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The Role of Prudential Supervision and Financial Restructuring of Banks During Transition to Indirect Instruments of Monetary Control

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Abstract

This paper proposes a stylized sequencing of banking supervision and bank restructuring measures designed to complement and expedite the adoption of indirect instruments of monetary policy. Appropriate sequencing reflects both operational considerations and macroeconomic effects of structural measures. It typically involves implementing initially a critical mass of reforms of prudential supervision and of financial structure of both banks and enterprises, and subsequently adapting and refining these measures in line with the evolution of markets and internal governance. This approach facilitates implementation because the initial cost of bank restructuring can be offset, partly, through the budgetary effects of improved enterprise finances.

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TABLE OF CONTENTS

Tables

Summary

This paper argues that appropriate sequencing of financial restructuring and prudential supervision policies can speed up liberalization of interest rates and adoption of indirect monetary policy instruments and facilitate stabilization. The paper presents a stylized sequencing of banking supervision and restructuring measures and illustrates their relationship to the development of monetary operations, based on country experiences and taking into consideration the technical linkages among specific structural reforms, their macroeconomic effects, and the scope for fostering market discipline and internal governance.

Country experiences suggest specific principles of appropriate sequencing. First, a critical mass of accounting rules, prudential norms and supervisory procedures can, and should be, introduced initially, and then progressively refined in line with the evolution of financial markets and of internal governance of financial institutions. Second, a front-loaded package of policies to restructure *both* bank and enterprise finances should be designed to reduce the debt-equity ratio of nonfinancial firms, strengthen bank assets, and set the stage for comprehensive restructuring of both bank and enterprises over the medium term. Third, policies to strengthen prudential supervision should be combined and coordinated with policies to restructure banks and establish institutional arrangements for loan recovery and enterprise restructuring, in order to avoid risks of moral hazard.

Such well-coordinated financial restructuring of both banks and enterprises can enhance the prospects for rapid financial liberalization by containing the initial fiscal cost of bank restructuring, partly through the offsetting budgetary effects of improved enterprise finances.

I. INTRODUCTION

Recent debates on the appropriate pace of financial sector liberalization have highlighted the issue of how best to sequence the reforms of prudential supervision and bank restructuring policies in order to support liberalization of interest rates and the adoption of indirect instruments of monetary control (see Sundararajan (1992), and Alexander et al (1995)). In addition, the growing globalization of financial markets has underscored the importance of strengthening prudential supervision and related information systems in order to deal effectively with interest rate and exchange rate risks, and other banking risks, particularly in the context of capital account liberalization (IMF (1995)). It is by now widely recognized that weak and inefficient banking systems are more vulnerable to contagion, less able to cope with volatile capital flows and exchange market pressures, and more likely to propagate and magnify the effects of financial crises on other economies. This recognition has highlighted the need for global adoption of strengthened standards for banking supervision (IMF (1996)). The appropriate sequencing of banking restructuring and supervision policies has also become a pressing issue in many developing countries and economies in transition, where a large part of the banking system is undercapitalized or insolvent, in part reflecting major macroeconomic shocks, large structural changes, and weak banking supervision.The resulting distress in the banking system has, in turn, complicated monetary management and affected the effectiveness of stabilization policies.[2]

In this context, it has been suggested that the development of a sound banking system and well-functioning prudential supervision arrangements should precede the adoption of market-based monetary arrangements (see Villanueva and Mirakhor (1990), Haas and Mathieson (1994)). The rationale for this argument is that in insolvent banking systems, adverse selection and moral hazards could distort the impact of market-based instruments—such as the treasury bill auctions and credit auctions—and exacerbate instability. In this paper, it is argued that except in extreme cases of systematic bank insolvencies and widespread fragility of the nonfinancial sector, the moral hazard and adverse selection risks are best handled by appropriate and timely sequencing of specific supervisory policies and bank restructuring schemes, and by the appropriate design of market-based monetary instruments and money market development policies; the design and sequencing of these monetary and prudential measures should take into account the technical interlinkages among these measures, as well as their impact on stabilization and market development goals. With the appropriate sequencing of banking supervision policies and financial restructuring measures, indirect instruments of monetary policy could be adopted rapidly to support stabilization objectives.

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[2]For a discussion of macroeconomic consequences of financial distress, see World Bank (1989) and Sheng (1991). For a more specific discussion of bank and enterprise restructuring in transitional economies, see Borish, Long, and Noel (1995), Long and Rutkowska (1995).

In practice, however, proper sequencing of prudential and bank restructuring policies has proven difficult to implement. For example, actions to restructure bank portfolios or close weak banks tend to get delayed in most countries, owing to high fiscal costs, likely monetary or systemic consequences, inadequate regulatory framework, captive connections between banks and their borrowers, and also because, in many instances, the information on magnitude of loan losses has been inadequate. Often, regulators lack incentives for prompt action and might suppress information so as to postpone or lessen pressures from the market, as noted by Kane (1987, 1992). Also, the presence and persistence of large weaknesses in banks' balance sheets have also affected the effective and uniform enforcement of prudential norms, further delaying the process of strengthening banking supervision. The delays have magnified loan losses, raised the vulnerability of the financial system to macroeconomic and structural shocks and required different degrees of government intervention to prevent systemic crises.

Such a process and the close two-way interaction between the soundness of the banking system and macroeconomic stability are discussed in Sundararajan and Baliño (1991), where several banking crisis episodes of the mid-eighties are analyzed. Worldwide experience with financial fragility, examined in Lindgren et al (1996) also confirms the earlier lessons, and highlight the importance of sound banking sector for macroeconomic stability and the efficient implementation of stabilization programs.

In light of these findings, it is appropriate to inquire whether a mix of financial restructuring and supervisory policies could be devised such that they can be implemented quickly with the available information systems and at modest fiscal cost, and consistently with medium-term restructuring needs. This paper addresses this question. The rationale is that by avoiding costly delays in initiating a bank-restructuring process, the scope for effective implementation of both prudential supervision and market-based monetary management improves, and major risks to macroeconomic stability are avoided, while gaining time to institute medium-term restructuring measures, and to spread out, overtime, the budgetary costs of restructuring.

The rest of the paper is organized as follows: Section II focuses on the appropriate sequencing of banking restructuring and supervision policies in support of stabilization and structural reforms generally, and of financial sector liberalization in particular. The discussion draws on country experiences with banking crises in the eighties and nineties in order to underscore the importance of appropriate design and sequencing of banking restructuring and supervision policies. Section III discusses financial restructuring policies in greater detail, and suggests that in certain circumstances, simple transitional measures to restructure both bank and enterprise finances could be implemented with modest fiscal outlays, laying the basis for greater interest rate flexibility, and more orderly and comprehensive bank restructuring actions in subsequent stages. Section IV contains concluding remarks.

