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Lessons from Systemic Bank Restructuring: A Survey of 24 Countries

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Abstract

In recent decades, a wide range of countries have experienced banking problems. Their approaches to systemic bank restructuring have varied substantially. This paper analyzes a representative sample of 24 countries and provides a summary of policies judged to be successful. The sample countries were ranked by relative progress in resolving banking sector problems. Based on this ranking, the paper examines the effectiveness of institutional and regulatory measures, assesses the impact of accompanying macroeconomic policies, and examines the extent to which particular restructuring instruments contributed to success. Special emphasis is given to the role of the central bank.

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SUMMARY

A wide range of countries has experienced banking system problems and their approaches to systemic bank restructuring have varied substantially. Based on the experience of 24 countries this paper provides a summary of policies judged to be successful in a wide range of circumstances.

The countries in the sample were ranked by relative progress in resolving banking sector problems; that is, data on banking performance and changes in financial system intermediation capacity were used to group countries into three broad categories. The next step was to relate the performance rankings to the institutional and regulatory measures that the countries used in their restructuring operations, assess the impact of accompanying macroeconomic policies, and examine the extent to which the use of particular restructuring instruments contributed to success. The main findings are summarized below.

Successful bank restructuring implies *prompt corrective action and a comprehensive approach* addressing not only the immediate stock and flow problems of weak and insolvent banks but also correcting shortcomings in the *accounting, legal, and regulatory framework* while improving *supervision* and compliance. *Operational restructuring* is a necessary condition for banks to return to profitability and sustained solvency. Management deficiencies were identified as a cause of the banking problems in all sample countries and progress in bank restructuring is highly correlated with whether or not these were addressed.

The *central bank* must stand ready to provide liquidity support during restructuring to viable banks. However, the central bank should not provide long-term financing to banks, nor should it be involved in commercial banking activities, as this leads to quasi-fiscal costs and creates conflicts with its monetary policy objectives.

While bank restructuring programs may be initiated and successfully carried out during a time of economic stagnation, *positive economic growth* helps banks to resume lending and return to profitability.

I. Introduction

A wide range of countries has experienced banking system problems and their experiences with systemic bank restructuring have varied substantially. Banking problems are often linked to macroeconomic crises. They are expensive to resolve and usually involve a heavy fiscal burden. Careful design of a bank restructuring strategy is, therefore, an important public policy concern. This paper attempts to draw general conclusions about bank restructuring that appear to be broadly characteristic of the group of restructuring countries as a whole. A sample of 24 countries where systemic bank restructuring has taken place—the broadest for which comparable data are available—was selected for this study, with a view to provide evidence on best practice policies through a statistical analysis. In particular, the study was designed to better understand how governments have addressed systemic banking problems (i.e. what countries actually do). Particular attention was focused on the instruments that were used to restructure the banking systems, their implied and actual incentives, and their costs. An attempt was made to highlight the linkages between banking sector restructuring and macroeconomic developments.

The paper is structured as follows: Section II discusses the methodology used in designing the statistical tests. Section III assesses the extent to which countries succeeded in meeting the objectives of bank restructuring operations. Causes of and responses to banking sector problems are discussed in Section IV. Section V presents issues related to the design of bank restructuring strategy. Section VI presents an overview of macroeconomic developments during the restructuring process. Section VII provides lessons from the experience of the sample countries.

II. Methodology

The sample consists of a representative group of countries reflecting a broad coverage across regions and levels of development. Countries were included only in cases where the problems were judged to be systemic. For purposes of the analysis that follows, "systemic" is defined as a situation where problems affected banks which, in aggregate, held at least 20 percent of the total deposits of the banking system. The sample countries listed in Table 1 include countries that have completed bank restructuring efforts (15) and countries where restructuring is more recent (post-1994) and is still ongoing (9).[2] In this respect, the main criterion is that the restructuring efforts have been brought to a close; however, the fact that the process has been completed does not necessarily imply that the restructuring has been a complete success. In effect, some countries have experienced recurrent banking sector problems. It is important to emphasize that only a limited number of countries implemented systemic bank restructuring programs and, therefore, the analysis is likely to be subject to small-sample bias.

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[2]Data availability problems made it difficult to include any bank restructuring efforts that took place before the 1980s.

Table 1. Sample Countries

Country (By Region)	Onset of Restructuring Action (Year)
AFRICA	
Côte d' Ivoire	1991
Ghana	1989
Tanzania	1992
Zambia	1995 (recent)
ASIA	
Indonesia	1994 (recent)
Korea	1993
Philippines	1984
Japan	1995 (recent)
EUROPE 1	
Hungary	1993
Poland	1993
Finland	1991
Spain	1980
Sweden	1991
EUROPE 2	
Latvia	1995 (recent)
Moldova	1995 (recent)
Kazakstan	1995 (recent)
MIDDLE EAST	
Egypt	1991
Kuwait	1992
Mauritania	1993
WESTERN HEMISPHERE	
Argentina	1994 (recent)
Chile	1983
Mexico	1994 (recent)
Peru	1991
Venezuela	1994 (recent)
Industrial 4	Recent 9
Developing 15	Other 15
Transition 5	
Total 24	Total 24

A questionnaire was sent to country authorities and, in some cases, to IMF or World Bank staff with special expertise on banking sector problems. The study considers changes over a nine-year period for countries where the restructuring began before 1991. Data were requested for three points in time; the year when bank restructuring action started (onset of action), four years before and four years after that date (or most recent). This information and data covered five broad areas: banking structure; bank performance; banking sector

institutional framework (regulatory, legal and accounting environment); instruments of bank restructuring used; and, costs and budgetary implications. Corresponding macroeconomic data were also collected for the entire period under consideration. Only a truncated period is available for episodes of bank restructuring that began after 1992. The information from the questionnaire was complemented with other studies and published materials.

In the following analysis the data are first classified by broad country groups: industrial countries, developing countries, and transition countries. This division reflects the plausible conjecture that there would be substantial differences in the experience of these countries with respect to their initial conditions. Other important factors that may characterize country groups are the restructuring approach and the particular instruments and combinations of instruments used, and the speed and urgency with which banking sector problems were tackled. For instance, given the fundamental nature of their problems as well as their undeveloped state of market-oriented institutions, the policy responses of transition countries might be expected to be radically different from those of other country groups. The countries in the sample were then ranked by relative progress in resolving banking sector problems; that is, data on banking performance and changes in financial system intermediation capacity were used to group countries into three broad categories, ranging from "substantial" to "slow" progress.[3]

The next step was to relate the performance rankings obtained to the institutional and regulatory measures that the countries used in their restructuring operations, assess the impact of accompanying macroeconomic policies, and examine the extent to which the use of particular restructuring instruments contributed to success. This facilitates the assessment of whether the presence or absence of particular factors contributes to the degree of success of a bank restructuring program and allows the empirical analysis to identify best practices that seem to be effective across a wide range of individual country experiences.

Then, to highlight the explicit or implied incentive structures of various bank restructuring techniques, some aspects of bank restructuring instruments were studied in more depth. The working hypothesis was that the choice and design of instruments provides information about implied incentives and determines the outcome of the restructuring operations. The role of existing or newly created institutions (central bank, ministry of finance, restructuring agencies, etc.) in the bank restructuring process was surveyed for each country to determine the type and extent of involvement and the distribution of the associated costs among the central bank, the government, and the banks.

