Banking Crisis." *Norges Bank. Arbeidsnotat*. No. 1994/1:1-24. January. Norway.

Bonin, John P. 1993. "On the Way to Privatizing Commercial Banks: Poland and Hungary take Different Roads." *Comparative Economics Studies*, 35:103-19.

_______. 1997. "Bank Privatization in Poland: The Case of Bank Slaski." *Journal of Comparative Economics*, 25:31-61.

Borish, Michael S. , Michel Noel, and Millard Long. 1995. "Restructuring Banks And Enterprises: Recent Lessons From Transition Countries." World Bank Discussion Paper, No. 279. World Bank. Washington, D.C.

Borish, Michael S., Wei Ding, and Michel Noel. 1996a. "On the Road to EU Accession: Financial Sector Development in Central Europe." World Bank Discussion Paper, No. 345. World Bank. Washington, D.C.

_______, and Michel Noel. 1996b. "Private Sector Development During Transition: the Visegrad Countries." World Bank Discussion Paper, No. 318. World Bank. Washington, D.C.

Brock, Philip L. 1992. *If Texas were Chile: A Primer on Banking Reform.* San Francisco: ICS Press.

Brock, Philip L. 1999. "Emerging from Crisis: Bank Privatization and Recapitalization in Chile." Paper prepared for World Bank and Federal Reserve Bank of Dallas Conference on Bank Privatization.

Caprio, Gerard and Daniela Klingebiel. 1996. "Bank Insolvencies: Cross-Country Experience." Policy Research Working Paper 1620. World Bank, Washington, D.C.

_______. 1997. "Bank Insolvency: Bad Luck, Bad Policy or Bad Banking?" In Michael Bruno and Boris Pleskovic, eds., Annual World Bank Conference on Development Economics 1996. World Bank, Washington, D.C.

______. 2002. "Episodes of Systemic and Borderline Financial Crises." World Bank, Financial Sector Policy and Strategy Group, Washington, D.C.

Claessens, Stijn. 1998. "Systemic Bank and Corporate Restructuring—Experiences and Lessons from East Asia." World Bank Financial Sector Working Paper. Washington, D.C.

_______. 2001. "Corporate Restructuring in East Asia." *Asia Economic Monitor.* Asia Recovery Information Center. Asian Development Bank. December. Manila.

Claessens, Stijn, Simeon Djankov and Daniela Klingebiel. 1999a. "Financial Restructuring in East Asia – Halfway There?" World Bank Financial Sector Discussion Paper, No. 3. Washington, D.C.

_______. 1999b. "How to Accelerate Corporate and Financial Sector Restructuring in East Asia." *Viewpoint.* World Bank. September. Washington, D.C.

_______, Simeon Djankov, and Tatiana Nenova. 2000. "Corporate Risk around the World." World Bank Policy Research Working Paper, No. 2271. Washington, D.C.

_______, Daniela Klingebiel and Luc Laeven. 2001. "Financial Restructuring in Banking and Corporate sector crises: What Policies to Pursue?" National Bureau Of Economic Research. Working Paper Series, No. 8386:1-36. July.

Drees, Burkhard and Ceyla Pazarbasioglu. 1998. "The Nordic Banking Crisis. Pitfalls in Financial Liberalization?" International Monetary Fund Occasional Paper, No. 161. Washington, D.C.

Dziobeck, Claudia and Ceyla Pazarbasioglu. 1997. "Lessons from System Bank Restructuring: A Survey of 24 Countries." International Monetary Fund Working Paper, No. 161. Washington, D.C.

European Bank for Reconstruction and Development. 1998. *Transition Report 1998: Enterprise Performance and Growth.* London.

Foley, Fritz. 2000. "Going Bust in Bangkok: Lessons from Bankruptcy Law Reform in Thailand." Harvard Business School, Cambridge, Mass.

Galvez, Julio, and Tybout, James. 1985. "Microeconomic Adjustments in Chile during 1977-81: The Importance of Being a Grupo." *World Development* 13, 969-994.

Giorgio, Luis A. and Silvia B. Sagari. 1996. In Sheng, Andrew, ed. *Bank Restructuring. Lessons from the 1980s.* World Bank. Washington, D.C.

Goldman Sachs. 2002a. *Just Say No (to Public Money for Major Banks): Banks.* Goldman Sachs Global Equity Research. January 9. Tokyo.

Goldman Sachs. 2002b. *Update on Disclosed NPLs: Banks.* Goldman Sachs Global Equity Research. February 13. Tokyo.

Goldman Sachs. 2002c. *Public Money and Deflation Policy: Banks.* Goldman Sachs Global Equity Research. February 19. Tokyo.

Gray, Cheryl W., and Arnold Holle. 1996a. "Bank- Led Restructuring In Poland: An Empirical Look At The Bank Conciliation Process." World Bank Policy Research Working Paper, No. 1650. Washington, D.C.

______. 1996b. "Bank-led restructuring in Poland: Bankruptcy and its Alternatives." Policy Research Working Paper, No. 1651. Washington, D.C.

Hagan, Sean. 2000. "Promoting Orderly and Effective Insolvency Procedures." *Finance and Development* 37, No. 1:50-52.

Hausmann, Ricardo, and Liliana Rojas-Suarez. 1996. "Banking Crises in Latin America". Published by the Inter-American Development Bank. Distributed by the John Hopkins University Press. Washington, DC.

Honohan, Patrick and Daniela Klingebiel. 2000. "Controlling the Fiscal Costs of Banking Crises." World Bank Policy Research Working Paper, No: 2441. Washington, D.C.

International Monetary Fund. 1998. *IMF World Economic Outlook (WEO): Financial Turbulence and the World Economy.* October. Washington, D.C.

_______. 1999a. "Financial Sector Crisis and Restructuring: Lessons from Asia," September. Washington, D.C.

_______. 1999b. *IMF International Capital Markets.* September. Washington, D.C.

_______. 1999c. "Republic of Poland: Selected Issues." International Monetary Fund Staff Country Reports, No. 99/32. Washington, D.C.

_______. 2000. *IMF International Capital Markets.* September. Washington, D.C.

_______. 2002. *Global Markets Monitor.* International Capital Markets Department. April 18. Washington, D.C.

Kanaya, Akihiro and David Woo. 2000. "The Japanese Banking Crisis of the 1990s: Sources and Lessons." International Monetary Fund Working paper, WP/00/7. Washington, D.C. January.

Kane, Edward J. 1989. *The S & L Insurance Mess : How Did It Happen?* Urban Institute Press. Washington, D.C.

Karlsen, Harald. 1994. "The Norwegian Banking Crisis—Rescue Operations in the Period 1988-1993." *Norges Bank Economic Bulletin,* Q1.

______ and Robin R. Nilsen. 1996. "Finance Institutions in 1995." *Norges Bank Economic Bulletin.* Norway; 67 No.1:56-71. March.

______. 2000. E-mails to the author. February 11 and 14.

Klingebiel, Daniela. 2000. "The Use of Asset Management Companies in the Resolution of Banking Crises: Cross-Country Experience." World Bank Policy Research Working Paper, No. 2284. Washington, D.C.

Kopanyi, Mihaly. 2000a. "Workout of Classified Claims and Enterprise Restructuring Experiences in Hungary 1992-1999." World Bank. Mimeo.

