VI

Prudential Regulation of Banking

Banking laws and prudential regulations need to define a framework that induces banks to operate in a safe and prudent manner, and the regulatory and supervisory framework needs to counteract the distortions introduced by public sector guarantees. This requires a consistent set of requirements governing accounting, asset valuation, supervisory reporting and public disclosure, risk-taking and risk management, and entry and exit. This chapter is divided into three parts, covering entry policy, governance and risk management, and quantitative tools of prudential supervision.[83]

Bank Licensing

During the initial establishment of a banking enterprise, it is difficult for potential market participants to distinguish between a potentially successful enterprise and one with a high probability of failure. This problem is due in large part to the asymmetry of information between the new management and owners, on the one hand, and, on the other hand, the potential investors, depositors, and others. Since a bank's viability depends critically on its ability to generate the confidence of depositors and other counterparties, the effects of asymmetric information are most acute during this initial stage. To help bridge this informational gap and create an environment where subsequent market discipline can operate, banks are subject to licensing requirements.

Sound licensing policies are essential, and the licensing process must be both thorough and independent. Because of the links between licensing requirements and the requirements for subsequent ongoing supervision, it is helpful if licensing and banking supervision are conducted by the same agency.[84] The supervisory authority needs to establish whether the prospective banking enterprise will be professionally managed and financially viable, so that it can filter out applicants that do not meet these criteria. Licensing requirements need to be clearly set out in the banking law, and require a rigorous assessment of management, owners, business plan, and capitalization, which in turn requires knowledge, experience, and judgment on the part of the supervisors. Licensing requirements also need to be objective and transparent to potential applicants and to the public.

The licensing process is designed to ensure that

- the quantity and quality of the initial capital are sufficient (see Box 4);[85]
- shareholders and the management of the bank are "fit and proper";
- the governance structure of the bank, and the structure of any group to which the bank belongs, is transparent and does not hinder effective supervision;
- administrative and internal control systems are adequate;
- the bank has an economic rationale, assessed on the basis of a business plan; and
- in the case of the establishment of a foreign bank, the bank is adequately supervised in its home country (see Chapter VIII).

Banks need to be in compliance with the licensing requirements at all times and the supervisory authority must be able to withdraw a bank's license if any single licensing requirement ceases to be met. Material changes with regard to licensing requirements—for instance, changes in management and ownership or substantial changes in the bank's operations relative to its approved business plan—therefore require the approval of the supervisory authority.

Arrangements are also necessary to deal with financial intermediation that may take place outside the licensed bank sector. This requires powers, whether exercised by the supervisory authorities or not (but on which the supervisors can rely), to deal with the closing down and prosecuting of the perpetrators of illegal

[83]Most of the regulatory practices described in this section of the paper have been developed by the Basle Committee.

[84]Although the Basle Committee's Core Principles are silent on whether licensing and supervision should be conducted by the same institution, they do note that where they are different, close cooperation needs to be present and that the supervisory authority should have the legal right to have its views considered by the licensing authority.

[85]The Basle Committee's Core Principles do not discuss minimum initial capital, but do suggest that supervisors should consider requiring higher than minimum capital ratios when it appears appropriate due to the particular risk profile or other characteristics of the bank, and also that no bank should be allowed to operate with ratios below the established minimum.

Box 4. Initial Capital

In most countries, banks are at all times required to maintain a statutory minimum level of capital. Initial capital is intended to finance the initial business of the bank, and to provide the bank with working capital in its early stages of development, say, for a period of at least three years, after which a new bank could normally be expected to be earning profits. Should capital fall below this statutory minimum, the bank would no longer be in compliance with the licensing requirements, and would risk losing its license. In practice, therefore, it is important that banks start with a capital level higher than the absolute minimum, in order to be able to accommodate losses in the initial period of the banks' activities. It is important that shareholders finance the initial capital in cash, on the basis of their own net worth, and not on the basis of borrowed funds. Such an obligation is designed to ensure that the promoters of the bank are seriously committed to its future viability. Experience in many countries has shown that banks are particularly vulnerable in their early years. Indeed, failure rates are much higher for new banks than for old established institutions; capital ratios therefore also need to be higher in a bank's first years.

