

CEPAL

REVIEW

NUMBER 54
DECEMBER 1994
SANTIAGO, CHILE

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Director of the Review

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UNITED NATIONS

CONTENTS

Health care markets: their morphology, behaviour and regulation	7
<i>Jorge Katz and Ernesto Miranda</i>	

Liberalization or financial development?	27
<i>Günther Held</i>	

Fiscal adjustment and social spending	47
<i>Rossella Cominetti</i>	

Women's formal education: achievements and obstacles	61
<i>Diane Alméras</i>	

Labour market flexibility: what does it really mean?	81
<i>Ricardo A. Lagos</i>	

The modernization of bank supervision	97
<i>Christian Larraín</i>	

Central American integration: its costs and benefits	111
<i>Luis Cáceres</i>	

Some lessons of the Argentine privatization process	129
<i>Daniel Azpiazu and Adolfo Vispo</i>	

Extraordinary comparative advantage and long-run growth: the case of Ecuador	149
<i>André A. Hofman and Rudolf Buitelaar</i>	

The cultural industry and new codes of modernity	167
<i>Martín Hopenhayn</i>	

Guidelines for contributors to <i>CEPAL Review</i>	181
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Recent ECLAC publications	183
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The modernization *of bank* supervision

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This article analyses the main challenges involved in modernizing bank supervision in the light of recent banking crises and the changes currently taking place in the financial system at the international level. Within a highly dynamic environment –rapid technological development in the field of informatics, stiff competition within the capital market as a result of liberalization, the increasingly prominent roles being assumed by financial conglomerates in an effort to achieve economies of scope, and the high degree of volatility of the main economic variables, which sharply increases the level of financial risk– the supervision of the banking system needs to be flexible in order to permit financial institutions to take advantage of opportunities for increasing their profitability and efficiency. At the same time, however, it must be geared to the achievement of its strategic objectives, which are to give the system stability, ensure its transparency and safeguard the government guarantees that have been extended. Within this context, the major issues involved in the supervision of banks in Latin America are the following: capital solvency standards and their role in supervision; mechanisms for appraising the book or market value of a bank's economic capital; supervisory methods for improving the coverage of financial risk; means of incorporating the regulation of financial conglomerates, and the importance of taking an integral approach to supervision of the banking system, with emphasis on the quality of management.

I

Introduction

In the specialized financial literature, it is argued that, because of the special features of banks, government regulation and supervision of their activities are necessary. The regulation of banks is directed towards the strategic objective of ensuring the banking system's transparency and stability within a framework of efficient allocation of financial resources. The regulation of this sector should be based on a dynamic approach and should constantly be adapting to any changes that occur in the way the system functions, in order to ensure the achievement of these strategic objectives.

The financial crises that erupted in various Latin American countries during the 1980s prompted major changes in the supervisory approaches employed by bank regulators (Held and Szalachman, 1992). Nevertheless, new challenges are still emerging now in the mid-1990s as a result of the banking system's highly dynamic mode of operation at the international level and the experience gained from recent

banking crises, such as those involving the Banco Español de Crédito (BANESTO) and Banco Latino. Factors such as the fierce competition between banking and non-banking institutions in the capital market, the swift pace of progress in the field of information technology and the globalization process are opening up business opportunities and possible avenues for improving the efficiency and profitability of financial institutions, but they also mean that bank supervision must be ready to deal with the sector's increasing complexity.

This article will seek to identify the different policy options available to bank regulators for meeting today's challenges and to outline the main components of each. On many issues, it is not possible to take definitive positions, and the following discussion will therefore be aimed at identifying the terms of the debate and providing a number of policy guidelines rather than making an exhaustive analysis or setting forth definite proposals.

II

The work of supervisory bodies

Because many of the claims on banks are liquid at par, any disturbance in a bank that shakes the confidence of its depositors may lead to massive withdrawal of funds. Because of the special features exhibited by banks, the risks associated with specifically banking activities may jeopardize the position not only of the banks' own stockholders but also of the rest of the system and, indeed, the whole of society (system-wide risk). When a banking institution's financial standing becomes shaky, the public perceives its difficulties as potentially affecting other institutions, even though the latter may be economically sound. This may spark runs on banks that hurt the economy as a whole, thereby generating what economic theoreticians refer to as a negative externality. This is all the more serious in the case of large

banks, whose failure could have disastrous consequences for the rest of the system.¹

It is because of the need to uphold the public's faith in the banking system, to shore up confidence and to avert runs on banks that (explicit and implicit) deposit insurance is provided.

The most serious problem associated with this sort of insurance is what is known as "moral hazard", i.e., the fact that the existence of such insurance increases the incentive to take risks, which in turn increases the chances that the insurance will have to be used. Since depositors covered by such insurance

¹ In other words, they are too big to be allowed to fail.

know they will not lose their money if the bank fails, they will neither keep a careful watch on its activities nor discipline it by withdrawing their deposits or demanding a higher risk premium if the institution runs too many risks (Mishkin, 1992). Consequently, banks that have deposit insurance can assume more risks than they otherwise would (unless the premium for such insurance is differentiated as a function of risk).

