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To: Members of the Executive Board

From: The Acting Secretary

Subject: Systemic Bank Restructuring and Macroeconomic Policy

Attached for consideration by the Executive Directors is a paper on systemic bank restructuring and macroeconomic policy, which is tentatively scheduled for discussion on Friday, January 24, 1997. Main conclusions and issues for discussion appear on pages 33 and 34.

Mr. Davis (ext. 36754), Mr. Lindgren (ext. 37151), or Mr. W. Alexander (ext. 35366) is available to answer technical or factual questions relating to this paper prior to the Board discussion.

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INTERNATIONAL MONETARY FUND

Systemic Bank Restructuring and Macroeconomic Policy

Prepared by the Fiscal Affairs and Monetary and Exchange Affairs Departments

(In consultation with other Departments)

Approved by Vito Tanzi and Manuel Guitián

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I. INTRODUCTION

1. In a generally healthy and well-regulated banking system, individual banks can and sometimes should be allowed to fail. Allowing market discipline and supervisory intervention to weed out weak institutions minimizes moral hazard. Where vulnerability is widespread, however, the potential negative externalities associated with widespread bank failures may call for intervention beyond what can be accomplished by the market or standard supervisory instruments.¹ Systemic bank restructuring comprises a comprehensive program to rehabilitate a significant part of a banking system so as to provide vital banking services efficiently on a sustainable basis. Such restructuring programs have been undertaken by some 30 Fund member countries over the last 15 years in a range of economic and political circumstances.

2. Systemic bank restructuring programs typically encompass an array of microeconomic, institutional, and regulatory measures.² Such programs also have significant macroeconomic implications, not least because the fiscal and quasi-fiscal costs are usually substantial. There are also implications for monetary policy, the balance of payments, macroeconomic stability, and growth; for the equity, efficiency, and transparency of public policy; and for the future functioning of financial markets.

3. Systemic bank restructuring has often been a response to an outright or impending crisis, typically manifested by bank illiquidity, runs on banks and on the domestic currency, or an impending cut-off of foreign interbank lines of credit. In other cases (such as most of those in Africa and transition economies) restructuring was undertaken during financial distress when significant problems were apparent, but without a liquidity crisis. The scale of the banking sector problems and the strategies used to address them have sometimes had important implications for the balance of payments. Some countries confronted their banking problems in the context of Fund-supported programs or with assistance from the World Bank and regional development banks, while others acted without external support.

4. The linkages between the banking system and macroeconomic policy have made bank restructuring programs an important issue for the Fund.³ This paper considers strategies for systemic bank restructuring and their macroeconomic aspects and implications. It reflects

¹The causes of banking system problems are dealt with in IMF (1996c), while supervisory instruments are addressed in IMF (1996d). See also Lindgren, Garcia, and Saal (1996).

²A framework for assessing restructuring strategies is developed in Supplement 1 to this paper.

³See "Bank Soundness and Macroeconomic Policy" (SM/96/40, 2/12/96) and Lindgren, Garcia and Saal (1996).

experience gained in the Fund's technical assistance and other work over the last few years,⁴ and draws on lessons from the countries surveyed in Supplement 2. Among the international financial institutions, the World Bank and regional development banks have had lead responsibility in providing assistance for bank restructuring to developing and transition economies. Discussions between Fund and World Bank staff on modalities for enhancing coordination in this area are ongoing, and will not be addressed in this paper.

5. Across countries, authorities' goals in undertaking bank restructuring have been similar, with differences arising from initial conditions in individual countries, from market and political pressures, and from the urgency under which the restructuring program was formulated and executed. Section II of this paper describes the principal components of a systemic restructuring strategy and the types of financial instruments that can be used to implement it. Section III discusses the macroeconomic aspects of restructuring, particularly the fiscal and monetary aspects, and Section IV discusses transparency in the recording of the fiscal consequences. Section V suggests conclusions and issues for Board discussion. Three Supplements discuss restructuring strategies and instruments; background on country experiences; and the tax treatment of loan loss provisions.

II. RESTRUCTURING STRATEGY

6. As soon as systemic banking problems are recognized, comprehensive policies should be implemented to prevent further deterioration, minimize the cost of any restructuring and reduce the likelihood of a liquidity crisis. Systemic bank restructuring is a multi-year process and typically consists of a comprehensive package of macroeconomic, institutional and regulatory measures. The problem needs to be assessed and the key strategic decision regarding who will bear the losses must be made. Institutional responsibility for implementation needs to be assigned. This section aims at providing a basis for the assessment of restructuring strategies by laying out the principal elements of such a strategy and then focusing on the financial and operational restructuring instruments that must be at its core.

A. Assessing the Problem

7. To formulate a workable restructuring strategy and determine the specific instruments for achieving its goals, an assessment must be made of the financial and operational condition of individual banks and of the problems of the overall banking system. The assessment should cover, *inter alia*, the solvency (net worth) of banks, present and potential operational efficiency, profitability, cash flows, and the capacity of the system as a whole to provide necessary financial

⁴ These experiences were first discussed in a MAE workshop with senior officials from Central and Eastern European countries and World Bank staff held in Warsaw in September 1995; subsequent workshops were held in Moscow (April 1996) and Stockholm (May 1996).

services to the economy. The assessment should also consider the principal causes of the banks' problems, including deficiencies in the operating framework (e.g., the legal system and the competitive structure) and the macroeconomic environment.

8. In most cases only an approximate assessment of most of these factors can be made within a reasonable period. For example, as a banking system deteriorates or a crisis emerges, data become much less reliable. The net worth of a problem bank with an impaired loan portfolio can only be estimated and will evolve as the underlying circumstances of the economy and banks' clients change, and as asset values shift, partly in response to changes in public confidence and economic policies.⁵ In such circumstances, estimates of bank asset values and off-balance sheet items can be used, based on available supervisory and audit data adjusted, to the extent possible, for probable losses.

9. Assessment should distinguish potentially viable banks that merit restructuring from nonviable banks that will have to be closed.⁶ Estimates should be made using uniform assumptions and methodology to facilitate aggregation and analysis for the entire banking system.⁷ Information on the exposure of individual banks to each other, to other domestic financial institutions, to banks abroad, to the central bank, and to the public sector (including governments at all levels, public agencies and public sector enterprises) will help determine the likely risk of system contagion and the potential incidence of losses, although in this respect too, some data are likely to be at best rough estimates.

B. Allocating the Losses

10. By the time restructuring begins, the losses of insolvent banks have already occurred, cannot be reduced (for example, through creative accounting), and should be distributed as transparently and equitably as possible. Resources to fill the holes in the balance sheets—both at banks that have already failed and at those awaiting restructuring—most often come only from the government or the domestic private sector.⁸ The government may provide transfers or recapitalize, usually increasing public sector indebtedness. Private sector owners, other banks, bank creditors and depositors, and borrowers may also be obliged to bear the costs by writing

⁵See Lindgren, Garcia, and Saal (1996), Appendix I.

⁶An assessment of whether some nonviable banks provide services that are considered essential to the efficient functioning of the economy may be required. There may be cases when a bank may be "too big to fail" without causing significant damage to the economy, however, this concern is evoked far more often than clearly justified.

⁷Common valuation criteria for bank assets will enhance their transparency and transferability.

⁸When available, foreign capital typically goes through the government or under a government guarantee. Private foreign capital has rarely been forthcoming.

down capital or deposits, or by paying wider spreads between deposit and loan rates as banks try to earn their way out, effectively "taxing" customers. The problem of allocating losses is complicated by the fact that the loss estimates change as the restructuring proceeds. Nevertheless, establishing the principles that will guide the allocation is critical, not least because it will be an important determinant of the macroeconomic, especially fiscal, impact of the restructuring.

11. Losses should first be charged against owners' capital to reinforce market incentives for remaining or future bank owners. Experience indicates that in most cases of insolvency, owners will not be willing to put in additional capital; as a result, they should be required to relinquish control of their bank to the creditors. The distribution of creditors' losses is usually defined by the specific bankruptcy law (for example, on a pro rata basis or on an established preference ranking), but will be modified by the specific rules guiding any existing depositor protection scheme or explicit government guarantees.

12. The typical country experience is for the public sector to absorb a large share of the accumulated banking system losses, as well as most of the administrative costs of bank liquidation and restructuring. In some cases losses have been imposed directly on depositors without causing a panic or a run on banks. Nevertheless, governments are wary of imposing costs on depositors and other creditors for fear of political repercussions as well as domino effects, disruption of the payments system, or general loss of confidence.⁹ Equity considerations might also dictate that the government absorb losses when banking sector problems reflect government action (or inaction), such as intervention in the credit allocation process, grossly inadequate macroeconomic policies, extreme regulatory forbearance permitting fraud, or excessive support from the lender of last resort (LOLR) that has inhibited market discipline.

C. Designing the Strategy

13. A comprehensive strategy for systemic bank restructuring must be designed to improve the finances and operations of individual banks, redress any deficiencies in the operating environment and configuration of the banking system, and restore public confidence. Some of the highlights of the country experiences surveyed in Supplement 2 are presented in Box 1.

⁹Thus, the relative scarcity of runs in modern banking systems reflects government or central bank policies specifically designed to forestall runs. Nevertheless, runs, some limited and others more extensive, have occurred in recent years in Argentina, Bolivia, Bulgaria, Chile, the Czech Republic, Estonia, Hong Kong, Hungary, Japan, Jordan, Malaysia, the Philippines, Taiwan Province of China, Tanzania, Thailand, Turkey and the U.S. (see Lindgren, Garcia and Saal (1996), Tables 2 and 3, and Garcia and Saal (1996), Table 1).

Box 1. Lessons From Experience: Strategy

A *comprehensive approach* is required, 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 and improving supervision and compliance. Chile, Côte d'Ivoire, the Philippines, Poland, Spain and Sweden successfully implemented far-reaching reforms in the banking sector as part of their restructuring strategies.

Prompt action is an important ingredient of success. Countries that achieved substantial progress took action within one year of problems emerging. Action may be slowed where the authorities lack the necessary legal powers. In Chile and Côte d'Ivoire, response was delayed by several months, but once legal difficulties were overcome both countries undertook comprehensive restructuring.

Firm exit policies are an integral part of best practice; most countries achieving substantial progress closed one or more banks. Closure was emphasized in Chile, Côte d'Ivoire, the United States and in a number of transition countries. Both Côte d'Ivoire and Latvia convincingly demonstrated that no bank would be protected exclusively because it might be considered "too large to fail."

Designating a *lead agency* improves implementation. Sweden formed a new agency; in Spain and the United States, the deposit insurance agencies took the lead; in Côte d'Ivoire, external donors played an important role in co-managing the bank restructuring process. Experience shows that when the central bank is the lead agency, it is frequently drawn into financing bank restructuring, resulting in a strain on its resources and conflicts with its other responsibilities. While the cooperation of the government, the central bank, and the bank supervisory authorities is necessary, the lead agency should have some degree of autonomy and be backed by a firm and unambiguous commitment to reform at the highest levels of government.

Source: Supplement 2

14. In virtually all countries, deficiencies of bank management and of governance structures are important contributors to systemic banking problems and therefore operational restructuring of individual banks must be an integral part of a systemic response.¹⁰ Operational restructuring includes: refocussing a bank's attention on core products; improving its techniques for credit assessment and pricing; strengthening its management practices and accounting systems; and ensuring adequate accountability and disclosure. It often involves reviewing a bank's branch network structure and organization. To stem the flow of losses, changes in management, staff reductions, and other cost-cutting measures are often required, along with improvements in operating methods, such as loan approval procedures.¹¹ As shown in the case studies and in the statistical survey (Supplement 2), failure to achieve operational

¹⁰Operational restructuring is discussed in more detail in Supplement 1.

¹¹ Related measures to address solvency and profitability problems in the real and nonbank financial sectors may also be required (see Borish, Long and Noël (1995)); these are beyond the scope of this paper.

restructuring is likely to lead to recurrence of banking problems. Addressing the existing stock of accumulated losses also requires both operational and financial restructuring. The instruments chosen to accomplish this put into effect the authorities' decisions with respect to loss allocation, and determine the fiscal impact of the program; they are discussed in greater detail below.

15. For the system as a whole, it will be important to ensure that a legal and institutional framework that promotes sound banking is in place, that supervision and prudential regulation are improved, and that the structure of the sector does not inhibit competition or profitability. Measures to transparently and credibly rehabilitate the banking sector will be the most important contributors to restoring public confidence. Additional measures, such as the provision of an appropriate LOLR facility and deposit insurance, may also be needed.

16. Achieving an early consensus on policy goals and broad principles and on who will be responsible for planning and implementation will improve the efficiency of the strategy's execution and forestall coordination problems.¹² The political commitment required to accomplish a systemic restructuring implies that initial planning should take place at a high level, and that the overall strategy should be approved by the parliament or its equivalent. The details of implementation, on the other hand, are best determined at the technical level. Experience has taught that restructuring is not a task for bank supervisors alone. An expert technical group is best suited to implement the strategy in order not to distract the budgetary, monetary and supervisory authorities from their regular tasks. The expert group could be a special agency established for this purpose, or a unit within the Ministry of Finance or the central bank. Regardless of institutional arrangements, accountability and close cooperation between the different authorities will be vital.

17. The assessment of problems and the diagnosis of their causes will determine the appropriate specific policy responses, but in all cases successful systemic bank restructuring requires attention to a broad range of microeconomic measures. The availability of expertise is often a constraint, and legal issues such as the lack of a framework for supervisory control of banks, for bankruptcy, and for the transferability of assets may also delay or halt the bank restructuring process. It is therefore important to identify and remove critical bottlenecks early, and to keep the strategy as simple and flexible as possible.

D. Implementation: Instruments for Financial Restructuring

18. Financial restructuring aims at restoring solvency by improving banks' balance sheets (stock position) and income statements (flow position) to provide an adequate level of capital, a capacity for sustainable earnings, and the flexibility to manage liquidity and control risk

¹² See Nyberg (1996).

exposure.¹³ Some of the principal lessons from the survey in Supplement 2 are presented in Box 2. The rest of this section provides an overview of the instruments for restoring the balance sheet and improving the income of banks to be rehabilitated; some of these will also be useful in liquidating those banks that are to be closed.

Box 2. Lessons From Experience: Instruments

Government financial support of insolvent banks is unavoidable in most instances. *Bond transfers and other financial instruments* were widely used. Successful use of such instruments in the Philippines, Poland, Spain, and Sweden combined financial support with changes in management and detailed plans for operational restructuring. The experiences of Mauritania and Tanzania illustrate that when financial support is given without a such restructuring, problems recur.

Liquidity support to viable banks may be required during restructuring. Very few countries avoided using the central bank to provide short term liquidity support, via broad application of discounting, short term loans, or reductions of reserve requirements. Successful countries, however, minimized the use of central bank financing and avoided central bank lending to insolvent banks.

Determining how losses will be shared between the state, the banks, and the public is an integral part of successful bank restructuring. Loss sharing arrangements can be facilitated by designating a deposit insurance agency funded by contributions from banks as lead agency, as was the case in Spain and in the United States. In most countries the authorities have avoided imposing losses on depositors, although increasingly some have imposed such losses (see Table 2 below).