The level of minimum capital varies between countries. In the European Economic Area, a minimum of 5 million ECU is required. Other countries require considerably more. Banks need to be of a certain minimum size to be viable commercially and organizationally. In exceptional cases, for instance small rural banks established for limited purposes, a minimum of less than US$1 million is sometimes allowed. It is important that statutory minimum capital be made up exclusively of paid-in shareholders' funds.

activity, for example, through the unlicensed use of the word "bank" in business names, or the taking of deposits or otherwise soliciting funds from the public without a banking license. In the case of legitimate financial intermediation outside the banking system, for example, through finance companies not owned by banks, there also need to be arrangements to monitor their activities and, where necessary, to supervise them in such a way as not to promote regulatory arbitrage. Experience has shown that in many countries the activities of nonbank financial institutions can threaten the integrity of the financial sector as a whole.

Management, Nonexecutive Board Members, and Shareholders

Bank corporate structures differ across countries. In most of them, full responsibility resides in a single board, comprising both the day-to-day executive management and the nonexecutive oversight and advisory functions. In others, these functions are divided on the German model between a management board and a supervisory board. Good governance, particularly the appropriate exercise of the relationship between the shareholders and nonexecutive directors on the one hand, and day-to-day management on the other, is the key to safe and sound banking.

Bank managements are required to be fit and proper, that is, they should have integrity, be honest, competent, and technically qualified, and have an appropriate level of banking experience. It is becoming increasingly important for bank management to be highly trained and experienced since, given the growing complexity of the business, less than fully competent employees can cause problems with profound consequences. The track record of individuals applying for bank licenses and the managers they propose should, therefore, be carefully examined. The ultimate criterion is whether the way in which the bank is managed can retain the confidence of the markets and the public.

Supervisors have the power to object to appointments of all board members or members of separate supervisory boards. Since the tasks of nonexecutive board members are primarily to provide strategic advice and to oversee the actions of the management and not the day-to-day decision making, technical expertise carries less weight than for executive management. However, experience and probity should continue to be valued as highly as for management appointments. The supervisor, to the extent possible, investigates nonexecutive board members' other interests and assesses the scope for conflict of interest with the bank's interests and those of its creditors.

The supervisory authority also has a right to object to shareholders, or groups of related shareholders. In case of doubt concerning the shareholders' reputation, or whether they will remain at arm's length from the bank, the supervisor would be able to refuse approval. The underlying criterion for evaluating shareholders is whether they will ensure that the bank is managed as a profitable institution responsible for its financial obligations, rather than for the personal benefit of a selected group of managers or shareholders.

The supervisor therefore needs to be as informed as possible of the ownership of significant proportions of the bank's shares. The transfer or acquisition of significant holdings must be conditional on the supervisor's consent. In addition, the beneficial ownership of significant holdings, and any form of concerted exercise of influence by persons individually holding shares in amounts below the threshold for approval, must be identifiable and subject to supervisory approval. In the absence of supervisory approval, any decisions taken as a result of influence exercised by unauthorized shareholders would be subject to being declared null and void.

When a license is sought by a foreign bank, the supervisory authorities of the home country must give explicit approval. The supervisory authority has a duty to approach the home authority for information on the organizers or shareholders (see Chapter VIII). Additional care needs to be taken when a licensing application is received from foreign individuals who have no connection with a supervised entity and where there is therefore no home authority to provide support.

When banks are part of a larger group of corporations, financial or nonfinancial, domestic or international, the governance of the bank can be influenced by entities that are themselves not subject to banking supervision (see Box 5). This can pose serious risks to the effective exercise of banking supervision. Similar problems can occur when a bank itself is not transparently structured. For example, in some countries bank holding companies often own assets in the real sector as well as banks in other countries, both industrial and developing. In the context of the licensing process, the supervisory authority should not grant a license unless it is clear that the structure of the group does not hinder the exercise of effective banking supervision. For effective supervision, it is important that each regulatory body involved in supervising different corporations within the group establish contact with the other agencies involved and be authorized to exchange information.