Another problem with deposit insurance is the perverse selection effect it has in terms of the type of entrepreneurs who are attracted by the possibility of investing in the banking sector.² For a bank, the benefit of deposit insurance will increase along with the level of risk it assumes, since usually the cost of such insurance is not adjusted for changes in that level, and this type of benefit is therefore more valuable to risk-takers than to more conservative investors. Since insured depositors have little reason to impose any sort of discipline on the banks, this means that entrepreneurs who are willing to run risks will be attracted to the banking industry.

The role played by information is another important aspect of the banking market. For example, small savers cannot afford to analyse (or the sums they handle are too small to justify the cost of analysing) the large volume of information required for a thorough evaluation of the entire array of available institutions. Unless there is some entity that can guarantee the reliability of the system, or that can at least furnish information in a somewhat more highly processed form so that it will be readily understandable, these depositors will not participate in this market but will instead put their resources to other uses which, in all likelihood, will not be the best ones for the country. A proper form of regulation that promotes transparency will give these depositors confidence and forestall the need to resort to the extreme measure of providing State backing.

Thus, because the supply of information is very uneven within the capital market, proper regulation and supervision of activity in this sector are needed to prevent the misuse of information and conflicts

of interest within the financial system. In addition to being unfair, these types of behaviour may undermine the public's faith in these markets and thereby create disturbances that will impair their efficiency and stability.

In summary, the special characteristics of the way in which the banking system works generate certain types of flaws or imperfections, such as externalities or asymmetries in the supply of information, that point up the need for government regulation and supervision in order to minimize their potential impacts on deposit insurance arrangements and avoid the conflicts of interest associated with such asymmetries.

This should be done within a framework of efficient financial-resource allocation, which requires that competition within the capital market be conducted fairly and not be distorted by cross-subsidization. In the case of banks, care must be taken to ensure that the prerogatives they enjoy by virtue of their access to the "safety net"³ will not be extended to subsidiaries or affiliates involved in areas of activity other than banking.

In a dynamic environment, the above represents a formidable challenge for public policy-makers in the area of banking regulation because it not only calls for State intervention but also requires the optimization of that intervention. The regulation of banking activity and the application of prohibitions have explicit and implicit costs associated both with the use of the resources needed for their implementation and with the opportunity cost of diverting resources to inefficient activities. If those costs rise beyond the level required to ensure the banking system's stability and to minimize the impact on deposit insurance, unfair competition may take place in connection with other, non-banking institutions, thereby engendering a process of "artificial" disintermediation (Federal Reserve Bank of Cleveland, 1993).

In order to achieve an optimum regulatory system, new approaches and policies that complement conventional methods of regulation will be needed.

² A perverse selection effect is also generated in respect of clients, as a result of asymmetries in the supply of information in the banking system.

³ The English-language financial literature defines "safety net" as the set of regulatory mechanisms which give financial institutions access to the Central Bank as a lender of last resort and to the backing provided by government deposit insurance.

III

The international experience

At the international level, there are four main trends that are affecting the banking system: the disintermediation process engendered by technological developments, increased competition in response to liberalization measures, the more prominent role being played by financial conglomerates, and the upward trend in levels of financial risk.

Thanks to advances in the field of telecommunications, transactions are becoming less expensive, easier to carry out and broader in scope as new markets are opened up at the international level. Computers make it possible to store and process huge volumes of information which make the rewards and risks of the various sorts of investments more immediate, while the progress being made in the area of communications helps to keep market agents well informed. This process has given rise to an efficient form of non-bank intermediation based on reductions in information processing costs and, consequently, to a marked shift away from bank intermediation (Moody's Investors Service, 1992).

In addition, there are many liberalization measures that form part of the move towards a system of universal banking; non-bank financial institutions have been allowed to engage in activities that had traditionally been performed by banks, and banks have been permitted to enter into non-traditional financial activities such as stockbroking, financial consulting services, portfolio management, the management of mutual funds, life insurance and others (Corbo, Donoso, Hernández, Rosende and Valdés, 1993). This, too, has helped to heighten competition in the capital market.

Technological changes and liberalization processes have set the stage for financial conglomerates to move to the forefront of the capital market as they strive to take advantage of economies of scale and of scope.⁴ Although the world market is moving in the

direction of a broadened spectrum of banking activities, there is no consensus as to the new types of activities that should be undertaken nor the types of institutional arrangements upon which such a move should be based. From an organizational standpoint, the predominant scheme has involved the use of financial holding companies, with new activities being launched through affiliates or subsidiaries rather than through authorization for banks to set up their own in-house divisions to conduct such activities.