II. SEQUENCING OF BANKING RESTRUCTURING AND PRUDENTIAL SUPERVISION POLICIES

Various components of financial sector reforms and the issues in the appropriate sequencing of these reforms are discussed in Bisat, Johnston, and Sundararajan (1992) and Sundararajan (1994). This section focuses on the sequencing of specific measures to restructure banks, strengthen prudential supervision, and contain systemic risk in the course of transition to market-based instruments and fully liberalized interest rates.

The process of moving toward greater flexibility in interest rates and their eventual liberalization requires parallel or prior reforms of the financial sector, including reforms in many central banking functions. In general, successful interest rate liberalization—that is, successful management of interest rates through indirect instruments—is associated with: a relatively stable macroeconomic environment; an interest rate structure that is not in serious disequilibrium prior to liberalization; adequate competition in the banking sector; reasonable financial strength in the banking sector; an active and well-functioning money market, supported by a sound payment system; monetary policy instruments that are flexible and effective in influencing the marginal cost of fund to banks; and sufficiently strong banking supervision policies and instruments.[3]

The various groups of policies and reforms mentioned above have to be implemented in an orderly sequence, some measures simultaneously and others sequentially, in order to reflect various technical and operational linkages among specific reform measures and to sustain stabilization efforts. In particular, the transition from direct controls on interest rates and credit toward indirect instruments involves a simultaneous pursuit of measures to develop market-based instruments and foster money and government securities markets. Effective implementation of this transition process requires supporting reforms in banking supervision and banking restructuring.

A. Lessons of Country Experiences

The importance of early attention to prudential supervision of banks in the course of the stabilization-cum-reform process, as well as the crucial role of timely intervention in problem banks have again been underscored by the episodes of financial distress and crises in the nineties in several countries—summarized in Table 1. In particular, the large magnitude of loan losses recorded in these countries suggest that potential gains from a more orderly sequencing of policy implementation are significant. In some of the countries, despite seemingly sound banking supervision systems, significant weaknesses in the enforcement or in the design of specific regulations contributed to or exacerbated the crises (e.g., Indonesia,

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[3]See Leite and Sundararajan (1990) for a discussion of concomitant reforms in support of interest rate liberalization.

Table 1. Features of Recent Banking Crises--An Overview

Country and Crisis Period	Magnitude of Losses	Resolution Methods	Financial Sector Reforms	Macroeconomic Factors
Indonesia 1992/93	Nonperforming loans estimated at 26 percent of total loans by end-1993, about $18.4 billion or 13 percent of GNP. One private bank closed, 26 private banks considered insolvent, major weaknesses in state bank loan portfolio.	• Restructure and recapitalize state-owned banks with borrowed funds. • Close or merge private banks with some central bank financial support. • No formal deposit insurance resulting in some losses to depositors. • Special efforts to recover loans from large borrowers. • Special audits of private banks and special supervision teams to monitor problem loans.	• Interest rates liberalized and indirect instruments adopted in 1983. • Entry eased and selective credit abolished in 1988. • Measures to strengthen banking supervision stepped up in 1991/92. • Weaknesses in bank liquidation rules and loan recovery arrangement being addressed through new regulations in 1995. •Prudential controls eased in May 1993 to encourage bank lending.	Boom in investment and credit growth following 1988 financial sector and investment liberalization. Major tightening of monetary policy and high real interest rates in 1992-93.
Nordic countries 1990-92	Loan losses absorbed by the state by recapitalization and liquidity support ranged from 5 percent to 7 percent of GNP. Large number of banks faced liquidity crisis; depletion of capital and loss of public confidence.	• Public guarantee of all deposits. • Government takeover of failed banks. • Formation of "bad banks"--asset management companies--to deal with problem loans.	Liberalization of credit control and interest rates in mid-eighties. Insufficient attention to strengthening capital adequacy and prudential supervision.	Major expansion in credit/GNP ratio following deregulation. Major shifts in real interest rates and real exchange rates, and asset price inflation. High debt equity ratio of nonfinancial firms.

Table 1 (concluded). Features of Recent Banking Crises--An Overview

Country and Crisis Period	Magnitude of Losses	Resolution Methods	Financial Sector Reforms	Macroeconomic Factors
Turkey 1994	Large short positions in FX exchange and excessive depreciation of domestic currency led to losses, and runs. Losses in government securities portfolio as interest rates rose. Three mid-sized banks closed down. While financial distress is reportedly widespread and bank profitability weak, the magnitude of losses is unclear.	•Expand coverage of savings deposit insurance to 100 percent of deposits. • Increase limits on central bank credit to individual banks. • Temporary administrators to oversee pay-off to eligible depositors. • Deposit insurance fund to initiate bankruptcy procedures. • Weaknesses in problem bank resolution options.	• Interest rate liberalized and indirect instruments adopted in mid-eighties, and competition strengthened. • Some initial bank restructuring and measures to strengthen banking supervision implemented in mid-eighties. Sophisticated off-site analysis and early warning system in place. • Limited reforms of state-owned banks which provide subsidized credit. • Inadequate reforms of bank accounting standards.	Major macroeconomic instability, high and growing fiscal deficit, accelerating inflation, high real interest rates, and foreign exchange crisis during 1994.
Venezuela 1994	Loan losses absorbed by the state through recapitalization and liquidity support totalled US$9 billion in 1994, 13 percent of GNP. Three waves of bank runs, involving nearly 50 percent of the banking system in terms of deposits, triggered massive government intervention.	• Government takeover of several failed banks. • Large, unconditional liquidity assistance to some. • Closing of some banks after paying off insured depositors. • Changes in management control in order to work out a restructuring plan.	• Interest rates liberalized and indirect instruments adopted in 1989. • Major portfolio weaknesses, built up prior to 1989 when direct controls severely distorted credit allocation, were allowed to continue. • Enforcement of banking supervision was weak, with significant weaknesses in accounting standards, coordination among supervisory agencies and supervisory practices. New laws to strengthen banking supervision became effective only in late-1993.	Significant stabilization efforts during 1989-90 was reversed in 1990-91. The lax financial policies contributed to boom in asset prices and periodic capital flights, and exchange crisis in October 1992. Fiscal deficit remained unsustainably high in 1993; monetary policy erratic; very high real interest rates in 1992/93.

Sources: Drees and Pazarbazioglu (1995), Garcia (1995), and Lindgren et al (1996)

Turkey, Venezuela).[4] In many countries, no significant efforts were made to address weak balance sheets of banks at the start of the financial liberalization process, a factor that magnified subsequent losses and complicated stabilization efforts (e.g., Indonesia, Venezuela). Also, as noted in Lindgren et al (1996), nearly two-thirds of Fund member countries have experienced significant banking problems since 1980. While banking crises pose a threat to stability, owing to their fiscal and monetary impact, they also reduce real economic growth significantly (Johnston and Pazarbasioglu (1995)).