Business Plan

A bank requesting a license should be able to demonstrate that it is financially viable by providing a valid business plan setting out its strategy for the first three years. Such a plan would include the results of market analysis, marketing intentions, resources (including staff), expected competition, and expected profitability. The business plan must present the administrative and organizational structure of the bank, including internal controls and the internal audit function, and demonstrate that the projected activities are within the bounds of prudential regulations. In this regard, it is desirable to have an on-site examination of a bank within six months of its opening to ensure that its operations are consistent with the business plan on which basis the license was granted, so that any significant deviations from the plan may be properly accounted for or corrected.

Once a bank has been licensed and starts operations, it will become subject to competition and the discipline of the market and will need to comply with ongoing supervisory requirements. The supervisors and the market will then, of course, need to apply disciplinary measures if the bank is perceived to be operating in an unsafe way. The prudential mechanisms designed to correct poor management and excessive risk-taking are described below. Supervisors will also apply a graduated scale of corrective measures leading up to the closure of the bank if it fails to respond.

Governance of Banks

Inadequate management is an important factor in most bank failures. Banking supervisors therefore seek, as one of their key tasks, to enhance the quality of bank governance.[86] Internal systems and controls, including internal audit functions, as well as persons responsible for these functions, need to be assessed. The corporate structure of the bank needs to be transparent and consistent, striking a balance between promoting safe and sound banking and the flexibility required for effective competition. There should be no uncertainty with regard to management's ultimate responsibility for the bank's actions. The powers granted to the supervisory authority enable it to monitor these areas through the use of on-site inspections and to take remedial action where necessary to protect the interests of depositors. The supervisory authority also needs the power to enforce improvement, including the replacement of top executives, but care always needs to be taken lest the supervisor usurp the role of management.

There must be sufficient checks and balances in the governance structure. Nonexecutive directors and shareholders with voting rights must be in a position to exercise oversight over management and their compensation. Also in this context, sufficiently competent and independent internal and external audit functions play an important role. Contact between the external and internal auditors, nonexecutive directors, and the supervisory authority should permit an exchange of information on the bank's financial condition and management practices.

As discussed above, the supervisors need to ensure that the management meets high standards of competency, experience, and integrity, and that minimum quality standards are met at all times. It must be able to have unsuitable individuals removed. Such removals will normally be subject to appeal, although such procedures should not delay rapid action where that is necessary to improve the bank's management.

The founders and large shareholders of a bank can exercise significant influence over the bank's decision making, and may use that influence to further their private interests. Such pressures can force management to evade normal lending or collection procedures or to extend credit at preferential interest rates and without due credit analysis.[87] Supervisors need to ensure that safeguards against these conflicts of interest are in place.

[86]The Basle Committee includes as one of the precepts for its Core Principles that "supervisors should encourage and pursue market discipline by encouraging good corporate governance (through an appropriate structure and set of responsibilities for a bank's board of directors and senior management), and enhancing market transparency and surveillance."

[87]Insider lending is also discussed later in this chapter.

Box 5. Conglomerates

Increasingly, banks form part of so-called financial conglomerates, defined as groups of companies under common control whose exclusive or predominant activities consist of providing significant services in at least two financial sectors (banking, securities, insurance).[1] In many countries, banks can also be part of groups with significant nonfinancial interests. While there are certain economic advantages to such relationships (such as economics of scale and scope), they raise a number of issues that are relevant to effective bank supervision. First, such structures entail the risk of "regulatory arbitrage," that is, the exploitation within the group of differing regulatory arrangements. Second, the bank's governance may be influenced by other corporations in the group that are not subject to banking or other financial supervision. Third, to assess the independent position of the bank, the supervisor needs to be able to obtain information on the structure of the group and on financial flows and relationships within the group, as well as on the financial condition of other group entities. In this context, the question arises to what extent supervision on a consolidated basis is possible, in view of the position of the bank in the structure (parent or subsidiary) and the nature of the other activities of the group. If consolidation is not feasible, the bank supervisor will need to determine to what extent the risks in the rest of the group could affect the bank.