Another phenomenon of the 1980s was the increasing importance of managing what has come to be known as "financial risk", owing to the greater volatility exhibited by exchange rates, interest rates and inflation. In the marketplace, this trend prompted the appearance of a broad array of derivatives that can be used to hedge against such risks (O'Connor, 1993).

In addition to the foregoing, some of the aspects of recent bank crises also need to be taken into consideration in the design of a more modern system of supervision because they shed light on various gaps in risk coverage to which regulators should devote more attention.

In the case of the Banco Latino in Venezuela, although firm data are not available, the preliminary figures indicate that the losses may amount to as much as US\$3 billion, and the rush by depositors to withdraw their funds threatened nine other banks as well. In order to stave off a domino effect, the Central Bank of Venezuela had to soften its anti-inflationary monetary policy. Not only did it lower the reserve requirement from 15% to 12% but, in conjunction with the Deposit Guarantee Fund, it also had to inject some US\$3.5 billion into the banking system in order to cover the liabilities of the Banco Latino itself and to bail out the other banks that were in trouble. The problems encountered by this bank underscore the extent to which financial risk and the concentration of lending operations influence a bank's financial performance, as well as the definite presence of flaws in the internal controls and limits needed to keep such institutions on a solid footing, particularly with regard to their external operations.

⁴ Supply-side economies of scope arise when the cost of joint production efforts is lower than individual production costs. Demand-side economies of scope occur when joint consumption generates a higher level of well-being for the consumer than consumption on an individual basis would.

In the case of the Banco Español de Crédito (BANESTO), preliminary reports from the Banco de España indicate that the bailout will cost about US\$3.5 billion. The source of the trouble was the excessive expansion of operations, accompanied by

the lack of appropriate hedging policies and the presence of serious defects in the bank's information systems and internal controls. The information brought to light thus far points to shortcomings in terms of the quality of management in both banks.

IV

The modernization of supervision: the current debate

The trends associated with the dynamics of the financial system—principally the intensification of competition, technological development, the increase in financial risk and the more prominent role of financial conglomerates—are what are generally called “heavy” or structural trends. These trends are opening up a world of opportunities, and under such circumstances regulatory provisions need to be flexible so that financial institutions will be able to take advantage of the higher returns, on both the internal and external fronts, afforded by new lines of business; of the economies of scope made possible by the combined supply and consumption of financial services; of new, efficiency-boosting technologies; and of the hedging possibilities provided by the use of derivatives. Rather than opposing these trends, regulatory and supervisory systems should adapt to these realities in order to ensure the achievement of their strategic objectives of stability, transparency and the protection of deposit insurance.

It may be added that competition and the expansion of the banks' range of business activities confer significant social benefits by contributing to the provision of more and better financial services at lower cost and permitting the utilization of the financial system's potential economies of scale and of scope.

The guiding principle for the regulation of the banking system should be one of prudential supervision aimed at nipping problems in the bud, before they actually surface and lead to a possible run on the banks that could jeopardize the stability of the entire system and the government guarantees underlying deposit insurance arrangements, whether implicit or explicit.

1. The requirements of prudential supervision

The way in which faltering financial institutions are handled when they are on the verge of failure has major implications for the long-term soundness and viability of deposit insurance and for the stability of the banking system as such.

As banks approach the point of insolvency, they have less and less to lose if they adopt an aggressive strategy involving high-risk investments as a means of hopefully putting themselves back on a profitable footing. Thus, supervision is a powerful tool for controlling the perverse incentives that influence undercapitalized banks.

Generally speaking, a supervisory body's ability to take early and effective corrective action will depend on three factors (United States Department of the Treasury, 1991). First, it must be able to identify potential problems before they result in a loss that must be covered by deposit insurance. Second, once the problem has been identified, the supervisory body must have the authority to enforce corrective measures or to prevent the situation from deteriorating further. Third, once it has identified the problem and has the necessary regulatory powers, it must not hesitate to use its authority as appropriate.

As a rule, the supervisory process makes it possible for regulators to identify banks that could incur deposit-insurance losses. However, in some cases such problems—in the level of capital reserves or ratings—are not fully detected. In addition, banks, for their part, may “err” when setting their level of loan-loss provisions, through either excessive optimism or deliberate misrepresentation.

There are three reasons why the auditing process may not always determine a bank's true financial

status. First, some types of problems may arise suddenly. Second, some banks may not have been audited often enough. If a bank has initially been classified simply as a "troubled" or "problem" bank⁵ and then fails within six months, it may be that it was not audited with sufficient frequency. Third, audits may simply fail to bring to light the full magnitude of the problem.

Unless the problems that exist are properly identified, the possibilities of taking early action to apply corrective measures to undercapitalized banks are very limited indeed.