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[3]The countries that embarked upon bank restructuring operations during or after 1994 were separately classified as "recent."

III. Assessing the Effects of Bank Restructuring Operations

Bank restructuring operations have two main objectives: to restore the financial viability of the banking system (restore solvency and sustainable profitability); and to restore the system's intermediation capacity and an appropriate level of banking services relative to aggregate economic activity. The purpose of this section is to assess the extent to which countries succeeded in meeting each of these objectives, and then to obtain measures of overall success for each country (a performance ranking) taking into account the extent to which both objectives were met. In later sections, comparative performance rankings are analyzed to identify the policies and instruments that underpin best practices bank restructuring policies and instruments.

The technique used to establish the overall performance ranking for each country is a procedure based on the direction of the change (improvement) in each of the selected performance indicators following bank restructuring. It is constructed for each country by adding the number of indicators where improvement actually occurred. The procedure has some advantages over other procedures that might seek to quantify the magnitude of change in each indicator, including avoiding scaling problems in comparing movements in a particular indicator across countries, and avoiding a weighting problem in combining changes in disparate indicators to provide an overall ranking for a particular country. It also facilitates use of both quantitative and qualitative data and minimizes data quality problems that inevitably plague unsound banking systems.

A. Bank Performance

Bank performance involves the two aspects of solvency and sustainable profitability. As solvency-improving measures primarily affect banks' balance sheets while profitability-improving measures affect banks' income, they are referred to as "stock" measures and "flow" measures, respectively. Stock improvements in banking system performance emanate chiefly from financial restructuring operations, while sustainable flow improvements result from operational restructuring measures.

The indicators of stock improvement used in this study comprise the ratios of nonperforming loans to total loans; loan loss provisions to total loans; and capital to assets. Generally speaking, banks with large holdings of troubled assets have high provisioning costs, and must provide for losses on a significant portion of those assets. This reduces net earnings and, ultimately, capital. Improvements in stock effects require a reduction of the ratio of nonperforming loans to total loans, a reduction in loan loss provisions, and an increase in capital. The flow improvement indicators comprise the ratios of operating expenses to assets; interest income to assets; and profits to assets. Unless improvements in the income position of the bank occur, an ongoing need for future restructuring efforts is likely to occur. In general, reducing expenses and increasing levels of interest income and profitability will enable banks to boost capital and improve their economic viability.

The results presented in Table 2 emphasize the differences in the extent to which particular groups of countries were able to improve bank performance. However, there is an important and striking similarity in that all groups of countries—industrial, developing and transition—were substantially more successful in addressing stock problems than flow problems. For the "all other countries" category, the success index in solving stock problems is 71 compared to 53 for the index of flow improvement. One reason is that stock indicators can be improved more quickly. Swaps of bonds for nonperforming loans, for example, instantly improve all three stock indicators; they do not necessarily have an effect on costs, earnings or profits. Achieving positive flow effects requires operational restructuring which is more difficult and takes more time. Another reason appears to be that, in practice, the design of restructuring packages has been somewhat unbalanced, focusing more on financial restructuring measures at the expense of operational restructuring measures. The evidence of the relatively disappointing performance with respect to resolving flow problems may have important implications for the future of the banking sector in that it suggests the likelihood of recurrent banking problems and possibly the need for further bank restructuring. Secondly, our analysis of the experiences of the sample countries following the initiation of bank restructuring suggests that establishing or significantly improving the soundness of the banking sector is a relatively long-term process, and improvements are not always steady. In particular, countries that did not address the flow problems decisively have experienced recurrent problems in the banking sector. In some cases, repeat bank restructurings were necessary.

Table 2. Improvement of Bank Performance After the Onset of Bank Restructuring Programs 1/
(In percent of countries in each subgroup)

	Progress in Addressing Stock Effects				Progress in Addressing Flow Effects			
	Decline in nonperforming loans/loans	Decline in loan loss provisions/ loans	Increase in capital/ assets	Index of stock success 2/	Decline in operating expenses/ assets	Increase in interest income/ assets	Increase in profits/ assets	Index of flow success 2/
Recent experiences (9)	67	56	67	63	67	0	11	26
All other countries (15)	87	60	67	71	53	53	53	53
Industrial countries (3)	100	100	100	100	67	33	33	44
Developing countries (10)	80	50	60	63	50	60	60	57
Transition countries (2)	100	50	50	67	50	50	50	50

1/ Changes between average performance in the four years prior and four years following the onset of restructuring.
2/ Calculated as simple averages of the three indicators in each category.

B. Intermediation Capacity of the Banking System

Six indicators were selected to measure the improvement in the financial intermediation capacity of the banking system following the bank restructuring process (Table 3). These were divided into three subcategories. The first measures the scale of intermediation and includes the ratio of the growth of credit extended to the private sector relative to GDP growth and the ratio of broad money to GDP. Credit to the private sector would be expected to expand when banks are successfully restructured. Furthermore, as public confidence in the banking system rises, it can be expected that the demand for deposits will increase as depositors return to the banking system. On the other hand, ongoing sharp increase relative to GDP growth may imply continuation of bad lending practices. A sharp decline in the ratios might also be indicative of a credit crunch. The interpretation of these figures is thus not entirely unambiguous.

Table 3. Improvement in Intermediation Ability of Banks After the Onset of Bank Restructuring Programs 1/

(In percent of countries in each subgroup)

	Scale of Intermediation			Efficiency			Risks		
	Increase of Credit to private sector/GDP 2/	Increase in M2/ GDP	Index of intermediation 3/	Decline in interest spreads	Decline in Central bank credit to banks/GDP	Index of efficiency 3/	Decline in real interest rate 4/	No recurrence of banking problems	Index of risk 3/
Recent Experiences (9)	11	22	17	33	33	33	44	0	22
All other countries (15)	53	67	60	53	53	53	87	53	70
Industrial Countries (3)	0	67	33	67	67	67	100	100	100
Developing countries (10)	70	70	70	40	40	40	80	40	60
Transition countries (2)	50	50	50	100	100	100	100	50	75

1/ Changes between average performance in the four years prior and four years following the onset of restructuring. The higher the number, the more pronounced the improvement.
2/ Growth in credit to the private sector exceeding growth in GDP by no more than 100 percent.
3/ Calculated as simple average of the two indicators in each category.
4/ A decline in real interest rate or a shift to a positive real interest rate. (In most cases the deposit rate was used.)

The second subcategory measures efficiency of intermediation and includes indicators of interest spreads and the reliance of the banking system on the central bank (measured by central bank credit to banks as a percent of GDP). A decline of interest spreads and of central bank credit was interpreted as an improvement. The third subcategory measures the riskiness of the banking sector and includes changes in the real interest rate and the experiences with

recurrent banking problems. An unsound banking system is likely to offer higher interest rates (to attract deposits and pay operating expenses) which may lead to higher risk through adverse selection. A decline in real interest rates (or no change) was interpreted as improvement. Repeated occurrences of systemic bank restructuring were interpreted as deterioration of risk.

The results presented in Table 3 indicate substantial variation across country groups. While countries usually were able to increase the scale of financial intermediation and reduce system risk following bank restructuring, less progress was typically made in improving the efficiency of financial intermediation. The latter result, in particular, is suggestive of the need for greater attention to operational restructuring measures.