Experience of economies in transition also illustrate how the pace and sequencing of bank restructuring and supervision policies have had a significant impact on macroeconomic performance and financial market development. In Eastern and Central Europe, bank restructuring policies—recapitalization with government funds (Hungary, Czechoslovakia, Poland), carving out bad loans (Poland, Czech Republic), conversion of enterprise debt to equity (Bulgaria, Croatia)--have been implemented in varying degrees since 1991 (Dittas (1994)). The restructuring policies were not always initiated at the outset of reform, and not comprehensively implemented in some; nevertheless, in many countries these efforts have helped in due course to foster institutional development of banks, greater efficiency in credit allocation, and avoid major systemic crises so far.[5] The process of bank and enterprise restructuring has only just begun in the Baltics, Russia, and other states of the former Soviet Union in response to the impact of stabilization policies and privatization initiatives (Borish et al (1995) and Long and Rutkowska (1995)). While two Baltic countries have already faced major banking crisis, states of the former Soviet Union are experiencing significant distress in the banking system, requiring prompt restructuring actions and supervisory reforms in order to avoid risks to sustained economic recovery and stabilization (Pazarbasioglu and van der Vossen (1996)).

These experiences with banking fragility continue to reinforce the lesson that the connection, if any, between financial sector reform and financial crisis derives from an unstable macroeconomic environment, as well as features of the financial structure. While large changes in relative prices and in macroeconomic policies influenced the viability of borrowers, the following common features of the financial structure contributed to crises. These features were: unsound liability structures of nonfinancial firms prior to reform (owing to subsidized credit, lack of equity markets, tax policies favoring debt, etc.) and following reform (owing to insider loans, interest capitalization, excessive workout lending, etc.); weakness in the institutional structure of banking that facilitated risk-taking; and weak prudential regulation

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[4]See De Juan, Aristobulo (1995) for a discussion of pitfalls in the enforcement of prudential supervision and bank restructuring schemes. In many countries, international standards are adopted without adjusting these standards to specific economic circumstances. See Dziobek, Frecaut, and Nieto (1995), and Kane (1995).

[5]There were, of course, many individual bank failures, and widespread bank insolvencies have come to surface in some countries (e.g. Bulgaria).

and banking supervision that condoned excessive risk-taking. Thus, inadequacies of prudential policies and enforcement procedures interacted with failures to correct macroeconomic, and relative price imbalances in a timely fashion in the course of financial reform, and this combination contributed to excessive increases in interest rates in some cases, in part, reflecting excessive risk-taking by banks. These factors further weakened credit quality or exacerbated loan losses, and threatened the sustainability of stabilization efforts owing to excessive pressures on central bank credit, in part, reflecting the solvency and liquidity problems of banks. Thus, the effectiveness of financial liberalization has required sustained efforts toward stabilization, while the sustained pursuit of both liberalization and stabilization has required proper *design* and *enforcement* of bank restructuring and prudential supervision policies in order to avoid major disruptions to growth and stability.

B. Sequencing of Banking Supervision and Restructuring

In light of this conclusion, Table 2 provides a stylized sequencing of prudential supervision and banking restructuring policies during the transition process that is divided into three stages.[6] It emphasizes that, in order to ensure successful transition toward full interest rate flexibility, i.e., from stage 1 to stage 3, specific groups of reforms of prudential regulations and supervision systems should be implemented early (in stages 1 and 2 of Table 2), and should be coordinated with monetary management and market development policies. Thus, the scope and content of prudential supervision would continuously evolve as markets and internal governance of financial market participants evolve. In addition, financial restructuring policies to deal with problem loans and enterprises should also be phased in appropriately to support interest rate liberalization, beginning with some initial restructuring measures in stage 1, as further illustrated later.[7] Specific configuration of measures in various stages, particularly at the initial stage, would depend upon variety of country specific factors

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[6]This three-stage categorization is based on Sundararajan (1994) and Alexander et al (1995). This categorization into stages is for analytical convenience and does not signify that the steps listed in different stages cannot be implemented simultaneously if technically feasible, or that reforms should be gradual rather than rapid.

[7]The role of deposit insurance reforms is not addressed in this paper, as it poses a difficult dilemma in sequencing. Arguably, the introduction of deposit insurance in the presence of widespread insolvencies in the banking system is not desirable. Yet in cases of crises, deposit insurance becomes desirable to prevent contagion. This raises complex issues in the appropriate design and sequencing of deposit insurance in relation to bank restructuring and bank supervision policies. It could be argued that deposit insurance should be limited in coverage to small depositors and should be introduced only in late stages of financial reform when banks have been restructured and supervision has been strengthened. For a discussion of these issues, see IMF (1996).

Table 2. Banking Supervision and Financial Restructuring During Various Stages of Financial Sector Reform

Stage 1 (Preparatory)

(Preparatory stage for interest rate liberalization; direct controls on credit and interest rates dominate; limited liberalization of interest rates--e.g., interbank rates--is initiated and impediments to broader interest rate flexibility begin to be dealt with.)

- A minimal program of financial restructuring policies is introduced to deal with fixed-rate loans, selected nonperforming loans, capital adequacy, and subsidized selective credit.
- Legal and organizational arrangements for banking supervision are reviewed and adjusted.
- Licensing and entry regulations are strengthened. A framework for orderly intervention and liquidation of banks is put in place or streamlined.

Stage 2 (Initiating market development)

(Direct controls on credit begin to be phased out; simple market-based instruments of monetary and exchange policy--e.g., open market-type operations based on treasury bill and credit auctions--begin to be used. Discount window and Lombard credit provide liquidity to money markets; policy interest rates insufficiently flexible.)

- Reform of commercial bank accounting and bank reporting systems are phased in to help enforce prudential norms and facilitate monetary analysis;
- Prudential regulations, particularly loan classification and provisioning, credit concentration limits, credit appraisal guidelines, and foreign exchange exposure rules begin to be phased in based on new accounting standards;
- Capital adequacy norms are strengthened and phased in, in line with bank restructuring strategy;
- A strategy to combine off-site, on-site, and external audits is introduced, the balance among the components initially dictated by the availability of resources and technical assistance.
- Institutional development of banks is pursued actively; portfolio audits of major banks initiated.
- A comprehensive program of bank restructuring, bank liquidations, and loan recovery and loan workout arrangements is formulated. As part of this program, simple financial restructuring policies for banks--supported by enterprise financial restructuring--are implemented (e.g., policies to reduce debt-equity ratio of nonfinancial firms and recapitalize banks through portfolio restructuring).

Stage 3 (Strengthening financial markets)

(Money markets and secondary markets in government securities are strengthened through supporting reforms of institutional arrangements and payment systems; open market operations become more active; foreign exchange markets are fostered. Central bank manages money market liquidity at its own initiative, and interest rates are fully flexible.)