Most countries found it *easier to address the stock problems* than to restore income flows and profitability. *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. It may not, however, be sufficient to solve the flow problem.

Source: Supplement 2

19. Country experiences indicate that it is important that the instruments chosen conform to a few basic principles. The instruments chosen should be *cost-effective*, taking into account both the immediate and the longer-term costs (e.g., debt service), and *simple to implement*. They should be designed to *distribute losses equitably and minimize the public sector burden*. Limiting public sector contributions to financial restructuring is necessary not only to contain the fiscal burden and *provide sound macroeconomic management* but also to avoid giving rise to the moral hazard of subsequent expectations of additional support during this or a future

¹³Proper accounting for the accumulated losses on loans and other assets and operating deficits of a troubled bank will show that capital is severely impaired or, more likely, negative. The continued operation of such a bank is dangerous: there is no cushion against losses, and owners with no capital at stake have little or no incentive to operate the bank responsibly; they may even loot the bank before control is taken from them.

instance of banking distress. Finally, moral hazard is reduced and *internal governance of banks* promoted if the restructuring instruments require those responsible for creating the losses to bear them.

Improving the balance sheet

20. There are, in essence, three ways to improve the balance sheet: inject new capital, shrink liabilities, and/or rehabilitate assets to reverse some of the losses.¹⁴

Injecting capital

21. The most common methods of injecting capital are shown in Table 1. Private sector contributions to capital may take the form of cash purchases of equity issued by the bank (Tier 1 capital on the Basle Committee definition) or new subordinated debt (Tier 2 capital).¹⁵ Usually government assistance takes the form of transferring assets to the bank. With no corresponding claim made on the liability side, this increases the bank's equity. When government assistance is designed as a swap of government debt for nonperforming assets, the pricing of the assets is critical. A one-for-one swap at market value adds no capital, but it will increase the risk-weighted capital-to-assets ratio, as in Mexico (1995). However, a swap of nonperforming loans at book value would allow the reversal of recorded losses and provisions, raise income, and thus increase equity. The latter approach, of course, has a larger fiscal impact.

22. Experience suggests two major lessons with respect to bank recapitalization. First, in most cases private capital is preferable to government-provided funds. Where capital is being contributed by the public sector, the form of recapitalization will have a bearing on the fiscal position and the public sector debt profile (see Section III). Second, if it is to contribute to the viability of the institution and provide owners with incentives for sound operations, the new capital must be genuine; the market value of the contributed asset must at least equal its valuation on the books of the recipient bank.

23. Cash and bonds paying market rates can be used to recapitalize a bank, while assets (even government bonds) with below market returns may not sufficiently improve a bank's earnings capacity. In some countries, long-term nontradable government debt has been used to limit the addition of new liquid instruments to the securities market or to restrict a bank management's discretion regarding liquidity. However, such assets reduce banks' ability to manage maturity, interest rate, and liquidity risk.

¹⁴Further shrinkage of the asset portfolio can help to make the bank more manageable, but does not restore solvency.

¹⁵See the Basle Committee on Banking Supervision (July 1988).

Table 1. Capital Injections in Selected Countries

From	Form	Countries	Issues
Existing private sector owners or new investors	Cash or other assets	Mauritania (1993) Tanzania (1995) Mexico (1995-96) USA (1980s)	Equity is preferable to subordinated debt. Other assets must be realistically valued.
Government	Cash	Egypt (1991) Finland (1991-94) Mauritania (1993) Philippines (1986) Sweden (1991)	Fiscal cost Monetary implications Moral hazard
	Long-term loans or other instruments representing a government claim or participation	Argentina (1994-95) Azerbaijan (1995) Finland (1991) Hungary (1994) Mexico (1995)	Fiscal cost Moral hazard Loans are debt, not equity
	Debt transfers (unrequited or in exchange for over-valued problem assets)	Chile (1984) Ghana (1990) Hungary (1993-94) Latvia (1993-94) Lithuania (1996) Mauritania (1993) Poland (1993-94)	Fiscal cost Moral hazard Value depends on servicing terms
	Equity conversion of public deposits/claims	Kenya (1986-89)	Fiscal cost Moral hazard Nontransparent

Source: Fund staff.

Shrinking liabilities

24. Some countries have arranged the transfer of liabilities from problem banks to sound or government-owned banks (e.g., Venezuela). This has the potential advantage of downsizing problem banks. To ensure the recipient banks are not decapitalized, matching assets, such as a transfer of government bonds, should be provided. Cost minimization and incentive compatibility suggest that some liabilities be written off. On equity grounds and to create incentives for market discipline, shareholders and subordinated debt holders should lose their investments first, followed by nondeposit creditors and large depositors. Small depositors might be protected fully on equity grounds, in order to mitigate any macroeconomic effects of a reduction in savings and intermediation consequent on confidence-impairing losses, to reduce the risk of runs, and because small depositors have little scope to exert market discipline.

25. Experience differs with regard to the extent to which losses have been imposed on depositors in the private sector. Many countries have augmented their systems of deposit insurance to enable depositors to recover more than the statutory amount of coverage. Finland, Japan, Sweden and Turkey, for example, extended full coverage to depositors during recent

crises or periods of financial distress. Other countries have proved willing, at least in certain episodes, to impose losses directly on depositors (Table 2). This can strengthen market discipline and reduce demands on the budget and on LOLR lending, provided it does not cause a generalized loss of confidence and bank runs.

26. High unanticipated inflation also has the effect of shrinking liabilities (and financial assets) in real terms. However, this lowers the quality of loans and credit evaluation by distorting enterprises' balance sheets. These distortions lead banks to overestimate the creditworthiness of their customers, underprovision for losses, and report artificially inflated profits. Negative real interest rates that usually accompany high inflation also discourage deposit growth and cause disintermediation.

Table 2. Imposing Losses on Depositors in Selected Countries

Country Date	Scope ¹	Treatment of Depositors	Deposit insurance
Argentina 1989-90	100	Time deposits at all banks above the equivalent of US\$100 were converted to bonds that initially traded at a 67 percent discount.	Deposit insurance was not introduced until April 1995.
Brazil 1994-96	0.4	Deposits above R\$20,000 held at (small) liquidated banks were lost. However, the largest problem banks were not liquidated, so their depositors did not lose.	The deposit insurance scheme, introduced in November 1995, retroactively raised coverage above the R\$5,000 limit for deposits in all banks closed since July 1994.
Chile 1982-84	70	Only 30 percent of domestic deposits were paid at banks that were liquidated.	Deposit insurance introduced in 1986.
Côte d'Ivoire 1991	n.a.	95 percent of depositors received reimbursement amounting to at least 85 percent of their deposit.	There is no system of deposit insurance.
Estonia 1992	47	Losses are estimated at between 25 percent and 75 percent of deposits at liquidated banks.	Deposit insurance legislation is being prepared.
Latvia 1995	40	Depositors are to be compensated only to the extent that assets are recovered. To date, little has been recovered.	Deposit insurance is under consideration.
Malaysia 1986-88	3.4	Varying schemes, including extended maturity (with interest foregone) and equity payments in lieu of cash.	There is no deposit insurance.
Thailand 1983-87	25	Deposits were repaid over 10 years; estimated loss of real value about 50 percent.	There is no system of deposit insurance.

¹ Percentage of banking system assets held by banks adopting the treatment listed in the table.

Sources: Baer and Klingebiel (1995) and Fund staff.

Rehabilitating assets

27. Failing to actively manage the nonperforming assets of all banks as well as the remaining good assets of failed banks increases the total cost of systemic restructuring, creates an inequitable distribution of losses by rewarding defaulters, and impairs incentives for debt repayment in the future. Mass liquidation could result in deflation, with consequent negative macroeconomic effects. Banking system assets need to be actively managed to maximize returns and maintain asset values in the economy. Sometimes liquidation is required, but loan or debtor restructuring may also be indicated. Table 3 shows how different countries have financed and handled bad assets during their bank restructuring efforts.

28. Decentralized workout units (within or outside individual banks) can have the advantage of allowing banks to build their capacity to assess and manage problem loans. However, responsibility for managing problem assets in addition to operational restructuring can strain banks' managerial capacity. In the case of banks that have closed, bankruptcy focuses on liquidation of assets and there is generally no administrative structure for loan workout. Further, asset liquidation by individual banks may duplicate administrative costs and, if they all try to unload assets quickly, will depress market values excessively. Many countries have therefore opted for a centralized asset management company (AMC) to handle problem loans, particularly those that are to be liquidated. Problem loans are exchanged for debt or equity of the AMC, or for government debt. The transfer price and capitalization of the AMC are critical to establishing appropriate incentives for recovery.¹⁶ It is also important that the necessary legal framework for recovery be in place; deficiencies in this area hobbled AMC performance in Tanzania, among others.

Improving income

29. Stemming the flow of losses will be assisted by the financial restructuring instruments discussed above, but will also necessitate operational changes in the restructured banks. Reductions in staff and branches and downsizing of operations reduce expenditure. A capital injection will usually have a positive impact on the income statement, as will improved asset recovery (if the assets stay at the bank). Banks' income can be enhanced to the extent that they can find low cost sources of funds, "squeeze" customers by increasing spreads, increase fee income, and reduce tax payments. Problem banks' cost of funds can be reduced and their liquidity increased by placing government deposits with them (as was done in Belarus, Kuwait, and Lithuania) or by lowering the central bank discount rate (as in Argentina and Kuwait). The former exposes the government to credit risk and may complicate monetary policy; while the latter could interfere with macroeconomic management unless a low central bank lending rate were justified in any event.

¹⁶It should be noted that an asset swap at market value is not a recapitalization, and the problem of loading banks' balance sheets with nonmarketable, nonearning securities applies here as well as to capital injections.

41. The government recapitalized the two banks by injecting 15.9 billion pesos in cash (3 percent of GDP) and wrote off its own deposits (1 percent of GDP). As a result of these measures, and the transfer of assets to APT, the balance sheets of the two banks were scaled down sharply: total assets of PNB were reduced by 54 percent and those of DBP by about 87 percent. New management was introduced, the branch networks were cut down, and major cost-reduction programs—including significant staff cuts—were implemented (PNB staff was reduced by one fourth and that of DBP by two-fifths). New charters were established for both banks. It was announced that all tax privileges would be withdrawn, public deposits at these banks would be restricted to working balances, the banks would be subject to private external audits, and the government would extend no further guarantees. By 1987 both banks had returned to profitability and were able to improve their capital asset ratios. In 1989, 30 percent of PNB's outstanding shares were privatized.⁹

42. Although political and macroeconomic developments of the late 1970s and early 1980s increased financial fragility, the root of the Philippines banking crisis lay within the financial sector. Weaknesses in the regulatory framework and lax banking practices triggered and magnified the crisis. As with other successful bank restructuring programs, that of the Philippines focussed on resolving the underlying causes of the banking crisis by incorporating the following fundamental principles: proper diagnosis of the problem; financial restructuring complemented by operational restructuring; and a strengthened regulatory and prudential framework. In particular, measures to rehabilitate the state-owned banks, which accounted for most of the problems, focussed on substantial operational restructuring, including replacement of the management, and a substantial downsizing of staff. Such comprehensive rehabilitation paved the way for a successful privatization.

E. United States: The Role of the Regulator in Dealing with Moral Hazard

43. In the wake of catastrophic financial crises that it suffered during the Great Depression, the United States augmented the safety net for its commercial banking industry and created a separate safety net for thrift institutions. During the period of widespread financial sector distress in the 1980s, the safety net for the commercial banks succeeded in handling weakness in the banking sector while that of the thrift institutions failed to do so. This case study seeks an explanation of the contrast.

44. *The safety net for banks now consists of the Federal Reserve ("Fed") as lender of last resort (LOLR), deposit insurance funded by banks and administered by the Federal Deposit Insurance Corporation (FDIC), and a system of regulation and supervision conducted by the Office of the Comptroller of the Currency (OCC) for federally chartered banks, but relies on cooperation between state and federal regulators for banks chartered by the states.¹⁰ The existing framework proved sufficient to overcome the severe problems that commercial banks*

⁹By 1996, 57 percent of PNB's shares were privatized.

¹⁰The OCC was established in 1863, the Fed in 1913, and the FDIC in 1934.

experienced during the 1980s and early 1990s as a result of economic recessions and weaknesses in regulation and in the configuration of the industry.¹¹ By professionally executed regulation and supervision, it held moral hazard in check, unlike the situation in the thrift industry. Consequently, there was no need to create special institutions or expend public funds to handle the large number of bank failures.

45. The United States did, however, make some adjustments to its existing arrangements regarding supervision, last resort lending, and deposit insurance in the FDIC Improvement Act ("FDICIA") of 1991. For example, prior to FDICIA the Federal Reserve had discretion in its last-resort lending, but a study by the House Banking Committee revealed that the Fed had consistently given liquidity assistance to the weakest, even insolvent, banks; sometimes for extended periods—as in the case of Continental Illinois Bank, which failed in 1984.¹² Such lending was shown to have added to the costs that the FDIC incurred in dealing with failed banks. Consequently, FDICIA limits the Fed's discretion to lend (even with collateral) to troubled banks for periods over 60 days. In addition, FDICIA instituted a system to reinforce regulators' incentives to take prompt remedial actions against undercapitalized banks and to close those whose equity capital had declined to 2 percent of total assets. The intention is that regulators should close the bank *before* it becomes insolvent and imposes losses on the FDIC and uninsured depositors. In addition, the FDIC is required to use the "least-cost" form of bank resolution.¹³

46. The same success cannot be claimed for the handling of the large number of thrift institutions that failed in the United States between 1980 and 1992.¹⁴ The safety net for savings and loan associations (S&Ls), established during the depression, consisted of the Federal Home Loan Bank Board (FHLBB) as the regulator of federally chartered thrifts and which collaborated with state regulatory agencies in supervising state-chartered S&Ls, a subsidiary called the Federal Savings and Loan Insurance Corporation (FSLIC) that insured S&L deposits, and 12 Federal Home Loan Banks that acted as the thrifts' lenders of last resort.

¹¹The Bank Insurance Fund handled 1,394 bank failures between 1984 and 1992 (FDIC, 1994, p. 125). These banks held \$232.4 billion in assets, equivalent to 4.8 percent of the average level of GDP during this period and to 10 percent of insured bank assets in 1984 but to only 6.6 percent in 1992 as the industry grew strongly despite its difficulties.

¹²See United States, House of Representatives (1991).

¹³The least costly form of resolution is that among all possibilities, which involves the smallest present value of expenditures for the FDIC.

¹⁴From 1980 through 1992, 1,142 thrifts with \$389.8 billion in assets failed (Congressional Budget Office, 1993, pp. 6 and 86-89). These assets were equivalent to 8 percent of average GDP during this period and to 39.9 percent of all of the thrifts industry's assets in 1984 and 47.8 percent in 1992, because the industry shrank markedly in the interim.