Furthermore, supervisory bodies' problem-identification capabilities are of limited usefulness unless they also have sufficient authority to enforce corrective measures. Usually, when a bank's financial standing begins to deteriorate, supervisory agencies have a range of options to choose from in order to remedy the problem. For example, following each inspection, a bank's examiners may meet with management, including the board of directors, to discuss the bank's operations. These informal discussions are often enough to rectify the less serious sorts of problems.

In more serious cases, regulators may have recourse to recapitalization plans, or they may block outward transfers of funds, limit the bank's exposure in certain types of operations, restrict the payment of dividends, limit growth, make staff changes at management levels or impose a freeze on bank operations.

It is important to note that supervisory agencies are often given formal authority to take corrective measures in respect of faltering banks but the administrative requirements regarding the evidence they must gather in order to do so are so exacting that it is extremely difficult for them to compel a bank that is operating within the law and making a profit to increase its capital reserves or apply more prudent policies in specific areas.

The third requirement for prudential supervision is the determination of supervisory agencies to use their authority. It is often argued that these agencies have the proper tools for controlling a bank's

exposure but lack sufficient incentives to use those tools appropriately. Various reasons for this have been cited.

One factor is that regulators tend to be co-opted by the industry they regulate. In other words, the regulators are under pressure to serve and promote the industry they oversee. The prospect of obtaining a future post in the industry may also be a factor in the sometimes permissive attitude adopted by regulators (Mishkin, 1992).

A second factor that may make regulators unwilling to take action is the strong political pressure that may be brought to bear in some situations in order to protect certain social groups whose interests might be hurt if a crisis were to erupt in a given bank; this may stop regulatory agencies from taking appropriate action.

A third factor is that supervisory bodies may be reluctant to step in quickly when a bank is in difficulties because bank failures and the resulting deposit insurance pay-outs may hurt the supervisory agency's image by making it seem that it has not been doing its job. According to this line of reasoning, bank supervisors would prefer not to admit how serious the problems really are and thus put off a definitive solution. This is the hypothesis advanced by *The Economist* (1994) regarding the Banco Latino.

In order to counter the effect of the incentives that exist for supervisors to adopt a permissive stance regarding the need to take corrective action in the case of troubled banks, and in view of the high cost which the deferral of such action may have, some circles have proposed that supervisory action should be governed by clear-cut, mandatory rules and that regulatory discretionality should be eliminated.

There are two arguments against this approach (Stiglitz, 1993). With regard to the "rules versus discretionality" debate, the first is that it is impossible to formulate rules that will fit the particular circumstances in every case. The second is that the use of any set of rules increases the likelihood of making two types of mistakes: closing down banks that should be left open, and failing to close banks that should be put out of action. Changing the standards in one direction or the other would probably increase the frequency of one of those types of errors while reducing that of the other.

One possible solution would be a system in which, in the normal course of events, undercapitalized banks would be subject to a series of presumptions that would trigger the implementation of

⁵ In the United States, the Office of the Comptroller of the Currency (OCC) uses an internal classification system whereby banks are rated on a scale from 1 to 5. Troubled banks are given a rating of 3. Although this category does denote a faulty performance, it does not mean that the financial institution in question may be expected to fail in the near future.

corrective measures by the relevant supervisory agency, in accordance with the severity of the problem. Departures from this pattern would be made at that agency's discretion but would be limited in extent by regulatory provisions.

2. Strengthening the role of capital in institutional incentives

The financial standing of banking institutions is determined by a set of factors which are summed up by the traditional model known as CAMEL⁶ (Larraín, 1993). It can be argued, however, that a sufficient supply of capital is, virtually by definition, the single most decisive factor in bank solvency. The connection between an insufficient supply of capital and insolvency is obvious, since a bank is acknowledged to be insolvent only when its capital reserves become dangerously small or disappear altogether.

The benefits of a sufficient supply of capital may be summarized as follows:⁷

(i) *A lower probability of insolvency.* The more capital a bank has, the better it will be able to cope with unexpected losses without fear of insolvency, thus giving regulators time to take prudential measures.

(ii) *Fewer incentives for risk-taking.* Stockholders whose capital commitments are small have more incentives to take risks ("if the business deal is a success, I stand to gain a lot; if it fails, then the bank will be the loser"). The closer a bank's capital commitments bring it to insolvency, the more perverse the incentives will be.

(iii) *A reduction in deposit-insurance exposure.* When a bank fails, each dollar of the losses that can be covered by its capital is one dollar less that must be covered with public assets.

Despite the above considerations, however, capital requirements should not be raised so high that they would protect a bank from any sort of system-wide shock whatsoever, because this would make the banking business unviable. Furthermore, the role of prudential supervision is precisely to prevent such catastrophic events from occurring in the first place. Thus, the solution is more complicated than simply raising capital standards across the board.