- Comprehensive reforms to foster bank and enterprise restructuring are continued systematically, in line with the program designed in stage 2.
- Promote well-capitalized and well-supervised dealers in government securities (and money market instruments) as part of strengthening security market regulations and supervision.
- Reforms of bank accounting and prudential standards are completed.
- Strengthen financial risk management in payment systems.
- Strengthen supervision of asset-liability management (interest rate risks, liquidity management), internal controls, and management systems of banks.
- Appropriate balance between off-site supervision, on-site inspection, and external audit is achieved through TA and training.
- Risk implications of financial innovations and internationalization are monitored closely.

such as extent of disintermediation, extent of state-ownership of banking, degree of openness, and adequacy of laws on collateral, bankruptcy, court system, etc. The challenge is to ensure that regulatory reforms and restructuring measures support market development, and not stifle market initiatives and well-managed risk-taking.

C. Preparatory Stage

The task of strengthening banking supervision and cleaning up bank balance sheets is an extended process that requires considerable resources as well as technical preparations; therefore, only key elements of banking supervision could be effectively introduced in the initial stage; similarly, only a minimal program of financial restructuring to address the most pressing impediments to interest rate flexibility is feasible—possibly even desirable—in the preparatory stage. At this stage, prompt attention to legal and organizational basis of banking and banking supervision would set the stage for a more competitive banking environment and more comprehensive reforms of prudential supervision in the subsequent phases of financial liberalization. In particular, close attention should be paid to the adequacy of both licensing policies, as well as the framework for orderly liquidation or intervention in banks. Weaknesses in bank liquidation procedures—including loan recovery arrangements—was a source of costly delays in many countries and hence such procedures should be in place early in the reform process. Indeed, policies that liberalize entry and policies that streamline exit are best addressed jointly, in order to encourage financial discipline.

Avoidance of excessive risk-taking—as well as ensuring adequate competition—in the course of financial liberalization requires, in addition to setting up adequate banking supervision, appropriate measures to recapitalize and restructure banks—or liquidate some, if needed—and deal with problem loans.[8] Experience shows that a core program of financial restructuring should be initiated as part of the preparatory phase and a more comprehensive bank and enterprise restructuring should be continued subsequently. The design and phased implementation of financial restructuring policies—measures that seek to influence and strengthen the balance sheet structure of banks and the debt-equity mix of enterprises—would greatly facilitate adjustments by borrowers and banks to the effects of higher interest rates and other stabilization measures.[9]

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[8]The importance of dealing with problem loans in the course of transition to market-based systems in economies in transition is stressed in Brainard (1990).

[9]Financial restructuring should accompany or be linked to "real" or operational restructuring in terms of changes in management, physical assets, product mix, etc. Discussion of real restructuring, including privatization which combines, in effect, real with financial restructuring, is beyond the scope of this paper. The scope for phasing in financial restructuring policies early in the reform process and their relationship to real restructuring which takes time to design and implement are discussed further in Section III.

A minimal program of financial restructuring at the outset of reforms—i.e., at the preparatory stage—would facilitate stabilization efforts. This is illustrated by the experience of several countries in Eastern Europe. These countries implemented policies to deal with the large share of low fixed-rate loans and some nonperforming loans at the outset of the transformation process, in order to permit more active interest rate policies and more efficient credit allocation.[10] For example, in late 1989, the National Bank of Poland made major adjustments in the low fixed-rate loans inherited by banks from the previous monobank system, in order to facilitate the liberalization of interest rates, as part of a stabilization program. Interest rates on various fixed-rate loans (for housing, agriculture, environmental projects, etc.) were raised to ensure bank profitability (in the face of increases in market-determined deposit rates), but only part of the increase was to be serviced by the debtors, and the remainder was covered in part as subsidy from the budget and in part as government-mandated loans to capitalize part of the higher interest due. In the Czech Republic, banks were assisted in 1991 by shifting some low-interest "inventory loans" into a separate consolidation bank (funded by banks themselves) and through capital injection by a government agency. In Hungary, low-interest housing loans were replaced in 1989 by government securities, to help recapitalize the Savings Bank (part of the housing loans were written off in due course). In addition, in both Poland and the former Czechoslovakia, a large part of central bank credit to banks was rescheduled and converted to medium-term loans at the outset of the reforms in order to streamline central bank credit policies and facilitate monetary management.[11] Subsequent to the initial restructuring policies, more comprehensive policy packages were introduced to restructure banks and enterprises, partly in the context of privatization schemes.

D. Prudential Reforms to Support Stabilization and Market Development

As market-based instruments of monetary policy are introduced as part of stabilization policies (stage 2), high priority should be given to the implementation of key prudential regulations supported by phasing in complementary accounting reforms. Key prudential norms need to be phased in, taking into account the feasibility of compliance under the country-specific operational circumstances. At the same time, a graduated spectrum of enforcement procedures to ensure compliance should also be in place. The balance between off-site supervision, on-site inspections, and external audits that would be sought at this stage of reform would have to be flexible, sometimes determined by the availability of technical

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[10]Only debt restructuring and recapitalization initiated at the beginning of the stabilization-cum-reform program (1989-91) are covered in this section. Major financial restructuring programs implemented later on (1993-95) and alluded to in the previous section on country experiences are not discussed in detail in this paper. For details, see Dittas (1994) and Borish (1995).

[11]See Sundararajan (1994) for a discussion of the rationale for such restructuring of central bank credit to commercial banks.

assistance and trained resources. Since on-site inspections are resource-intensive, greater attention to off-site analysis and simple early warning systems, with selective and well-targeted on-site follow-up, could be the only feasible alternative at this stage. Such a strategy could be implemented fairly rapidly, and if well executed, should be quite adequate to contain excessive risk-taking, if any, at this stage of interest rate liberalization, when many policy interest rates are not yet fully flexible, and market development is still in its infancy. However, to set the stage for greater interest flexibility and further market development, a comprehensive framework of bank restructuring, bank liquidation, loan recovery, and loan workouts should be formulated and, as part of this framework, a core program of financial restructuring of *both* banks and enterprises should be initiated as described in Section III.[12]

Implementation of key prudential regulations could be phased in, taking into account their impact on monetary policy goals. The strengthening of capital adequacy ratios, implementing limits on loans to single borrowers and to "insiders", and more generally any tightening of supervision of loan quality—say, through loan classification and provisioning—could slow down credit growth.[13] This could, however, prove to be a suitable counterforce to offset partly the rapid credit expansion that could follow a liberalization of direct controls on credit and interest. For example, measures to strengthen banking supervision and phase in capital adequacy norms in Indonesia during 1991/92 reinforced monetary policy for some time and helped slow down credit growth. Prudential controls were eased in May 1993 to encourage bank lending. Thus, while the introduction of key prudential regulations would complement monetary policy goals when implementing anti-inflationary policies, these could counteract monetary policy intentions at other times. Therefore, a properly phased introduction of reforms to tighten prudential regulations, and the subsequent maintenance of a steady-as-you-go approach to the stance of banking supervision would help to minimize conflicts with monetary policy.