C. Rank Ordering of Overall Country Performance in Bank Restructuring

In establishing the overall performance ranking for each country's bank restructuring program, the six indicators of improvement in bank performance and the six indicators of improvement in financial intermediation capacity were all given equal weight.[4]

The resultant rank ordering permits the classification of the sample into three main groups: those which made *substantial progress* in restructuring their banking systems (countries which received a total score of more than nine); those with *moderate progress* (countries with a total score of six to nine), and those with *slow progress* (countries with a total score of five or less). By construction, any one of the performance groups may contain a mixture of industrial, developing, and transition countries.

According to this grouping, five countries are included in the substantial progress category (Côte d'Ivoire, Peru, Philippines, Spain, and Sweden). The moderate progress category includes seven countries (Chile, Egypt, Finland, Ghana, Hungary, Korea, and Poland), and the slow progress category includes Kuwait, Mauritania and Tanzania. As the remaining nine countries in the sample initiated bank restructuring measures in 1994 or later, they were categorized as recent and were not included in the ranking exercise.

The following sections analyze the specific policy measures that carry the best prospects for a successful bank restructuring program. In particular, the specific institutional reforms, the nature and design of bank restructuring instruments, and accompanying macroeconomic policies that are characteristics of each performance group are analyzed. This analysis makes it possible to draw inferences on "best practices" from country experiences.

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[4]Thus, if all 12 indicators showed improvements, a country would receive a maximum score of 12. A maximum score would indicate that the banking sector had fully recovered from the aftermath of the banking system problems. Clearly, other weighting schemes are possible; however, further judgement would be required to assign weights to different performance indicators. For simplicity, equal weighting was used.

IV. Causes of and Responses to Banking Sector Problems

Table 4 lists the principal causes of systemic banking problems and indicates to what extent the authorities took measures to address these. In addition to those that originated outside of the banking sector (exogenous, mainly macroeconomic, shocks), problems could be attributed to deficient bank management and poor operational control, serious shortcomings in regulatory and accounting frameworks (the latter in part related to deficient management control), a concentration of problems in state-owned banks, and the application of excessive and distorted taxation schemes to financial institutions, for example, treatment of loan loss provisions. Of these, management and control problems and deficiency in the regulatory framework afflicted all countries, followed in frequency of occurrence by problems with state banks.

Table 4. Diagnosis of Banking Problems and Measures Taken to Address Them

	Substantial Progress	Moderate Progress	Slow Progress	Recent
Deficient bank management and control				
Diagnosed as a problem	100	100	100	100
Measures taken	100	71	33	78
Shortcomings in regulatory and accounting framework				
Diagnosed as a problem	100	100	100	100
Measures taken	100	100	67	89
State Bank problems				
Diagnosed as a problem	60	86	100	78
Measures taken	60	86	33	56
Excessive and distorted taxation				
Diagnosed as a problem	20	29	67	11
Measures taken	20	14	0	0
Exogenous shocks				
Diagnosed as a problem	100	71	33	89

The results for all country groups suggest that banking sector problems were never due to a single cause. In general, countries that have exhibited slow progress have had a greater number of problems to deal with than substantial progress countries. The latter have also been mostly countries where the need for action was triggered by an exogenous shock. But significantly, the weak performers have addressed the full range of their difficulties with a

substantially lower frequency than have the moderate or substantial progress countries. In particular, the less successful performers have shown a failure or perhaps unwillingness to deal with problems in state-owned banks and, in some cases, nonfinancial public enterprises, or to tackle taxation problems that distort the incentive structure in the banking sector. By definition, substantial progress countries have dealt with all major problem areas.

The differentiation of experience among weak and strong performers can be taken as confirmation of several of the elements of what has been identified as best practice policy. First, the widespread incidence of multiple causes of banking sector problems confirms that best practices always need to begin with a *diagnosis*. It can be presumed from the experience of poorer performers that the failure to diagnose problems effectively leads to the design of restructuring programs that are less than fully comprehensive. *Comprehensiveness* is a key element of best practices. Moreover, the pervasiveness of deficient management and internal control problems further stress the need for a heavy focus on *operational restructuring* measures as a key element of best practices restructuring strategy. A failure to address internal management and control problems in 67 percent of the slow progress countries is correlated also with the low frequency with which they address problems in state-owned banks (67 percent) and problems of excessive and distorted taxation (zero percent). These linkages may be symptomatic of an inability to establish the *strong political consensus* that would be needed to deal with banking problems in a comprehensive way.

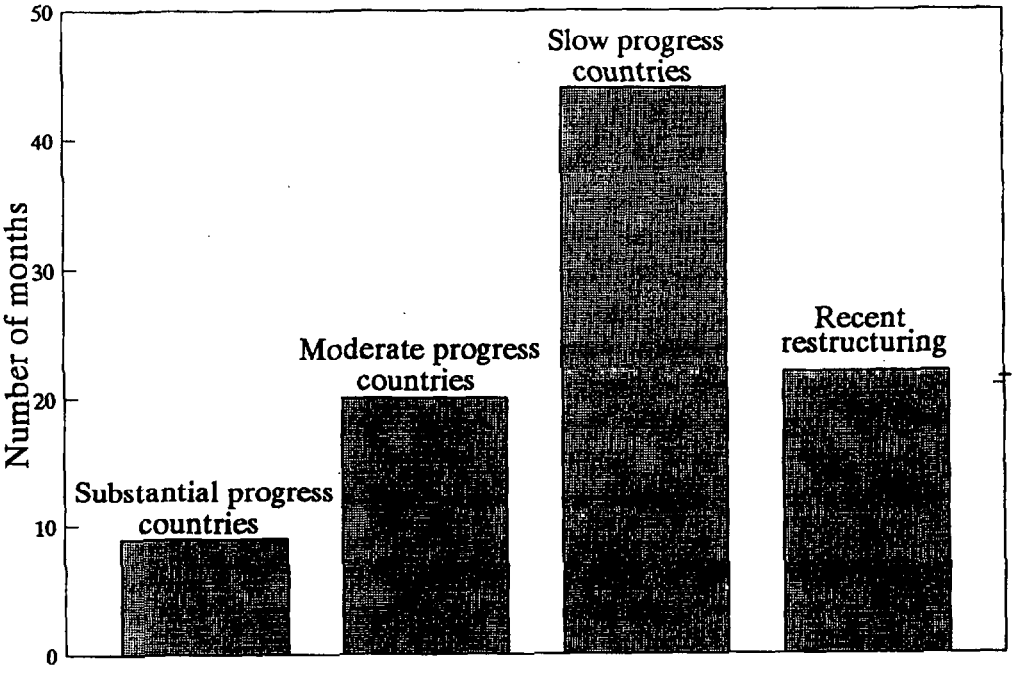
The final observation in explaining differences in countries' degree of success in dealing with systemic banking problems appears to be the speed with which restructuring measures are undertaken. Best practices require *rapid action* in order to contain problems and minimize costs. As can be seen in Figure 1, there is a strong positive relationship between quick action and better performance.

V. The Design of Bank Restructuring Strategy

A. The Role and Effectiveness of Bank Restructuring Instruments

Many diverse instruments have been employed in bank restructuring packages. Most of the instruments and techniques used in bank restructuring are modified versions of normal bank management tools and strategies. Examples of commonly used business tools that are adapted for bank restructuring purposes are the formation of specialized units to handle problem of loan collection ("asset management"); merger with other banks; reconfigurations of core business, for example, by selling off certain product lines or branches ("splits"); and use of advisory and consulting services to improve specific aspects of bank operations ("twinning"). Where banking problems involve state banks, privatization is also a standard approach to improve the efficiency of banking. Also part of the standard repertoire of prudent banking strategies are central bank liquidity management, recourse to markets for new equity issues, as well as incentive structures to promote the effective exercise of ownership rights and ensure good management. The survey covered 13 instruments as shown below in Table 5.