Special challenges must be faced when a financial conglomerate is active internationally. For effective supervision, full information is needed by each of the regulatory agencies in each of the countries involved, on the group as a whole as well as on its components. In case of problems, supervisory actions will need to be coordinated, internationally and between regulators for the different financial sectors. This can create considerable information coordination and legal problems. To minimize such problems, some countries have found it helpful to designate one national supervisory agency as a coordinator for such groups at the domestic level, and to develop a framework for cooperation between domestic and other international supervisory agencies. Closer coordination of regulatory issues among bank, securities, and insurance regulators on an international basis is currently being discussed by the Joint Forum.[2]

[1]See Tripartite Group of Bank, Securities and Insurance Regulators (1995).

[2]The Joint Forum on Financial Conglomerates was established to bring together representatives of the Basle Committee, the International Organization of Securities Commissions (IOSCO), and the International Association of Insurance Supervisors. Its mandate is to draw up proposals for improving cooperation and the exchange of information among these groups and work toward principles for the future supervision of financial conglomerates.

Money Laundering

The removal of restrictions and controls on capital movements and the globalization of credit, foreign exchange, and securities markets have facilitated the international laundering of the proceeds from illicit activities. Such activities undermine the security and prompt execution of monetary transactions and threaten the efficient and transparent manner in which financial enterprises operate.

Recommendations designed to prevent the use of banks for money laundering have been adopted by the Financial Action Task Force and the Basle Committee.[88] The key elements of the April 1990 Task Force report include provisions that governments should make money laundering a criminal offense. Banks should keep records of their customers' identity, retain records of all transactions for at least five years, and report questionable transactions. Banks should also establish adequate internal control mechanisms and educate their staff to detect and prevent money laundering. Bank staff should be given protection against liability when reporting suspicious activity. Money laundering should be combated primarily by law enforcement agencies, but supervisors should ensure that banks have adequate preventive systems in place. Also, while the supervisory authority is not always empowered to seek evidence of money laundering, it is often required to inform the law enforcement authorities if it comes across such evidence in the course of its normal operations.

Internal Controls and Internal Audit

The supervisory authority should verify the quality and independence of the internal controls and internal audit function. Processing systems should be checked for reliability and protection against fraud. Sufficient separation should be made between business-generating and accounting functions, particularly in trading areas, where failure to separate front- and back-office functions can lead to significant opportunities for fraud. Credit procedures and approval limits for different management levels should be established. The role of supervisors is to verify that banks have these mechanisms in place.

The internal audit function and adequate systems and control procedures are also key to the preparation

[88]Basle Committee on Banking Supervision (1988b) and Financial Action Task Force (1990). The European Union Council (1991) is also a useful source.

of reliable accounts and the compilation of accurate data. The external auditor generally relies largely on preparatory work done by the internal auditor, and much of the audit consists of checking and verifying the internal audit. The internal audit function is directed toward the effective management of the bank and the appropriate recording of the bank's claims and obligations. The supervisory authority must be able to verify that the internal auditor is sufficiently knowledgeable, and in a position to criticize management when necessary. The supervisory authority also needs to verify that the internal controls are maintained at a level that is appropriate for the types of businesses that the bank undertakes. Internal controls are inspected by the supervisory authorities as part of their routine examination process. To this end, it is important that the internal auditor reports directly to the nonexecutive board members, the external auditor, or, as appropriate, the supervisory authority.

External Audits and Banking Supervision

Like any public company, a bank is statutorily obliged to prepare and publish annual financial statements that are audited by an independent and qualified external auditor (see Chapter IV) and certified that they provide a "true and fair" view of the bank's financial condition. Supervisors may consider requiring that at least one set of prudential returns a year be audited by an external auditor. External auditors of banks need to meet high professional standards. If entry to the auditing profession is well regulated and requires a high level of professionalism, supervisory scrutiny could be limited to the assessment of sufficient experience in, and knowledge of, bank auditing. In some countries, notably in Latin America, banking supervisors maintain registers of acceptable bank auditing firms, while in others the auditor has to be screened annually by the supervisory authority.