_____. 2000b. E-mail to the author. April 26.

Larrain, Felipe. 1989. "Debt Reduction Schemes and the Management of Chilean Debt." International Discussion Paper. World Bank. March. Washington, D.C.

Larrain, Mauricio. 1989. "How the 1981-83 Chilean Banking Crisis was Handled." World Bank Policy Working Paper, No. 300. Washington, D.C.

La Porta, Rafael, Florencio Lopez-de-Silanes, and Andrei Shleifer. 1998. "Law and Finance." *Journal of Political Economy* 106: 1113-55.

_____. 1999. "Corporate Ownership Around the World." *Journal of Finance,* 54(2): 471-518.

Luders, Rolf. 1989. "El Saneamiento del Sistema Financiera en Chile." In Juan Carlos Casas, ed., *Saneamiento de Bancos, Estudios de Crisis Financieras en la Argentina, Colombia, Chile, Espana, E.E.U.U., Italia y Uruguay.* Ediciones El Cronista Comercial. Buenos Aires.

Marshall, Jorge and Schmidt-Hebbel, Klaus. 1994. "Chile: Fiscal Adjustment and Successful Performance" In William Easterly, C. A. Rodriguez and K. Schmidt-Hebbel, eds., *Public Sector Deficits and Macroeconomic Performance.* Oxford University Press.

Mizala, Alejandra. 1991. *Financial Market Liberalization in Chile.* Garland Publishing, New York and London.

Montes-Negret, Fernando and Luca Papi. 1997. "The Polish Experience with Bank and Enterprise Restructuring." World Bank Policy Research Working Paper, No. 1705. Washington, D.C.

Norway's Royal Ministry of Finance and Customs. 1992. *Report by the Commission on the Banking Crisis.*

Pohl, Gerhard, Simeon Djankov and Robert E. Anderson. 1996. "Restructuring Large Industrial Firms in Central and Eastern Europe: An Empirical Analysis." World Bank Technical Paper, No. 332. Washington, D.C.

Pohl, Gerhard, Robert E. Anderson, Stijn Claessens, and Simeon Djankov. 1997. "Privatization and Restructuring in Central and Eastern Europe: Evidence and Policy Options." World Bank Technical Paper, No. 368. Washington, D.C.

Sanhueza, Gonzalo I. 1999. "La Crisis Financiera de los Anos 80 en Chile: Analisis de sus Soluciones y su Costo." *Economia Chilena,* 2 No 1. April, pp. 43-68.

______. 2000a. "Chilean Banking Crisis of the Eighties: Solutions and Estimation of the Costs." Mimeo. January.

______. 2000b. E-mail to the author. February 16.

Sheng, Andrew. 1996a. "Banking Fragility in the 1980s." In Sheng, Andrew, ed. *Bank Restructuring. Lessons from the 1980s.* World Bank. Washington, D.C.

______. 1996b. "Bank Restructuring Techniques." In Sheng, Andrew, ed. *Bank Restructuring. Lessons from the 1980s.* World Bank. Washington, D.C.

______. 1996c. "Financial Liberalization and Reform, Crisis and Recovery in the Chilean Economy, 1974-87." In Sheng, Andrew, ed. *Bank Restructuring. Lessons from the 1980s.* World Bank. Washington, D.C.

Simoneti, Marko and Stefan Kawalec. 1995 "Bank Rehabilitation and Enterprise Restructuring." *CEEPN Workshop Series*, no. 6. Budapest, Hungary.

Skarmeta, Claudio. 1999. "Slide presentation." Presented at World Bank Roundtable. June.

______. 2000. E-mail to the author. March 13.

Sundararajan, Vasudevan and Balino, Tomas J.T. 1991. "Issues in Recent Banking Crises" In Sundararajan, Vasudevan and Balino, Tomas J.T., eds. *Banking Crises: Cases and Issues.* International Monetary Fund, Washington, D.C.

Van Wijnbergen, Sweder. 1994. "On the Role of Banks in Enterprise Restructuring: The Polish Example." Centre For Economic Policy Research. Discussion Paper Series (U.K.), No. 898. February.

Velasco, Andres. 1991. "Liberalization, Crisis, Intervention: The Chilean Financial System, 1975-85." In Sundararajan, Vasudevan and Balino, Tomas J.T., eds. *Banking Crises: Cases and Issues.* International Monetary Fund, Washington, D.C.

World Bank. 1985. *Argentina: Strategies Toward Industrial and Export Development.* September. Washington, D.C.

______. 1987. *Chile: Adjustment and Recovery.* December. Washington, D.C.

______. 1988. *Argentina: Banking Sector Loan Project. President's Report.* February. Washington, D.C.

______. 1993. *Poland: Enterprise and Financial Sector Adjustment Loan Project. President's Report.* April. Washington, D.C.

______. 1994. *Poland: Policies for Growth with Equity.* Washington, D.C.

______. 1996. *World Development Report 1996: From Plan to Market.* New York: Oxford University Press.

______. 1997a. "Hungary: Enterprise and Financial Sector Adjustment Loan Project." *President's Report.* February. Washington, D.C.

_______. 1997b. "Poland: Enterprise and Financial Sector Adjustment Loan Project." *Implementation Completion Report.* June. Washington. D.C.

_______. 1997c. "Poland - Country Economic Memorandum: *Reform and Growth on the Road to the EU.*" *Economic Report.* July. Washington, D.C.

_______. 1998. *East Asia: The Road to Recovery.* Washington, D.C.

_______. 1999a. "Hungary: Enterprise and Financial Sector Adjustment Loan Project." *Implementation Completion Report.* June. Washington, D.C.

_______. 1999b. *Hungary: On The Road to the European Union.* Washington, D.C.

_______. 2000a. "Poland: Enterprise and Financial Sector Adjustment Loan Project." *Project Performance Audit Report.* March. Washington, D.C.

_______. 2000b. "Thailand - Social and Structural Review-beyond the Crisis: Structural Reform for Stable Growth." *Economic Report.* January. Washington, D.C.

_______. Various years(a). Poland: Enterprise and Financial Sector Adjustment Loan Project Files.

_______. Various years(b). Hungary: Enterprise and Financial Sector Adjustment Loan Project Files.

Annex Table 1. Government Policies to Resolving Bank and Corporate Distress

Country	Type of distress (public or private debt)	Scope of distress (Peak level of NPLs as percent of financial system assets)		Government resolution strategy					
		Financial Sector (level of NPLs at peak as % of banking system)	Corporate Sector	Provision of liquidity support	Closure of financial institutions	Public recapitalization program		Private injection of capital	Public debt relief program
						Public funds for recapitalization (conditions and type of program)	Take up		
Argentina (1980-82)	• Private sector debt	Estimated at 50% (1979-81)	Peak real rate of increase of business failures was 76% in 1980, the first year of the crisis. (Measured as liabilities of firms declared bankrupt deflated by WPI.)	No	Yes. 83 institutions closed by end 1982.	No	Not applicable	Not applicable	Yes. (i) Repeated refinancing programs for private debt in 1981-82; (ii) government assumption of private foreign debt liabilities in 1981-82 and a portion of the debt was exchanged for pesos at below-market exchange rate. [6]

[6] Primary resolution mechanism was liquidation of financial institutions. Fiscal cost of refinancing amounted to 7% of GDP.