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[12]This program of financial restructuring is distinct from any minimal balance sheet restructuring that might have been implemented in the preparatory stage to facilitate initial interest rate and exchange rate adjustments, as described in the previous section.

[13]The impact of capital adequacy rules on the effectiveness of monetary policy is discussed in Kashyap and Stein (1994), which reviews the influences on aggregate demand arising from changes in bank lending induced by monetary policy and by accounting and regulatory decisions. The literature on lending channel of monetary policy is part of a broader literature that links financial structure of banks and nonbanks to macroeconomic outcomes. See Bernanke and Gertler (1987), Bernanke and Blinder (1988), Gertler (1988), and Gertler and Rose (1991).

Appropriate design and enforcement of prudential regulations and early warning systems would, however, require a good reporting system based on proper accounting standards. Early attention to developing accounting standards is therefore necessary.[14] This is justified also due to the long lead time needed to implement bank accounting norms in a comprehensive manner. In addition, experience shows that accounting reforms can be carefully phased in to ensure that the needs of off-site analysis, prudential monitoring, and monetary analysis are promptly met in the short run through timely and rapid adaptations to the existing accounting system, even while a more comprehensive overhaul of accounting and reporting framework are implemented over the medium term.[15] Early attention to reforms of accounting standards also remain critical to obtain timely and reliable information on banks' condition needed for financial restructuring decisions.

Loan classification and provisioning rules play a particularly critical role in identifying and limiting loan losses and should be implemented in conjunction with risk-based capital adequacy norms in stage 2. Tax treatment of loan-loss provisions should be adjusted to encourage adequate and timely provisioning. A bank's capital adequacy ratios are directly related to its decisions on loan-loss provisions, and hence the capital adequacy regulations for banks have an important effect on loan-loss provisioning. Loan-loss provisions are also influenced by tax laws, management strategy, and general economic conditions. In particular, provisioning rules might act to increase loan-loss reserves and interest spreads during recessions when bad loans rise, and reduce reserves and lower interest spreads during expansionary periods. This procyclical behavior could exacerbate the business cycle.[16]

Several aspects of interaction between supervisory actions on the one hand, and monetary policy and money-market development on the other, are important to consider in the course of implementation of reforms. The timing of interventions in problem banks could be constrained by the macroeconomic situation, and conflict with monetary policy objectives. Any large injection of reserves—even if temporary—in the course of interventions in problem banks could weaken monetary policy. Prudential rules on liquidity management by commercial banks typically have an impact on the demand for liquid assets (treasury bills and

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[14]While this would justify initiating accounting reforms as part of the preparatory stage, these are included in stage 2 in light of the practical convenience in combining accounting reforms with modernization of prudential norms and reporting systems in stage 2.

[15]For example, in Poland, the initial reform of the commercial bank chart of accounts was completed in about 15 months beginning in late 1989, leading to an integrated reporting system for banks covering both prudential and monetary analysis needs. Full-scale reforms of the commercial bank chart of accounts continued alongside and were completed over the next three years.

[16] See Beattie et al (1995) for a discussion of accounting and macroeconomic aspects of loan-loss provisions.

other short-term paper) and interbank funds, and such prudential rules should be designed to complement the reform of money markets.[17] Prudential rules that limit interbank credit exposures in correspondent banking and in payment-netting arrangements could influence the depth of money and interbank markets. Prudential rules to limit foreign exchange exposure of commercial banks could constrain capital flows, depending upon the design of these rules, and influence the extent to which domestic short-term interest rates could be set independently of foreign rates.

The design of monetary policy instruments and money market arrangements should also take into account prudential concerns, particularly the need to contain systemic risks. The technical aspects of market-based instruments—such as access rules and collateral—are typically chosen so as to minimize adverse selection, moral hazard, and collusion.[18] In general, bank capital serves as the basis to limit access to standing credit facilities (e.g., Lombard credit), and to set bilateral and multilateral exposure limits in interbank dealings. Moreover, close consultations and exchanges of information with bank supervisors on bank's condition is essential for the effective operation of lender-of-last-resort functions. Finally, insofar as the regulatory stance and financial structure of banks and nonbanks inhibit or encourage banks' ability to finance growth, monetary policy decisions should be cognizant of these additional influences on the macroeconomy.

E. Risk Management to Consolidate Market Development

In stage 3, when markets become more liquid and interest rates become fully flexible, the range of prudential supervision issues to be addressed becomes necessarily more complex. In particular, the authorities should strengthen the supervision of security market activities of banks, complete the reforms of accounting and disclosure rules, foster well-capitalized—and well supervised—government securities dealers, and support adequate financial risk management in the payment system. For example, issues of managing market risks arising from interest rate and exchange rate fluctuations would become important. This poses complex questions in measuring and containing market and liquidity risks, and in assessing the adequacy of internal controls in banks to manage such risks.[19] Also coordination of banking supervision with regulatory framework for capital markets becomes a key issue. The tasks of enhancing market discipline on banks, and allowing banks to raise additional capital at market-related terms are also important considerations in stage 3.

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[17]See Anne Marie-Gulde (1995) for a discussion of liquid asset ratios as a tool of monetary, public debt, and prudential policies.

[18]Mathieson and Haas (1994) raise concerns regarding moral hazard and adverse selection in using market-based instruments. Saal and Zamalloa (1994) discuss how the design of credit auctions could take into account such prudential concerns.

[19]See Basle Committee on Banking Supervision (1996).

With an increase in the turnover in money and foreign exchange markets, policies to manage the size and distribution of credit and liquidity risks in the payments system would also become pressing in stage 3. Such policies include: rules and practices on intervals between settlements in clearing arrangements, risk controls and loss-sharing provisions in netting arrangements, arrangements to establish large value payment system based on real-time gross settlements and rules to manage intra-day liquidity in such systems, the range of instruments and institutions that have access to the systems, and the specific rules and practices that govern the timing of debit and credit entries in banks' accounts at the central bank and in customers' accounts at commercial banks.[20] Thus, while banking supervision should be concerned with risk exposures of individual banks on account of their participation in payment systems, the regulation of risks in payment systems themselves poses new challenges as market turnover grows.

Sometimes, the speed of interest rate liberalization—and the phasing-in of various prudential regulations—may have to be adjusted, taking into account the financial structure of nonfinancial firms and pace with which problem banks and their debtors can be restructured. The impact of balance sheet structure of nonfinancial firms on the transmission of monetary policy is discussed in Sundararajan (1987), Borio (1990, 1995), and Kneeshaw (1995). At high levels of firm debt, cash-constrained debtors might respond more strongly to increases in interest rates, and banks could be more inclined to ration credit, thereby enhancing the effect of interest rate policy. However, if nonfinancial firms are highly leveraged, any sharp increase in real interest rates could further weaken the repayment capacity of these firms and the financial condition of banks. The preferable option in this situation would be to foster a recapitalization of both banks and enterprises, and encourage restructuring of their portfolios. This may, in some circumstances, require budgetary transfers and, therefore, a larger fiscal adjustment in support of financial reforms. Without such transfers, the ability to control interest rates may become a critical issue. It may then become necessary to liberalize bank interest rates more gradually, while pressing ahead with financial and enterprise restructuring over time. In light of such serious implications arising from the high leverage of nonfinancial firms, policies to reduce the debt and debt-equity ratios of nonfinancial firms should be given a high priority in many countries in order to promote further interest rate flexibility and financial market development in both stages 2 and 3.