The external auditor can be a valuable ally for the supervisory authority, particularly where skills and resources are scarce, and can provide an efficient mechanism for banks to convey to markets that they are providing accurate information and responding to the signals received. In many countries supervisors have traditionally relied heavily on the work of external auditors (see also Pecchioli, 1987), often using them in an on-site inspection function. However, a number of cases over the past years have shown that even highly reputable firms with experienced auditors cannot always accurately assess asset quality. When attempting to verify that the financial statements provide a "true and fair view" of the bank's financial condition, a bank auditor would not normally expect to assess the value of specified assets unless directed to do so. In an increasing number of countries, the external auditor is obliged by law or regulation to inform the supervisory authorities of circumstances encountered in the course of the audit that are relevant to the effective exercise of supervision.[89] This approach has obvious advantages, although ultimately, as the auditor is appointed by the bank and not the supervisory authority, the incentive to act for the supervisors is diminished. When the auditor is under an obligation to inform the supervisor, the auditor should in turn be protected against liability for breach of confidence.

Quantitative Supervisory Tools

Supervisors use a range of quantitative supervisory tools, including various ratios to assess the bank's condition. Such ratios relate to the adequacy of capital, liquidity, large exposures, connected and insider lending, interbank positions, and open foreign exchange positions. However, while such ratios are useful, they are not in themselves sufficient to assess the condition of a bank, and more qualitative appraisals, for instance of management, are essential to obtain a complete assessment. As the financial sector grows in complexity, relatively more attention should be paid to qualitative assessments since rules, particularly those based on quantitative measures, may become easier to circumvent and are more likely to be suboptimal. Furthermore, the accuracy of ratios depends on the accuracy of the data used to compute the ratios, and too much reliance should not be placed upon them if the underlying data are not considered reliable (see the discussion of asset quality in Chapter IV). Sometimes deviant behavior by banks can be detected through peer group analysis and from their behavior over time. Where feasible, compliance with quantitative prudential standards needs to be assessed on a consolidated basis, as well as on a single entity basis, taking into account exposures of branches, subsidiaries, and otherwise related enterprises, domestically and abroad. Experience has shown that without consolidated supervision it is simple for banks to circumvent, for instance, large exposure rules or loan provisioning rules, thus making supervision ineffective.

Capital Adequacy

Banks should have sufficient capital in relation to the volume and riskiness of their business to absorb losses without using depositors' funds. This capital investment gives owners and managers a powerful incentive to run the bank safely and soundly. Traditionally, the adequacy of the amount of capital available to buffer against losses is measured by a so-called capi-

[89]See European Union Parliament and Council (1995), the so-called BCCI directive. In other regions, notably in Latin America, banking supervisors have unlimited access to auditors' working papers and are allowed to impose sanctions on auditing firms.

tal adequacy ratio. However, capital is simply the difference between the value of a bank's assets and its liabilities to third parties. Its calculation depends fundamentally, therefore, on the value attributed to its assets (see discussion in Chapter IV on the difficulties in valuing bank assets).

There are two main types of capital adequacy ratios: the "risk assets" method as used in the Basle Capital Accord (see Box 6), and the simpler "gearing" or "leverage" ratio, which is the ratio between shareholders' funds and total assets or liabilities. Both types of ratios tend to address credit risk: the risk of nonrepayment of a credit granted by the bank. Some countries, including the United States, apply both systems in parallel.

The Basle capital standard calls for a ratio between capital and risk-weighted assets of at least 8 percent. This ratio, designed to establish minimum levels of capital for internationally active banks, is now applied in the G-10 countries, as well as in the European Economic Area,[90] and in some 80 other countries worldwide. However, even in the industrialized countries, with relatively well-managed and highly diversified banks operating in an established financial environment, an 8 percent ratio is generally seen as an absolute floor, and the banking systems in most of these countries have ratios that are considerably higher. In developing and transition economies, proper account needs to be taken of the higher risk environment in those countries when determining how the numerator and denominator of the capital adequacy ratio are to be calculated. For instance, the risk weights attached to particular categories of assets could be set at a higher level, to reflect higher risk.[91] For example, if a government has a history of not meeting promptly interest payments on its obligations, the usual zero percent risk weighting may not adequately reflect the risk. Also, the quantitative standard could be set at higher than 8 percent, or the calculation of capital made more limited, thus requiring more capital (see Box 6).[92] This mechanism imposes a natural restraint on the expansion of a bank's risk assets, since more capital will have to be raised to support those assets.