Country	Type of distress (public or private debt)	Scope of distress (Peak level of NPLs as percent of financial system assets)		Government resolution strategy					
		Financial Sector (level of NPLs at peak as % of banking system)	Corporate Sector	Provision of liquidity support	Closure of financial institutions	Public recapitalization program		Private injection of capital	Public debt relief program
						Public funds for recapitalization (conditions and type of program)	Take up		
Chile (1981-86)	• Private sector debt	35.4% of loans (1986) US$5.5 billion	Estimated increase in number of bankruptcies from 81 in 1975 to 810 in 1982.	Yes. Emergency loans extended to banks at the start of the crisis.	Yes. 3 of 11 financial institutions intervened in 1981-82 were liquidated in 1983.[7]	Yes. Feb 1984 loan purchase programs to non-intervened banks but no conditions on bank restructuring were required. The central bank purchased loans up to 150% of capital and reserves and the banks in turn purchased interest-bearing central bank promissory notes at favorable terms. Bank shareholders were required to commit all dividends to the repurchase until the purchase obligation was completed. Administration of the purchased loan portfolio, however, remained in each bank.	25 of 42 institutions sold bad loans to the central bank amounting to 20% of the total loans in the banking system. Loan purchase improved the solvency of non-intervened banks and accelerated the recognition of required provisions.	Yes. "Capitalismo Popular" program for privatization of 4 intervened banks to small individual investors injected new capital into the banks accompanied by subsidies.	Yes. Repeated programs: (i) various across-the-board debt rescheduling programs (such as debts of "productive debtors", medium-sized businesses, transport companies, mortgage & consumer loans); (ii) preferential exchange rate scheme; (iii) government's assumption of foreign exchange losses through de-dollarization of foreign loans.[8] Also, smaller debt relief programs for mortgage and consumer loans and debts of medium-sized businesses, transport companies.

[7] Cumulative cost of liquidations amounted to 11% of GDP (Barandiaran and Hernandez 1999).
[8] The fiscal costs to GDP of the programs were 2.7%, 14.7% and 6.1% of GDP.

Country	Type of distress (public or private debt)	Scope of distress (Peak level of NPLs as percent of financial system assets)		Government resolution strategy					
		Financial Sector (level of NPLs at peak as % of banking system)	Corporate Sector	Provision of liquidity support	Closure of financial institutions	Public recapitalization program: Public funds for recapitalization (conditions and type of program)	Public recapitalization program: Take up	Private injection of capital	Public debt relief program
Hungary (1991-95)	• Debts owed by state-owned enterprises, mainly, to state-owned banks. [9]	26% of loans (1994)	Gross enterprise losses increased from less than 1% of GDP in 1988 to 14% in 1992. In 1993, on the basis of a MOF survey, 50% of 70,000 enterprises (mainly in industry) were loss makers. The largest loss-making firms (about 500) accounted for 60% of total enterprise losses and 50% of overdue bank debt. [10]	Yes	Yes. But not until 1986. One bank was liquidated and one specialized bank surrendered bank license. [11]	Yes. Three recapitalization programs of one per year during 1991-93 without subjecting the banks to any serious conditions. In the 1992-1993 programs, the government carved out 90% of the face value of the NPL portfolio in exchange for government bonds, while the banks assumed 10% of the face value of losses. The 1993 scheme required banks to sign a consolidation agreement with the government to ensure their operational and financial restructuring; in practice, these agreements did not specify quantitative performance criteria and targets nor specify remedial measures. [12]	14 banks (including the 5 largest state-owned commercial banks) and 60 savings cooperatives participated in the 1992 scheme. But in 1993, 8 banks, including 3 of the largest banks, and many cooperatives were found to be significantly capital-deficient. The 1993 scheme entailed an initial recapitalization of the insolvent banks to 0% CAR and two subsequent recapitalizations to bring the banks to 4% and 8% CAR. Cumulative recapitalization was US$3.5 billion or 8% of 1994 GDP.	Yes. Government adopted new strategy after the 1991-93 recapitalizations that focused solely on bank privatization from 1994 onward.	No

[9] Private banks consisted of small cooperative banks catering to the financing needs of private farmers and rural households.
[10] Gross enterprise losses rose from 1% of GDP in 1988 to 14% in 1992 (World Bank 1997a).
[11] Borish, Ding and Noel 1996a.
[12] Also, there were no sanctions for non-compliance.

Country	Type of distress (public or private debt)	Scope of distress (Peak level of NPLs as percent of financial system assets)		Government resolution strategy					
		Financial Sector (level of NPLs at peak as % of banking system)	Corporate Sector	Provision of liquidity support	Closure of financial institutions	Public recapitalization program: Public funds for recapitalization (conditions and type of program)	Public recapitalization program: Take up	Private injection of capital	Public debt relief program
Japan (1991 – ongoing)	• Private sector debt	30% of loans (1998)	Corporate balance sheets deteriorated over the 1990s and ROEs dropped from 7.5% in late 1980s to an average of 2.8% in the 1990s.	Yes. For the first seven years of the crisis, authorities attempted to keep banking system afloat by providing liquidity loans.	Yes. Up to late 1997, government relied on "convoy" system in which strong banks were called upon to support weaker banks. Closure of 7 housing companies (jusen) down in 1995. Two major banks nationalized in 1998	Yes. Government recapitalization scheme put in place in 1998 and again in 1999; ex-ante recapitalization; Banks had to meet two criteria to qualify for public funds • positive net worth and • ability to generate long-term profits. Second time around, conditionality was more strictly adhered to.	In 1998, 18 major and three regional banks received Yen 1.8 trillion in public funds. The government either purchased preferred shares or subordinated debt. Thus, all major banks except for one received public funds. In March 1999, 15 banks received Yen 7.5 trillion 80% of which was in the form convertible preferred stock.		No
Norway (1987 – 93)	• Private sector debt (Corporate, mostly, and household)	4% of assets (1991)	Bankruptcy rates rose by 40% a year during 1986-89. [13] Bank losses concentrated in primary sectors (14%), mining & export-oriented manufacturing (15%) and real estate (13%).	Yes. "Special term" loans extended in 1991-92 by the central bank to the banking system at interest rates lower than other central bank loans.	No	Yes. Injection of equity to one large commercial bank (besides the three largest that were nationalized) and to 3 large savings banks and other savings banks.	Direct capital injections during 1989-92: NOK 1 billion (US$ 155 million) to one commercial bank; NOK 3 billion (US$ 465 million) to the savings banks.	No	No

[13] Finance companies were the first to show the effects of the emerging crisis in 1986-87 with losses mainly from property investments exceeding 5% of loans and many companies went out of business and were restructured. In 1987, three medium-sized banks recorded heavy losses that wiped out their equity capital. Then, in 1990, the largest banks encountered problems due to heavy loss provisions. In contrast to the first phase of the crisis in 1987-89 when newly established firms faced problems, well-established companies especially in trade, hotels and restaurants and real estate, defaulted on their loans.