47. The thrift safety net failed in its responsibilities partly because it did not properly supervise weak S&Ls, nor close them when they became insolvent, so that it allowed moral hazard to prevail. Consequently, major changes were made in the Financial Institutions Reform, Recover, and Enforcement Act ("FIRREA") of 1989. These changes included the abolition of the thrift regulator and its deposit insurance subsidiary, and some limitation of the Home Loan Banks' LOLR powers. A new agency (the Office of Thrift Supervision) was created to regulate and supervise S&Ls, the deposit insurance fund had to be recapitalized at an estimated \$130 billion cost to the taxpayer, and the insurance function was transferred to the FDIC. The role of LOLR was (to some extent) transferred to the Federal Reserve. Furthermore, a separate temporary agency, the Resolution Trust Corporation (RTC) was created to take control of failed thrifts and dispose of their assets.¹⁵

48. Weaknesses in the configuration of both the banking and thrift industries in the United States made them vulnerable to shocks. Both were locally based and, until recently, were prevented by law from branching across state lines.¹⁶ Given that these two industries were simultaneously exposed to similar climatic and economic shocks, a question naturally arises why the banks' safety net proved adequate to its task while the thrifts' did not.¹⁷

49. Several factors explain the difference in outcome for the two industries. In particular, the thrift industry faced greater structural impediments. At the start of the period, when the difficulties of savings and loans emerged, the industry's loans were by law confined almost exclusively to residential mortgages (usually made with a 30-year maturity) at a rate that was fixed at the time the mortgage was initiated. As deposit rates were progressively freed from government control during the late 1970s and early 1980s, thrifts' portfolios suffered heavy losses in market value when the Federal Reserve moved vigorously to quell inflation starting in 1979 and interest rates rose sharply. By contrast, the banking industry was much less

¹⁵The RTC operated from 1989 through 1995.

¹⁶The larger banks were more buffeted by external shocks than thrifts—they had to contend with the international debt crisis of 1982 and the escalation and subsequent decline in the value of the dollar, which had little or no effect on the thrift industry whose assets were locally based and denominated in dollars.

¹⁷The United States suffered nationwide recessions in 1980, 1982, and 1990-92 and a wave of regional recessions. The recessions followed the Federal Reserve's program of tight money to bring inflation under control and stop real estate and commodity price booms. The effects were felt first in agricultural and old manufacturing, "rust-belt," states in the early 1980s and then moved to the oil-producing states in the mid 1980s. The real estate industry was hit by the recessions and its problems were exacerbated by the tax reforms of 1986 that removed several artificial stimuli to taking on debt. The prices of agricultural land, commercial and residential property plummeted first in the Midwest, then in the Southwest, later in New England, and finally in California.

exposed to interest rate risk because its principal assets were commercial loans made at variable rates; that is, it was not legally obliged to engage in such a high degree of maturity transformation.

50. Regulators and politicians decided at the beginning of the 1980s neither to close, restrain, nor to closely supervise thrifts that were insolvent at market value,¹⁸ but to let them continue in operation as their book value declined. They were permitted to remain in operation even when they became book value insolvent, by several officially approved opportunities for accounting legerdemain.¹⁹ Insolvent thrifts also received extensive liquidity support from the Federal Home Loan Banks.²⁰ Banking industry regulators, on the other hand, did not permit insolvency to be disguised by creative accounting and closed failed banks much more promptly.²¹ Moreover, while the Federal Reserve was criticized for lending to insolvent banks, forbearance was contained by the FDIC's stricter closure policy.²²

51. Institutions without capital have incentives to grow and gamble and this is what weak U.S. thrifts did.²³ The legislation of 1980 and 1982 gave thrifts additional opportunities to engage in more risky business.²⁴ Consequently, losses due to the industry's exposure to interest rate risk in the early 1980s were replaced by massive losses from bad loans later in the decade. And many owners of nonviable thrifts looted their institutions.

52. The environment that permitted these abuses was the configuration of thrift regulatory agencies. From their creation in the 1930s, the federal thrift agencies by law were assigned the role of promoting home ownership in the United States. Consequently, thrift regulators saw themselves as both thrift supervisors and promoters of the housing industry. They were, therefore, prone to much more "regulatory capture" than were the banking regulators.²⁵ In

¹⁸An institution is market value insolvent when the market value of its liabilities exceeds that of its assets.

¹⁹See the United States General Accounting Office (1985).

²⁰See the United States General Accounting Office (1987).

²¹Forbearance was, however, granted to the major international banks regarding their international loans in the mid-1980s.

²²See the United States House of Representatives (1991).

²³See Garcia (1987).

²⁴The liberalization of the banking and thrift industries is discussed in Cargill and Garcia (1982 and 1985).

²⁵Regulatory capture occurs when, instead of protecting the public interest, a regulator serves
(continued...)

addition, thrift regulators were subject to political interference from both the executive and legislative branches of government. While federal regulators at both bank and thrift agencies were short of resources in the early 1980s, the thrift regulator seemed more affected than the banking agencies. For example, the salaries of thrift supervisors in the early 1980s were lower than those at the banking agencies despite the need for strong supervision during this period of financial liberalization.²⁶

53. When regulators fail in their responsibilities, the markets can provide necessary discipline by demanding a higher interest rate for placing funds in weak thrifts or denying funds entirely to nonviable institutions. But the markets did not do so in the 1980s. While weak institutions, particularly insolvent thrifts, did offer somewhat higher rates than strong banks, the 1980 increase in the limit on federal deposit insurance to \$100,000 (over eight times per capita GDP at that time), the FDIC's preference for resolving failed banks by mergers (where the acquiring institution assumed all deposits), and the brokering of deposits enabled insolvent thrifts to pay less than risk-adjusted rates for funds.²⁷

54. Several lessons relevant to countries that are restructuring their banking industries can be drawn from the restructuring experience of U.S. banking and thrift institutions.

- Regulatory restrictions on the configuration of an industry—particularly on S&Ls' portfolio composition and both banks' and thrifts' geographical location—can reduce the ability to withstand macroeconomic shocks.
- Because bank regulators closed insolvent banks more promptly than thrift regulators, internal governance by bank management was generally stronger than at thrifts.
- Regulatory independence and accountability for supervisory actions are important to protect creditors and, ultimately, taxpayers. The thrift regulator practiced forbearance partly as a result of political interference.
- Whereas the Fed was criticized for lending too readily to nonviable banks, such lending by the Federal Home Loan Banks was vastly more problematic.
- The thrift regulators also practiced forbearance because the thrift deposit insurance

²⁵(...continued)

the interests of the industry that it is supposed to regulate (Stigler, 1970; Peltzman, 1975).

²⁶Strunk and Case (1988, pp. 138-45) provide data on numbers of supervisors and salaries.

²⁷Many securities firms brokered deposits by breaking down large deposits into \$100,000 pieces that were then within the limits of deposit insurance coverage and allocating them to different banks and thrifts that offered high rates. Deposit brokering was subsequently limited in FIRREA.

fund was undercapitalized—and in fact became insolvent in the mid 1980s—so that it did not have the resources to meet its obligations. It can be concluded that an insurance scheme that is so underfunded that it becomes heavily insolvent does more harm than good.

- Market discipline can be valuable in controlling undue risk taking. It failed at both banks and thrifts because the deposit insurance limit was too high, preferred forms of failure resolution protected all depositors, and deposit brokering extended coverage to virtually all deposits.
- Market discipline was weaker at thrifts than at banks because the thrift regulators released far less information (in fact they concealed facts) on the condition of individual thrifts and the industry in general than did the bank regulators.
- Regulators in both industries lacked resources (money and staff) at a critical time, but the lacuna was worse at the Federal Home Loan Bank Board.
- The latest estimate of the cost of the S&L debacle is \$130 billion, which is considerably less than first anticipated.

F. Chile and Spain: The Role of Central Banks in Systemic Bank Restructuring

55. Both Chile and Spain, experienced systemic bank problems in the early 1980s. Banking crises in the two countries occurred as a result of a combination of external shocks and endogenous factors. The Spanish economy suffered from the consequences of the oil shocks of the 1970s while the Chilean economy experienced a severe recession with rapidly declining terms of trade. In both countries, systemic banking problems arose following several years of liberalization, expansion, and increased risk taking in the banking sectors without adequate legal, regulatory and accounting frameworks necessary for proper risk management. In both countries the central bank assumed a lead role in devising, implementing, and financing the bank restructuring strategy. In Spain the central bank conducted some of its operations through the Deposit Guarantee Fund, while Central Bank of Chile's role was supplemented by the Bank Superintendency, a separate entity responsible for banking supervision.

Chile

56. Following several years of liberalization and rapid expansion of the financial sector, and amidst a severe recession, a financial crisis broke out in late 1981. Liberalization had taken place in an environment of lax supervisory standards that were conducive to excessive lending to related parties and other imprudent banking behavior, such as foreign exchange lending to domestic borrowers who had no access to foreign exchange earnings. But problems were exacerbated when the macroeconomic environment began to deteriorate dramatically in 1981 after U.S. interest rates were pushed to historically high levels to combat domestic inflation and the industrial countries began to fall into recession. Chile experienced a sharp deterioration in its terms of trade (with copper prices falling by over 30 percent between 1980

deterioration in its terms of trade (with copper prices falling by over 30 percent between 1980 and 1982). Capital began to flow out of Chile, forcing the authorities to abandon the fixed exchange rate as Chile lost about US\$500 million in reserves between October 1981 and June 1982. The Chilean peso depreciated vis-à-vis the U.S. dollar by almost 90 percent in 1982. The exchange rate depreciation in turn led to a rapid build-up of arrears on the foreign exchange indexed loans outstanding to domestic borrowers. This and rising real interest rates increased commercial bankruptcies, leading to increased levels of nonperforming loans and further weakening the banks' condition. A stand-by program with the Fund began in early 1983 accompanying the bank restructuring strategy.

57. Between 1981 and 1984 the Superintendency of Banks took over 14 (out of a total of 26) private domestic banks and eight (out of a total of 17) private domestic finance companies. While there was a substantial time lag between the occurrence of banking problems and intervention by the authorities, once the strategy was determined, the authorities moved quickly in taking control of the banks. In 1981, the authorities began to develop what amounts to a comprehensive bank restructuring program. Measures were implemented to address the immediate problems of the banks as well as weaknesses in accounting, disclosure, and banking regulation and supervision. The liquidation of eight of the banks and all of the finance companies placed under the Superintendency's control, as well as a number of mergers arranged by the authorities, reduced the number of banks by one third and reduced the number of finance companies by two thirds.

58. During the crisis and throughout the bank restructuring process, the Central Bank of Chile (CBC) provided short term and long-term financial resources to banks. These loans were granted at subsidized rates and much of the advances were never repaid. As a result, the CBC incurred substantial operational losses. These were equivalent to 2.9 percent of GDP in 1983 and 4.6 percent in 1984.

59. At the start of the crisis, the CBC granted emergency loans to all financial institutions placed under the control of the Superintendency of Banks. These included emergency loans to banks in liquidation that were granted to ensure that commitments to domestic and foreign creditors were met thereby preventing a potential crisis in the payments system. Some of the emergency loans were later repaid using funds from the government through the Development Corporation (Corfo). Promissory notes were issued by the CBC to depositors of liquidated banks. In this way, all deposits were reimbursed in accordance with a 1982 law that overturned limited deposit insurance.

60. Between 1981 and 1984, the CBC acquired all assets and liabilities of banks and financing companies in liquidation. The CBC became actively involved in the loan management in the form of debt relief and debt rescheduling schemes. These schemes entailed the conversion of foreign exchange denominated loans to domestic borrowers into domestic currency with the CBC assuming the losses attributable to the devaluation. The CBC's objective was to alleviate the debt burden of borrowers, thereby avoiding further bankruptcies which would have led to further deterioration of the banks' asset quality.

61. For the same reasons, debt relief schemes were instituted for other borrowers in the form of long-term credits involving large subsidies to firms in the manufacturing and transportation sectors, mortgage debtors, and preferential exchange rates for foreign currency debtors. These loans were made at subsidized rates and amounted to about 21 percent of domestic credit in 1984. Technically, these were "pass through" loans from the CBC to the insolvent banks. Nonetheless, the CBC set the terms and conditions for the reschedulings and thus became directly involved in the lending operations. These loans remained on the CBC's books for over ten years and their management appears to have entailed high costs for the CBC.

62. The CBC also provided loans to banks for debt relief schemes involving direct credit lines to consumers, and trading companies, intermediated by the intervened banks. These were mainly short term in nature and were settled in subsequent years.

63. In order to alleviate the burden of nonperforming loans on the books of insolvent but potentially viable banks, the CBC began to purchase past-due loans from them. This program was started in 1982 and expanded in subsequent years. The CBC purchased these loans at par value (up to a maximum of 1.5 times of the banks' capital and reserves, later raised to 2.5 times and then to 3.5 times capital and reserves).²⁸ For these banks a two class system of bank shares, consisting of "old" and "new" shares was created. Special repurchase agreements were concluded with the holders of "old" shares (that is the original owners), in which any future dividend payments to "old" shareholders were to be used first to repurchase the past due loans assumed by the CBC.

64. The system of "old" and "new" owners was designed explicitly to force the original owners to assume part of the costs of bank restructuring and to provide incentive-compatible signals to all bank owners. Through this mechanism of purchase and repurchase of nonperforming loans, the CBC in fact provided a long-term loan to old owners and accepted repayment in proportion to the banks' future profits. The cost sharing element of the strategy was, therefore, deferred to the future. Moreover, as the interest rate to be paid to the CBC was below the market rate, this implied substantial moral hazard as old owners had little incentive to return their banks' operations to profitability. Moreover, the system of "old" and "new" owners was plagued by enforcement and other problems and ultimately failed to provide the intended cost sharing mechanism. In the end, a final settlement was concluded only in July 1986 with the old owners. It involved highly controversial debt-forgiveness of about US\$4.5 billion. The CBC was left with very significant losses as the intended loss sharing arrangement failed. More importantly, this suggests that many of the old owners never

²⁸Starting in 1986, the government provided tax credits to small investors purchasing newly issued stock in rehabilitated banks. This was part of a larger government program aimed at popularizing share ownership by small investors. Two major Chilean banks in particular benefited from this program.

actually suffered any consequences of their actions that contributed to the banking crisis. The failure to implement the loss sharing arrangement reversed the incentive effects producing a significant moral hazard problem.

65. More successful components of the bank restructuring process were the strengthening of bank regulation, the modernization of bank supervision, and the intensification of on-site inspections. Personnel was expanded and specially trained to conduct comprehensive examinations. These measures were effective in establishing an enhanced and forward looking environment for resumed bank activity.

66. The return to a sound banking system in Chile was a slow and exceedingly costly process. Four years after the crisis bank capital ratios had not recovered to their pre-crisis level, bank profitability continued to be low and operating expenses did not decline. Moreover, four years after the onset of bank restructuring bank assets had expanded in real terms by almost 60 percent while bank employees had grown by 20 percent. This result is consistent with the approach taken by the CBC whereby operations of insolvent banks were in effect continued. The active engagement of the central bank in debt rescheduling and direct involvement in commercial lending appears to have slowed down the bank restructuring operations.