It is sometimes argued that higher capital requirements place banks in such countries at a competitive disadvantage relative to banks operating in G-10 countries. However, the counterargument is that a higher ratio basically reflects higher risk, for which the bank needs an adequate buffer.

Therefore, the basic issue when a country describes itself as using the "Basle" model is not whether the system is faithfully copied or not, but whether the appropriate adaptations have been made to reflect local conditions. Unless the proper loan provisioning and interest suspension rules have been applied, capital may be overstated to the point where any ratio analy-

Box 6. The Basle Capital Accord

The Basle Capital Accord of 1988[1] defined capital, the numerator in the risk asset ratio, as follows: Tier I capital includes issued and paid-up share capital, noncumulative preferred stock, and disclosed reserves from posttax retained earnings. It is the highest quality capital, and should form no less than 50 percent of total regulatory capital. Tier II capital can include a range of other items, including undisclosed reserves that have passed through the profit and loss account; conservatively valued revaluation reserves; revaluation of equities held at historical cost can be included at a discount; general loan loss reserves, up to 1.25 percent of risk-weighted assets; hybrid debt instruments available to support losses without triggering liquidation; and subordinated term debt, up to a maximum of 50 percent of Tier I capital. Goodwill and investments in other banks and financial institutions should normally be deducted. For most banks the use made of Tier II capital is much less than 50 percent.

The bank's assets are divided into four or more categories of risk, for instance, commercial loans, mortgage lending, interbank debt, and government debt. For each risk category, a risk weighting is established. This weighting, or coefficient, is applied to the total amount of assets in each category. Normal credit risks are assigned a 100 percent rating, while the other risk categories carry a lower weighting, based on the risk of that category relative to normal credit risks. The amounts obtained for each of the categories are added to obtain the total of "risk-weighted assets," which is the denominator of the risk-weighted ratio. Off–balance sheet items are also included in the ratio, converted into credit equivalents by applying conversion factors reflecting the degree to which an off–balance sheet items reflect expected on–balance sheet credit commitments of the bank.

The Basle Committee considers that the risk-weighted ratio has three advantages over the gearing ratio. First, it does not penalize banks for holding relatively low-risk assets such as government securities; second, it allows for incorporation of off–balance sheet items; and third, it allows for better international comparisons of banks with different balance sheet structures.

[1]Basle Committee on Banking Supervision (1988a).

[90]The G-10 countries comprise Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, Switzerland, the United Kingdom, and the United States. The European Economic Area comprises the European Union member states, Iceland, Liechtenstein, and Norway.

[91]The Core Principles acknowledge that supervisors should consider requiring higher than minimum capital ratios when it appears appropriate, and stresses that the standard is a minimum requirement.

[92]Also see Dziobek, Frécaut, and Nieto (1995).

sis becomes meaningless (Dziobek, Frécaut, and Nieto, 1995). Moreover, ratio analysis needs to be complemented by a qualitative assessment of the bank's ability to manage its risks.

The traditional capital adequacy ratios were developed to address the credit risks in banks' portfolios. But banks also carry other significant risks for which a capital buffer is required, notably market risk—that is, the risk of a change in the market value of an asset or commitment. This type of risk is inherent in banks' holdings of trading portfolio securities, financial derivatives, and open foreign exchange positions. Banks are also vulnerable to interest rate risk when there is a substantial difference between the effective maturities, or pricing intervals, between liabilities and assets. Capital adequacy standards against such market risks are now being introduced.[93]

Liquidity

A key element of banking supervision is monitoring the liquidity of banks. This task becomes even more critical when a bank starts to encounter problems, and market availability of liquidity may decline for that bank. The interbank deposit market, nationally and internationally, is particularly sensitive to hints of difficulties faced by a bank, sometimes overreacting by rapidly withdrawing funding. Although this is an example of the very direct effect of market discipline, it could force the bank to liquidate assets quickly, moving the market against it, and possibly force the bank into insolvency, even if initially the bank was merely illiquid. In a certain sense, then, market discipline may be very harsh. It can be argued that this can be alleviated to a certain extent for solvent banks, by lender-of-last-resort liquidity support as discussed above, but a bank cannot be sure that a well-designed lender-of-last-resort facility will automatically be available to it (see Chapter V).