Country	Type of distress (public or private debt)	Scope of distress (Peak level of NPLs as percent of financial system assets)		Government resolution strategy					
		Financial Sector (level of NPLs at peak as % of banking system)	Corporate Sector	Provision of liquidity support	Closure of financial institutions	Public recapitalization program		Private injection of capital	Public debt relief program
						Public funds for recapitalization (conditions and type of program)	Take up		
Poland (1992 – 95)	• Debts owed by state-owned enterprises (SOEs), mainly, to state-owned banks. [14]	35.7% of loans (1993)	67% of enterprises remaining in state hands were loss makers, mostly in heavy industry (1992) [15]	Yes	No	Yes. To be eligible for recapitalization, banks were required to have independent audits and portfolio reviews, assignment of NPLs to separate workout units and strategic plan submitted to MOF to deal with troubled assets.	Upfront recapitalization of US$ 750 million in 1993 of seven commercial banks (18% of the total assets of those banks). Recapitalization permitted these banks to write off a significant portion of unrecoverable debts.	No	No
Thailand (1997 – ongoing)	• Private sector debt problem.	32% of loans (1998)	32.6% of corporations (1997) could not service their debts	Yes. Substantial (20% of GDP)	Yes. 57 of 91 finance companies; 1 of 15 domestic banks	Yes In place since August 1998; Ex-ante recapitalization through tier 2; a weak link to corporate recapitalization exists through tier 2 capital. Current shareholder capital expected to be written down to zero before infusion and government can change management; however weak sticks in place to make program credible.	Government injected $8.9 billion into private banks and $11.7 billion into public banks		No

[14] Private banks consisted of small cooperative banks catering to the financing needs of private farmers and rural households.

[15] Loss-making SOEs not servicing their debts numbered 2000 and accounted for 40% of the total loan portfolio of nine state owned commercial banks. As of September 1992, some 3000 non-commercialized enterprises remained in state hands.

Annex Table 2. Incentive Framework at Onset of Crisis

Country	Ownership links between banks and corporations					Banks' and non-financials' capital adequacy positions	Accounting framework [16] (Countries are scored on a scale from 1 to 4 for each variable with 4 indicating best practice and 1 indicating furthest away from best practice.)			
	Framework			*Practice*						
	Banks allowed to own non-financial firms	Non-financial companies allowed to own financial firms	Significant ownership links between banks and corporations	Significant links between non-banks and corporations	Financial and non-financial companies linked through family ownership		Loan classification	Loan loss provisioning	Interest accrual	Average
Argentina (1980-82)	Limited.	Permitted but subject to prior approval of authorities.	No. But the interfirm market developed a highly interconnected infrastructure that allowed participants to void reserve requirements and regulations on related lending, portfolio concentration and minimum capital.	Yes. If any, through the interfirm market.	No	One of the largest private banks, three other banks and a number of non-bank institutions, all of which expanded quickly were considered insolvent and were closed or intervened in 1980. The only institutions that appeared solvent were those backed by the government or those private banks with well-established reputation. By 1983, many non-bank institutions were liquidated and the rest were either merged or transformed with banks.	1	1	1	1

[16] Note: Countries are scored on a scale from 1 to 4 for each indicator with 4 indicating best practice and 1 indicating furthest away from best practice.

Loan classification
1 = loan past due more than 360 days
2 = loan past due more than 180 days
3 = loan past due more than 90 days
4 = repayment capacity of borrower/forward looking

Specific loan loss provisioning:
1 = 0% substandard; 50% doubtful; 100% loss.
2 = 10 – 15% substandard; 50% doubtful; 100% loss.
3 = 20% substandard; 75% doubtful; 100% loss.
4 = present value of future cash flow or fair value of collateral.

Interest Accrual
1 = up to 6 months, no clawback.
2 = up to 3 months, no clawback.
3 = up to 6 months, with clawback.
4 = up to 3 months, with clawback

Country	Ownership links between banks and corporations					Banks' and non-financials' capital adequacy positions	Accounting framework [16] (Countries are scored on a scale from 1 to 4 for each variable with 4 indicating best practice and 1 indicating furthest away from best practice.)			
	Framework			*Practice*						
	Banks allowed to own non-financial firms	Non-financial companies allowed to own financial firms	Significant ownership links between banks and corporations	Significant links between non-banks and corporations	Financial and non-financial companies linked through family ownership		Loan classification	Loan loss provisioning	Interest accrual	Average
Chile (1981-86)	In 1980, limit on bank investment in a given enterprises' shares was raised from 10% to 20% of bank's paid capital and reserves.	In 1978, the maximum individual holdings of bank shares of 3% by companies allowed under the 1974 law was abolished because it was difficult to enforce. In 1980, a limit of 5% for unsecured credits and 25% for secured credits was introduced and halved in the case of borrowers linked to the bank.	Yes. Through "grupos" or financial and manufacturing conglomerates. After liberalization (in the mid-1970s), grupos acquired nearly all the largest and manufacturing and banking firms.[17] Grupos often used bank credit to purchase shares in the banks being acquired, with the stock themselves as loan collateral. By 1982, related lending accounted for 14% of total loans and 21% of the loans of the five largest private banks.	Yes. Also through grupos.	No	By the end of 1983, banking system's net worth stood at −12.2 billion pesos as it faced losses of 70 billion pesos.[18] (Or NPL to equity ratio rose from 22.4% in 1981 to 158.1% in 1985.)	3.	Between 2 and 3 [19]	2	2.5
Hungary (1991-95)	Permitted	Permitted	When the banking sector was organized in 1987, SOEs could own shares of state-owned banks. The big debtors were the shareholders.	Links, if any, were through state ownership.	No	Despite the 1991-92 recapitalizations of the banking system, eight large banks (and some cooperatives) were still technically insolvent as of 1993.	3	Between 2 and 3 [20]	2 [21]	2.5

[17] Velasco 1991.
[18] Sheng 1996.
[19] Specific provisions of 100% of past due loans (Sanhueza 2000b).
[20] 20% substandard; 50% doubtful; 100% loss
[21] 1993 Banking Act amendment (effective 1994) introduced mandatory 100% provision for past due but unpaid interest although interest suspension was not provided (Borish, Ding and Noel 1996a).

Country	Ownership links between banks and corporations					Banks' and non-financials' capital adequacy positions	Accounting framework [16] (Countries are scored on a scale from 1 to 4 for each variable with 4 indicating best practice and 1 indicating furthest away from best practice.)			
	Framework			*Practice*						
	Banks allowed to own non-financial firms	Non-financial companies allowed to own financial firms	Significant ownership links between banks and corporations	Significant links between non-banks and corporations	Financial and non-financial companies linked through family ownership		Loan classification	Loan loss provisioning	Interest accrual	Average
Japan (1991 – ongoing)	Limited to holding 5% interest. [22]	Permitted, provided total investment does not exceed investing firm's capital or net assets.	Banks and firms are linked through extensive web of relationships between core shareholders and main customers		15 largest families own 7% of banks, 16% of corporations, and 13% of non-banks.	The collapse of the real estate market and equity prices turned many loans non-performing and considerably reduced banks' capital position. Jusen companies and smaller banks were affected the worst.	2	2	2	2
Norway (1987 – 93)	Investments of up to 49% in single companies; only 4% of total bank assets permitted to be invested in shares.	Generally, there is a maximum ownership limit of 10% of any single owner of a financial institution; some exceptions.	No	No	No	Banks were poorly capitalized and had little to cushion themselves against loan losses. Banking Law of 1972 required each bank to maintain 6.5% CAR when the prevailing ratio prior to 1972 was 8%.	3	4	4 [23]	3.7
Poland (1992 – 95)	Permitted up to 25% of the bank's capital. [24]	Permitted	Links, if any, were through state ownership.	Links, if any, were through state ownership.	No	1991 portfolio reviews of the seven state-owned commercial banks showed them to be insolvent in the aggregate. The capital shortfall of these seven banks was significant and estimated at US$750 million. [25]	3 [26]	Between 2 and 3 [27]	4 [28]	3.2