Spain

67. Spain's banking problems resulted from a combination of external and internal factors. In the 1970s, liberalized bank legislation without adequate adjustments in the regulatory, supervisory, and accounting systems led to highly speculative, growth-oriented banking activity. Extensive ownership of banks by industrial conglomerates leading to excessive lending to related parties was also a contributing factor. Structural adjustment problems resulting from the oil shocks of 1973-74 and 1978 were important factors triggering the banking crisis.

68. Problems in the Spanish banking sector began to surface in 1977 when the Bank of Spain was faced with growing liquidity problems that reflected, in some cases, much larger solvency problems. Rapidly growing levels of nonperforming loans led to massive bank insolvencies in the early 1980s. The Spanish banking crisis affected 51 of the country's 110 banks, accounting for more than 20 percent of deposits. This led the authorities to engage in a comprehensive bank restructuring process. An important component of the bank restructuring was tightened banking supervision, including enhanced reporting requirements and the implementation of an early warning system for banks.

69. The Bank of Spain assumed the lead role in the bank restructuring process, mainly acting through the Deposit Guarantee Fund (FGD), jointly owned by the Bank of Spain (50 percent) and private banks. It was financed by private banks with funds from the Bank of Spain matching the contribution by the banks. Thus, a loss sharing arrangement was part of the restructuring strategy. In 1980, the FGD was restructured and its powers substantially

increased to "carry out all the operations deemed necessary to reinforce the solvency and operation of the banks, in the interests of depositors and of the fund itself." With these changes, the FGD became the lead agency in the bank restructuring process.

70. During the crisis, the Bank of Spain provided some direct support to the banks by granting exceptions to reserve requirements or mandatory investments for banks. The mandatory investments yielded 3 percentage points below market rates.

71. Bank rehabilitation was done in the following sequence, referred to by the authorities as "accordeon" recapitalization. First, existing bad debts were written off against remaining capital. Then, the FGD acquired a controlling interest in the bank, and later subscribed to new capital issues, (that is, injected cash for equity stakes) and finally sold the bank to new shareholders. The system implied strong incentives toward improved corporate governance as the old owners lost their ownership stakes.

72. A different approach was taken to restructure the Rumasa group (a holding company that included 20 banks as well as other industrial and commercial enterprises). In view of the high concentration of loans to related borrowers who were over-indebted, and the potential employment effect (the Rumasa group had 50,000 employees, 11,000 of them in banks), a more gradual approach to restructuring was taken. The authorities took effective control of all related companies in 1983, conducted audits of the banks and firms, and then began to sell the companies. Management and sale of the banks was assumed by the FGD. The largest bank of the Rumasa group was sold to a foreign consortium of banks, two smaller ones were purchased by domestic investors and the remaining 17 were absorbed by major domestic banks who, in return, assumed part of the bank restructuring costs.

73. In the case of the Rumasa group, the central bank provided direct support in a number of ways. As part of the Rumasa banks' rescue, the Bank of Spain made a long-term loan to the Rumasa banks carrying the guarantee of the group of banks. The loan amounted to 131 billion peseta (0.6 percent of GDP), maturing in 12 years at an interest rate of 8 percent. Another loan amounting to 269 billion peseta was renewed. The Rumasa banks placed the sum of both items (400 billion pesetas, about 2 percent of GDP) with the group of banks in a 12-year deposit yielding 13.5 percent interest. Furthermore, the 12 banks purchased government bonds issued at below market rates (9.5 percent). For the involved group of banks, the cost was the difference between the interest received from the bonds (9.5 percent) and that paid for the deposit (13.5 percent), estimated at about 192 billion peseta at the time. Thus, the cost of this operation was shared between the Bank of Spain and the banking community.

74. For each bank undergoing rehabilitation, an operational recovery plan was developed and approved covering a period of several years (frequently five years). The plan specified goals and deadlines for achieving these. Banks periodically reported on progress to the supervisor and the FGD. At the end of the plan, the supervisor carried out a detailed inspection. Interim inspections were also conducted at the convenience of the bank supervisor. Thus, the financial restructuring measures were accompanied by operational restructuring.

75. By the mid-1980s, banking sector soundness was largely restored. Nonperforming loans had declined to low levels, and capital ratios improved although bank lending resumed cautiously. The cost of bank restructuring was estimated at about 15 percent of GDP.

Summary and conclusions

76. Bank restructuring in Spain was generally considered successful while the Chilean experience was less so. While initially the scope of the problems in Chile and Spain appears to have been similar, affecting about 20 percent of total loans, the cost of bank restructuring in Chile is estimated at 33 percent of GDP compared with an estimated cost of 15 percent of GDP in Spain (calculated as the average government outlay to GDP ratio in each year).²⁹ The differing roles of the central bank in the two cases may explain some of this outcome. In Spain the central bank placed considerable emphasis on cost sharing with the banking community. Other appropriate incentives for improved corporate governance were in place. Moreover, the Bank of Spain's activities in the bank restructuring process were somewhat removed from its monetary policy and supervisory activities by working through the Deposit Guarantee Fund.

77. In contrast, the Central Bank of Chile engaged in ongoing quasi-fiscal expenditures by assuming the financial costs of bank rescue operations. The cost sharing system employed in Chile deferred the costs to bank owners to the future, and in the end much of the costs were absorbed by the Central Bank of Chile. The bank restructuring approach was complex and not sufficiently transparent. Nonetheless, perhaps in large measure due to a comprehensive approach, including strengthening of banking supervision, Chile succeeded in restoring bank soundness, although at a slow pace and at high costs.

G. Baltic States, Russia and Other Countries of the Former Soviet Union: Special Issues of Bank Restructuring in Transforming Economies³⁰

78. As the Baltic states, Russia and other countries of the former Soviet Union (FSU) embarked on market reforms during 1991–92, two-tier banking systems emerged with the creation of central banks and the transformation of specialized banks into notionally autonomous commercial banks. Concurrently, in large part owing to lax licensing policies and practices, most of these countries experienced a large increase in the number of commercial banks, and expansion of branch networks. These institutions typically lacked expertise in credit evaluation, and many engaged in aggressive lending to enterprises with which they were associated by ownership or other ties. Early in the transition process the consequences of poor credit evaluation were effectively masked by high inflation. The sharp reduction in inflation

²⁹See Table 19 for cost estimates and explanation of the method used.

³⁰This note is based on Pazarbasioglu and van der Vossen (1996).

79. For most of the transition countries, the overall financial situation remains fragile. Based on data for 1994-95, the ratio of nonperforming to total loans varies from 14 to 63 percent,³¹ ratios that are high compared to other countries that have experienced banking crises.³² By contrast, partly as a result of demonetization during the initial period of sharp inflation, the household deposit base is small in most of these countries, and the banking sector's total assets are smaller relative to GDP (on the order of 10-20 percent) than in the transition economies of Central and Eastern Europe (on the order of 40-50 percent). Moreover, the fragility of the banking system remains a major constraint on economic recovery.

80. The situation in most countries, with the exception of the Baltics, has not yet reached the stage of an acute crisis, nor have there yet been closures or interventions in the large banks.³³ However, the problems in the banking sectors in the CIS countries can be considered systemic in nature. In Russia, for example, a large part of the banking system faces serious problems and many banks are insolvent. Russian commercial bankers estimate that in many banks 50 percent of the loans are nonperforming.³⁴ In most of the other countries, more than 50 percent of the loan portfolio of the five largest banks are nonperforming; it may be inferred, therefore, that most, if not all, of these banks are insolvent. Moreover, as these banks

³¹It is likely that the situation is much worse than these figures indicate. The overall health of the banking system is difficult to gauge because many countries are only currently developing asset classification systems, and new accounting practices. The enterprise sector is still undergoing consolidation and restructuring.

³²Prior to the onset of banking crises, the ratio of nonperforming loans to total loans reached 9.1 percent in Argentina (end-1980), 9.3 percent in Finland (end-1992), 10.6 percent in Mexico (September 1994), 6.4 percent in Norway (end-1991), 7.2 percent in Sweden (end-1992), and 9.3 percent in Venezuela (end-1993).

³³Estonia and Latvia have already experienced banking sector problems and reacted to effect the necessary liquidation and/or rehabilitation of the large banks. Lithuania is currently in the process of implementing a bank restructuring program following the systemic banking problems experienced in late December 1995.

³⁴Although the accuracy of banks' financial reports, for example, on capital, earnings, and provisions are highly doubtful, the Central Bank of Russia estimates that at the beginning of 1996, 430 banks or 19 percent of the number of active banks were to be considered problem banks.

are closely linked through interbank loans and deposits, failure of an individual bank may lead to contagion effects and hence trigger a systemic banking crisis.³⁵ Such possibilities were clearly presaged by the Russian interbank market crisis in 1995.

81. Poor banking practices underlie the deterioration of the banking system. Shortcomings in the legislation, prudential norms, and accounting standards, together with a lack of skilled bank supervisors have added to, and delayed detection of the problems, which could be substantially worse than the officially available figures indicate. On the other hand, the strengthening of banking supervision itself has been a triggering factor for banking crisis in some countries; when the authorities insisted on compliance with prudential regulations, the weaknesses became apparent to the public and a crisis ensued (such as in Latvia and Lithuania).

82. In Russia as well as in most other countries, bank restructuring measures to date have been mainly directed at the small banks involving increases in minimum capital and its enforcement through license withdrawals, liquidation procedures, and mergers. Between 1991 and May 1996, the licenses of about 450 Russian banks were withdrawn. Of these, 126 were revoked in the period January to May 1996. In addition, capital requirements are being raised and licensing policies are being tightened. However, only two out of the twelve CIS countries, namely Kazakhstan and the Kyrgyz Republic, have embarked on a systemic restructuring strategy that includes particular measures to deal with the formerly specialized banks that dominate the financial system. In addition, these two countries have both made some progress in enterprise sector reform, which has helped to ease loan problems in the banking sector.

83. Authorities in most other CIS countries appear reluctant to close the large banks. In Moldova, measures are being designed to rehabilitate the large banks by means of financial and operational restructuring. In Azerbaijan, there has been substantial liquidity support to the Savings Bank (totalling about one percent of 1995 GDP). In Belarus, in late-1995 the State Savings Bank and Belarus Bank were merged; both of these banks were experiencing serious difficulties and the merger resulted in a weaker institution and increased concentration. The merger has had serious negative effects on the whole banking sector since the government, in a move to support the weak new bank, ordered the transfer of all government deposit to the new bank creating significant liquidity problems for the other banks. As the deposits of the merged bank are government-guaranteed, this has led to an increase in the financial responsibility of the government. In Georgia, the three formerly specialized banks (State Savings Bank, EximBank, and the Industrial Bank) were merged during the second half of 1995. The merged bank became the largest bank in Georgia in terms of branches and assets (accounting for 70 percent of total assets of the banking sector).

³⁵Interbank exposures have reached high levels in some countries, e.g., in Russia, in response to the rapid reduction in central bank credit to commercial and state banks, and the rapid growth in correspondent banking, reflecting weaknesses in central bank-operated payment systems.

84. In both Georgia and Belarus, the decisions to merge banks appear to have been politically motivated and occurred without consultation and formal concurrence of the supervisory authority. In Turkmenistan, too, the President authorized the licensing of a special agricultural bank, which is to have a network of 53 branches, in an attempt to restructure the Agroprombank. This created a major increase in the supervisory burden on the Central Bank of Turkmenistan. In view of the severe staffing constraints in banking supervision, this may pose dangers to the effective exercise of supervision over the banking sector.

85. Thus, in most of the CIS countries, banking sector problems have been dealt with as and when they surfaced, and a systemic approach to bank restructuring has not yet emerged, in part because the magnitude and nature of the problem is not fully transparent. As a first step, these countries are beginning with a diagnostic study to establish the magnitude and the nature of the problems in the banking sector. Two sources of information generally used to establish an approximate indication of the extent of financial distress in the system are monthly off-site supervision reports collected by the central banks and on-site portfolio audits. The gap between the value of existing provisions and general loan-loss reserves of the banks and the size of their reported nonperforming loans (principal plus interest) provide a first approximation of the potential reserve deficiency. However, the diagnostic exercise for the Baltic and CIS countries is constrained by the weak accounting practices associated with the Gosbank accounting standards.³⁶

86. Most countries have made some progress in improving the legal framework for bank resolution and related actions. However, much work still needs to be done in this area in order to establish the framework for the effective functioning of the banking system. The importance of a well-functioning legal and court system is clearly illustrated in the case of Moldova and Lithuania, where the central bank is experiencing major legal difficulties in closing insolvent banks, notwithstanding clear legal authority to do so.

87. Fewer than half of the countries have initiated formal deposit insurance schemes; however, in many countries, there seems to be an implicit government guarantee on deposits of the large banks. Household deposits at the state-owned banks, in particular, at the former

³⁶The two main problems are the treatment of overdue interest and the consolidation of branch accounts. Under the Gosbank accounting system, although overdue interest is not included in the profit and loss account, neither are provisions established against the capital value of the nonperforming loan. Unpaid interest is recorded as overdue interest on the asset side, and on the liability side, it is recorded as a component of the future earnings account. This implies a downsizing of a bank's balance sheet without an impact on its capital in the event that overdue interest is written off. Removing the interest recorded as future earnings requires a reversal of entries. This does not impact on the capital account, as the interest was not recorded as income in the first place. Similarly, for some banks, the nonconsolidated interbranch balances account for a large share of their total assets and liabilities, implying that the consolidation of branch accounts should lead to a significant decline in the banks' balance sheets.

Savings Bank, are government-guaranteed by law in Belarus, Lithuania, Russia, Ukraine, and Uzbekistan. In Kyrgyz Republic, the government has implemented payoff plans to compensate the depositors and other creditors of the majority state-owned banks.

88. So far, only Kazakhstan has established an institutional framework to recover nonperforming loans.³⁷ Since early-1995, the directed credits which are nonperforming are being carved out from bank balance sheets. Most of the credits were withdrawn from the commercial banks and converted to long-term state debt of the government vis-à-vis the national bank (domestic credit) or held off-balance sheets by the Eximbank (foreign credits). In the Kyrgyz Republic, the government is in the process of establishing an independent legal entity to take control over and dispose of some of the assets and liabilities of the former state-owned banks. This institution will be established as an autonomous unit within the Enterprise Reform and Resolution Agency framework which deals with many of the state-owned enterprise borrowers of the problem banks.

89. In addition, these two countries have established transitional arrangements to ensure the working of a minimum financial structure. In the case of Kazakhstan, the restructuring effort is staggered so that a core banking structure will continue to function at all times. Alternatively, in the Kyrgyz Republic, new nonbank service providers have been set up, such as a rural finance mechanism to fill the void after the proposed liquidation of the Agricultural Bank.

90. Another approach is that of Georgia which is adopting a more "market-based" approach to restructure its banking system. A key element is the implementation of a bank certification program objective which is to establish proper programs to bring banks into compliance with the prudential standards. Failure to gain certification will be accompanied by strict limitations on balance sheet growth.

91. In Armenia, Azerbaijan, and Uzbekistan, since a systemic restructuring strategy will take time to design and implement, short-term stop-gap measures have been invoked. These include measures to curb the activities of problem banks and limit ad hoc injections of funds by the authorities. Azerbaijan, Belarus, Ukraine and Uzbekistan have prohibited the banks which do not comply with prudential regulations from participating in the interbank market or credit auctions.