There are no internationally agreed prudential standards on bank liquidity, although the Basle Committee has issued material discussing some of the fundamental issues.[94] But supervisory authorities require banks to have adequate internal systems to monitor and control their liquidity needs and establish contingency plans for periods of liquidity stress, resulting either from overall market problems or from institution specific crises. For large internationally active banks, systems need to be very sophisticated and include simulation models for a variety of scenarios. An overdependence on one or few funding sources should be avoided. Limits are applied by a number of countries on funding from a single source or a connected group of sources.

In many countries, central banks require commercial banks to maintain high reserve requirements in relation to deposits. Although such reserves are intended primarily for monetary purposes, they do serve some prudential purposes as well. Some central banks or prudential authorities also impose liquid asset requirements; such requirements ideally allow banks to select from a range of liquid assets and not become schemes for obligatory holding of government securities. In general, banks need to be encouraged to retain a certain proportion of their assets in liquid and low-risk securities that can generate cash quickly.

Access to central bank liquidity facilities, such as Lombard facilities and discount windows for rediscount of government paper, also forms a part of banks' contingency planning for liquidity emergencies. Such borrowing is costly, and banks need to hold the collateral required for access to such facilities, so banks will typically avoid using it. Central bank facilities may, however, play a relatively important role when local interbank and other money markets are thin or segmented.

Credit Diversification

Well-managed banks limit their exposure, including off–balance sheet items, to a single borrower or related group of borrowers, to diversify risks and avoid the risk that failure of one large borrower or related group of borrowers may lead to excessive losses. The supervisor monitors such credit concentrations and generally prescribes limits. The Basle Committee has called for and the European Union has set a limit of 25 percent of regulatory capital (Basle Committee, 1991) for exposures to single borrowers or related groups of borrowers. The European Union defines an exposure larger than 10 percent of regulatory capital as a large exposure. In the United States, federal regulations set the limit at 15 percent of a bank's regulatory capital for unsecured loans and an additional 10 percent for loans secured by specific and liquid marketable security. The European Union has set the aggregate limit for all large exposures at 800 percent of regulatory capital. Other countries, for example, the United States, have no aggregate limits. Other forms of risk concentration, which are generally not subject to strict ratios, are concentrations in specific economic sectors—for example, the real estate or agricultural sectors—or geographical concentration. For risk concentration rules to be effective, compliance with them must be assessed on a consolidated basis, taking into account exposures incurred by branches, subsidiaries,

[93]See Basle Committee (1996a). This also envisages the use of integrated VAR models and Tier III capital, which is explained briefly in Box 1.

[94]Basle Committee (1997b). The Core Principles recognize the elements of strong liquidity management ("good management information systems, central liquidity control, analysis of net funding requirements under alternative scenarios, diversification of funding sources, and contingency planning") and recommend that banks have a diversified funding base and maintain adequate liquid assets.

or other related enterprises. Gross exposure, not taking account of collateral, is a conservative basis for the application of exposure limits.[95] If deductions are to be made, only very secure collateral, under the direct control of the bank, and valued very conservatively, should be taken into account. Many supervisors set standards for the maximum percentage of the value of collateral that can be taken into account, especially when the values of certain types of collateral are volatile.

The definition of a related group normally takes into account conditions in a given country and may require a degree of judgment. In the European Union, two or more borrowers constitute a single risk if one of them directly or indirectly controls the others, or if they are so closely related that if one were to experience financial problems the others would be likely to encounter repayment difficulties. Indications of such relationships include common directors, cross guarantees, or common ownership.[96] In a number of cases, the supervisors will need to exercise judgment. The use of consolidated accounts is, in itself, not a sufficient criterion as exposure by unconsolidated companies owned by the same owner should also be seen as related.[97]

Connected Lending

Loans to counterparties connected to the bank, for example, directors, managers, shareholders, and their families, have contributed to banking problems in many cases; large loans to such borrowers, or to companies owned by them, can easily become uncollectible and cause losses. In view of the increased risk resulting from the conflict of interest between the bank and the borrower, many supervisors reserve the right to deduct such loans from capital, when, in the judgment of the supervisor, the loan was not made on an arm's-length basis. Connected lending represents an obvious breakdown of market discipline and poses considerable risk to the bank. Such loans are normally required to be disclosed and they may need the intervention of the supervisor.