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[20]For a discussion of risk control in multilateral netting arrangements, see Bank for International Settlements (1990).

III. SIGNIFICANCE AND SEQUENCING OF FINANCIAL RESTRUCTURING POLICIES

As noted in the last section (Table 2), a comprehensive framework for bank restructuring, bank liquidation, and loan recovery and loan work-out arrangements should be developed, and its implementation initiated in stage 2. This section examines the components of such restructuring policies designed to deal with financial fragility and distress, a typical situation in many emerging markets, and highlights their linkages with banking supervision and monetary management. Some issues in the appropriate sequencing of financial restructuring of banks and enterprises are also highlighted.

The following four questions are addressed:

(1) What are the major components of financial and real (operational) restructuring policies?

(2) If comprehensive restructuring policies cannot be quickly implemented for technical reasons and for reasons of costs, should the authorities pursue transitional measures that can be implemented more readily at possibly lower cost?

(3) What are the desirable features of such transitional measures?

(4) What is the relationship between prudential bank supervision and financial restructuring policies?

A. Components of Bank and Enterprise Restructuring

While individual bank insolvencies should be typically handled in the framework of well-designed bank liquidation and other bank resolution strategies grounded in banking/deposit insurance laws, the procedures to deal with systemic insolvencies raise macroeconomic issues. Policy mechanisms to redress financial distress—a situation with a large volume of nonperforming loans and with many banks having low or negative capital—should serve to contain interest rate and credit risks for banks, and the liquidity and bankruptcy risks for enterprises, and thereby facilitate necessary adjustments by borrowers and banks to the effects of higher interest rates and other stabilization measures. Thus, a key objective of bank restructuring is to allow smooth implementation of monetary policies (and other stabilization measures).

Policies to deal with financial distress generally include the following components: (i) subsidies and resource transfers assumed by the government or a government agency (e.g., interest subsidies to borrowers, tax policies to foster recapitalization, capital infusion by the government, either in cash or by replacement of value-impaired assets of banks with government or government-guaranteed securities at market rates); (ii) subsidies and resource transfers borne by the central bank, often coupled with changes in lender-of-last-resort policies;[21] (iii) debt reduction or partial loan write-offs for potentially viable enterprises, with the remainder of their loans being renegotiated and rescheduled; (iv) capitalization of part or all of interest payments, either voluntarily negotiated between bank and borrowers within the constraints of accounting rules, or involuntarily based on laws and regulations;[22] (v) programs to recapitalize banks and firms, in the context of policies governing direct investment from abroad, foreign borrowing, and privatization; (vi) introduction or a strengthening of prudential regulations on capital adequacy, liquidity, loan classification, credit limits, etc.; (vii) real sector programs to facilitate restructuring of enterprise assets (including operational restructuring in the framework of privatization and in the context of institutional arrangements for loan recovery, loan workouts, loan liquidation, and asset management);[23] and (viii) intervention, reorganization, and liquidation of banks (includes mergers, changes in organization and management, nationalization, privatization, and changes in the range of financial services offered, etc., designed to improve profitability and risk management).

A comprehensive program for restructuring banks and enterprises will encompass some or all of the above components. *Financial restructuring policies can be defined as those that seek to influence and strengthen the balance sheet structure of banks and the financial structure of enterprises.* Such policies typically incorporate components (i) to (v) above, and include general economic policies that influence the interest rate structure, interest subsidies, and aggregate debt. Although prudential regulations (component (vi)) also strengthen banks' balance sheets, and could be regarded as a component of financial restructuring (as defined above), prudential policies would be discussed separately.

The financial restructuring policies (components (i) to (v)) and prudential supervision policies (component (vi)) should be closely coordinated with "real" restructuring policies (components (vii) and (viii)) that influence the products, services, ownership, and management of both banks and enterprises. Such close coordination is crucial to avoid moral hazard arising from subsidies and resource transfers, which could establish adverse incentives to continue excessive risk-taking. Also, details of loan recovery arrangements could result in adverse

[21]Subsidies and resource transfers could also be shifted to other institutions such as special funds or a deposit insurance agency, with the view to distribute the financial burden to other parties besides the taxpayers in the nonfinancial sector.

[22]See Herring (1989) for a discussion on work-out lending to problem borrowers.

[23]The issue of whether a centralized agency (e.g., Resolution Trust Corporation) should handle loan recovery and loan workouts or if it should be dealt with in a decentralized fashion by banks themselves, or through competing smaller units ("bad banks") is a controversial issue. See Sheng (1991). Gray and Holle (1996) contain detailed analysis of experience with decentralized arrangements in Poland based on bank-led loan recovery and enterprise restructuring programs.

incentives to banks.[24] Therefore, financial restructuring should be combined with tightening of prudential supervision and well-designed real restructuring policies, in order to establish an appropriate balance of incentives. In addition, efficient restructuring of nonfinancial enterprises generally requires parallel and well sequenced implementation of financial sector reforms.[25] Moreover, effective enforcement of prudential norms and supervisory systems can by itself strengthen internal governance of banks and contribute to operational restructuring of banks.

The design and implementation of such a comprehensive restructuring package—and the associated institutional and regulatory details—require thorough technical preparations, including several rounds of diagnostic studies and audits of banks and firms, development of appropriate accounting standards, confirmation of accounting treatment of restructuring transactions, and a strengthening of the legal framework for supervisory sanctions, liquidations, and asset recovery.

The specific mix of financial restructuring policies, and particularly their sequencing, will depend upon the magnitude and urgency of the problems to be tackled, the speed and size of macroeconomic adjustments that are needed or feasible, and the legal and institutional constraints affecting the absorption of loan losses, and its distribution among various interest groups.[26] The magnitude of financial distress as revealed by the classification of borrowers according to creditworthiness, and the speed and magnitude of macroeconomic adjustments that are incorporated in the stabilization strategy, together dictate the speed with which

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[24]Institutional arrangements for loan recovery and loan workouts comprise: laws on collateral and debt collection, court systems and judicial processes for commercial cases, bankruptcy procedures for nonfinancial firms, and aspects of bank exit procedures. If these arrangements were not adequately designed, monitoring and enforcement capacity of creditors (including banks) would be weakened, risk premiums in credit markets would rise (including possible withdrawal of banks from credit markets) and debtors would be induced to assume excessive risk. Under these circumstances, risks of moral hazard and adverse selection are magnified and task of banking supervision becomes highly complicated, raising the eventual cost of bank restructuring.