[22] Bank holding companies and their subsidiaries are allowed to hold in the aggregate up to 15% of the total shares of non-financial companies.
[23] 1987 banking regulations stipulated that banks could not enter as income any unpaid interest on NPLs (Karlsen 2000).
[24] The central bank may grant exceptions to the limitation. Non-financial assets acquired by banks during bank conciliation or restructuring agreements were encouraged to be sold within 2-3 years.
[25] Agricultural bank and the housing bank.
[26] Substandard loans include those past due between 7 and 90 days.
[27] 20% substandard; 50% doubtful; 100% loss
[28] Interest due but not received was not taxable. Provisions for losses can be made before tax as in the case of loans classified as doubtful or loss.

Country	Ownership links between banks and corporations					Banks' and non-financials' capital adequacy positions	Accounting framework [16] (Countries are scored on a scale from 1 to 4 for each variable with 4 indicating best practice and 1 indicating furthest away from best practice.)			
	Framework			*Practice*						
	Banks allowed to own non-financial firms	Non-financial companies allowed to own financial firms	Significant ownership links between banks and corporations	Significant links between non-banks and corporations	Financial and non-financial companies linked through family ownership		Loan classification	Loan loss provisioning	Interest accrual	Average
Thailand (1997 – ongoing)	Yes	Yes; statutory limit 5%;	No.	No.	Yes [29]	Many weak public and private commercial banks.	1	1	1	1

[29] It has been estimated, for example, that the top 10 families controlled 46.2 percent of the market capitalization of listed firms as of end-1996, of which holdings in financial institutions accounted for 18.3 percent of their wealth and in corporations for the rest (World Bank 2000b).

Changes in Incentive Framework During Crisis

Country	Ownership links between banks and corporations								Banks' and non-financials' capital adequacy positions
	Changes in framework		*Changes in ownership structure*						
	Banks allowed to own non-financials	Non-financials allowed to own financials	Nationalization (share of assets held by state-owned)	Privatization	Sale to foreigners	Concentration of ownership control among top 15 families	Assets carved out	Assets held by state as share of GDP	
Argentina (1980-82)						Not applicable	Not applicable	Not applicable	Analysis of banks covering 1982-86 showed continuous decline in ROE and weakening of loan portfolios. By 1986, banks representing 26% of total bank assets had lost at least 50% of their equity while institutions accounting for 41% had negative real return on equity. [30]
Chile (1981-86)	Not permitted.	Permitted up to 10% of bank's shares and Superintendent's prior approval. (Loans to related companies were to be reduced to no more than 5% of the total portfolio by end 1990.)	In 1981/2, 11 institutions were intervened of which 9 finance companies were liquidated. Two large banks were later sold to foreigners. In 1983, the government intervened in 7 banks (& 1 finance company) though 3 institutions were liquidated.	The five intervened banks that were not liquidated were privatized by 1986.	Two banks intervened in 1981/82 were sold to foreigners. Of the banks intervened in 1983, those that were restructured were sold mainly to domestic investors through capitalismo popular for individual investors and sales to groups of domestic private investors.	Not applicable	Not applicable	Not applicable	Loan purchase programs in general gave the banks the possibility of writing off bad loans over a 10-year period. Privatization of 4 intervened banks allowed them to be fully capitalized by 1986.

[30] World Bank 1998.

Country	Ownership links between banks and corporations								Banks' and non-financials' capital adequacy positions
	Changes in framework		*Changes in ownership structure*						
	Banks allowed to own non-financials	Non-financials allowed to own financials	Nationalization (share of assets held by state-owned)	Privatization	Sale to foreigners	Concentration of ownership control among top 15 families	Assets carved out	Assets held by state as share of GDP	
Hungary (1991-95)	No changes	No changes	Recapitalization in 1991-94 through exchange of bonds for NPLs resulted in nationalization such that out of 44 banks in operation in 1995, 17 were majority state-owned and 5 had minority state ownership. [31] Previously, bank shareholders included state-owned enterprises.	Government implemented bank privatization in earnest starting in 1995. By year end, about three fourths of the banks were majority private.	Majority stake in held by foreign investors in 7 largest commercial banks as of 1999.	Not applicable	Not applicable	As of 1998, state held minority stakes in 2 banks and 100% ownership of 1 bank (due to recapitalization in 1997-98), equivalent to 0.3% of GDP.	Average CARs of the large mostly privatized banks improved to 13% in 1998. Average in medium private (de novo) banks was 17% in 1998. [32]
Norway (1987 – 93)	No changes	No changes	By 1991, recapitalization resulted in the government's sole ownership or majority shareholding of the three largest commercial banks which accounted for 85% of all commercial bank assets. In the mid-1990s, the government expressed its intention to reduce its shareholding to 50% of the two largest banks by fall 1997 and to at least one third thereafter.	In 1995, two years after resolution of the crisis, the government sold the third largest bank.	The sale of the third largest bank was mostly to foreign investors.	Not applicable	Not applicable	As of 1998, the state maintained 61% and 51% stake in the two largest banks that accounted for 40% and 30% of total commercial bank lending. [33]	Average CARs of commercial banks increased from 7% in 1981-85 to 10.6% in 1993. By mid-1990, banks' capital positions were considered healthy and sufficient to absorb losses.

[31] Recapitalization effectively renationalized the banks with the MOF receiving 75% of shares of the banking system (Borish, Ding and Noel 1996a)
[32] World Bank 1999b.
[33] As of 1998, GDP = NOK 1100 billion and deposit money bank assets = NOK 1030 billion; government's holdings of the two largest banks = NOK 9195 million.

Country	Ownership links between banks and corporations								Banks' and non-financials' capital adequacy positions
	Changes in framework		*Changes in ownership structure*						
	Banks allowed to own non-financials	Non-financials allowed to own financials	Nationalization (share of assets held by state-owned)	Privatization	Sale to foreigners	Concentration of ownership control among top 15 families	Assets carved out	Assets held by state as share of GDP	
Poland (1992 – 95)	No changes [34]	No changes	Seven of 9 state owned commercial banks received government bonds to raise their capital adequacy.	Authorities aimed at privatization of all nine state-owned commercial banks. As of end 1995, 4 banks with 13% of total banking assets were privatized. By 1998, only two state-owned banks remained.	Sale of four banks resulted in foreign ownership shares in the range of 25-56%. Initially, bank privatization faced political resistance to foreign investment. [35]	Not applicable	Not applicable	38% of banking system equity [36] (1995)	Recapitalization allowed 7 banks to achieve 12% CAR. But two specialized banks (26% of total bank assets, 1995) are in need of restructuring. But many private banks created in the early 1990s with loose licensing standards would face capital shortfalls under existing requirements. Thus, overall CAR for the entire banking system stood at 6% in 1995. [37] In 1996, if loan classification standards had been strictly applied, the specialized banks and many small banks would have been out of compliance. [38]
Thailand (1997 – ongoing)	No changes	No changes	4 institutions; 43 percent (1999)	Intended for public institutions	2 banks sold to foreigners; 4 pending (1999)	53.5 percent	2 percent (finance companies, 1999)	127 percent (1999)	No. Main private and large public banks continue to be weakly capitalized.