Foreign Exchange Exposure

Well-managed banks should possess a system of internal limits and monitoring mechanisms for their open positions in specific currencies, including sublimits on spot positions and various forward maturities when derivative instruments are used, as well as an overall limit for the net open position.[98] Uncovered open positions in foreign exchange have been an important factor in many banking problems. Since position data are considered to be proprietary and are thus not usually available to other market practitioners, such open positions are closely monitored by supervisors and often subject to limits, which are related to exchange rate volatility.

Several methods are used to measure aggregate positions.[99] The appropriate summary measure of an open position depends on the correlation among exchange rate changes between the currencies in which a bank holds open positions. If exchange rate movements are perfectly correlated, the net aggregate position is appropriate, while if movements are completely uncorrelated, then the gross aggregate position is in order. The shorthand aggregate position is a compromise between the other two measures, and has been recommended by the Basle Committee and the European Union.[100] On the other hand, some countries intend to include foreign exchange positions in an overall approach to market risk capital adequacy and allow banks with adequate management and control systems on their dealing operations to hold foreign exchange and other proprietary market positions limited only by the availability of capital to support them.[101]

Limits on Nonbank Activity

The objective of limits imposed on banks' equity holdings in nonfinancial enterprises is to prevent banks from using depositors' money to take risks outside the scope of traditional banking, and to limit conflicts of interest and concentrations of financial power. Excessive diversity of activities and equity interests could also create difficulties in consolidating accounts

[95]The existence of risk-based capital requirements places an implicit limit on credit exposures since, to take on more credit risk, additional capital will need to be raised. At some point, the cost of raising additional capital becomes prohibitive, relative to the benefits, thereby limiting extensions of credit. However, concentrations within the general risk categories (e.g., to a connected group) will not be adequately accounted for within this framework and may require explicit limits.

[96]See European Union Council (1992b), Article 1m.

[97]In the United States, consolidation depends on a series of tests, including such factors as whether the loans have a common repayment source, common control, or financial independence, or are being used for a common end.

[98]The Core Principles for Effective Banking Supervision recommend that banking supervisors ensure that bank management has set appropriate limits and implemented adequate internal controls for their foreign exchange business.

[99] For example, the definitions typically used are: "gross aggregate position," which is the sum of all open positions in foreign currency, short or long; "net aggregate position," which is the difference between the sum of all long positions and all short positions; and the "shorthand method," adopted by the Basle Committee and European Union, which separately sums all short positions and all long positions, with the larger of the two totals to be regarded as the overall open position.

[100]Basle Committee (1996a), p. 23. The report also discusses the use of a bank's own VAR model (see Box 1), which can fully take account of correlations between currencies.

[101]Also see Hartmann (1995), and Basle Committee (1996a).

and exercising supervision. Banks' business is therefore often limited to well-defined financial activities, where managements have the necessary expertise. Also, within the supervisory authority, expertise is required in those areas in which the bank is conducting business. If expertise is limited, limiting the banks' activities ensures that the bank does not take risks that cannot be supervised.[102]

The scope of permissible financial activities differs across countries. A broad distinction can be made between banking systems where banks are permitted to engage in securities business and those where they are not. In the European Union, banks are permitted to engage in securities business under their own name or by means of a subsidiary, and they are frequently in common ownership with insurance companies. In some countries, banks also have substantial interests in industrial companies. In other countries, such as the United States and Japan, banks are more narrowly confined and are permitted to engage in securities business only to a limited extent. In all cases, the supervisory authorities should be aware of banks' equity holdings and be able to force the bank to divest when necessary.

[102]The Core Principles do not explicitly advise supervisors to limit nonbank activities but do advocate that the scope of activities governed by banking licenses be clearly defined and that supervisors must be satisfied that banks have in place a comprehensive risk management process to identify, measure, monitor, and control all material risks.