Figure 1. Average Time Delay (in months) in Taking Bank Restructuring Measures After the Surfacing of Systemic Problems



Source: Questionnaire responses from the authorities.

Table 5. Instruments Mixes for Bank Restructuring
(In percent)

	Substantial Progress	Moderate Progress	Slow Progress	Recent
Central Bank as only Agency for Restructuring	20	57	100	89
Central Bank Liquidity Support	40	86	100	100
Loan Workout Units	100	86	67	56
Closure	80	57	33	67
Merger	60	86	33	44
Splits	0	14	0	22
Privatization Where Applicable1/	100	100	33	71
Enterprise Restructuring2/	40	71	0	44
Twinning	20	29	0	22
Bond	100	86	100	56
New Equity	60	57	33	44
Deposit Instruments	60	57	67	44
Owners and Management3/	100	71	33	78
Average Number of Instruments Used	8	9	7	8

1/Applicable only for countries that experienced problems specific to state-owned banks or state enterprises.
2/May not be applicable for some countries.
3/Provision of appropriate incentives for managers and owners.

Evidence of the effectiveness of particular instruments is presented in Table 5. Countries, on average, used eight instruments. There are significant differences among performance groups regarding the choice and frequency of use of instruments for bank restructuring. Best practices policies can be identified by examining these differences. In particular, the variation across groups is sufficiently broad to permit inferences on best practices policies regarding: the role of the central bank; importance of loan workout schemes; firm exit policy; privatization; enterprise restructuring; and incentive corrective schemes. As the sample is based on a wide range of countries, it can be assumed that these conclusions on best practices of the use of instruments are robust to a wide range of particular circumstances and initial conditions.

The designation of the *central bank as the sole agency for restructuring and provider of liquidity support* was limited in countries that were most successful in their systemic restructuring operations. This may partly reflect the fact that where there was a broad political consensus for comprehensive restructuring, it was carried out by specialized agencies to allow the central bank to continue to focus on its main function of implementing monetary policy. In particular, the authorities that achieved the best results determined at an early stage that the problem was bank insolvency, not lack of liquidity, and they precluded extensive use of lender of last resort facilities. In contrast, all of the slow progress countries made extensive use of *central bank instruments*; in all of these countries the central bank was the only agency responsible for bank restructuring. This may be a sign of lack of coordination and consensus between different institutions. Thus, it can be inferred that best practices policy is to minimize reliance on the central bank as a source of protracted *liquidity support.*

By contrast, the sample results also suggest that it was necessary for *central banks to take the lead* in transition countries. It appears that this choice has been strongly influenced by the limited availability of skilled human resources. Given the scarcity of banking expertise in the public sector, the central bank may be the only agency capable of addressing technical details of bank restructuring.

Table 5 also suggests that *loan workout* units (central or bank-based) played an important role in all countries that made substantial progress in resolving systemic banking problems while only about 70 percent of the slow progress countries established loan workout schemes. It can be inferred here, too, the use of distinct loan work out units appears to be an important element of best practices.

Most of the countries exhibiting substantial and moderate progress made extensive use of mergers and/or closure of insolvent banks. This confirms the importance of *firm exit policies*. Furthermore, as shown above in Table 4, in about 60 percent of the countries with substantial progress and in the majority of the countries having moderate progress, problems with state banks and/or state enterprises contributed to banking system distress. All of the countries dealt with the problems of insolvent state banks and state enterprises particularly through privatization, enterprise restructuring and closure. However, these policies were consistently avoided by countries exhibiting slow progress, which may imply that insolvent banks were allowed to operate, leading to a further deterioration in the conditions of these banks.

Bond instruments (such as an exchange of bonds for nonperforming loans) and issuance of new equity (e.g., equity purchased by the government) were widely used by all countries. However, such expenditures did not always seem to be disclosed in the budget. Splits and twinning with foreign banks as instruments for bank restructuring were methods mainly used in transition countries.

Similarly, provision of appropriate *incentives for managers and owners* is a key element of best practices. This is shown in the column labeled "Owners and Management " in Table 5, which suggests that all of the substantial progress countries emphasized the use of incentive corrective schemes which further strengthened the market-based approach taken by these countries. Banks receiving support were almost always downsized. Only a minority of the countries with slow progress took measures to sanction management and owners, and little evidence was provided for stringent use of incentive compatibility within state-owned banks.

Table 6 lists the most frequently used instruments in bank restructuring packages. Central bank liquidity loans, bond swaps and instruments to shift part or all of the costs to managers and owners are among those most frequently used. However, contrary to what is usually viewed as providing appropriate incentives, instruments that place part of the burden

on depositors are somewhat less widely used. Deposit insurance was in place for most of the industrial countries while all developing countries and some transition countries introduced a blanket deposit insurance scheme in the aftermath of the banking problems. Depositors were fully compensated, in all of the sample countries, with the exception of Côte d'Ivoire, Latvia, Peru, and Spain.

Table 6. Most Frequently Used Instruments in Bank Restructuring Packages1/

Instruments Used in More Than 75 Percent of Countries:	Additional Instruments Used in 60–75 Percent of Countries
Central bank liquidity loans	Central bank medium term support
Bond swaps	Closure and liquidation
Loan workout	Privatization
Instruments aimed at owners and managers	

1/ In all 24 countries. Listed in order of frequency.

B. The Role of the Central Bank in Restructuring

The preceding discussion of the use of bank restructuring instruments shows that a good predictor of country performance is the extent to which the restructuring program emphasizes instruments other than central bank liquidity support. As shown in Table 7, most of the substantial progress countries refrained from using them and countries that made extensive use of central bank instruments typically made less progress in bank restructuring.

Table 7. Central Bank Leadership, Liquidity and Other Support in Bank Restructuring
(In percent)

	Central Bank acts as Lead Agency	Central Bank Liquidity Support	Medium-Term Central Bank Support
Substantial Progress (5)	20	40	601/
Moderate Progress (7)	57	86	86
Slow Progress (3)	100	100	100
All Countries (24)	67	83	71

1/ Although three out of five countries initially used medium-term support, it was subsequently phased out in two of them.

In some countries, the authorities have chosen the central bank as lead agency in the bank restructuring process which has led the central banks to assume extensive responsibilities in addition to its core monetary policy functions, including financial support, bank management, and asset (nonperforming loans) management (Chile and Kuwait). This can create certain difficulties because liquidity support to insolvent banks provides perverse incentives to banks and fails to address the underlying problem; direct ownership in banks and medium-term lending by the central bank produces conflicts of interest, especially when the central bank has supervisory responsibilities; and central banks are left with large structural positions.

Table 8 provides a review of the central bank instruments used in the bank restructuring process in the three performance groups. Several countries (e.g., Peru and Sweden) have placed strict limitations on central bank short- and long-term finance when systemic banking problems arose. These countries were able to make progress in implementing their bank restructuring strategies. Indeed, firm restrictions on the active involvement of the central bank appear to be an ingredient for successful bank restructuring.[5]

Moreover, restrictions should apply not only to the use of central bank financing, but also to ancillary activities that have little to do with core central bank activities. In some of the less successful restructuring experiences, for example, central bank involvement has extended to commercial bank management and ownership, loan workout, and credit allocation.