Strengthening the supervisory role of capital involves the following:

(i) Adapting capital standards so that, rather than being measured as a function of a fixed debt ratio, capital requirements will be flexible and based on risk-weighted assets, along the lines of the Basle Accord (Larraín and Zurita, 1993; Bank for International Settlements, 1988). The purpose of a scheme of this sort is to make capital costs sensitive to the level of risk associated with financial institutions' assets. The empirical evidence (Avery and Berger, 1990) shows that a system of capital standards based on asset risk is more effective than a scheme based on fixed requirements in preventing bank failures.

(ii) Establishing differentiated levels of supervision based on the amount of capital backing. The idea is for the level of supervision to increase as a bank's backing declines. The aim of such a procedure—as with the application of capital "zones" in the United States—is to make the extent to which a bank's capital position has weakened the factor that triggers the implementation of the battery of regulatory tools available to bank supervisors (Federal Reserve Bank of Cleveland, 1993).

(iii) Raising capital requirements when types of business operations are embarked upon which fall outside the sphere of traditional banking activities. The idea here is to raise capital standards only when an institution moves into new territory.

There are two main grounds for this proposal. First, risk is generated by an institution's relative lack of expertise regarding new operations and by a lack of experience with their supervision. The clearest example of this is provided by overseas subsidiaries. Most of the Latin American countries have no tradition of overseas banking, and this creates a higher level of risk, which must be taken into account. Accordingly, any move to embark upon international activities should be based on very solid banking institutions that are better able to deal with the level of risk involved in such operations.

It is also unlikely that the region's supervisory agencies can provide effective support for such operations, because they lack experience with this type of activity (unlike the case of operations involving the European Community or the United States). This, too, increases the risk associated with an internationalization process, which can be reduced by restricting these operations to more heavily capitalized banks.

⁶ The elements taken into account in this model are Capital, Assets, Management, Earnings and Liquidity; hence the acronym CAMEL.

⁷ See United States Department of the Treasury (1991).

Second, there is the risk generated by an increase in system-wide risk. Systemic risk arises when the failure of a few large debtors puts the entire system in jeopardy. When banks broaden their range of action by opening up subsidiaries, it is possible that: (i) the level of system-wide risk will rise because the failure of any bank will involve a larger number of business activities, and (ii) the social cost of maintaining the system's stability in the face of disruptive shocks will increase.

Even in cases where the coverage of explicit forms of government insurance is confined to a bank's parent company, a subsidiary's difficulties may spread to that company too. If the market perceives the existence of a link between a bank and its subsidiaries –and especially if there are few limitations on the pooling of intangible and tangible assets– then, clearly, if one of these subsidiaries is in trouble, a bank will be motivated to bail it out. This increases the exposure of the underlying government guarantees and extends the scope of the “safety net”.

The main arguments against the idea of raising capital requirements when banks move into new areas of business refer to their potential impact on the banks' international competitiveness. However, even though higher capital requirements may hurt a bank's competitive position in the short run, the experience of developed countries indicates quite clearly that, in the long run, a bank's solvency has a strong positive correlation with its profitability and the value of its stock.

Thus, studies of international banks that are rated by the IBCA demonstrate that a positive statistical correlation exists between the Cook Index and profitability and between that index and stock prices (Kredietbank, 1993). These same studies also show that the way this effect operates is to reduce the cost of the funds to which the strongest banks have access. This is because investors assess each bank's exposure/earnings ratio and demand a smaller risk premium from the banks whose financial standing is the most solid.

The study presenting the Treasury Department's proposal to the United States Congress regarding the modernization of the U.S. banking system arrives at the same conclusion. This study underscores the fact that the United States banks that are most successful in the international marketplace are also the ones that are the most solvent. Accordingly, the proposal calls for the creation of a category to be called “Zone 1”

for the most heavily capitalized banks, which would enjoy greater regulatory latitude.

3. Book or market value?

An approach that is based on prudential supervision and places emphasis on the role of capital should ensure that the relevant authority will step in before a bank's net worth falls to zero or less in order to forestall losses that would ultimately be charged against government deposit insurance. If this is to be done, it is essential that a bank's economic value or capital should be measured accurately (Stiglitz, 1993).

There is some controversy about the measurement of bank assets and liabilities. According to generally accepted accounting principles, capital requirements are calculated on the basis of historical costs. Appraisals based on book values (or historical costs) generate a systematic bias, since assets which are appraised at below-market value may be sold off at a profit, while overvalued assets may be kept on the books in order to avoid recording a loss (Mishkin, 1992).

An across-the-board appraisal at market prices would enable regulators to determine very rapidly when a bank's capital reserves are falling below the required levels; this, in turn, would allow them to take corrective measures before the bank's net worth falls to zero. This would reduce the losses that have to be covered by deposit insurance, and there would be less incentive for a bank to adopt a high-risk strategy when its financial status is deteriorating.