[34] Unclear about the position of equity holdings swapped for bad debts in 5 commercial banks (implications for management and banks' regulatory compliance) (World Bank 1994).

[35] Following the first bank privatization, the banks' shares were put on the market and the subsequent price jump led to criticism of the MOF for having undervalued the shares before going public. This prompted the authorities to be more cautious in selecting investment advisors and caused a slowdown in the process.

[36] As of 1995, total bank assets stood at 42% of GDP. State held 55% of bank assets.

[37] World Bank 1997c.

[38] World Bank 1997c.

Country	Tax or other impediments to revelation of losses	Loan classification and loan loss provisioning framework (Same framework as above)				Troubled Debt Restructuring Framework		
		Loan classification	Loan loss provisioning:	Interest accrual	Average	Classification guidelines of reclassified loans	Debt/Equity Swap	Mergers and Acquisitions
Argentina (1980-82)	• Long tradition of the banking superintendency of overlooking analysis of loan portfolio quality and operating efficiency of banks.	1	1	1	1.0	No separate framework.	Not applicable	Not applicable
Chile (1981-86) Changes to prudential regulations were made in 1985-86.	• Tax deductibility of specific provisions was allowed. • Until the tax reform of 1984, the tax rate on dividends exceeded that of interest income	4	3 [39]	4	3.7	Not immediate. Required permission of the Superintendency.	No debt-equity swaps under loan purchase and rescheduling programs. Swaps were used mainly by non-intervened banks, especially with foreign debt.	
Hungary (1991-95)	• Authorities announced their intention to adopt regulations on accounting, reporting and valuation of restructured debt in 1996-97. As of June 1999, such regulations had not been introduced.	4	3 [40]	3	3.3	No separate framework. [41]	Under the recapitalization/ loan consolidation program in 1992, it was unclear whether debt equity swaps were legal or illegal.	
Japan (1991 – ongoing) Changes to framework were made in 1998	• Banks were not allowed to deduct from taxable income losses incurred as consequence of out-of court restructuring. This was corrected only in June of 1998. • Also, provisions and debt forgiveness have not been tax deductible.	2	2	2	2.0 • Still inadequate recognition and under provisioning of loans. • The book value is still used for valuing securities.	No separate framework		

[39] Under 1982 law: 20% substandard, 40% doubtful, 100% loss (Sanhueza 2000b).
[40] 1993 Banking Act amendment (effective 1994) introduced the use of forecasts of potential losses in classification and provisioning (Borish, Ding and Noel 1996a).
[41] As of June 1999, troubled debt restructuring regulations had not been adopted.

Country	Tax or other impediments to revelation of losses	Loan classification and loan loss provisioning framework (Same framework as above)				Troubled Debt Restructuring Framework		
		Loan classification	Loan loss provisioning:	Interest accrual	Average	Classification guidelines of reclassified loans	Debt/Equity Swap	Mergers and Acquisitions
Norway (1987 – 93)	• Specific loan loss provisions were fully tax deductible.	4	4	4	4.0	Reclassification allowed only after regular servicing.	Equity was valued at market value or present value, whichever was lower. Provisioning made if the value of the equity was lower than the original debt exposure.	None.
Poland (1992 – 95)		3	3	4	3.3	Reclassification only after 3 months of debt servicing.	Unfavorable tax treatment of equity swaps.	
Thailand (1997 – ongoing)		3	3	2	2.7	Immediate reclassification possible.		

Legal Framework [42]

Country	Restrictions for going into reorganizations	No automatic stay on assets	Secured creditor paid first	Manager does not stay in reorganizations	Sum of creditor rights	Efficiency of judicial system index	Enforcement of creditor rights index [43]	Rule of law index	Corruption index	Specific Impediments
Argentina (1980-82)	0	0	1	0	1	6.0	0.6	5.35	6.02	
Chile (1981-86)	1	0	1	0	2	7.2	1.4	7.02	5.30	
Hungary [44] (1991-95)	1	1	0	0	2	3.0	0.6	n.a.	n.a.	The lack of modern and efficient institutions and judicial capacity is evident in the huge court backlog for liquidation procedures during 1992-96.
Japan (1991 – ongoing)	0	0	1	1	2	8.0	1.6	8.98	8.52	
Norway (1987 – 93)	1	0	1	0	2	10.0	2.0	10.0	10.0	None
Poland (1992 – 95)	1	0	1	0	2	3.0	0.6	n.a.	n.a.	Shortage of trained judges; weak enforcement of court judgments; high court costs for case filing; weak administration of courts; outdated/inefficient registries for property rights, entry and exit.
Thailand (1997 – ongoing)	1	1	0	1	3	3.2	0.9	6.25	5.18	

[42] Sources for indices of creditor rights, efficiency of judicial system, rule of law and corruption: La Porta Lopez-de-Silanes, and Shleifer 1998, Claessens, Djankov and Nenova 2000; World Bank 1985; Barandiaran and Luders 2000, Sanhueza 2000b; Kopanyi 2000b; International Monetary Fund 1999b; Karlsen 2000 and Norway's Ministry of Finance; authors' estimates.

[43] Computed as the product of the creditor rights and efficiency of judicial system indices divided by 10.

[44] 1993/94 bank and debtor conciliation program was unsuccessful. Only 14% of the eligible enterprises applied to the program. Banks were less willing to write off debts and preferred to sell assets pledged as collateral. The negotiations were frequently interrupted by interventions from the State Property Agency; the selection process of enterprises was based on non-financial considerations; the agreements failed to specify quantitative performance criteria and targets and to impose penalties for non-compliance (Kopanyi 2000a).

Annex Table 3. Characteristics of Financial Restructuring Approach Adopted and Results

Country	Government Resolution Approach				
	AMC mechanism used	Decentralized Mechanisms	Growth	Other Impediments to Corporate Restructuring	Results
Argentina (1980-82)	None	*Capital position of banks* • The government's strategy of bank mergers and transformation was not sufficient to attain a capital base that could support losses when loan portfolios began to deteriorate again. *Accounting framework* • Central bank tightened its supervisory function. But despite improved supervision and a comprehensive set of prudential regulations, recognition of loan losses still suffered from (among others) the lack of an appropriate system for classifying loan portfolio according to risk and toleration by the authorities of banks' own ad hoc accounting practices towards loss-provisioning. *Legal framework* • No out-of-court mechanism put in place (except for blanket restructuring program); no changes to bankruptcy framework. *Ownership structure* • No changes	Unsound and poorly managed public finances coupled with a tight monetary policy led to high interest rates and hyperinflation.	Limited use of April 1981 refinancing scheme due to: (i) announcement of an upcoming more generous scheme; (ii) widespread perception that much of debt relief was converted to foreign exchange that subsequently left the country.	• The second scheme precluded enterprises with fiscal obligations in arrears or had distributed dividends above a certain amount in the past or were considered already bankrupt. A higher than expected number of enterprises did not meet the eligibility criteria. As of end 1981, only about 4% of the debt estimated eligible for restructuring had been refinanced. • Debt distress recurred after 1982 and reached crisis proportions in 1989.