92. It is clear that bank restructuring in these countries will be an arduous and time-consuming task which, in most cases, is only just beginning. Most countries will have to tackle the problem of deciding the fate of large, state-owned banks more or less simultaneously with undertaking comprehensive enterprise restructuring. And, unlike the case in most other countries that have undertaken systemic bank restructuring, practically the entire operating framework for the banking system remains to be developed. Shortcomings in the legislation,

³⁷Recently, Lithuania has also established an institutional framework to recover nonperforming loans.

prudential norms and accounting framework, and a general lack of adequate supervisory capacity are particularly acute. In general, the courts and legal system are not adequately developed to fully sustain market-based, commercial banking activity. Moreover, there is a serious lack of basic banking skills which will need to be addressed as a major component of operational restructuring.

H. Illustrative Case Studies of Fiscal Aspects of Systemic Bank Restructuring

Poland—linking bank and enterprise restructuring

93. Bank restructuring operations in Poland between 1993 and 1994, unlike in other transition economies, not only restored public banks to solvency, but also stemmed further losses by linking government assistance to a comprehensive program to restructure public banks and enterprises. The reasons for Poland's comparative success lie in the design and implementation of the government's Enterprise and Bank Restructuring Program (EBRP). The major aspects of the EBRP were: (1) emphasis on organizational restructuring, a clear statement of the ultimate objective and a thorough audit; (2) a decentralized approach; (3) improvement in the legal framework; and, (4) the structure of the recapitalization program.

Organization and framework

94. The aim of the EBRP was to privatize the major public banks. This aim gave purpose and commitment to the whole restructuring scheme. Banks to be restructured were first transformed into joint-stock companies, with the treasury as the sole shareholder. Independent supervisory boards were established, and long-term technical assistance contracts with reputable foreign banks (twinning arrangements) signed. A thorough audit of these banks, by international auditing firms was then performed (which revealed serious capital shortfalls).

Decentralized approach

95. The EBRP did not adopt a centralized approach (for example, a one-time swap of bad debts to a loan-recovery institution for interest-bearing government debt) to recapitalization because the government doubted any loan-recovery institution's ability to collect; and considered the central problem to be the banks' lack of market experience which an asset swap would not remedy. Instead, a decentralized approach was taken where the banks were recapitalized while leaving the bad debt on their books to be collected by them. This kept the banks involved with enterprise monitoring and restructuring, and because the amount of recapitalization was not linked to the collection of bad debt (it was based on the earlier audit), banks had an incentive to make their bad debts perform.

Legal framework

96. A potential problem of leaving the bad debt on banks' books was that as the relationship between the banks and the debtors were not severed, banks may have continued to lend to enterprises not servicing their debt. To guard against this, banks were obliged to properly provision for loans by end-1993 and to set up debt workout units that had to either sell or restructure substandard loans by April 1994. These safeguards were effected through the Restructuring Law (February 1993) which required that no new credit be extended to bad debtors unless in conjunction with a restructuring agreement and that one of the following events takes place: (1) the loan is entirely recovered; (2) a restructuring agreement has been made; (3) the debtor is declared bankrupt by a court; (4) liquidation of the debtor has been initiated; or (5) the debtor has regained creditworthiness by servicing its debt for 3 months. If these requirements were not met, the bank was obliged to sell the loan in the open market. However, for those enterprises that the government considered important from a socioeconomic perspective, a "safety net" mechanism was created to cushion the effects of restructuring or liquidation for certain firms that had not reached a restructuring agreement with their creditors. This mechanism largely insulated banks involved in the program from political pressure.

Recapitalization program

97. The recapitalization program provided a substantial, one-time, increase for the recipient banks to enable them to operate effectively and be suitable for privatization. It was effected by the transfer of 15 year bonds, nonnegotiable for 3 years, with bi-annual redemption starting 18 months from issuance. As a result of this recapitalization, capital/asset ratios improved to about 12 percent enabling the banks to adequately provision for the stock of nonperforming debt and to deal successfully with the flow of new credits. The nonnegotiability of the debt and delayed amortization also helped ensure that public funds were not misused while recipient banks were being restructured and learning to operate in a new environment.

Latvia—minimizing public sector costs

98. In the spring of 1995, the largest banking crisis in the FSU area to date involved Bank Baltija, by far the biggest bank in the Latvia, as well as several mid-sized private banks, such as the Latvian Deposit Bank, Centra Bank, and Olympija Bank. Banking system assets and liabilities shrank by about 40 percent, and by the time Bank Baltija's operations were suspended in May 1995, most of its assets had been stripped, leaving negative net worth of around 8 percent of GDP. The government's response provides an example of intervention that minimizes public sector costs while ensuring a viable banking system and political stability.

99. In the wake of the banking crisis in the spring of 1995, the government initially announced, before the election, that it would generously compensate household depositors. After the election, however, the new government indicated that, along with claims from legal entities, household depositors would only be compensated to the extent assets are recovered. To date, asset recovery has been minor.

100. A wide range of concomitant measures was taken as part of the comprehensive restructuring strategy. Liquidation of Bank Baltija has been initiated and the mid-sized banks involved in the crisis have been declared insolvent. Efforts to strengthen banking supervision and tighten key prudential regulations culminated in a tenfold increase in the minimum capital requirement in 1996. Several types of restrictions were imposed on banking activities, and publication of banks' quarterly accounts was made obligatory. As a result of the more aggressive supervisory stance, consolidation of the banking sector is underway. Fifteen banks were closed and the activities of another two were suspended in 1995; the number of banks allowed to accept household deposits ("core" banks), has been reduced to 12 in June 1996. The Bank of Latvia began closely monitoring problem banks with the assistance of external auditors, revoking banking licenses in case of violation of prudential regulations. One year after the onset of the banking crisis, the Latvian banking sector has achieved relative stability. The number of problem banks has declined steadily, compliance with prudential regulations has improved, profitability has been reestablished, bank capital has increased, and commercial banks' asset growth has resumed. However, public confidence in the financial system is only returning slowly.

101. Two factors, particular to the Latvian experience, partly explain the authorities' emphasis on minimizing public sector costs in responding to the banking crisis. First, public opinion did not support bailing-out the comparatively well-off, and politically well-connected depositors, who had been receiving high interest rates. Second, the authorities were strongly committed to stabilizing the economy by maintaining an SDR peg, which, because it involved tight fiscal and monetary policies, severely limited the scope for any bank assistance.

Mauritania—transparently recording fiscal costs

102. Following macroeconomic instability, poor central bank supervision, and weak risk management by banks, the insolvency of the banking system (four commercial banks and one development bank) erupted into a liquidity crisis in 1993 (see II.B). As the liquidity crisis mounted and deposit withdrawals increased, the authorities instituted a comprehensive bank restructuring program.

103. The financial restructuring program involved liquidation, recapitalization and privatization. The insolvent development bank was assessed to be nonviable and was liquidated. In this process, full cash compensation was provided for small depositors, foreign embassies and expatriate workers. Treasury debt was issued to the central bank for claims on this bank and to public enterprises in partial compensation for their deposits. Of the four commercial banks, one was recapitalized by equal capital injections of treasury debt and of

capital from the Libyan partner. Another bank was recapitalized by an equity injection from private investors and the government sold its 10 percent share. For the main public bank, the government relinquished its share (46 percent), canceled treasury claims on the bank, assumed the bank's nonperforming claims on public enterprises, and swapped central bank claims for treasury debt. In return, private owners injected capital and assumed full ownership. The government's share of another bank was also sold.

104. These bank assistance operations were fully recorded in the budget. Revenue fell (0.6 percent of GDP) as a result of losses from canceled treasury claims outweighing privatization proceeds. Cash outlays associated with deposit reimbursement (1.2 percent of GDP) and the principal component of the treasury debt issuance (5.6 percent of GDP) were recorded as expenditure under the category "restructuring and net lending." Interest on the debt issue was recorded with other interest payments. In total, the restructuring outlays increased the deficit by 7.4 percent of GDP in 1993 (see Table 1). This transparent recording of costs, in addition to improving confidence and governance, contributed to the recognition of the need to take offsetting measures and to moderate aggregate demand.

Philippines—achieving fiscal consolidation while restructuring banks

105. The expansionary, inward-looking, economic policies of the 1970s, coupled with preferential lending to priority sectors built up problems for the banking sectors, especially the two major public banks that channeled the bulk of this credit. These problems came to a head following changes in external conditions, interest rate increases, and political uncertainty, at the end of the decade and in the early 1980s.

106. The financial restructuring of the banking system between 1983 and 1986 involved public bank assistance of about 25 percent of GNP, of which about 7 percentage points of GDP was recorded in the budget (see II.d and Table 2). Despite this level of assistance to the banking sector, the deficit of the consolidated public sector fell from 9 percent of GNP to 4.8 percent of GNP. Much of the consolidation, however, fell on capital expenditure. The major determinant of the tighter fiscal stance was the reduction, by 3.1 percentage points of GDP between 1983 and 1986, of the deficit of the 14 public enterprises included in the consolidated public sector which was achieved largely by lower investment. Public sector gross domestic investment fell by 4.7 percentage points of GDP over this period.

107. This reduction in the fiscal deficit and in public investment occurred as private investment slowed and the economy fell into a sharp recession. Growth between 1983 and 1986 averaged -2.3 percent annually, with inflation of 21 percent. Investment fell as a share of GNP from 27 percent of GNP to 13 percent over this period. However, the accompanying macroeconomic developments can be seen as a result of the poor economic policies of the preceding years rather than the fiscal consolidation. Indeed, the fiscal consolidation likely laid the foundation for the subsequent upturn in growth, investment and price stability. The ability to borrow abroad was limited and greater recourse to domestic borrowing would have exacerbated both the banking crisis and worsened the prospects for recovery.

Table 1. Mauritania: Fiscal Balance and Bank Restructuring

(In percent of GDP)

	1983	1984	1985	1986
Total revenue	19.4	25.7	23.2	24.0
Total expenditure and net lending	24.9	36.8	27.7	24.8
Overall balance	-5.4	-11.0	-4.5	-0.8
Bank restructuring costs	--	7.4	0.2	--
Overall balance excluding bank restructuring cost	-5.4	-3.6	-4.3	-0.8

Source: Fund staff.

**Table 2. Philippines: Macroeconomic Indicators and Bank
Restructuring, 1983-86**

	1983	1984	1985	1986
	(In percent)			
Real GDP growth	1.9	-7.3	-7.3	3.4
Inflation (GDP deflator)	10.0	50.3	23.1	0.8
	(In percent of GNP)			
Gross domestic investment	27.1	17.4	14.3	13.2
Of which: public	7.7	4.5	3.7	3.0
Gross national savings	19.0	13.4	14.3	16.5
Consolidated public sector balance	-9.0	-8.2	-5.5	-4.8
Of which: recorded assistance to financial institutions	0.3	1.4	1.9	3.3

Source: Fund staff.

Sweden—recovering public sector outlays

108. The bulk of government assistance to banks was capital injections into two large banks, Nordbanken and Gota Bank, and their associated asset management companies, Securum and Retriva, respectively, (see II.C). Total commitments amounted to 5.9 percent of GDP, but because not all guarantees were called, the initial (1991-93) cost to the government was about 4.2 percent of GDP. After much of the assistance had already been provided, the

109. Guided by this Act, the government started recovering its outlays by privatizing Nordbanken. In October 1995, 35 percent of the shares were sold with the budget receiving 0.4 percent of GDP as a result. The remaining shares are valued at about 1 percent of GDP. Asset recovery from Securum and Retriva was also substantially higher than initially expected. Originally, the government expected its capital injection to be written off; instead, it is likely that 45 percent (0.6 percent of GDP) of the equity injection will be recovered. The eventual net cost to the government of the bank assistance operations is likely to be less than half of the initial gross cost as Table 3 indicates.

110. The Swedish case highlights the large potential reduction in fiscal costs associated with bank assistance that can be achieved through asset recovery, while still implementing a comprehensive and timely bank restructuring program. In assessing the Swedish experience with cost recovery, however, certain aspects should be considered. First, public intervention was rapid and occurred before major losses were made. The problem was weak solvency of viable banks rather than insolvency of nonviable banks, partly because the government intervened promptly. Other affected banks were able to attract private capital injections to restore their capital adequacy. Second, just as the problems were largely due to an economic downturn, the cost recovery was greatly helped by the subsequent economic upturn. These conditions may well not be present in other cases of systemic bank restructuring, especially for less-developed countries.

Table 3. Sweden: Gross and Net Costs of Bank Assistance (1991-96)

(In percent of GDP)

Gross cost	4.2
Less:	
Asset recovery	0.6
Privatization revenue	
realized	0.4
potential	1.0
Net cost	2.1

Source: IMF publications and Staff estimates.

III. EMPIRICAL ANALYSIS OF COMMON CHARACTERISTICS OF BANK RESTRUCTURING: A SURVEY OF 24 COUNTRIES

111. This section supplements the discussion of the country cases in Section II. In particular, it attempts to draw general conclusions about aspects of bank restructuring that appear to be broadly characteristic of the group of restructuring countries as a whole. 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.

112. 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 providing evidence on best practice policies through a statistical analysis. The sample selection criteria included: (1) establishing a representative group of countries reflecting a broad coverage across regions and levels of development; and (2) comparing countries that restructured their banking systems in response to a crisis (typically manifested by bank illiquidity, runs on banks, or an impending cut-off of foreign interbank lines of credit) and those that experienced distress (lingering solvency problems, typically without an outright liquidity crisis). 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 are listed in Table 4. The sample is evenly divided between countries that experienced a full banking crisis and those that experienced distress. It also includes countries that have completed bank restructuring efforts (15) and countries where restructuring is more recent (post-1994) and is still ongoing (9).³⁸ 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.³⁹

³⁸Data availability made it difficult to include any bank restructuring efforts that took place before the 1980s.

³⁹Within the sample, Argentina, Chile, Kuwait and Mexico have gone through a systemic restructuring of their banking systems prior to the experiences studied. In the case of Mauritania, after the unsuccessful episode of bank restructuring in 1989, a comprehensive bank restructuring program was initiated in late 1993 (discussed in detail in Chapter II.B).

Table 4. Sample Countries

Country (By Region)	Onset of Restructuring Action (Year)	Nature of Banking Sector Problem
AFRICA		
Côte d' Ivoire	1991	Distress
Ghana	1989	Distress
Tanzania	1992	Distress
Zambia	1995 (recent)	Distress
ASIA		
Indonesia	1994 (recent)	Distress
Korea 1/ Philippines	1993	Distress
Japan	1984	Crisis
	1995 (recent)	Crisis
EUROPE 1		
Hungary	1993	Distress
Poland	1993	Distress
Finland	1991	Crisis
Spain	1980	Crisis
Sweden	1991	Crisis
EUROPE 2		
Latvia	1995 (recent)	Crisis
Moldova	1995 (recent)	Distress
Kazakstan	1995 (recent)	Distress
MED		
Egypt	1991	Distress
Kuwait	1992	Crisis
Mauritania	1993	Distress
WEST. HEM.		
Argentina	1994 (recent)	Crisis
Chile	1983	Crisis
Mexico	1994 (recent)	Crisis
Peru	1991	Crisis
Venezuela	1994 (recent)	Crisis
Industrial 4	Recent 9	Crisis 12
Developing 15	Other 15	Distress 12
Transition 5		
Total 24	Total 24	Total 24

1/ Data on the extent of problems in Korea is limited; Korea was nonetheless included because there was a rapid increase of nonperforming loans requiring major action by the authorities.