Despite the superiority of this approach on the theoretical plane, however, across-the-board appraisals at market prices pose serious problems from a practical standpoint. Since there are no secondary markets for many of banking institutions' assets and liabilities, their market values would have to be estimated on the basis of some sort of discounted cash flow (DCF) analysis. The subjectivity inherent in such procedures would lessen the comparability of estimates prepared by different agencies, thereby hampering the supervisory process. These types of problems would, furthermore, open up possibilities for increased manipulation, which would in turn spark greater uncertainty about the true financial status of such institutions, whose viability hinges upon public confidence (United States Department of the Treasury, 1991).

Furthermore, the actual cost of developing and implementing a comprehensive system for appraising assets at their market value could be quite high, and this would hurt smaller institutions.

For the above reasons, conducting across-the-board market-value appraisals would be a complex proposition at the present time, but this approach should nevertheless be given increasing weight. On the one hand, measuring variations in market prices brought about by rate changes would not pose any major difficulty. On the other hand, however, when such variations are the result of the assets' credit risk, the situation is more complicated, and in this case a scheme of provisions based on estimates of the projected decrease in the value of those assets would have to be used. This system would permit regulators to make a proper assessment of a bank's economic value without running up costs that would far exceed the benefits of such an appraisal. In addition, it would be feasible to increase the frequency of supervisory activities so that a picture of each bank's status could be put together and then updated on an ongoing basis.

Finally, it is important for regulators to be mindful of the imperfections involved in measurements of a bank's net worth when the time comes to establish regulatory standards. If a bank's level of economic capital cannot be determined with a high degree of accuracy, then capital requirements should be stringent enough to leave a safety margin so that prudential action may be taken even in cases where measurements are not exact (Stiglitz, 1993).

4. The management of financial risk

As a consequence of the mounting volatility of international rates, since the mid-1970s losses caused by unexpected changes in interest or exchange rates have come to be an increasingly serious problem for financial institutions.

These kinds of losses are sustained, for example, when an unexpected rise in interest rates causes the market value of assets to decrease more than the market value of liabilities. This differential change in market values occurs when an institution's assets are less sensitive than its liabilities (Kaufman, 1984). In the final analysis, any variation in rates can have an impact on a bank's net earnings and profitability depending upon its exposure, which, in turn, is a reflection of how efficiently it has managed its assets and liabilities.

The problems associated with financial risk are quite well known, but it is no easy task to measure levels of risk accurately, and without such measurements risk management is impossible. This underscores the importance of having suitable methodologies for covering risk.

Along these same lines, international regulators working within the framework of the Basle Accord are considering the possibility of adding a financial-risk component to existing capital standards (Bank for International Settlements, 1993). This marks a departure from the current approach, which deals with financial risk primarily through the establishment of caps. In the proposal which is now being formulated, the idea is to require a progressively higher level of capital as financial risk increases (the reader will recall that international capital standards are currently set on the basis of credit risk rather than financial risk.)

Capital requirements give banks greater incentives to hedge their risk than limits do, while at the same time ensuring that they have a "cushion" of capital to absorb unexpected losses. Although there are difficulties involved in their practical implementation, advances in the application of models that permit more precise measurements of financial risk would clearly bring advantages, since these practical problems could be surmounted by applying simplified versions of existing methodologies for the measurement of such risk. It may prove necessary to use a combination of capital requirements and limits in order to establish absolute ceilings on bank exposure while at the same time reinforcing internal controls.

5. The regulation of financial conglomerates

At the international level, banking activities are tending to expand into areas that fall outside the industry's traditional sphere of action. The main purpose for offering comprehensive financial services is to take advantage of economies of scope.

The expansion of a bank's line of business does, however, involve significant potential costs: i) a potential increase in system-wide risk; ii) an intensification of conflicts of interest; and iii) the possibility of unfair competition through cross-subsidization (Herring and Santomero, 1990).

The subject of system-wide risk was discussed in some detail in an earlier section and will therefore not be dealt with here.

Conflicts of interest are a problem that does not originate in the provision of State backing for some bank deposits but is instead common to the capital market as a whole and to many other markets as well (Valdés, 1989). The broader the spectrum of financial services that a firm offers, the greater the likelihood that conflicts of interest will arise (Herring and Santomero, 1990), and since conglomerates are involved in a broader range of transactions, they also have a broader information base.

Conflicts of interest may emerge when banks engage in business transactions which, by definition, involve making investments on behalf of third parties (Morandé and Sánchez, 1992). In such cases, banks—which also invest on their own behalf—could reserve the best deals for themselves and use the rest for third-party investments. They could also use third-party funds to make transactions in advance on their own, as a means of influencing market prices.

Concern about the possibility of unfair competition arises out of the fear that a financial conglomerate might make use (implicitly or explicitly) of its access to the Central Bank as its lender of last resort, or of the lower cost of its funds due to its coverage by government deposit insurance, to subsidize other lines of business. This may distort competition with other firms that do not have similar sorts of backing.