[25]See Demirgüç-Kunt and Ross Levine (1994) for case studies on the relationship between financial sector reform and public enterprise reform.

[26]For discussion of the scope of financial restructuring policies in several countries, and the factors governing the choice of such policies, see Sundararajan and Baliño (1991), and Sheng (1991).

financial restructuring needs to be accomplished and, therefore, influence the specific restructuring components that are chosen for implementation.[27]

As regards the choice of restructuring policies, it is clear from the experience of some countries that a shifting of losses or interest subsidies to the central bank (component (ii)) has undesirable effects on monetary control; and widespread capitalization of interest (component iv) will raise financial fragility and magnify future losses if real interest rates rise. For these reasons, it seems appropriate to focus on the components of financial restructuring policies that rely on debt reduction and debt rescheduling, with the needed resource transfers organized through the budget. Such an approach can be more efficient and provide greater stability than alternative approaches.

B. Sequencing of Financial Restructuring Policies—Need for Transitional Measures

If comprehensive restructuring policies cannot be quickly implemented for technical reasons, should the authorities pursue transitional measures that can be so implemented?

The answer depends upon the desired speed and size of macroeconomic (particularly fiscal) adjustments, and the feasibility of designing transitional measures that will be consistent with the comprehensive restructuring strategies to be implemented in the medium term. If the stabilization program calls for significant interest rate flexibility, and a fast reduction in inflation, then the sustainability of such a program will be threatened if the existence of significant financial distress leads to sizeable output losses or a financial crisis. Thus, some degree of financial restructuring of banks and enterprises could become essential to the sustainability and credibility of the program, and hence would need to be implemented quickly. However, comprehensive financial restructuring cannot be implemented quickly owing to (i) the lead time needed for technical preparations (audits of banks and enterprises, adjustments in legal and accounting framework, setting up of institutions for asset disposition and bank and enterprise restructuring, etc.); (ii) uncertainties governing the classification of enterprises by creditworthiness owing to major ongoing relative price changes and the high level of indebtedness of enterprises in some countries;[28] and (iii) the need to phase in the needed fiscal adjustments to cover the loan losses, which, if large, could only be absorbed by the public in stages. For these reasons, there is significant merit in devising transitional policies for financial restructuring which can be implemented quickly, while simultaneously preparing the technical grounds for comprehensive restructuring policies, which may take from three to five years to design and implement.

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[27]*Ibid.*

[28]With high indebtedness, even sound firms will be facing cashflow and debt-servicing problems, and this will cause difficulties in classifying firms for the purposes of implementing restructuring policies.

C. Debt Reduction and Debt-to-Equity Conversion as a Transitional Measure

What are the desirable features of transitional measures that can be implemented quickly?

The transitional measures should facilitate the adjustments by borrowers to relative price changes and real interest rate increases by reducing their excessive debt or debt-service burden—if that is a problem—and at the same time facilitate the capitalization and credit decisions of banks by reducing the volume of below-market rate and nonperforming assets, including removing loans to nonviable debtors from the banks' balance sheets. Such simultaneous restructuring of both enterprise and bank balance sheets often requires the government to recapitalize the bank (e.g., by providing government securities to finance debt reduction) and at the same time raise the equity in the enterprise (e.g., by converting enterprise debt owed to banks into government or bank-owned equity). Such debt-reduction and debt-equity conversion (or debt write-off) operations should be based on specific and yet readily applicable guidelines, in order to implement them quickly, and in ways that do not create adverse incentives, and do not constrain future restructuring options—including privatization—that should be designed based on comprehensive technical analysis.[29]

Institutional and policy approaches to bring about enterprise debt-reduction and debt rescheduling and the associated resource transfers would be different depending upon whether enterprises are mainly state-owned or privately owned, because in free-enterprise economies debt reduction operations raise complex questions on the redistribution of private wealth; in contrast, redistribution of assets and transfers among banks and enterprises is easier to implement when both are state-owned. While bank restructuring can be implemented based on the supervisory authority deriving from banking laws and regulations, enterprise restructuring, including debt rescheduling, would, however, require setting up appropriate incentive systems and institutional arrangements that are tailored to the ownership structure of enterprises and the existing legal framework for insolvencies. In the case of state-owned enterprises, the government could more readily set up, in coordination with supervisory authority, guidelines for enterprise debt reduction and debt rescheduling.[30] In the case of mainly private enterprises (and household debtors), however, special arrangements (laws, institutions, incentives) may be needed to encourage debt rescheduling agreements between banks and debtors, and at the same time ensure orderly management of the assets of viable enterprises (and the seized

[29]Often, some prior financial restructuring is essential to facilitate subsequent privatization, particularly of banks.

[30]For example, in Poland, the Enterprise and Bank Restructuring Program, adopted in parliament in 1993, created a decentralized arrangement enabling commercial banks to take concrete steps to resolve their problem loans, while recapitalizing the banks on a "one-time-only" basis.

collateral from unviable enterprises). These institutional arrangements should ensure that initial financial restructuring of enterprises and banks would be followed up by agreed real restructuring actions. Thus, financial restructuring should be accompanied by an action plan for real restructuring, even if the latter will take time to implement for technical reasons.

Financial restructuring of enterprises would be more efficient, if it brings about debt reduction, rather than debt service reduction, based on subsidized interest. The rationale for debt reduction derives from the macroeconomic significance of aggregate debt of nonfinancial firms in relation to equity. In particular, it could be argued that relief to enterprise through interest subsidy is inferior from the efficiency and stabilization perspectives than relief through equivalent debt reduction, with the remaining loans carrying market rates.[31] Debt reduction deals with both the stock and the flow problem of the debtor, whereas debt service reduction deals only with the flow problem. With high debt-equity ratios, even sound firms are vulnerable to insolvency if real interest rates rise sharply; by reducing the risks of insolvency, debt reduction can raise the value of the enterprise, and thereby facilitate privatization and new investments in the firm.[32] Debt reduction can enhance the quality of remaining bank debt, and this contributes to stability by raising the interest elasticity of credit demand (in part by reducing distress borrowing); debt reduction facilitates the rescheduling of remaining debt at market rates, with freely negotiated maturity and risk premiums, thereby enhancing efficiency and avoiding the need for explicit interest subsidies, which are typically hard to remove once established. Debt reduction and the associated strengthening of the bank balance sheet can improve credit allocation (by releasing funds tied up in rolling over bad loans or capitalizing interest on such loans), and rationalize interest structure of banks (by reducing the costs of provisioning, and improving cash flows).