A. Methodology

113. A questionnaire was sent to country authorities and, in some cases, to Fund 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 1991.⁴⁰ 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. For episodes of bank restructuring that began after 1992, only a truncated period is available. The information from the questionnaire was complemented with other studies and published materials.

114. In the analysis that follows 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. In contrast, given the presence of developed asset markets and infrastructure, as well as due to the fact that problems in industrial countries almost always involved a crisis, it might be presumed that their experience could be sharply differentiated from other countries.

115. 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.⁴¹

116. 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.

⁴⁰It can be viewed as an analysis of panel (pooled time series and cross section) data.

⁴¹The countries which embarked upon bank restructuring operations after 1994 were separately classified as "recent."

117. 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.

B. Assessing the Effects of Bank Restructuring Operations

118. 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 practice bank restructuring policies and instruments.

119. The technique used to establish the overall performance ranking for each country is a rank ordering procedure. That is, it is 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 summing 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.

Bank performance

120. Bank performance involves the two aspects of solvency and sustainable profitability. As solvency-improving measures impact primarily on 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.

121. 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 they must provide for losses on a significant portion of those assets. This reduces net earnings and, ultimately, capital. Improvements in stock effects ultimately require an increase in capital; a reduction of the ratio of nonperforming loans to total loans, and a reduction in loan loss provisions. 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, there is likely to be an ongoing need for future restructuring efforts. In general, reducing expenses and increasing levels of interest income and profitability would enable banks to boost capital and improve their economic viability.

122. The results presented in Table 5 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 countries’ category, the success index in solving stock problems is 73 compared to 48 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 have 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 probability 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 suggest 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, such as Hungary and Mauritania, repeat bank restructurings were necessary.

Intermediation capacity of the banking system

123. Six indicators were selected to measure the improvement in the financial intermediation capacity of the banking system following the bank restructuring process (Table 6). 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. 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, increasing the supply of credit in accordance with GDP growth and contributing to monetization and intermediation. 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.

Table 5. 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)	44	55	55	51	55	0	11	29
All other countries (15)	86	60	66	73	40	53	53	48
Industrial Countries (3)	100	66	100	88	33	33	33	33
Developing countries (10)	80	50	60	65	40	60	60	53
Distress (6)	83	33	50	58	33	50	50	44
Crisis (4)	75	75	75	75	50	75	75	66
Transition countries (2)	100	100	50	83	50	50	50	50

1/ Measures 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.

Table 6. 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		
	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	22	33	28	44	0	22
All other countries (15)	60	66	63	46	53	50	87	53	70
Industrial Countries (3)	0	66	33	66	66	66	100	100	100
Developing countries (10)	80	70	75	30	40	35	80	40	60
Distress (6)	83	66	74	16	50	33	67	33	50
Crisis (4)	75	75	75	50	25	37	100	50	75
Transition countries (2)	50	50	50	100	100	100	100	50	75

1/ Measures 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.)

124. 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 the 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 draw in 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 need for systemic bank restructuring were interpreted as deterioration of risk.

125. The results presented in Table 6 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.

Rank ordering of overall country performance in bank restructuring

126. 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.⁴²

127. 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 9 or more); those with *moderate progress* (countries with a total score of 6 to 9), and those with *slow progress* (countries with a total score of 5 or less). By construction, any one of the performance groups may contain a mixture of industrial, developing, and transition countries.

128. 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 six countries (Chile, Finland, Ghana, Hungary, Korea, and Poland), and the slow progress category includes Egypt, Kuwait, Mauritania and Tanzania. As the remaining nine countries in the sample initiated bank restructuring measures in 1994, they were categorized as recent and were not included in the performance analysis. The individual country data are presented in Appendix I Tables 14 and 15.

⁴²Thus, 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.

129. 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 practice" from country experiences.

C. Causes of and Responses to Banking Sector Problems

130. Table 7 lists the principal causes of systemic banking problems and indicates to what extent the authorities took measures to address these. Individual country data are presented in Appendix I Table 16. 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 (see Supplement 3). Of these, management and control problems afflicted all countries, followed in frequency of occurrence by deficiency in the regulatory framework.

131. 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 crisis countries (as compared to slow progress countries which were mostly in the distress category) 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. There has been, in particular, a failure or perhaps unwillingness on the part of the less successful performers 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.

132. 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 practice always needs 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

Table 7. Diagnosis of Banking Problems and Measures Taken to Deal with Problems

Country groups	Deficient bank management and control		Shortcomings in regulatory and accounting framework		State bank problems		Excessive and distorted taxation		Exogenous shocks
	<i>diagnosed</i> (in % of countries)	<i>addressed</i> (in % of diagnosed cases)	<i>diagnosed</i> (in % of countries)	<i>addressed</i> (in % of diagnosed cases)	<i>diagnosed</i> (in % of countries)	<i>addressed</i> (in % of diagnosed cases)	<i>diagnosed</i> (in % of countries)	<i>addressed</i> (in % of diagnosed cases)	<i>diagnosed</i> (in % of countries)
SUBSTANTIAL PROGRESS	100	100	80	100	60	100	20	100	100
MODERATE PROGRESS	100	83	83	100	50	100	16	100	83
SLOW PROGRESS	100	25	100	50	100	50	75	0	25
RECENT	100	77	77	88	33	100	11	0	88

restructuring programs that are less than fully comprehensive. Comprehensiveness, of course, is a key element of best practice. 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 practice restructuring strategy. A failure to address internal management and control problems in 75 percent of the slow progress countries is correlated also with the low frequency with which they address problems in state-owned banks (50 percent) and problems of excessive and distorted taxation (0 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.

133. 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 practice requires **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.

D. The Role and Effectiveness of Individual Bank Restructuring Instruments

134. 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: 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.

135. Table 8 lists the most frequently used instruments. (See Appendix I Table 17 for more details.) Countries on average used seven instruments (Table 9). The industrial countries used a relatively small number of instruments (3-6). 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 best practice, instruments that place part of the burden on depositors have not been 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, and Spain.

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

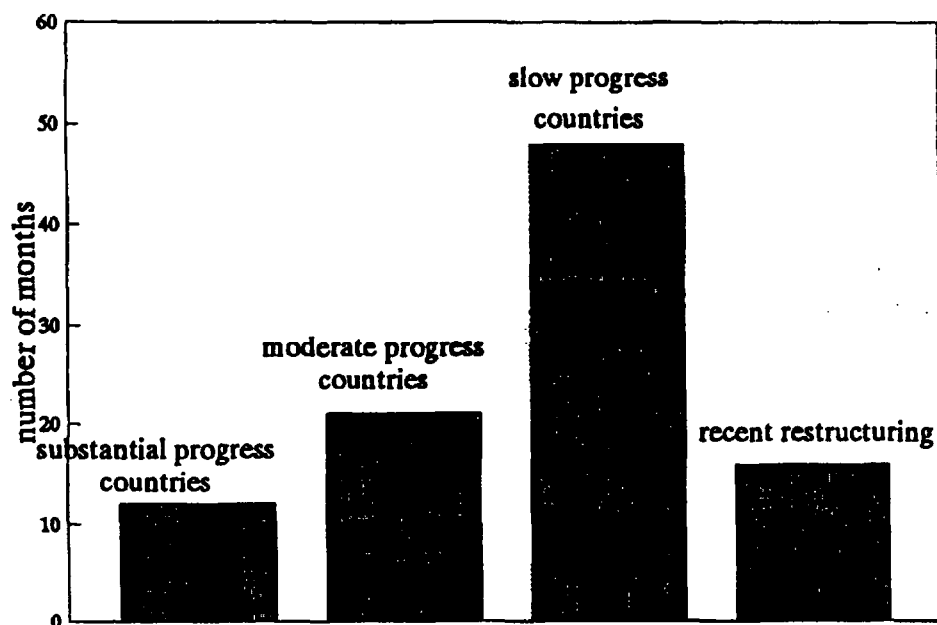


Table 8. Most Frequently Used Instruments

Instruments Used in More Than 65 Percent of the Countries:	Additional Instruments Used in 60-65 Percent of Countries
Central bank liquidity loans	Central bank medium term support
Bond swaps	Closure and liquidation
Instruments aimed at owners and managers	Privatization

Table 9. Instrument Mixes for Bank Restructuring

(In percent)

	CB as the only agency for restructuring	Central Bank liquidity support	Loan workout units	Closure	Merger	Splits	Privatization where applicable 1/	Enter. Restr. where applicable 1/	Twin	Bond	New Equity	Deposit Instruments	Owners Mgmt, etc.	Average no. of instruments used
SUBSTANTIAL PROGRESS														
	20	40	100	80	60	0	100	100	20	100	60	60	100	8
MODERATE PROGRESS														
	50	50	100	50	83	17	83	67	33	83	50	67	83	7
SLOW PROGRESS														
	75	100	50	25	50	0	50	0	0	100	50	50	25	6
RECENT														
	89	89	56	67	33	11	56	44	22	56	33	44	78	8

1/ Applicable only for countries which experienced problems specific to state-owned banks or state enterprises.

136. Evidence of the effectiveness of particular instruments is presented in Table 8.⁴³ There are significant differences among performance groups regarding the choice and frequency of use of instruments for bank restructuring. Best practice policies can be identified by examining these differences. In particular, the variation across groups is sufficiently broad to permit inferences on best practice 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.

137. The designation of the *central bank as the sole agency for restructuring and provider of liquidity support* was limited by the countries that were most successful in their systemic

⁴³Individual country data are presented in Appendix I Table 17.

137. The designation of the *central bank as the sole agency for restructuring and provider of liquidity support* was limited by the 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 75 percent of these countries the central bank was the only agency responsible for bank restructuring. As mentioned in the main paper, this may be a sign of lack of coordination and consensus between different institutions. Thus, it can be inferred that best practice policy is to minimize reliance on the central bank as a source of protracted liquidity support.

138. By contrast, the sample results also suggest that it was necessary for *central banks to take the lead* in most of the 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.

139. Table 9 also suggests that *loan workout units* (central or bank-based) played an important role in all countries that made progress in resolving systemic banking problems while only half of the slow progress countries established loan workout schemes. Appendix I Table 18 provides country-specific information. It can be inferred here, too, the use of distinct loan work out units appears to be an important element of best practice.

140. Most of the substantial and moderate progress countries made extensive use of *mergers and/or closure of insolvent banks*. This confirms the importance of firm exit policies. Furthermore, in about half of the substantial progress and in the majority of the moderate progress countries, problems with state banks and/or state enterprises were the main culprits of banking system distress. Most of these 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 slow progress countries which may imply that insolvent banks were allowed to operate leading to a further deterioration in the conditions of these banks.

141. Similarly, provision of appropriate *incentives for managers and owners* is a key element of best practice. The column labeled "Owner, Mgmt, etc." in Table 9 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 "slow progress" countries took measures to sanction management and owners and little evidence was provided for stringent use of incentive compatibility within state-owned banks.

142. Bond instruments (such as an exchange of bonds for nonperforming loans) and issuance of new equity (for example, 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 mainly used in transition countries.

E. The Importance of Incentives in Instrument Design and Use

143. The instruments and strategies that are typically employed in bank restructuring are also used in a functioning market by bank managers, whose ultimate aim is to increase profits. However, the same techniques can be used by the authorities to help alleviate systemic problems, for example, to prevent bank failure, to bail out depositors, or to transfer banking skills to poorly performing banks at below market costs. In the context of bank restructuring, the objectives of such instruments are, thus, likely to be at variance with normal business objectives and serious moral hazard problems may arise.⁴⁴ Therefore, it is necessary to explicitly state the objective of any given instrument as well as the "corrective" for moral hazard problems.

144. Table 10 provides information on conditions and costs of instruments of bank restructuring that have been used in the sample countries. The second column provides some examples, drawn from the sample, of conditions attached to these instruments in order to introduce a corrective for moral hazard. The right-hand column states the fiscal implications and other costs that might result from each instrument. Appendix I Table 19 provides estimated costs of bank restructuring for individual countries. "Other costs" include quasi-fiscal costs that are not directly shown in the budget but may, at a later point, have budgetary implications. For instance, to the extent that the central bank assumes part of the costs, the budgetary implication can be an indirect one (reduced remittances by the central bank).

145. The instruments were divided into structural and financial instruments. Structural instruments are those that directly affect the structure of the banking sector. Financial instruments are those that directly affect the banks' balance sheets and income.

⁴⁴Tools that are not frequently used outside of the context of bank restructuring are bond swaps (where the government assumes loans in exchange for government bonds) and enterprise restructuring, a measure often taken to aid the bank restructuring process. The list of instruments specific to bank restructuring also includes the choice of a lead agency for coordinating the bank restructuring efforts.

Table 10. Instruments and Costs of Systemic Bank Restructuring 1/

Instruments	Conditions Attached as Corrective for Moral Hazard (Examples)	Fiscal Impact and Other Costs
I. Structural		
a) Bank Rehabilitation Agency to take lead,* nationalization	Conservatorship. (Management and ownership rights are suspended or revoked in case of nationalization.)	Budget allocation for the lead agency or for nationalization
b) Central Asset Management Company (AMC)	Bank-client relation is discontinued when asset is transferred to AMC. AMC has limited statute and continuous performance reviews.	Budget allocation for AMC.
c) Bank-led loan workout (includes bank-based AMCs)	Any subsidies tied to work out are subject to specified conditions.	Direct support from the government.
d) Closure and liquidation	Outline liquidation plan and resources needed to liquidate bank.	With courts overloaded, human resource cost is often borne by central bank that administers liquidation process.
e) Merger	Specification of conditionality for any payments or transfers made to the absorbing institution	Government may pay fee to acquire bank. Bank may absorb the costs.
f) Split-offs (turning branches or a part of a bank into an independent bank/investment agency.	Commercial viability of new bank must be proven. Fit and proper owners must be available.	Start-up capital to new bank.
g) Privatization	Ensure efficient governance structure, fit and proper new owners. Anticipate "Bank Slaski problem" where equity prices shoot up when foreign bank buys shares. Government may be blamed for selling state property too cheaply.	Administration of privatization, bank audits, investment banking services, and lower profit transfer.
h) Twinning (Technical assistance usually provided by an international bank.)	Determine why the foreign bank is interested (e.g., foreign bank gets subsidy from its technical assistance donor; seeks to purchase market share in target country. Ensure competitive bidding where applicable).	Fees paid to foreign banks.