Since comprehensive financial services are provided chiefly by conglomerates (Valdés, 1989), the banking system's institutional structure becomes a fundamental factor in reinforcing the social benefits of the process and in minimizing the associated costs. In such cases, regulation is essential in order to obtain optimum results.

The central aim of bank regulation should be to protect banks so as: i) to ensure that the safety net—which includes access to the Central Bank as a source of liquidity and government deposit insurance—is not extended to include activities in which banking expertise is irrelevant; ii) to limit cross-subsidization (whether implicit or explicit) by the bank of its subsidiaries or affiliates; and iii) to forestall conflicts of interest and prevent insider trading (United States Department of the Treasury, 1991). This does not mean that all of a bank's non-traditional activities need to be completely separate; this will depend on the nature of each activity (i.e., on how much it complements traditional banking activities, on possible opportunities for

the use of economies of scope, on the potential conflicts of interest involved, and on the cost of regulation and supervision).

A bank may undertake new activities either directly (through a department of the bank) or through a subsidiary or an affiliate that belongs to the same holding company. These various forms of organization generate differing degrees of legal, economic and marketing distance between the bank and these new activities (United States Department of the Treasury, 1991).

The various possible blends of legal and operational separateness can be translated into three basic organizational models for financial conglomerates.⁸

Model 1

The completely integrated model—also known as the German multibank model—enables a conglomerate's executives to direct all of its activities within a single entity; thus, with this structure, any combination whatsoever of financial products can be provided at the lowest possible cost. The greater operational efficiency of this option must, however, be weighed against its costs.

The problems posed by oligopolistic practices, conflicts of interest and disruptive shocks may be exacerbated in a multibank scheme. Moreover, there would potentially be a great deal of room for the bank to provide implicit subsidies to its other lines of business.

It is also more difficult to regulate this type of structure than when a bank confines itself to traditional banking activities.⁹ In the absence of any operational or legal separation, the combination of a wide range of financial activities presents regulators with the challenge of grasping the implications of the prudential supervision of a large number of different financial products. As a result, the regulation of this type of organization may be both costly and imprecise.

⁸ Apart from these pure theoretical models, others can be formed from the various possible combinations of them.

⁹ In his analysis of the German banking model, Kregel (1992) concludes that the most significant factor in this model is not the lack of regulation, but rather a different regulatory approach.

Model 2

In this second basic type of structure, banking activities are conducted by the parent bank while non-banking functions are performed by separate corporate subsidiaries. This structure, which corresponds to the British model, is the basis for the scheme currently being implemented in Chile.

Legal separation has some costs in terms of efficiency, however, and the cost of producing a given mix of financial services may therefore be somewhat higher than in the preceding case, but this model also has two countervailing advantages. First, the separation of banking activities from non-banking ones facilitates equitable supervision of both bank-related enterprises and independent concerns in the same line of business, which also reduces the cost of supervision.

Second, in theory, this model shields the bank if other activities undertaken by the conglomerate turn out badly, yet allows it to benefit from positive outcomes. Because they have limited liability, non-bank subsidiaries can augment but not diminish the value of the bank.

This may prove to be an empty advantage, however, if the bank feels that its reputation and the cost of its funds could be adversely affected by a subsidiary's bankruptcy; in such cases, the bank will have incentives to prop up this subsidiary even when doing so requires a sum greater than its capital investment. If the market reinforces this perception, the cost of the conglomerate's funds will be reduced, but competition with the activities of firms not linked to a financial conglomerate will be distorted.

In order to reduce this risk, regulatory authorities may seek to establish operational separation in order to back up the existing legal separation of activities. The cost of such a course of action in terms of efficiency is clear, but its contribution to the reinforcement of market discipline for the subsidiary is less certain.

Model 3

A third type of structure is the holding-company model, which is customary in the United States. Here the parent company owns both the bank and its non-bank counterparts. Since the legal separation is greater here than in the preceding model, the cost of providing a given combination of financial products is probably somewhat higher with this option. This model does, however, capture some of the social

benefits of economies of scope in the marketing and distribution of financial products and presents less of a threat to the safety net, since the extension of that net beyond the bank is limited. Nevertheless, since operational efficiency may be hindered by these "firebreaks", there may be some loss of efficiency.

From a regulatory standpoint, this model has the same advantages over model No. 1 as model No. 2, since it facilitates equitable supervision and safeguards the bank. The main advantage of model No. 3 over model No. 2 is that the bank may have fewer incentives to shore up a non-banking unit if it is an affiliate than if it is a subsidiary of the bank. In the United States, regulators have tried to deepen this separation by requiring a number of what are known as firebreaks: the affiliate must have a different name from that of the bank, separate staff, separate offices and separate distribution networks. The aim of these measures is to soften the adverse impact which the bankruptcy of an affiliate may have on a bank's reputation.