Country	Government Resolution Approach				
	AMC mechanism used	Decentralized Mechanisms	Growth	Other Impediments to Corporate Restructuring	Results
Chile (1981-86)	None	*Capital position of banks* • The public and private recapitalization programs improved the capital base of banks to absorb losses. *Accounting framework* • Bank Superintendency cracked down on excessive related lending in 1981-82 and imposed loan limits to single enterprises. Such measures came too late to reverse the deteriorating situation. In fact, the authorities mistakenly perceived the problems to be temporary and allowed accounting flexibility to banks in reflecting their losses (e.g. extending threshold for declaring delinquent loans non-performing). These practices were dismantled only in 1984-85. *Legal framework* • Bankruptcy framework remained outdated and the judiciary system was slow. In the early 1980s, private agents were allowed to resolve bankruptcy cases by hiring specialized private consulting firms to engage in resolution (instead of relying on the government agency or the judicial system). *Ownership structure* • In 1982, the authorities enforced existing ownership limits. Also, the Banking Act of 1986 introduced stringent restrictions on related lending.	The government pursued tight fiscal policy in the years leading up to and during the crisis. Chile also experienced extraordinarily high real interest rates during the same period. Beginning in 1982, the government used monetary policy to actively moderate increases in interest rates.	Across-the-board restructuring schemes did not distinguish between firms with varying degrees of difficulties. The lack of realistic assessment of the conditions of the schemes eroded its credibility in the long run. Thus, repeated schemes reinforced the perception held by both debtors and creditors alike of the government's readiness to provide additional debt relief and led to a serious moral hazard problem. [45]	The decentralized approach bailed out borrowers and strengthened the capital position of banks at a fiscal cost estimated to exceed 40% of GDP. But it helped to improve the corporate balance sheet, together with the economic recovery beginning in 1985, thereby allowing for the reduction of long-term indebtedness. The restructuring programs provided working capital and financial relief for 70% of debtors and helped them regain their creditworthiness. [46]

[45] For example, the 1982 loan purchase program was successful because banks were still reluctant to stop rolling over loans because it would force them to start legal action against delinquent debtors, when it was still likely that the government would provide additional relief.

[46] As of end 1986, the financial indicators of 100 firms surveyed whose stock is traded on the Santiago stock exchange had improved substantially, a reflection of the corporate sector's improving financial situation. (World Bank 1987)

Country	Government Resolution Approach				
	AMC mechanism used	Decentralized Mechanisms	Growth	Other Impediments to Corporate Restructuring	Results
Hungary (1991-95)	None One of the recapitalization programs intended to transfer NPLs to a central entity but the latter never became operational.	*Capital position of banks* • The new strategy taken by the government that came into power in 1995 was a decentralized approach to debt restructuring. Its reliance on earnest bank privatization eventually led to the strengthening of the banks' capital base. Its success contrasts with the failure of prior public recapitalization programs. *Accounting framework* • Banking Act of Dec 1991 introduced loan classification and provisioning rules in line with BIS standards. But the responsibilities of supervision were split between two agencies and weakened its function. The 1995 program included a comprehensive reform of regulations and bank supervision powers. *Legal framework* • A tough bankruptcy law took effect in Jan 1992 and later amended in 1993. While the law led to a substantial number of filings for bankruptcy and liquidation, such cases were subject to long delays in processing and adjudication. The 1993 bankruptcy amendment aimed to remedy certain deficiencies also partly led to the decline in the number of filings. The 1995 program improved the efficiency of insolvency proceedings. • 1992 and 1993 recapitalization programs envisaged a transparent out-of-court debt conciliation procedure in the face of overburdened courts and liquidators. The 1992 program was thwarted by: (i) the absence of rules on how to settle state claims; (ii) lack of clarity if debt-equity swaps were legal or illegal. The 1993 program became mired in persistent interventions by competing government ministries and moral hazard concerns that contributed to its termination. *Ownership structure* • Towards the end of the 1990s, the largest commercial banks had been privatized in addition to other banks, largely to foreign investors.	Macroeconomic policy in the early 1990s was characterized by a stalled fiscal reform and a relaxed monetary policy. Real interest rates were negative in 1992-93. However, with a newly elected government in 1995, a reform program was launched and included structural measures, a strong fiscal adjustment and sterilized monetary interventions.	• The lack of capacity in banks to conduct troubled debt restructuring and the lack of strategic skills among enterprise managers discouraged them from participating in the earlier conciliation scheme. • The repeated government financed bailouts of 1991-93 without a bank incentive and regulatory framework resulted in further imprudent risk taking and adverse selection in the corporate and financial sectors.	• Despite the repeated recapitalization, some attempts to improve the accounting and legal framework (including out-of-court conciliation), corporate restructuring was limited. In about two-thirds of the cases that entered into the conciliation program, the creditors and debtors failed to reach agreement. Most claims were sold through public tender to factoring companies. • The 1995 program that emphasized bank privatization and comprehensive regulatory and incentive framework proved to be more effective in upgrading capital bases and encouraging restructuring. The quality of bank assets improved with the share of loss and doubtful loans in the total banking system's loan portfolio declined steadily from 25% in 1993 to 3% by the late 1990s. [47]