Table 10. Instruments and Costs of Systemic Bank Restructuring (concluded)

Instruments	Conditions Attached as Corrective for Moral Hazard (Examples)	Fiscal Impact and Other Costs
II. Financial		
a) Bond transfers to banks; subsidized government loans to banks	Bank may try to sell bonds for cash, take the money and run. Correctives must be built in, e.g., by accordion style arrangements where bond transfer is contingent upon improvement in bank operations, non-negotiable bonds.	Bank audit. Bond issues. Cost is a function of terms and conditions (interest rate, currency, maturity etc). Cash transfers.
b) Central bank loans to banks; and other central bank support measures.	If not fully collateralized, may need to be coupled with conservatorship, liquidation or restructuring strategy.	Short-fall of central bank's profit remittance to budget; Central bank reduces its demand for T-bills; gov't costs of funding rise.
c) Equity injection (government buys equity shares).	Ownership stakes would need to be calculated on the basis of market equity prices. (If zero, government may become sole owner.)	Cash outlays for equity.
d) Depositor targeted instruments. (Blanket guarantees promised by the government; when banks fail depositors lose money; depositors receive bonds for deposits.)	Incentive compatibility of deposit remuneration. When depositors lose money, contagion effect may follow. Specify marketability of bonds in case of swaps.	Transfer to deposit insurance; bond issue.
e) Other instruments targeting owners, management, employees.	Owner liability; merit-based management contracts; waivers for payroll tax arrears, severance pay, etc.	Unemployment compensations; budgetary loss;
f) Enterprise Rehabilitation (support may be given to enterprises to pay off banks).	Define operational restructuring of the enterprises and the role to be played by banks.	Guarantees, bonds, budget allocation
III. Inaction (time prior to restructuring).	Not applicable.	In the short term: government revenue shortfalls; arrears in payroll taxes and soc. sec. contributions from banks; bank owners or managers operating under perverse incentives may make more bad loans and loot banks' assets, foreign exchange accounts, etc. . In the long run: losses increase, requiring higher fiscal support.

* To denote the lead agency (if any) during the restructuring process (deposit insurance fund; bank support authority; agency exercising state ownership rights; conservator-liquidator for banks).

1/ Country-by-country break-down of the use of these instruments can be found in Appendix I, Table 17.

F. The Role of the Central Bank in Restructuring

146. 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 11, 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 11. Central Bank Leadership, Liquidity and Other Support in Bank Restructuring

	Central Bank acts As Lead Agency	Central Bank Liquidity Support	Medium-Term Central Bank Support (Loans, etc.)
	<i>In percent</i>		
Substantial Progress (5)	20	40	60 1/
Moderate Progress (6)	67	67	83
Slow Progress (4)	75	100	75
All Countries (24)	67	75	63

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

147. In some countries, the authorities have chosen to have the central bank act as lead agency in the bank restructuring process and to assume extensive responsibilities in addition to its core monetary policy functions, including financial support, bank management, and asset (nonperforming loans) management (Chile, Kuwait). This can create certain difficulties: as noted in the main paper, 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.

148. Table 12 provides a review of the central bank instruments used in the bank restructuring process in the three performance groups. Several countries (Peru and Sweden) have placed strict limitations on central bank short- and long-term finance when systemic

Table 12. 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 involved in debt collection and other aspects of the debt restructuring process.
Mauritania, Egypt, Tanzania	Central bank engaged in significant long-term lending to insolvent banks.

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.⁴⁵

149. 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.

150. 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 13.

151. 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.

152. 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.

153. 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 nonperforming loans, leading to higher costs of government debt.

⁴⁵There 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.

Table 13. 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.	Yes (CB income will fall, reducing profit remittances to the government. The central bank may incur 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.	No	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.	Yes, 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.	Yes (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 subordinated debt (Kuwait, Chile, Hungary, Indonesia)	CB established structural position, incurs interest costs.	Yes, CB income falls (see above for more details)	Costs reduced Incentive: Adverse

Table 13. 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	Yes, 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 foreign 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.	Yes, CB income falls (see above for more details)	Costs reduced Incentive: depending on pricing and design
CB takes over management of banks temporarily. (Chile, Kazakhstan)	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

G. Macroeconomic Developments During the Restructuring Process

154. 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.⁴⁶

155. It was possible to discern three broad patterns for GDP growth, inflation and the fiscal balance (Figure 2, also Table 20). One pattern is U-shaped: that is, in some countries macroeconomic conditions deteriorated slowly in the four years preceding bank restructuring, worsened significantly at the onset of bank restructuring, and recovered in the following years. The fiscal balance improved with a considerable time lag, often reflecting the cost of bank restructuring.⁴⁷ This pattern is best represented by Sweden. Average GDP growth in the four years prior to the banking crisis (1991) was about 2 percent, growth turned negative in 1991, recovering very slowly in the following four years to an average of 0.5 percent. A somewhat similar trend, although with a more rapid recovery, could be observed for inflation. 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. In the case of Sweden the recovery was very slow and, except for inflation, macroeconomic indicators did not regain pre-crisis levels within the four post restructuring years. A similar evolution of macroeconomic conditions can be observed for Chile, Finland, Philippines, and Spain.

156. 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 7 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.

157. 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 5 to an average of 4 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 3 to almost

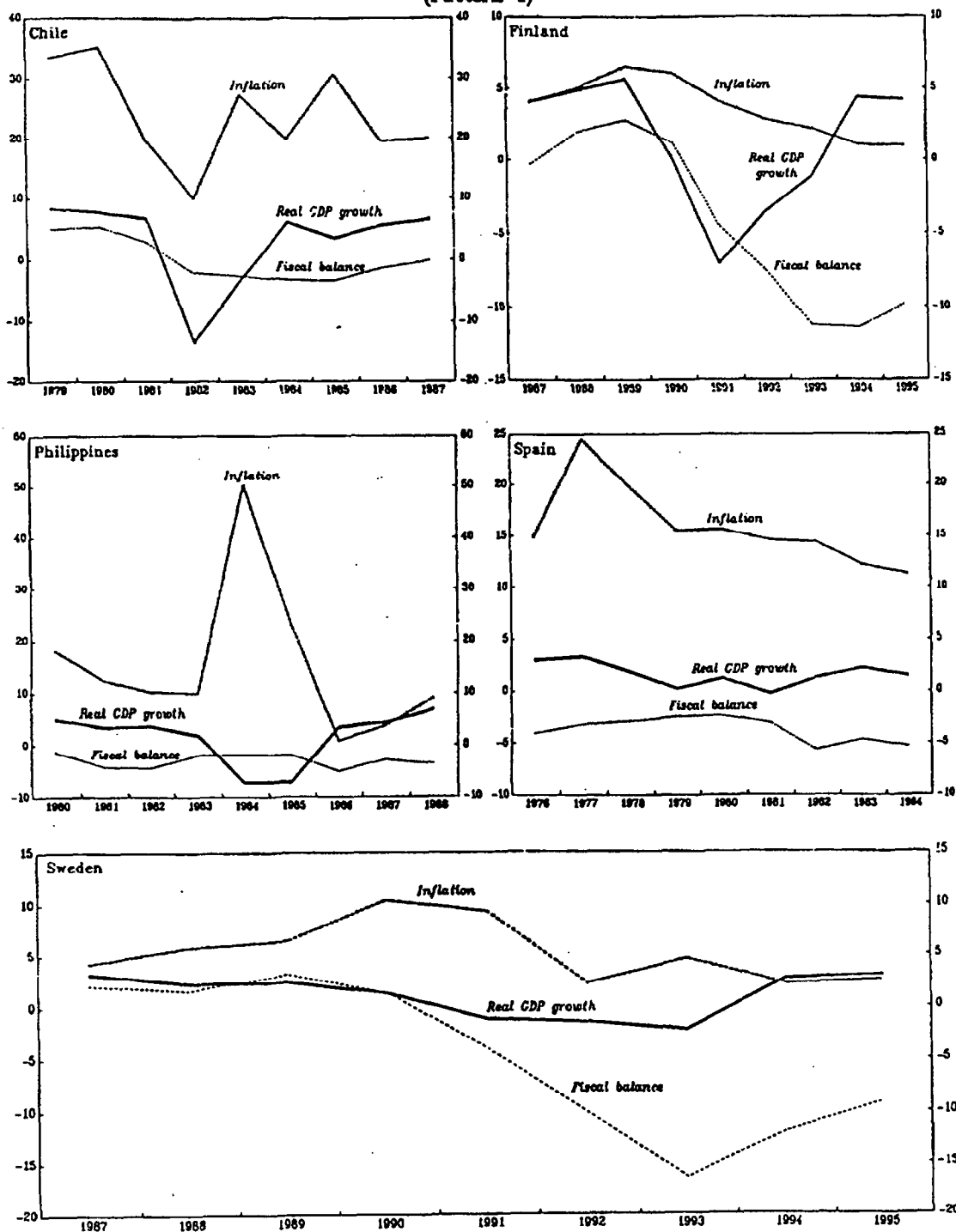
⁴⁶No attempt was made to systematically identify the role of other factors such as adjustment programs taking place or initiated during the bank restructuring process.

⁴⁷It 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)



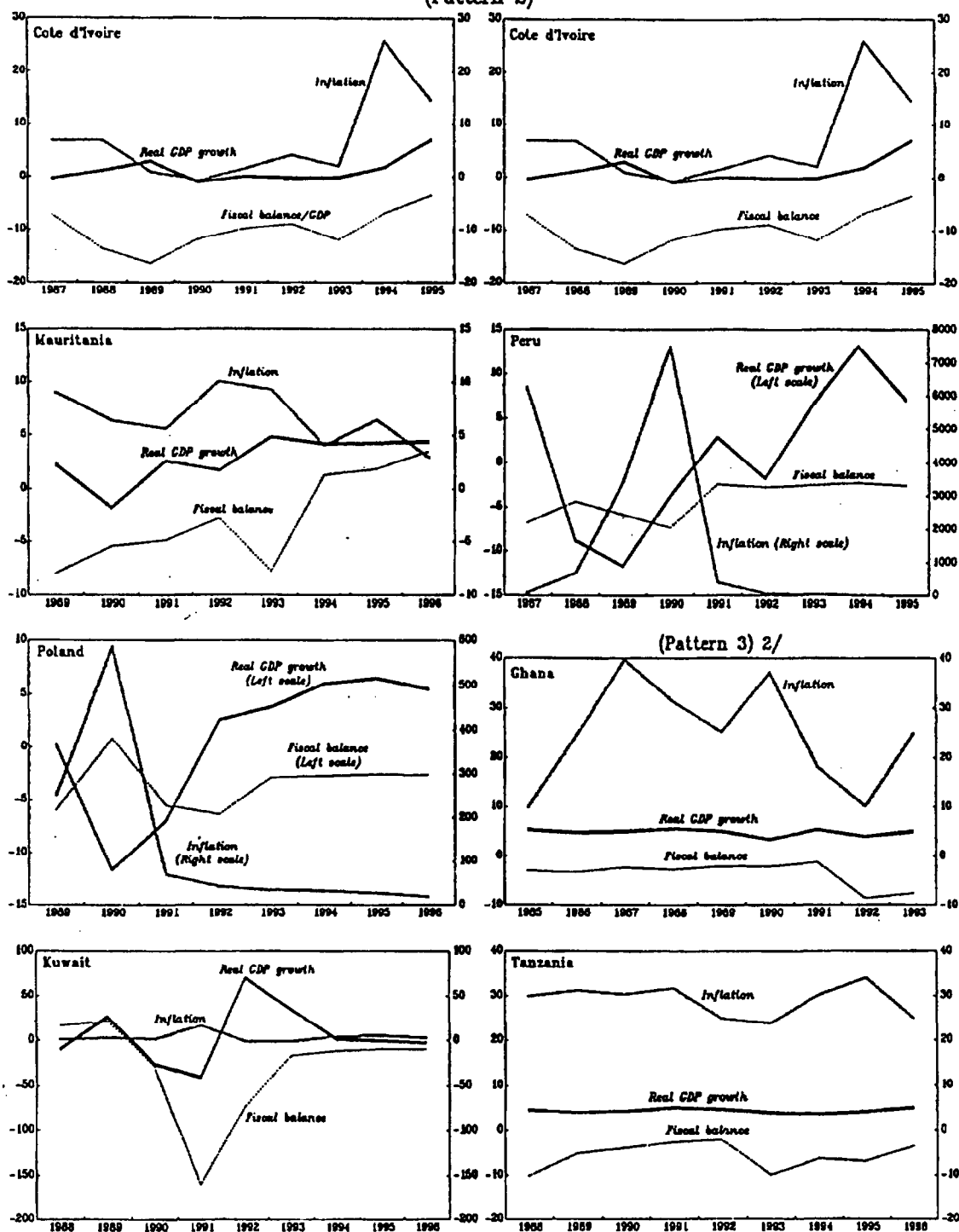
Source: WEO, World Economic Outlook.

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 (concluded)

THREE PATTERNS OF MACROECONOMIC EFFECTS DURING THE BANK RESTRUCTURING PROCESS 1/

(In percent)
(Pattern 2)



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.

2/ Includes Ghana, Kuwait, and Tanzania.

5 percent of GDP. A similar pattern can be observed in Kuwait and 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.

158. 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 practice view that action should be taken promptly, without waiting for a serendipitous upturn in economic conditions to undertake otherwise difficult and unpalatable measures.

159. 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 practice does not involve inflating one's way out of banking system problems. Another is that banking crisis/distress 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.⁴⁸ 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 (that is, as discussed in the main paper, there are limits on the extent to which monetary conditions can be tightened during restructuring) may not be a binding problem in practice.

160. 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 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.

⁴⁸See Bank for International Settlements (1993) and IMF (1993).