Obviously, the particular conditions in each country will determine which of the models is the most suitable choice. It is essential to take the supervisory capabilities and the autonomy of the regulatory agency into account in this connection. The nature of the links existing among the various groups in the banking and non-banking industries is also an important consideration, as is the possible existence of government guarantees in each case.

6. The implementation of an integrated supervisory approach

Given the increasing complexity of the financial system's mode of operation, progress must be made towards the implementation of an integrated form of supervision. In order to apply a scheme of prudential oversight, supervisory agencies need to make an ongoing, systematic analysis of the main determinants of a bank's status. To do so, the supervisory schemes currently being used in the Latin American countries—which are primarily based on an examination of financial institutions' assets and provisions—will need to be augmented, with more emphasis on such elements as ensuring adequate capitalization and assessing the institution's management. Ultimately, this means that the countries will need to move towards the implementation of a CAMEL-type supervisory scheme.

It is important to point out that the application of such an approach demands a great deal of coordination and information exchange within supervisory agencies regarding the various aspects of the banks. Although for purposes of analysis it may be possible to differentiate between capital, assets, management, etc., in practice all these aspects are closely interrelated: for example, bad management may lead to problems in terms of the quality of assets or an insufficient level of capital.

One of the weakest areas of banking supervision in Latin America is the evaluation of management, despite the fact that this is one of the most crucial considerations in projecting banking institutions' future status, above and beyond the X-ray provided by quantitative financial indicators.

In the United States, in contrast, the relevant supervisory body –the Office of the Comptroller of the Currency (OCC)– regards the quality of management as a pivotal consideration. The premise underlying every aspect of the OCC's work is that a bank's management and board of directors are ultimately responsible for how the institution functions. In order to gain a better understanding of the relative degrees to which external economic conditions and internal management-related factors influence a bank's performance, the OCC conducted a study on the subject (OCC, 1988).

This study showed that although adverse economic conditions make it more difficult for a bank to continue to make a profit, the policies and procedures established by a bank's management and board of directors play a more influential role in determining whether the institution will succeed or fail. In other words, poor management and other internal problems are the common denominator shared by insolvent or faltering banks.

The quality of management appears to have played a significant role in the downward path of 90% of the insolvent or troubled banks that were evaluated by the OCC. Many of the difficulties experienced by these banks had to do with faulty lending policies, problems in credit identification systems, or a failure to enforce in-house policies and banking regulations. In other cases, imprudent action on the part of a bank's directors or management led to the granting of high-risk loans and overlending. Self-enrichment and fraud were also a significant factor in more than one-third of the banks that failed or that were in trouble.

The economic slump added to the difficulties of many of the banks that were covered by the study; in fact, the economy was a significant factor in one-third of the cases. Yet economic factors were rarely the only cause of the problem; only 7% of the banks that failed or that were on shaky ground were free of serious internal management problems.

In sum, the study shows that a bank's management and board of directors are, in the final analysis, responsible for its success or failure. If a financial institution sets up well-designed policies, controls and systems when the economic situation is favourable, it will increase its chances of continuing to make a profit when economic conditions take a turn for the worse.

In a prudential supervisory system, when defects in a bank's management are detected they serve as the basis for the application of corrective measures designed to solve the problems it is experiencing. This points up the need for bank supervisors in the Latin American countries to examine management issues in greater depth.

V

Conclusions

The increasing complexity of the banking system's current mode of operation offers financial institutions a wide range of opportunities for increasing their efficiency and profitability, but it also confronts bank regulators with a series of challenges as they strive to ensure the achievement of the supervisory system's strategic objectives.

This is demonstrated by the analysis of recent bank crises –such as those of the Banco Latino and BANESTO– which was undertaken with a view to averting or minimizing further crises of this sort.

In order for a prudential form of supervision to be implemented, supervisory bodies must have the capacity to identify problems accurately, must have

the authority to take corrective action before the problems make their effects felt, and must be willing to take such action.

The following are the main issues in the current debate regarding the modernization of the supervisory system in the banking sector. First, there is the question of a stronger role for capital. If the role of capital is to be reinforced, then capital standards based on the weighting of asset risk must be adopted, levels of supervision will have to be differentiated on the basis of the level of capital backing available, and reserve requirements for the opening of new lines of business will have to be raised. Second, valuation mechanisms need to be refined, along with a gradual

shift in emphasis away from book values and towards market prices. Third, financial risk needs to be factored into capital standards. Fourth, regulatory systems need to take the presence of financial conglomerates into account so that the industry can take advantage of the benefits of economies of scope while minimizing the potential costs of system-wide risk, conflicts of interest and cross-subsidization. The fifth and final issue is the consolidation of a comprehensive supervisory system based on the CAMEL model which would look at all the various aspects that influence the status of a financial institution, with special emphasis on management quality.

(Original: Spanish)

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