In the transition countries where bank restructuring progressed rapidly, (Hungary and Poland), the central bank played an active role. However, it appears that the central bank reduced its involvement over time and placed great emphasis on appropriate incentives for banks. To better understand the importance of how central bank instruments have been used by the sample countries, a more detailed analysis of the various instruments, their costs and incentives is presented in Table 9.

In using instruments in support of bank restructuring, some central banks have limited themselves to providing temporary (mostly short-term) support, which was replaced by other sources (government budget) when the bank restructuring strategy was put in place (Argentina, Kazakstan, Latvia, Mauritania). In Mexico, the central bank provided some of the support to banks via a government agency, thus protecting its own asset quality and drawing on government guarantees. In these countries bank restructuring strategies are ongoing.

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[5]There are, course, always exceptions. One is Spain, which made extensive use of long- and short-term central bank financial support. However, it did so in close cooperation with the government and the lead restructuring agency (the deposit insurance agency) and placed considerable emphasis on the incentive compatible design of support. Moreover, the banking community carried part of the financial burden.

There are some central bank instruments that may have no budgetary implications, but that can have strong positive incentive effects. These include liquidity support measures that are arranged by the central bank from within the banking community. Credibility policy, where the central bank attempts to exert a stabilizing influence on financial markets by pronouncing "once and for all" policy guidelines and goals can also have no consequences for the budget. However, such a policy can also be very costly if the central bank fails to establish its credibility. This policy was used in Mexico, but as bank restructuring is ongoing, there is no empirical evidence for the success or failure of this strategy.

Table 8. Central Bank Instruments and Bank Restructuring by Performance Groups

Country	**Role of the Central Bank**
SUBSTANTIAL PROGRESS COUNTRIES	
Peru, Sweden	Central Bank played a limited role in the bank restructuring process. In Peru the central banking law was changed restricting remaining central bank activity in banking.
Spain	Central Bank played a lead role, however, its lending was done indirectly through a deposit insurance agency jointly owned by the banks. While bank restructuring was successful, it entailed very high costs (15 percent of GDP).
Cote d'Ivoire, Philippines	Central Bank initially lent to government to help reduce government arrears on bank loans. Central Bank role was phased out as part of concomitant reforms of bank restructuring activity.
MODERATE PROGRESS COUNTRIES	
Finland, Korea	In both countries, the Central Bank played a limited role. Nonetheless in Finland, the central bank assumed equity stakes in one bank and organized a loan workout agency for another bank.
Poland, Hungary	Reserve requirements and remuneration were adjusted to increase bank liquidity. In Hungary, the central bank provided bridge loans, some direct credit to banks and consolidation bonds. In Poland central bank discounted bonds of recovered banks.
Ghana, Chile	In Chile, the central bank assumed a major role in the restructuring process, including extensive direct lending to enterprises through commercial banks (pass through loans). Bank restructuring was extremely costly (33 percent of GDP).
SLOW PROGRESS COUNTRIES	
Kuwait	Central bank played a key role in the bank restructuring process by providing liquidity through a broad application of discounting, repurchases, special facilities, as well as through "special deposits" at negative real rates held with the commercial banks. The central bank also became in involved in debt collection and other aspects of the debt restructuring process.
Mauritania, Tanzania	Central bank engaged in significant long-term lending to insolvent banks.

Table 9. Central Bank (CB) Instruments Supporting Bank Restructuring

Instrument (Countries Where it Was Used)	CB Balance Sheet Effects And/or Income Effects	Budgetary Cost	Cost for Banks (Incentive Aspect)
CB organizes liquidity support among the banks, does not commit its own resources. (Cote d'Ivoire)	None	None	All costs borne by banks Incentive: Positive
CB organizes liquidity support among the banks, reduces reserve requirements explicitly for that purpose. (Venezuela)	Liabilities fall, CB may need to sell T-bills or other assets.	CB income will fall, reducing profit remittances to the government. The central bank may incurr losses requiring transfers from the government budget. In the case of foreign exchange support the central bank may incur capital losses when reserves are drawn down. There are also second round fiscal effects. When central bank liabilities fall, the central bank may reduce its stock of or future demand for T-bills, increasing the government's cost of borrowing.	Cost for banks reduced Incentive: Positive
"Credibility" strategy, announcing stabilization measures and benchmarks accompanied with more frequent and better disclosure (weekly publication of CB balance sheet). (Mexico)	Can be very substantial, e.g., if currency stabilization measures become necessary which absorb substantial portions of CB's foreign reserves.		Costs increased Funding costs rise and loan defaults may increase as interest rates rise. Tiering may result: strong versus weak banks. Incentive: Positive
Temporary or permanent reduction of reserve requirements in response to liquidity problems. (Venezuela, Spain, Argentina, Hungary)	Liabilities fall, CB may need to sell T-bills or other assets.		Costs reduced Incentive: Positive
Increase in RR to counteract budgetary expansion coupled with increase in remuneration to preserve bank profitability. (Hungary, 1994)	Revenue rises but so do expenses. Net effect depends on the magnitudes.		Costs reduced Incentive: Indetermined
Short-term loans to banks fully collateralized, quasi market rates. (Hungary, Indonesia)	Short-term assets expand, earnings rise.	None	Costs reduced Incentive: Positive
Broad application of discounting, widening the range of acceptable collateral to lower quality paper. May include bank stock. (Argentina, Kuwait)	Reduces the quality of CB assets, reduces income.	CB income falls (see above for further details).	Costs reduced Incentive: Adverse
Long-term loan to the deposit insurance agency (or other bank restructuring agency) replacing short-term bank loans (banks might otherwise have defaulted). (Venezuela)	Loans to banks fall, low quality assets are transformed into high quality assets.	Government pays interest/amortization and guarantees CB loan.	Costs reduced in the short run, may rise later if deposit insurance pricing is adjusted Incentive: Positive
Long-term loans to banks at below market rates, also susbordinated debt (Kuwait, Chile, Hungary, Indonesia)	CB establishes structural position, incurs interest costs.	CB income falls (see above for more details).	Costs reduced Incentive: Adverse

Table 9. Central Bank (CB) Instruments Supporting Bank Restructuring (concluded)

Instrument (Countries Where it Was Used)	CB Balance Sheet Effects And/or Income Effects	Budgetary Cost	Cost for Banks (Incentive Aspect)
Foreign exchange guarantees given to banks (e.g., for foreign exchange denominated liabilities when fx creditors are defaulting due to major devaluation). (Mexico)	Foreign reserves reduced	CB reserves and income from capital fall (see above for more details).	Costs reduced Incentive: Adverse
Preferential foreign exchange rates either for bank borrowers or for banks to honor foreignn exchange liabilities. (Chile, Mexico)	Foreign reserves sold at a loss		Costs reduced Incentive: Adverse
CB issues bills to banks in exchange for nonperforming loans, assumes workout responsibility. (Finland, Kuwait, Chile, Hungary)	Asset quality falls (depending on pricing of nonperforming loans), earning fall. CB acquires structural position. Activities of CB expand substantially, administration, loan management and loan workout activity requires substantial resources.	CB income falls (see above for more details).	Costs reduced Incentive: depending on pricing and design
CB takes over management of banks temporarily. (Chile, Kazakstan)	Operating costs increase as CB engages in active monitoring and sometimes management of banks.		Incentives: Positive
CB purchases equity stakes in banks. (Finland, Indonesia)	Long term commitment of funds, with uncertain return, possibly further costs.		Costs reduced Incentives: Adverse

In virtually all other cases, central bank support to banks has indirect budgetary implications fiscal costs or revenue shortfalls. The two main channels are reduced revenue resulting from lower bank income or higher costs; and reduced demand for treasury bills when the bank's liabilities fall or when the central bank engages in asset substitution to absorb nonperformingloans, leading to higher costs of government debt.