Country	Government Resolution Approach				
	AMC mechanism used	Decentralized Mechanisms	Growth	Other Impediments to Corporate Restructuring	Results
Japan (1991 – ongoing)	Yes. Authorities set up three entities. *Cooperative Credit Purchase Company.* Was set up in 1993 as a mechanism for banks to transfer loans at a discount, thus satisfying requirements in the tax law while avoiding the bankruptcy of debtors (loan loss provisions are automatically tax deductible only when they follow foreclosure of collateral or sale of loan at a loss). Loan amount transferred Yen 15 trillion. *Housing Loans Administration Corporation.* Created in 1996 to resolve within a 10 year period the loans of the 7 housing companies that were closed in 1995. *The Resolution and Collection Bank.* Was created in 1995 to deal with the assets of failed credit cooperatives and had received loans of face value of Y 1.5 trillion in the first half of 1998. All three agencies have been very slow in selling the assets.	*Accounting framework* • Until 1998, the loan classification and loan loss provisioning framework clearly favored the hiding of losses rather than the recognition of losses. Moreover, banks heavily used a mechanism of shifting their losses off-balance by creating related companies which were neither subsidiaries nor affiliates and to which they non-performing loans at above market value. *Legal framework* • Japan's present bankruptcy law is cumbersome and emphasizes protection of creditor rights through liquidation and a lack of other mechanisms that enable debtors to engage creditors in negotiations. While a variety of mechanism exist for court-supervised reorganization, these have not proved to be effective tools for corporate rehabilitation which may have contributed to unnecessary liquidations. Moreover, the legal infrastructure in Japan is not suited for dealing with recovery and debt restructuring in an expeditious fashion. Foreclosure and bankruptcy procedures are cumbersome and can be time consuming. Moreover, all loans are extended on a full recourse basis, implying that foreclosure of one loan would threaten the whole company. • Compounding the legal framework issues is the fact that the capacity of bankruptcy courts in Japan is limited as there are only two bankruptcy courts. • Before the crisis, the lack of effective formal procedures might not have caused a major problem because banks were not financially constrained and thus could initiate work-outs. • In 1999, the government presented legislation to Parliament attempting to facilitate the formal corporate restructuring framework. *Ownership structure:* • Limited changes in ownership structure have taken place and the complex web of relationships between bank shareholders and main customers reduced the incentives for banks to address bad debt problem.	The government put in place repeated fiscal stimulus packages that boosted the budget deficit from 70 percent of GDP to 120 percent and a loose monetary policy with overnight rates at zero percent which reduced the cost to banks of carrying NPLs tremendously and thus also reduced banks' incentives to restructure the loans.	• With prospects for loan recovery limited, banks had little incentive to liquidate questionable parts of their portfolios, as the cost of carrying bad loans was insignificant due to low interest rates, and potential for upswing in value of asset is greater than that of a further loss. • Multiple liens attached to most real estate used as collateral proved difficult to rank, consolidate and clear. • In order for the government to force banks to restructure balance sheets (dispose of the loans), the construction industry would have had to mark its assets to market, as tax regulations do not favor banks' unilateral actions. In the process, many firms in the construction and property related industry would likely have been declared insolvent with adverse implications on employment. • Corporate restructuring has faced significant institutional impediments such as the high cost to firms of reducing unemployment. Court rulings in the late 1970s made dismissals cumbersome which led firms to offer voluntary early retirement programs. In 1999, the authorities moved to introduce measures to facilitate labor mobility and the scrapping of excess capacity.	• The authorities' strategy for banking sector recovery was predicated on a resumption of growth that would restore banks and borrowers to financial strength. • Yet, despite large and repeated fiscal stimulus packages and loose monetary policy, sustained growth has not occurred. • Only recently did the authorities take a more aggressive approach to strengthening the framework for decentralized restructuring by strengthening the balance sheets of banks with public money, moving toward consolidated accounting and increasing supervisory pressure on banks to recognize problem loans. • While these measures have led to an acceleration of corporate restructuring in 1999, much still remained to be done.

Country	Government Resolution Approach				
	AMC mechanism used	Decentralized Mechanisms	Growth	Other Impediments to Corporate Restructuring	Results
Norway (1987 – 93)	None	*Capital position of banks* • Public recapitalization accompanied by the requirement for banks to improve operating profits and reduce risk-weighted assets improved the capacity of the banking system to sustain losses. *Accounting framework* • With increased competition after the deregulation, banks increased lending in the 1980s in real estate and stocks thereby increasing their exposure to movements in asset prices. • Before 1987, there were no specific regulations on loss provisions. Regulations were issued only in 1987 which led to an increase in provisions. In 1990, bank supervision was strengthened. *Legal framework* • Banks could file for bankruptcy of firms at any time during the crisis. *Ownership structure* • Public injection of capital resulted in the transfer of the three largest private banks into state hands.	An expansionary fiscal policy and considerable tax relief (associated with the tax reform) prevailed in 1992. The floating of the Norwegian currency in late 1992 led to a monetary and exchange policy aimed at the maintenance of the exchange rate against European currencies at the 1993 level. Money growth slowed thereafter.		With a proper bankruptcy framework, strengthened accounting regulations, the absence of ownership links between banks and debtors and recapitalized banks, the decentralized approach proved successful as banks and firms began to turn around in the last year of the crisis.

Country	Government Resolution Approach				
	AMC mechanism used	Decentralized Mechanisms	Growth	Other Impediments to Corporate Restructuring	Results
Poland (1992 – 95)	None	*Capital position of banks* • Public recapitalization strengthened the capital base of the commercial banks that participated in the restructuring program. Two state-owned specialized banks remained problem ridden, including weak capital positions. In 1996, enforcement of accounting standards were viewed to lead to some other banks to be out of compliance with questionable capacity to absorb losses. *Accounting framework* • Interest due but not received was made not taxable in 1992. Bank regulations were tightened just before the introduction of the restructuring program. Troubled debt restructuring rules were adopted during the restructuring period. Despite upgraded banking regulations in 1992-93, problems remained in the quality and application of adequate accounting standards for some banks that were not included in the restructuring program. [48] *Legal framework* • Government allowed enterprises to enter into out-of-court Chapter 11 type procedure, called conciliatory agreements led by the banks. If a bank participating in the restructuring program failed to reach agreement with a nonviable debtor, the bank was required to file for bankruptcy or sell the bad loans. *Ownership structure* • Privatization of the banking system was slow with over 50% of the banking system still in state hands in 1996.	The period was characterized by prudent macroeconomic policies allowing for a gradual declines in inflation. The authorities exercised some flexibility with interest rates, though they were maintained at positive real levels.	• Lack of developed secondary markets and problems with tax treatment initially discouraged debt sales and swaps. • Tax deductibility for loan write-offs and associated corporate tax changes was not adopted until 1994.	• As of March 1994, the banks completed debt conciliation procedures with respect to debtors whose debts amounted to 83% of classified loans. 25% of the total enterprises that entered into bank conciliations went into bankruptcy or liquidation. The rest regained creditworthiness or their debts were auctioned off by banks or their collateral seized. [49] Banking system NPLs fell from 28% of total loans in 1992 to 10% in 1997. [50] The overall evidence on operational restructuring by enterprises in Poland during the period covered by the restructuring program and thereafter points to a notably sluggish pace. However, a World Bank survey of some 1000 Polish firms between 1992 and 1995 alludes to evidence that some restructuring has taken place as 80% of those enterprises showed improvements in their degree of profitability or loss-making.

Country	Government Resolution Approach				
	AMC mechanism used	Decentralized Mechanisms	Growth	Other Impediments to Corporate Restructuring	Results
Thailand (1997 – ongoing)	Only used for liquidation of assets of closed finance companies that accounted for 2% of assets.	*Capital position of banks* • Despite public and private injection of capital in banks, banks remained capital constrained and would have been at least severely undercapitalized if they had acknowledged loan losses properly and thus continued to lack the loss absorption capacity to engage in any meaningful restructuring. *Accounting framework* • While loan classification and loan loss provisioning strengthened; framework still not in line with international best practice and still favors hiding of losses. Legal framework • Reform of bankruptcy law but creditors still lacked tools to force foreclosure and liquidation and judicial capacity remained limited. The formal bankruptcy regime was complemented with out of court framework but it has limited sticks and carrots. *Ownership structures* • While concentration of family ownership declined somewhat during crisis, it continues to be an impediment.	After a brief initial period of tight fiscal and monetary policy, the government implemented fiscal stimulus programs and lowered interest rates to historical low levels.		Despite the governments efforts to strengthen the decentralized mechanisms for corporate restructuring, meaningful progress on the corporate restructuring side remains limited. As of 2000, not surprisingly, banks restructured mostly those assets that were "easy to restructure", i. e. where financially sustainable structures could be achieved by stretching maturities or lowering of interest rates. According to analysis of companies' balance sheets, the restructuring of these NPLs largely required haircuts, debt to equity swaps and liquidation. Yet, banks continued to be capital constrained and lacked the tools to force debtors to the negotiating table. After almost three years, amount of NPLs still stood at 38 percent. In 2002, system wide NPLs amounted to one-third of total loans.

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