On the basis of these considerations, it seems appropriate in some circumstances to replace part of bank debt to potentially viable borrowers—and all of debt to nonviable borrowers--by government securities at market rates, and then for the government either to convert these debts into its own equity or quasi-equity in the potentially viable enterprises or to set up arrangements for banks or other agents to assume additional equity claims, as part of

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[31]For example, interest subsidy of 20 percent of interest payments is equivalent, in terms of immediate cash impact on firms, to 20 percent debt reduction. Also, since the stream of cash payments differs over time under the two options, the present value of debt reduction would differ from that of debt service reduction by the discounted value of debt forgiven. In terms of overall economic impact, however, the two policies can be quite different.

[32]See Markelew (1995) for evidence of major adjustments in debt equity ratios and in structure of equity as part of industrial restructuring in the United Kingdom, France, and Germany.

an enterprise restructuring plan, and as the counterpart to bank restructuring.[33] The choice, as noted earlier, would depend upon the ownership structure of enterprises, and the details of insolvency laws. In any case, some limited amount of debt-equity swaps for viable borrowers by banks themselves could be considered as part of the debt reduction process, but within prudential limits on equity investments by banks.

This simultaneous bank restructuring and enterprise debt reduction (or debt-equity conversion) operations should be initiated speedily, based on readily available information. This could be regarded as the first step in a more comprehensive restructuring plan involving both operational restructuring as well as phasing in of financial restructuring measures. The phasing in of financial restructuring operations would take into account budgetary considerations (spreading the fiscal costs over time), and the progressive availability of additional diagnostic information (as loan classification is progressively refined, and diagnostic audits are completed). The initial debt-equity conversion for potentially viable firms could be based on some norms for debt-equity ratios (or some other generally applicable guidelines), and such norms or guidelines could be derived as part of the financial analysis of firms used for loan classification. The debt-equity conversion for potentially viable firms could permit a reduction in interest subsidies to such firms, or improve the profitability of the firms—with attendant revenue effects on the budget—thereby containing the overall fiscal cost of the restructuring plan. More generally, a combination of tax and regulatory policies that serve to reduce debt-equity ratios of firms would also permit a reduction in interest subsidies, and an increase in enterprise profitability.

The criteria to classify banks' credits into nonviable (doubtful or losses) and potentially viable (good, substandard) categories could be built up from the loan classification procedures already in place based on prudential regulations for provisioning. Loan classification, supported by financial analysis of firms, would assist the authorities in devising appropriate financial restructuring policies, in addition to helping the banks in renegotiating and

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[33]Even if the state already owns the enterprises, the additional buildup of government's equity claims on them has some operational and budgetary implications. Non-viable enterprises would have to be liquidated; however, as already noted, resource transfers to viable enterprises (or banks) through financial restructuring should be accompanied by changes in management and operations to prevent moral hazard. Such restructuring will increase the value of the state's direct investment. This could have budgetary implications insofar as cost of capitalizing the banks is not offset over time by the increased budgetary contributions from viable restructured enterprises and loan recoveries from non-viable ones.Therefore, the size of such restructuring operations will have to be phased in over time depending upon the extent of fiscal adjustments that is considered feasible at a given point in time. Also, uncertainties in loan classification might warrant a phasing-in of restructuring operations until classification is progressively refined.

provisioning their loans.[34] The criteria for classification should combine information on debt-service performance of enterprises, as well as other indicators of their financial condition, in order to assess creditworthiness and viability.[35] The loan classification process could be complemented by a closer analysis of the relationship between solvency and profitability ratios of firms, in order to further refine the classification, and assess the needed changes in the financial structure of enterprises.[36]

IV. Concluding Remarks

It is by now well-recognized that, in addition to adequate stabilization policies, the timely implementation of bank restructuring and banking supervision policies is essential to avoid major disruptions to growth and stability in the course of financial liberalization. This has led to suggestions to delay interest rate liberalization and external financial liberalization until banking supervision is adequate and banks are sufficiently sound.

In practice, however, policies to restructure banks (and enterprises) and strengthen prudential supervision can, and should, be phased in appropriately to support the interest rate liberalization process, and thereby avoid either undue delays in liberalization or its abrupt interruptions due to financial crisis. Appropriate sequencing of bank restructuring and supervision policies requires attention to technical linkages among these policies, their macroeconomic effects, and the scope for market discipline and internal governance. In order to illlustrate the feasibility of such sequencing, the phasing of bank supervision and financial restructuring measures are classified into three progressive stages of implementation. Preparatory stage focuses on legal basis of bank supervision and restructuring and a minimal program of financial restructuring to initiate stabilization and prepare the grounds for financial market development. As market-based instruments of monetary policy are introduced to initiate financial liberalization in stage 2, a critical mass of reforms in prudential supervision and in bank and enterprise balance sheets would be implemented in parallel. This initial group of reforms would help speed up the adoption of indirect instruments, improve their effectiveness, and set the stage for more comprehensive reforms of prudential supervision and bank restructuring over the medium term. As markets develop, prudential norms, supervisory procedures, and restructuring actions are progressively refined and modified in line with the state of market development, and of internal governance of financial institutions, thereby helping to consolidate financial market development in stage 3.

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[34]For a technical discussion of valuing and classifying loans in the course of handling a systemic crisis, see Berggren (1996).

[35]For a detailed description and analysis of loan classification and valuation techniques, see Beattie et al (1995) and the references contained therein.

[36]Such an analysis could provide guidance on the desirability and magnitude of debt-equity conversions.

Some of the specific principles that govern the proposed sequencing of prudential supervision and bank restructuring policies include:

- Policies to strengthen prudential supervision—phase in prudential regulations, bring about a balanced application of off-site analysis, on-site inspections, and external audits, and enforce firm exit policies—should be combined with policies to restructure banks, and establish institutional arrangements for loan recovery and enterprise restructuring. Such a comprehensive package encompassing both supervision systems and restructuring options is necessary to avoid adverse incentives toward excessive risk-taking by banks and debtors.

- Phasing-in of reforms of the commercial bank accounting system, together with the properly phased implementation of prudential standards for capital adequacy, foreign exchange exposures, loan concentration, loan classification and provisioning, and early warning systems can support stabilization objectives and also facilitate financial restructuring of banks. Therefore, these aspects of banking supervision should be part of the critical mass of reforms that are introduced at the outset of financial liberalization.

- An initial package of financial restructuring policies to strengthen bank asset portfolio and profitability, to reduce the debt equity ratio of nonfinancial firms, and to eliminate interest subsidies (and related directed credit) should also be implemented early as part of the critical mass of reforms. This approach has the advantage of financing the fiscal costs of bank restructuring in part through reduced interest subsidies to enterprises, thereby containing the overall fiscal burden of bank restructuring in the initial stages. This initial financial restructuring program should be a component of, and be accompanied by, an action plan for comprehensive restructuring of both banks and enterprises that would be phased in over the medium term. The action plan should include steps to develop supporting institutional arrangements that would ensure that operational restructuring (including privatization) would indeed be carried out as the counterpart to financial restructuring.

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