C. Cost of Bank Restructuring

Table 10 shows estimates of fiscal costs involved in bank restructuring operations, grouping countries according to the ranking system developed above. In most instances, the fiscal costs of bank restructuring are very substantial relative to GDP.

The cost measure depends on two aspects: the size of the problem which can be proxied by nonperforming loans to loans and the importance of the banking sector in intermediation. In both Peru and the Philippines the size of the banking sector problems was

large compared to the other countries in the same group, however, the role of the banking sector is very limited in both of these countries. Credit to the private sector as a percent of GDP is six percent in Peru and 27 percent in the Philippines compared to about 80 percent in Spain and 60 percent in Sweden. The relatively small size of the banking sector explains the comparatively lower cost.

The cost measures are limited to fiscal costs. Costs borne by the private sector are not included. For example in the case of Peru, the hyperinflation eroded deposit values and thus depositors had to shoulder a major share of the costs before the bank restructuring activities by the Government were initiated.

Timing of action also appears to affect the level of costs. Prompt action was frequently correlated with lower fiscal costs.

Table 10. Cost Estimates of Systemic Bank Restructuring by Performance Groups1/
(in percent of GDP)

Substantial Progress Countries	
Côte dÍvoire	13.0
Peru	0.4
Philippines	4.0
Spain	15.0
Sweden	4.3
Moderate Progress Countries	
Chile	33.0
Egypt	n.a.
Finland	9.9
Ghana	6.0
Hungary	12.2
Korea	n.a.
Poland	5.7
Slow Progress Countries	
Kuwait	45
Mauritania	15
Tanzania	14
Countries with Bank Restructuring Programs after 1994	
Argentina	0.3
Indonesia	2.0
Japan	n.a.
Kazakstan	n.a.
Latvia	n.a.
Mexico	12-15
Moldova	n.a.
Venezuela	17
Zambia	3

1/ Calculated by expressing fiscal or quasi-fiscal outlays in each year as a percentage of that year's GDP. The precentages are then added (e.g. if the costs amounted to 11 percent of GDP in 1981, in 1982, and in 1983, the total cost would be noted as 33 percent in this table). These estimates do not take into account cost recoveries achieved by governments.

VI. Macroeconomic Developments During the Restructuring Process

The economic background in the sample countries, against which the bank restructuring operations took place, was analyzed to determine whether outcomes and best practice policies were sensitive to underlying economic conditions.[6]

It was possible to discern three broad patterns for GDP growth, inflation and the fiscal balance (Figure 2). One pattern is U-shaped, that is, in some countries macroeconomic conditions deteriorated slowly in the four years preceding bank restructuring, and worsened significantly at the onset of bank restructuring, but recovered in the following years. The fiscal balance improved with a considerable time lag, often reflecting the cost of bank restructuring.[7] This pattern is best represented by Sweden. Average GDP growth in the four years prior to the onset of bank restructuring (1991) was about two percent, growth turned negative in 1991 and continued to be negative both in 1992 and 1993 by some two percent annually as the banking crisis culminated towards the end of 1992–beginning 1993, recovering to growth rates of about 3.5 percent in both 1994 and 1995. Inflation showed a somewhat similar trend, although the pattern is a result of the temporary upturn in inflation due to the large depreciation of the currency. The fiscal balance was positive in the four years before the banking problems, but deteriorated sharply in 1991, as well as in the following two years and then began to recover in the third year after the onset of bank restructuring. A similar evolution of macroeconomic conditions can be observed for Chile, Finland, Philippines, and Spain.

The second pattern shows a steady improvement of macroeconomic conditions throughout the nine years. Countries that fit this pattern had experienced significant economic deterioration during the four-year period prior to undertaking bank restructuring; they adopted stabilization policies along with measures to stabilize the banking sector. Thus, bank restructuring does not appear to have been incompatible with economic recovery or with rapid economic growth. This pattern is most accentuated in Peru, where GDP growth rose from an average of about -5 percent during the pre-bank restructuring years to an average of about seven percent in the four years thereafter. Inflation fell from close to 4000 percent to 23 percent during the same period and the government balance rose from -5 percent to about -2 percent. A similar pattern can be observed for Côte d'Ivoire, Hungary, Mauritania, and Poland.

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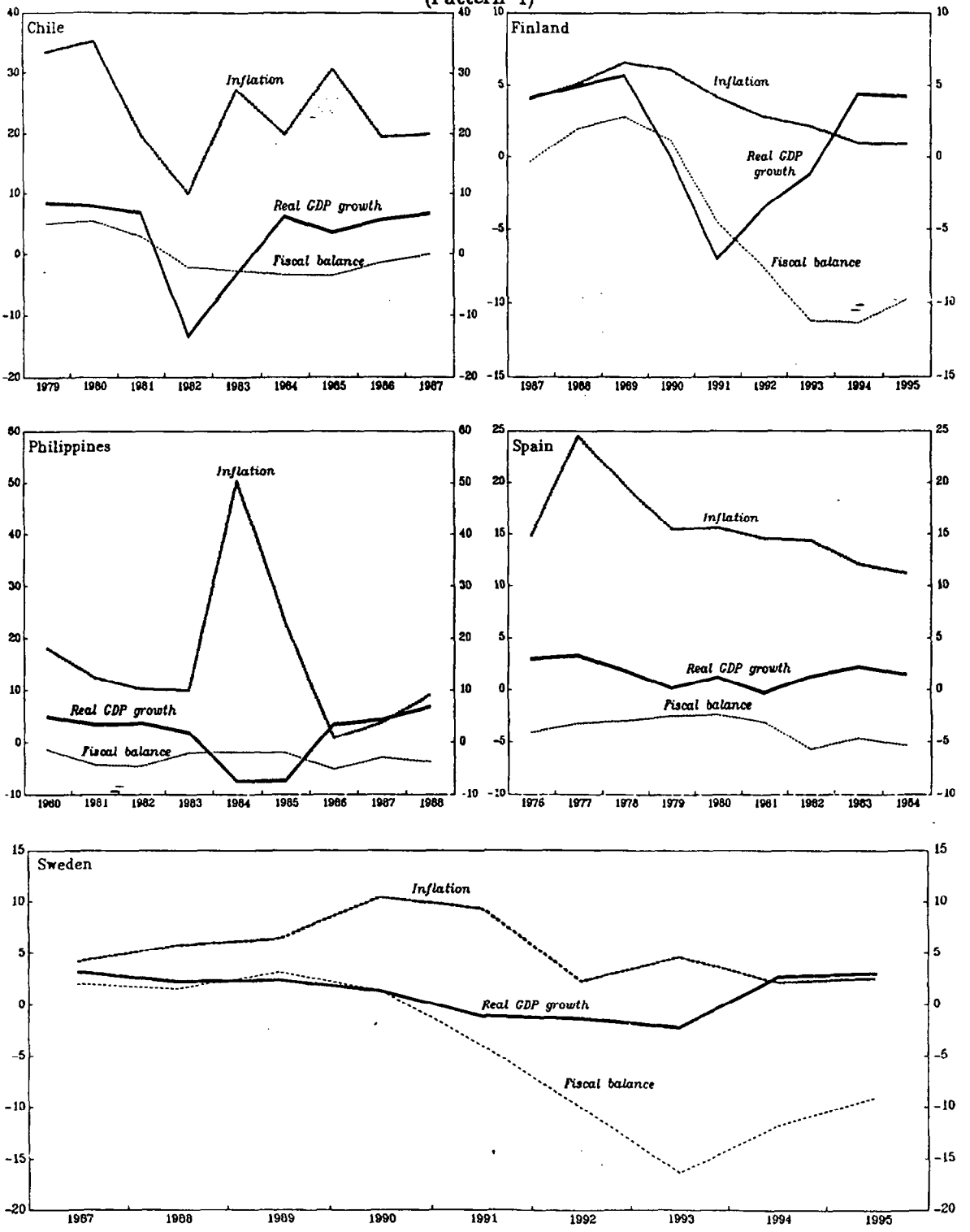
[6]No attempt was made to systematically identify the role of other factors such as adjustment programs taking place or initiated during the bank restructuring process.