IV. LESSONS FROM EXPERIENCE

161. Based on the case studies of Chile, Côte d'Ivoire, Latvia, Mauritania, the Philippines, Poland, Spain, Sweden, the United States, Baltic States, Russia and other countries of the former Soviet Union, as well as the statistical analysis of a broader group of countries, this section provides a summary of policies judged to be successful and sufficiently robust to be useful 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. The statistical survey indicates that substantial progress countries identified the underlying causes and designed a bank restructuring strategy aimed at systematically addressing each one (Table 7).
- Thus, 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* and 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. The case studies of Chile, Côte d'Ivoire, the Philippines, Poland, Spain and Sweden implemented far-reaching reforms in the banking sector as part of the bank restructuring strategy. The case studies also illustrate that the bank supervisory agency and the central bank have important roles to play in addressing and monitoring these aspects of the bank restructuring strategy.
- *Prompt action* is an important ingredient of success. Sweden and the United States emphasized and engaged in prompt corrective action and concluded that this was a crucial component of successful bank restructuring. The survey confirms that success is positively correlated with prompt action (Figure 1). Substantial progress countries took action within one year of problems emerging. The case studies of Chile and Côte d'Ivoire illustrate that action is sometimes delayed by several months because the authorities may not have the legal powers to intervene or because time is needed to determine the causes and the most appropriate action. However, both countries took speedy and comprehensive action once these difficulties had been overcome.
- *Operational restructuring* is a necessary condition for banks to return to profitability and sustained solvency. As illustrated in the case studies of Côte d'Ivoire, Chile, Spain, Sweden and the United States, management deficiencies were an important cause of the banking problems. This was recognized by the authorities and action was taken to address these problems, including the strengthening of banks' risk management systems, the replacement of management and owners. The experience of Mauritania illustrates that when financial support is given to banks without restructuring the banks' internal operations, problems will recur as management

continues to mismanage funds. The survey confirms that 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 case studies of Sweden and the United States illustrate that while the cooperation of the government, the central bank, and the bank supervisory authorities is necessary, the lead agency should have some degree of autonomy backed by a firm and unambiguous commitment to reform at the highest levels of government. Sweden formed a separate agency; in Spain and the United States, the deposit insurance agencies acted as lead agency; in Côte d'Ivoire, external donors played an important role in co-managing the bank restructuring process. The survey 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. Côte d'Ivoire, Spain, Sweden, and the United States placed great emphasis on this aspect. The importance of monitoring is further supported by the finding of the survey 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 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 substantial progress countries took a conscious decision to minimize the use of central bank financing and avoid central bank lending to insolvent banks. The experience of the United States suggests that bank restructuring becomes more costly when the central bank lends to insolvent banks. This is supported by in the case of Chile where extensive central bank lending to insolvent banks was associated with exceedingly high costs of bank restructuring.
- *Firm exit policies* are an integral part of best practice. Closure was emphasized in Chile, Côte d'Ivoire, the United States and in transition countries. Transition countries made use of bank closure often involving small private banks. Côte d'Ivoire and Latvia demonstrated to its banking community that no bank will be protected exclusively because it was "too large to fail." 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 country cases show that financial instruments are useful to improve the banks' financial condition provided that they are designed in incentive-compatible ways and are used in conjunction with operational restructuring. In the Philippines, Poland, Spain, and Sweden, financial support was accompanied by detailed plans outlining operational restructuring targets and change in management.
- 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, as was the case in Spain and in the United States. While in most countries the authorities avoid imposing losses on depositors, Côte d'Ivoire, Latvia 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. This result is confirmed in the survey which indicates 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 case studies and the survey suggest that the institutional setting does not appear to matter. However, the cases of the United States and Sweden show that close monitoring of results from the workout process can be a key ingredient of efficient loan resolution. 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. Côte d'Ivoire is an example of a country where successful bank restructuring was started prior to the economic recovery. The survey shows that 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, but as the case studies of the Philippines and Mauritania show, fiscal adjustment can be achieved while restructuring banks.

- 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.

Table 14. Banking Sector Performance 1/

	Stock Effects			Flow Effects		
	Decline in nonperforming loans/loans	Decline in loan loss provisions/loans	Increase in capital/assets	Decline in operating expenses/assets	Increase in interest income/assets	Increase in profits/assets
Argentina	0	1	0	1	0	0
Chile	1	1	0	0	1	0
Côte d'Ivoire	1	1	1	1	1	1
Egypt	0	0	0	0	0	0
Finland	1	1	1	0	0	0
Ghana	1	1	0	1	1	1
Hungary	1	0	1	0	1	1
Indonesia	1	0	1	0	0	1
Japan	n/a	n/a	n/a	n/a	n/a	n/a
Kazakhstan	1	1	1	0	0	0
Korea	1	0	0	0	1	0
Kuwait	0	0	1	1	0	1
Latvia	0	1	1	1	0	0
Mauritania	1	0	1	0	0	0
Mexico	0	0	1	1	0	0
Moldova	1	1	1	0	0	0
Peru	1	1	1	0	1	1
Philippines	1	1	1	1	1	1
Poland	1	1	0	1	0	0
Spain	1	1	1	1	1	0
Sweden	1	1	1	1	0	1
Tanzania	0	0	0	0	0	1
Venezuela	1	1	0	1	0	0
Zambia	1	0	1	1	0	0

1/ "1" indicates a positive outcome.

Table 15. Intermediation Ability of Banks 1/

	Scale of Intermediation		Efficiency		Risks	
	increase in credit to private sector/GDP	increase in M2/GDP	decline in interest spreads	decline in Central bank credit to banks/GDP	decline in real interest rate	no recurrence of banking problems
Argentina	0	0	0	1	0	0
Chile	0	1	1	0	1	1
Côte d'Ivoire	1	1	0	1	1	1
Egypt	1	0	0	0	1	0
Finland	0	0	0	1	1	1
Ghana	1	1	0	1	0	0
Hungary	0	1	1	1	1	0
Indonesia	0	1	0	0	0	0
Japan	n/a	n/a	n/a	n/a	n/a	n/a
Kazakhstan	1	0	0	0	1	0
Korea	1	1	1	1	1	1
Kuwait	0	1	0	0	1	0
Latvia	0	0	1	0	1	0
Mauritania	0	0	0	0	0	0
Mexico	0	0	0	0	1	0
Moldova	0	0	0	1	1	0
Peru	1	0	0	1	1	1
Philippines	1	1	1	0	1	0
Poland	1	0	1	1	1	1
Spain	0	1	1	0	1	1
Sweden	0	1	1	1	1	1
Tanzania	1	1	0	0	1	0
Venezuela	0	1	1	1	0	0
Zambia	0	0	1	0	0	0

1/ "1" indicates a positive outcome.

Table 16. Causes of Banking Problems and Measures Taken to Deal with Problems 1/

Exogenous shocks	State bank problems	Measures to deal with state banks (privatization, etc.)	Related party lending directed	Deficient bank management and internal control	Changes in basic management and monetary	Excessive and distorted taxation	Changes in the tax legislation	Shortcomings in regulatory and accounting framework	Reforms in regulatory and accounting framework (including high degree of compliance)
	1	0	1	0	1	1	0	0	1
Argentina	1	0	1	0	1	1	0	0	1
Bahia	1	0	1	1	1	1	0	0	1
Côte d'Ivoire	1	1	1	1	1	1	1	1	1
Egypt	0	1	1	1	1	0	1	0	0
England	1	0	1	0	1	1	0	0	1
Ghana	1	1	1	1	1	1	1	1	1
Hungary	1	1	1	1	1	1	0	0	1
Indonesia	1	1	0	1	1	0	0	0	1
Japan	1	0	0	0	1	1	0	0	1
Kazakhstan	1	1	1	1	1	1	0	0	1
Korea	0	0	0	1	1	0	0	0	1
Kuwait	1	1	0	1	1	0	0	0	1
Lebanon	1	0	1	1	1	1	0	0	1
Morocco	0	1	1	1	1	1	1	0	1
Mexico	1	0	0	1	1	1	0	0	1
Nigeria	1	0	1	1	1	0	0	0	1
Peru	1	1	1	1	1	1	0	0	1
Philippines	1	1	1	0	1	1	0	0	1
Poland	1	1	1	1	1	1	0	0	1
Spain	1	0	0	0	1	1	0	0	1
Sweden	1	0	0	0	1	1	0	0	1
Tanzania	0	1	0	1	1	0	1	0	1
Togo	1	0	1	1	1	1	0	0	1
Zambia	0	1	0	1	1	1	1	0	1

1/ "1" indicates occurrence.

Table 17. Instrument Mixes for Bank Restructuring - All Countries 1/

	CB takes Lead Workout	Loan Units	Closure	Merger	Splits	Privat	Twin	Bond	Central Bank Loans	Central Bank Liquidity	New Equity	Deposit Instrum	Owners Mgmt, etc.	Enter. Restr.	(Sum)
Argentina	1	0	1	0	0	1	0	1	0	1	0	1	1	0	7
Chile	1	1	1	1	0	1	0	1	1	1	0	1	1	1	11
Côte d'Ivoire	0	1	1	0	0	1	0	1	1	1	1	1	1	1	10
Egypt	0	0	0	1	0	1	0	1	0	1	1	0	0	0	5
Finland	1	1	0	1	0	1	0	0	1	0	1	1	1	1	9
Ghana	0	1	1	1	0	1	1	1	1	1	0	0	1	1	10
Hungary	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12
Indonesia	1	0	0	0	0	0	0	0	1	1	0	0	0	0	3
Japan	0	1	1	n/a	n/a	0	n/a	0	n/a	n/a	n/a	n/a	1	n/a	3
Kazakhstan	1	1	1	1	1	1	1	1	1	1	0	0	1	1	12
Korea	1	1	0	0	0	0	0	1	1	1	1	1	0	0	7
Kuwait	1	1	0	0	0	0	0	1	1	1	1	0	0	0	5
Latvia	1	1	1	0	0	1	0	1	0	1	1	1	1	1	10
Mauntania	1	1	1	1	0	1	0	1	1	1	0	1	1	0	10
Mexico	1	1	0	1	0	0	1	1	0	1	1	1	1	1	10
Moldova	1	0	1	1	0	1	0	0	0	1	0	0	0	1	6
Peru	0	1	1	1	0	1	1	1	0	0	0	1	1	0	8
Philippines	1	1	1	1	0	1	0	1	1	1	0	1	1	1	11
Poland	0	1	1	1	0	1	1	1	1	1	0	1	1	1	11
Spain	0	1	1	0	0	0	0	1	1	0	1	0	1	0	6
Sweden	0	1	0	1	0	0	0	1	0	0	1	0	1	0	5
Tanzania	1	0	0	0	0	0	...	1	1	1	0	1	0	0	5
Venezuela	1	1	0	0	0	1	0	1	1	1	1	1	1	0	9
Zambia	1	0	1	0	0	0	0	0	1	1	0	0	1	0	5
Sum	16	18	13	13	2	15	5	19	15	18	11	12	16	11	Average
Percentage	67	75	54	54	8	63	21	79	63	75	46	50	67	46	7

1/ "1" indicates occurrence.

Table 18. Loan Workout Arrangements—by Performance Groups

Country	Type of Agency	Established (Funded) by:	Performance Indicators
Substantial progress countries			
Côte d'Ivoire	Bank liquidation agency.	Government (1993)	Strictly monitored. 45 % of targetted recoveries achieved (1993-1996)
Peru	COFIDE (Trust) managed by a special commission.	Government	No performance indicators reported.
Philippines	Asset Privatization Trust for assets of two state banks.	Government (1986). Government assumed corresponding amount of bank liabilities	No information available.
Spain	Deposit Insurance Company in charge of bank resolution.	Central Bank and Commercial Banks	Resolution completed.
Sweden	Ministry of Finance helped establish 2 bank-based gov't owned AMCs capitalized with public funds. (AMCs later merged). (Other banks also established AMCs without government assistance).	Government	Proceeds from asset sales are likely to cover initial government outlays.
Moderate Progress Countries			
Chile	Central Bank held nonperforming assets.	Central Bank	Repurchase obligations for old bank owners linked to dividend payments of banks. (Two classes of bank stock were created, for old and for new owners).
Finland	Central Bank established asset management unit.	Central bank (1993)	Asset management was not closely monitored and not given a high priority until 1993.
	Government established asset management unit.	Parliamentary Act (1993)	
Ghana	Asset Recovery Trust	Government	No information on performance available.
Hungary	Hungarian Investment and Development Bank manages assets for the government.	Bank designated by government. No no agency created (1992)	No information on performance available.

Table 18. Loan Workout Arrangements-by Performance Groups (concluded)

Korea	Multi-year loan write-off plan for each problem bank.	Plans worked out with central bank. No government assistance.	Nonperforming loans written off. No information on loan collection.
Poland	State-owned banks formed workout units.	Directive by the Ministry of Finance.	Banks to follow outlined plan for loan recovery and capital adequacy.
Slow Progress countries			
Mauritania	Loan Recovery Agency	Government (1993)	No information on performance available.
Countries with ongoing restructuring programs			
Kazakhstan	Government (1994-1995)		Approach considered successful by some experts but no detailed information available.
	Government assumes responsibility for FX or trade related credit with government guarantees.		
	Rehabilitation Bank for loans of 30 most problematic enterprises (1995)		
	Agricultural Support Fund for nonperforming agricultural credits (1994)		
	Banks established workout units (1995)		
Mexico	Trust Fund holds assets but does not perform loan workout.	Established by the government	Loan workout is performed by banks. (Repurchase obligations)
Moldova	Banks required to establish loan workout units at their own expense.	Government rules but no funding.	No information on performance.

Table 19. Cost Estimates of Systemic Bank Restructuring-by Performance Groups

(in percent of GDP) 1/

Substantial Progress Countries	
Côte d'Ivoire	13.0%
Peru	0.4 %
Philippines	4.0 %
Spain	15.0 %
Sweden	4.3 %
Moderate Progress Countries	
Chile	33.0 %
Finland	9.9 %
Ghana	6.0 %
Hungary	12.2 %
Korea	n.a.
Poland	5.7 %
Slow Progress Countries	
Egypt	n.a.
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 percentages 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 % in this table.) These estimates do not take into account cost recoveries achieved by governments.

Table 20. Three Patterns of Macroeconomic Effects During the Bank Restructuring Process 1/

	Average of 4 Years Prior to N	Year of Onset of Restructuring (N)	Average of 4 Years After N
Pattern 1			
Chile (N=1983)			
Real GDP growth	2.33	-3.49	5.44
Fiscal balance	2.74	-2.80	-2.18
Inflation	24.54	27.26	22.48
Finland (N=1991)			
Real GDP growth	3.67	-7.07	0.96
Fiscal balance	1.42	-4.48	-10.01
Inflation	5.47	4.16	1.79
Philippines (N=1984)			
Real GDP growth	3.48	-7.32	1.79
Fiscal balance	-3.07	-1.87	-3.44
Inflation	12.65	50.32	9.20
Spain (N=1980)			
Real GDP growth	2.08	1.22	1.17
Fiscal balance	-3.17	-2.38	-4.69
Inflation	18.66	15.61	13.11
Sweden (N=1991)			
Real GDP growth	2.28	-1.12	0.50
Fiscal balance	2.02	-4.00	-11.87
Inflation	6.73	9.34	2.91
Pattern 2			
Côte d'Ivoire (N=1991)			
Real GDP growth	0.66	0.00	2.07
Fiscal balance	-12.29	-9.87	-7.85
Inflation	3.56	1.57	11.65
Hungary (N=1993)			
Real GDP growth	-4.44	-0.60	1.87
Fiscal balance	-2.89	-7.43	-3.53
Inflation	25.77	22.48	23.47
Mauritania (N=1993)			
Real GDP growth	1.19	4.86	4.30
Fiscal balance	-5.27	-7.74	2.21
Inflation	7.78	9.33	4.54
Peru (N=1991)			
Real GDP growth	-3.96	2.87	6.18
Fiscal balance	-6.11	-2.42	-2.57
Inflation	2908.27	409.50	39.22
Poland (N=1993)			
Real GDP growth	-3.94	3.79	6.00
Fiscal balance	-4.24	-2.82	-2.64
Inflation	237.55	35.30	26.43
Pattern 3			
Ghana (N=1989)			
Real GDP growth	5.18	5.09	4.39
Fiscal balance	-2.89	-2.12	-4.94
Inflation	26.47	25.26	22.55
Kuwait (N=1992)			
Real GDP growth	-12.85	69.87	8.04
Fiscal balance	-38.10	-72.81	-12.16
Inflation	5.87	-1.00	2.97
Tanzania (N=1992)			
Real GDP growth	4.46	4.58	4.12
Fiscal balance	-5.64	-2.33	-6.83
Inflation	30.82	24.80	28.25

Source: WEO, World Economic Outlook.

1/ The fiscal balance is calculated as the central government balance/nominal GDP; and inflation is calculated as the percentage change of consumer prices.

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