[7]It was not possible to identify bank assistance outlays in budget balances in the survey.

Figure 2. Three Patterns of Macroeconomic Effects During The Bank Restructuring Process 1/

(In percent)

(Pattern 1)



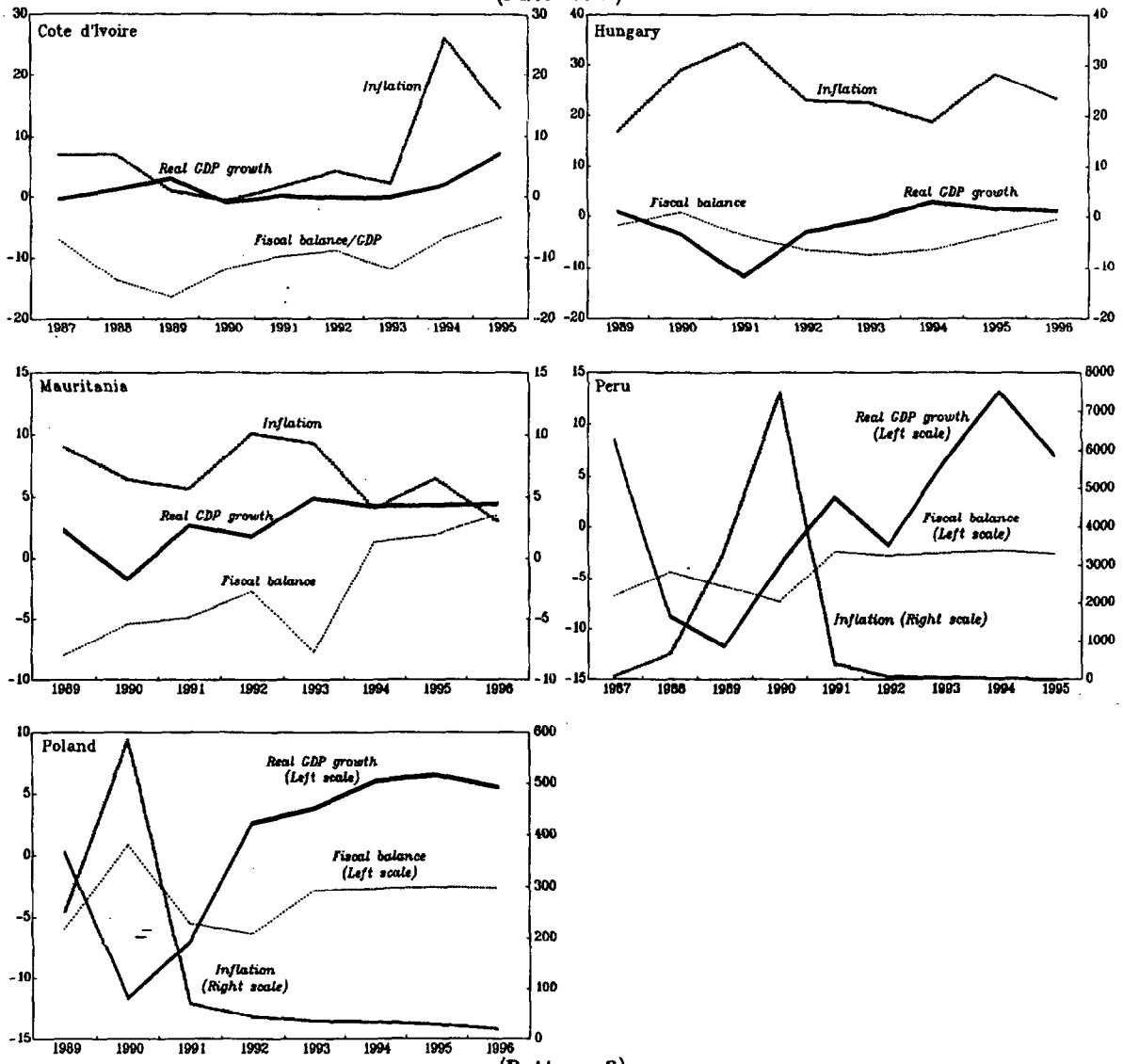
Source: WEO, World Economic Outlook.

1/ Covers four years before and four years after the onset of bank restructuring (a total of nine years). The fiscal balance is calculated as the central government balance/nominal GDP; inflation is calculated as the percentage change of consumer prices.

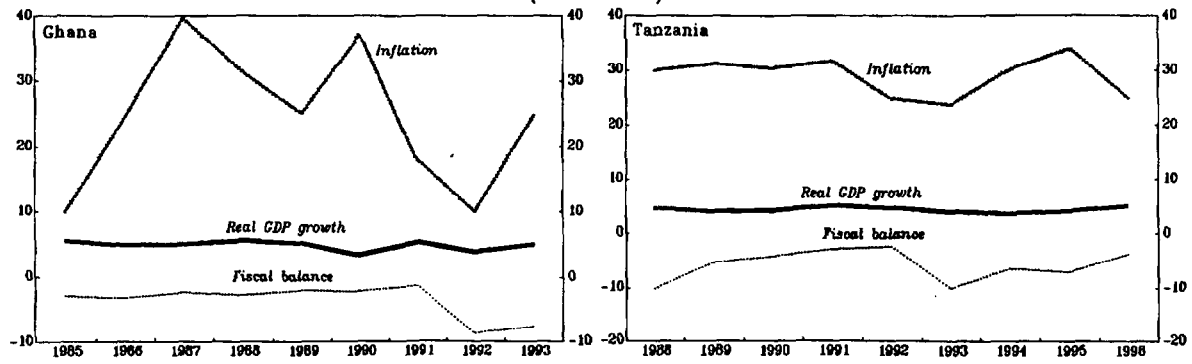
Figure 2 (Continued). Three Patterns of Macroeconomic Effects During The Bank Restructuring Process 1/

(In percent)

(Pattern 2)



(Pattern 3)



Source: WEO, World Economic Outlook.

1/ Covers four years before and four years after the onset of bank restructuring (a total of nine years). The fiscal balance is calculated as the central government balance/nominal GDP; inflation is calculated as the percentage change of consumer prices.

seven percent in the four years thereafter. Inflation fell from close to 4000 percent to 23 percent during the same period and the government balance from -5 percent to about -2 percent. A similar pattern can be observed for Côte dÍvoire, Hungary, Mauritania, and Poland.

The third pattern shows a slow but steady deterioration of certain macroeconomic indicators. An example is Ghana, where real GDP growth fell from an average of five to an average of four percent during the nine-year time period. Inflation fell from an average of 30 percent to an average of 22 percent, while the fiscal deficit rose from about three to almost five percent of GDP. A similar pattern can be observed in Tanzania. This pattern may be a variant of the first observed pattern, with a less pronounced deterioration at the onset of bank restructuring action and with a much slower recovery.

While these patterns are interesting in their own right, they do not support the view that there is a strong link between underlying economic conditions and the success of restructuring operations. An environment of strong economic growth is conducive to successful bank restructuring operations. Since bank profitability and retained earnings, and the underlying health of bank borrowers respond positively to economic growth, the empirical results indicate cases where measures have succeeded even where the macro situation remained weak. This is consistent with the best practices view that action should be taken promptly, without waiting for a serendipitous upturn in economic conditions to undertake otherwise difficult and unpalatable measures.

In contrast to the differentiated experience regarding the evolution of the economic cycle before, during, and after bank restructuring, inflation followed a very definite pattern, declining in nearly all countries in the survey during the years after the onset of bank restructuring action. One possible reason is that countries recognized that best practiced do not involve inflating one's way out of banking system problems. Another is that systemic banking problems often involves a large negative demand shock, for example, as a result of the associated wealth losses, which dominated other incipient inflation pressures. Particularly in effects to aggregate demand.[8] The lesson would appear to be that the probabilities strongly favor that restructuring will occur in a disinflationary environment. If so, the monetary policy asymmetry problem (i.e., as discussed elsewhere in this book, there are limits on the extent to which monetary conditions can be tightened during restructuring) may not be a binding problem in practice.

Most other macroeconomic indicators showed mixed results during the nine years for the sample countries. No clear patterns are visible for either of the two groupings (initial grouping and performance grouping). Changes in private consumption and savings vary widely across countries and no clear trends can be found. Current account deficits in the balance of payments relative to GDP also do not reveal clear trends. Some countries

[8]See Bank for International Settlements (1993) and IMF (1993).

experience exchange rate shocks in the year(s) prior to the banking problems. In some countries the exchange rate continues to deteriorate in the following years, while in others the exchange rate stabilizes in the years after the onset of bank restructuring action. Similarly, there is no regularity in developments in gross external reserves.

VII. Lessons From Experience

Based on the statistical analysis, this section provides a summary of policies judged to be successful in a wide range of circumstances and countries.

- *Diagnosis* of the nature and extent of systemic banking problems proved to be an important component of the restructuring programs. In all countries, multiple causes contributed to the systemic problems and countries which made substantial progress in bank restructuring identified the underlying causes and designed a bank restructuring strategy aimed at systematically addressing each one.

- Successful bank restructuring implies a *comprehensive approach* addressing not only the immediate stock and flow problems of weak and insolvent banks but also correcting shortcomings in the *accounting, legal, and regulatory framework* while improving *supervision* and compliance. Structural factors that stand in the way of efficient financial intermediation such as exceedingly high reserve or liquidity requirements, interest rate controls, and distortions in the tax system, such as tax exemptions for state banks, may need to be removed.

- *Prompt action* is an important ingredient of success. The survey confirms that success is positively correlated with prompt action. Substantial progress countries took action within one year of problems emerging.

- *Operational restructuring* is a necessary condition for banks to return to profitability and sustained solvency. Management deficiencies were identified as a cause of the banking problems in all sample countries and that progress in bank restructuring is highly correlated with whether or not these were addressed. All substantial progress and most moderate progress countries placed appropriate emphasis on operational restructuring, while the weaker performers generally neglected it.

- Systemic bank restructuring should be coordinated and implemented by a designated *lead agency*. The statistical study shows that, when the central bank is the lead agency, frequently it is drawn into financing the bank restructuring measures, exceeding its resources and conflicting with its other responsibilities.

- Continuous *monitoring* of the bank restructuring policies and/or of individual bank restructuring operations is necessary. The importance of monitoring is supported by the finding that bank restructuring is a multi-year process, including significant public expenditure.

- The *central bank* must stand ready to provide liquidity support during restructuring to viable banks. Many countries used temporary or permanent reduction of reserve requirements, broad application of discounting facilities or short-term loans as a means of providing liquidity. The central bank should not provide long-term financing to banks, nor should it be involved in commercial banking activities, as this exceeds its financial resources and leads to quasi-fiscal costs. It also creates conflicts with its monetary policy objectives. The survey shows that very few countries refrained from using short-term liquidity support; however countries exhibiting substantial progress took a conscious decision to minimize the use of central bank financing and avoid central bank lending to insolvent banks.

- *Firm exit policies* are an integral part of best practices. The survey confirms that most of the substantial progress countries used firm exit policies.

- *Government financial support of insolvent banks* is unavoidable in most instances. As shown in the survey, *bond transfers and other financial instruments* were widely used but were not always associated with success.

- The principle of *loss-sharing* between the state, the banks, and the public is an integral part of successful bank restructuring. One way of incorporating loss sharing arrangements into the overall strategy is to designate a deposit insurance agency funded by contributions from banks as lead agency. Although the authorities avoid imposing outright losses on depositors in most countries, Côte d'Ivoire, Latvia, Peru and Spain have successfully imposed limited losses on depositors and other creditors without causing a panic or run on banks.

- *Removing nonperforming* loans from the banks' balance sheets and transferring them to a separate loan recovery agency is an effective way of addressing the banks' *stock problem*. The survey shows that most substantial and moderate progress countries made use of this technique. Carving out nonperforming loans immediately improves the banks' balance sheet and it helps banks focus attention on their *core business*. It does not, however solve the banks' flow problems. The survey indicate that most countries found it easier to address the stock problems than the flow problems.

- *Loan workout*, (foreclosure or asset sales) is important to recover some of the costs of bank restructuring and to send signals to delinquent borrowers. Loan workout can be done in a central organization, usually operated by the state, or in special loan collection agencies tied to individual banks. The survey results suggest that the institutional setting does not appear to matter. Some countries, including Chile, Philippines, and the transition countries, approached the loan workout issue indirectly by providing debt relief to *borrowers* or by engaging in *enterprise restructuring*.

- While bank restructuring programs may be initiated during a time of economic stagnation, *positive economic growth* helps banks to resume lending and return to profitability. Restructuring programs typically occur in an environment of low or moderate level of inflation while *the fiscal balance often deteriorates* immediately following the onset of bank restructuring.

- Problems that are specific to *state-owned banks* or to development banks may require special attention. Privatization or closure of such banks worked well in many countries. The design of privatization is very important in determining the future profitability and viability of the banking sector. The experience of Chile in the early 1980s and of Mexico in 1995 demonstrates that a rapid and ill-designed process of bank privatization can contain the seeds of subsequent banking crises. Chile and Mexico went through an intensive process of bank privatization in 1974 and 1991, respectively. In both cases, preferential access to credit given to some bidders, overpricing of bank assets and weak legislation against concentration of ownership allowed a few large business conglomerates to acquire a large portion of the financial system. In both cases, all of these banks were later intervened by the government, either for being insolvent or having a high lending concentration in affiliated companies.

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